https://theses.gla.ac.uk/

Theses Digitisation:
https://www.gla.ac.uk/mygla/thesis/submissions/theses_digitisation/
This is a digitised version of the original print thesis.

Copyright and moral rights for this work are retained by the author
A copy can be downloaded for personal non-commercial research or study, without prior permission or charge
This work cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author
The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author
When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given

Enlighten: Theses
https://theses.gla.ac.uk/
research-enlighten@glasgow.ac.uk
STRATEGIC FACTORS
IN SOVIET FOREIGN POLICY

MILITARY CONSIDERATIONS
AFFECTING SOVIET POLICY-MAKING
STRATEGIC FACTORS
IN SOVIET FOREIGN
POLICY

MILITARY CONSIDERATIONS
AFFECTING SOVIET POLICY-MAKING

by

G. G. JACOBSEN

A Thesis Presented for the Degree
of Doctor of Philosophy at the
University of Glasgow, 1970,
- As Revised in 1971.

1970-1971
TABLE OF CONTENTS

Acknowledgements pg. 7

Note on Sources and Associated Difficulties " 8

PART I

HISTORICAL BACKGROUND AND THE KHUSHCHEV LEGACY

CHAPTER 1. THE 'COLD WAR' PERIOD - HISTORICAL STRATEGIC BALANCE INEQUITIES pg. 10

1 a. 1945-53: "Mirror Mirror on the wall ... ?"
1 b. Malenkov - Khushchev
1 c. 1957-1964

CHAPTER 2. STRATEGIC TERMINOLOGY AND CONCEPTUAL BACKGROUND pg. 46

2 a. Period delineations of Soviet forces' evolution from continental limitations to global perspectives and capabilities.
2 b. Strategic terminology and conceptual aids.

CHAPTER 3. THE KHUSHCHEV LEGACY: DETERRENCE vs GENERAL PURPOSE FORCES DEBATES pg. 57

3 a. The Debates:
3 b. The strategic missile forces.
3 c. Nuclear-oriented land and air forces.
3 d. Naval developments.
3 e. The military in society.
3 f. Economic considerations.

PART II

DETERRENCE AND DEFENCE IN SOVIET DOCTRINE

CHAPTER 4. THE ACQUIRING OF EXTENSIVE COUNTER-FORCE CAPABILITIES; THE MILITARY DEBATES 1965 - 1970 pg. 86

4 a. The strategic missile forces.
4 b. Nuclear oriented land and air forces.
4 c. Naval developments.
4 d. The military in society.
CHAPTER 5. SOVIET STRATEGIC CONCEPTS AND
CAPABILITIES; THEIR IMPLICATIONS FOR
FOREIGN POLICY (late 1960s - 1970s) pg. 108
5 a. Strategic offensive capabilities.
5 b. Strategic defensive capabilities.
5 c. The strategic debate.

PART III

GENERAL PURPOSE AND INTERVENTIONARY FORCES;
GEOPOLITICAL CONSIDERATIONS

CHAPTER 6. THE DEVELOPMENT OF THE NAVY AND THE
EMERGENCE OF SOVIET INTERVENTIONARY
FORCES; THE SOVIET NAVY'S ACQUIRING
OF GLOBAL CAPABILITIES AND
PERSPECTIVES pg. 156

CHAPTER 7. GEOGRAPHICAL FACTORS / DETERMINANTS OF
soviet strategic policy pg. 185

PART IV

COMMAND CHANGES AND DOCTRINAL SHIFTS

CHAPTER 8. GRAND STRATEGY pg. 208
8 a. Soviet strategic terminology;
indications regarding the military
hierarchy's position vis-a-vis
the party.
8 a.i. Military representation on Party
and Government bodies.
8 b. Strategic utilization of economic
factors.
8 b.i. The military budget: guns and/or
butter?
8 c. The military in society; civil
defence in the Soviet Union.
8 d. An official exposition: "The political
side to Soviet military doctrine."
CHAPTER 9. INSTITUTIONAL DIVISIONS AND COMMAND CHANGES

9 a. The military command apparatus.
9 b. Inter-Party / Inter-Armed Forces alliances and allegiances.
9 c. The changing pattern of military leadership.

PART V

CHAPTER 10. SUPER-POWER IMPLICATIONS

10 a. Super-power status.
10 b. Domestic considerations.

CHAPTER 11. PERIMETER DEFENCE

11 a. The Warsaw Pact.
11 b. The doctrine of 'limited sovereignty'.

BIBLIOGRAPHY
ACKNOWLEDGEMENTS

The following have rendered especially valuable assistance in the form of comments and ideas:

Professor Alec Nove, of the Institute of Soviet Studies, Glasgow;

Harriet Fast Scott and Colonel Scott, U.S. Air Attache, Moscow;

Colonels B. Egge and K. Hope, (then) Senior Research Officers of Norway's Defence Research Establishment;

Professor J. Erickson, of the Department of Strategic Studies, Edinburgh;

Herman Kahn, Director, and Dr. Brennan, Senior Research Officer of the Hudson Institute, N.J., U.S.A.


I am indebted to Hillel and Tanya Ticktin of the Institute of Soviet Studies, Glasgow, for their unwavering moral support, and to Lesley Milne of Cambridge, for invaluable assistance in the final preparation of the thesis.

A collective thank you to all those other friends and colleagues who have given time and energy; a special thank you to my mother and father, who provided counsel and help when most needed.

All are due grateful thanks. But none are to blame for the chosen criteria, emphases and omissions, – the final judgements were not theirs.

Finally: a thank you to the libraries and agencies of Washington, Glasgow, Edinburgh, London, Oslo and Moscow, which provided staff, time and effort, to secure material of interest.
Note on Sources and Associated Difficulties.

The main difficulty related to the fact that much material of essence to the research was regarded as classified by the national authorities concerned. Two obfuscating factors exacerbated this difficulty. One relates to the authorities, and to the process of sifting and selection through which any classified material must pass before it reaches the decision-makers; conscious or unconscious discrimination en route from information gathering, to the delineation of alternative hypotheses, and to final decision-making, entails a (sometimes convenient) restricting of the data available, a restricting which may in itself prejudice the final option choice. The other obfuscating factor concerns 'convenient intelligence'. This is 'intelligence' and 'facts' released or leaked by the national authorities. This type of information all too often rests on politically-determined selection criteria; it always rests on some type of selection, from the already selected material available to the decision-makers. The resultant information is not necessarily wrong or misleading, but it would very often be different if the selection process from which it had emerged, had been subject to different criteria.

This catholic caution relates also to Soviet military "debates", and to the question as to whether contributions are 'genuine', or whether they merely reflect differing aspects of policy decisions already arrived at. The question is analysed more extensively in Chapter 3. But it is proper to indicate that the conclusion there arrived at encourages maximum caution lest one infer non-credible levels of antagonism from apparent debate discrepancies.

The debate analyses make it clear that an author's
relative obscurity or prominence does not necessarily reflect on the importance of an article. Considerations such as relate to troop morale, the domestic economy, or international relations, often make relative or apparent obscurity a preferred forum for a text's dissemination. The more prominent the source, the more obviously the concerns of 'declaratory policy' intermingle with those of 'action policy'. For these reasons the debates are investigated primarily with a view to their illuminating or explaining of procurements and actions, - with a view to their relationship with ascertainable developments.

The data is available. The problem lies in acquiring sufficient knowledge to judge their comprehensiveness and their relative worth. Hopefully, the present work evinces a successful outcome.

Finally: some related factors, such as concern Chinese (or Japanese) capabilities and prospects, are not treated extensively. The reasons for this are inherent in the text.
CHAPTER VI.

THE "COLD WAR" PERIOD - HISTORICAL STRATEGIC BALANCE INEQUITIES.

1 a 1945-1953: "Mirror mirror on the wall, ---- ?"

A number of western academics have in recent years reassessed the period in question. In the process they have demonstrated that many previous analyses were too facile, too encumbered by ulterior motives, and hence too prone to black-white generalizations. Some of their data, which appear of essence to our study, will here be presented. As will further evidence which tends to support their implications.

The reassessment does not concern the fact and/or the morality of the Soviet securing of hegemony over East Europe. Although it must be remembered that while ideological desiderata as well as recent invasions may have increased the necessity for this in Soviet eyes, it was also considered necessary by earlier Tsarist regimes. The reassessment concerns rather the fear that this action had further aggressive implications, the fear which provided the raison d'être for the creation of NATO.

Adam B. Ulam\(^1\) presents some of the contradicting data. He points out that the rapid contraction of the Soviet armed forces, from 11,365,000 men at the end of the war to 2,874,000 men by 1948, scarcely left more men than needed for domestic and satellite "garrison" duties.\(^2\) The figure is certainly not


2. Ibid., page 404. See also Ruban M. Captain First Class, "Soviet Military Construction in Post-War period", Kommunist Vooruzhiennykh Sil, No. 13, July 1968, pg. 77-83. "The total number of persons discharged was ... 8.5 million persons". See also Pravda January 15, 1960 (N. Khrushchev's report).
compatible with any grandiose schemes of aggression. That a significant factor behind the demobilization was to be found in domestic economic needs of reconstruction and further industrialization is not here relevant.

After presenting a number of Soviet statements and actions which tend to cast question on the premises underlying the anti-Soviet convictions current among U.S. policymakers during 1946-48, Ulam proceeds to refer to a book edited by A.G. Mileykovsky. The Marshall Plan was therein portrayed as greatly increasing Soviet suspicions regarding U.S. motives and designs, and augmenting the fear of capitalist encirclement. The plan's "eventual aims" were seen to be "clearly military". "The real purpose of the Marshall Plan was (thus) to create large standing armies that could threaten Russia while the Americans would back them up if necessary, with their naval strength and their atomic-armed Strategic Air Command".

The American generosity inherent in the Marshall Plan was seen as due to the calculation that "it was cheaper to purchase British, French, German etc. soldiers than to equip American ones. It explained why the Americans were not building a large standing army". "The formula of containment took on a much more sinister meaning: the doctrine of 'containment' foresaw such a building of 'the positions of strength in the free world' (this phrase was authored by Secretary of State Acheson)"


as would allow a series of successful local wars against socialist states at the same time that one would be prepared for a major war. Ulam accepts this view as being seriously held, since it constitutes a natural ascribing to U.S. policy of considerations underlying Soviet policy, "i.e. avoiding a major conflict and at the same time justifying and inciting wars of 'national liberation.'" Western Europe was conceived of as being made prepared to intervene in Eastern Europe.

Ulam synopsizes his tenet thus: "The period is replete with historic ironies. America's monopoly of nuclear weapons lasted until the fall of 1949 and her economic preponderance in the world was never again to be so great. Yet for all this the vision of Soviet armies sweeping to the English Channel panicked some American policy-makers. For their part the Soviets appear to have been less alarmed by and responsive to American possession of the atom bomb than by the implications of that most non-aggressive initiative of U.S. policy - the Marshall Plan."  

Professor Ulam then goes on to treat certain Soviet initiatives which he believes may have been too easily dismissed at the time. Prime among these were the proposals agreed upon at the 1950 Prague meeting of foreign ministers from the USSR and Eastern Europe, and the Soviet Note of March 10, 1952. The former proposed to forbid German

5. Ibid., page 448, quoting Mileykovsky, op.cit., pg. 364.
6. Ibid., pg. 455.
militerization, but allow for "the creation of a unified, peace-loving democratic state". An all-German Constituent Council, with equal representation for East and West Germany, was to prepare a constitution. And "under certain conditions the German people could be directly asked to give their opinion on this proposal". The 1952 Note was basically similar, but proceeded to express acceptance of rearmament by a unified Germany, provided she pledged herself to neutrality.

That the Prague proposals may have been sincere is indicated by their timing. Immediately prior to the Prague Meeting the Western Powers had decided to revise the Occupation Statute and had furthermore, through the North Atlantic Council, implied that a West German force would be incorporated into NATO. Soviet apprehension must have been genuine. Taken in conjunction with other evidence at the time, which indicated Soviet willingness to abandon East Germany if necessary, it appears that the Soviet initiative may well have been sincere.

The 1952 Note can be similarly viewed. It was preceded by the setting up of the European Defence Community, the granting of sovereignty to Bonn and the definite agreement that the West German forces would join the Allies. The Korean War was raging, with General MacArthur advocating nuclear strikes against China. U.S. Armed Forces were being very rapidly expanded, and "roll back communism" advocates flourished in America. It would not be surprising

if concessions were then considered seriously as being necessary in Moscow.

The expansion of the U.S. Armed Forces has been portrayed as follows: "--- after the war America demobilized. But only two years later, with Britain's withdrawal from Greece and the enunciation of the Truman Doctrine, the tide of military spending turned and has been flooding ever since. It surged during the Korean War, subsided briefly, and then continued to mount."10

Among the "roll back communism" advocates the most prominent was John Foster Dulles. His attitudes are representatively conveyed by the following quotes. In a December 29, 1951, rebuttal to isolationist suggestions put forth by former President Hoover in a December 20 broadcast, the then Republican advisor to the State Department began by highlighting the fear that a "tide of communism" would "roll on", with the U.S. becoming "encircled, isolated and finally engulfed". Further playing on the hysteria sprouted by the Korean War, he warned that some peoples "are so inexperienced in the ways of self-government that it will be hard for them to preserve their independence in the face of the diabolically clever apparatus of Soviet communism. --- But within the captive world there are grave internal weaknesses." (There is hope yet, it seems ---:) "War can be very unkind to rulers who are despots and who have systematically destroyed the individual initiatives of their peoples". "There is only one effective defence. That is the capacity to counter-attack.---

The places of assembly (for the arsenal of retaliation) should be chosen not as places to defend but as places suitable for destroying the forces of aggression. 11

A year later, and now Secretary of State, Dulles stated that the U.S. would not start a war, although she would prepare to defeat aggression. But he continued: "To all those suffering under communist slavery --- let us say this: 'you can count on us'." 12

Such utterances and bellicosity were of course more than mirrored verbally by Soviet pronouncements. Among the best known are the harsh speeches by the Soviet delegates to the September 1947 founding of Cominform, Andrei Zhdanov and Georgi Malenkov. The world was clearly seen as divided into hostile camps, the "imperialist" and the "peace-loving". There could be no in-between; those not for us are against us (a concept the inversion of which was later to be propounded and furthered by Dulles!) The "peace-loving" would have to co-operate and organize defences against the "imperialists". 13

But the propaganda mirror is false, and gives a lop-sided impression. Professor Ulam referred in passing to the American nuclear monopoly. This has been expanded on by others, such as Herman Kahn, who have pointed also to the then decisive American monopoly of effective delivery capacity. 14 The monopoly was to last well into the 1950's. The U.S. had the

14. Most lucidly in his talk sponsored by the Norwegian Institute of International Affairs (NUPI), Oslo, 9 May, 1969 (Attended by author).
capacity to obliterate Soviet cities; the Soviet Union had no capacity to attack the American homeland. Inherent in this constellation was a potential impunity to engage in actions against Soviet controlled territory with the U.S. nuclear shield deterring retaliation.

There were few overt acknowledgements of this total Soviet vulnerability. Yet Djilas reports Stalin as intent on stopping the post-war Greek uprising because the Allies would not permit a Soviet breaking of their communication lines, necessary for the success of the uprising.\textsuperscript{15} It was evidently regarded as indisputable fact that if the Allies would not permit it, then the Soviet Union had to accept it. She could not afford to challenge the Allies directly. This same realization may be seen as the logical premise behind the enforced development of the atomic and hydrogen bombs. The speed with which they were researched and developed in the face of economy reconstruction demands indicate great priority, a priority which unequivocally refutes assertions that the Soviet Union was unaware of the import of the U.S. nuclear monopoly.

Soviet conceptions with regard to the motives underpinning the Marshall Plan, together with the promulgation of the Truman Doctrine, increased U.S. arms spending, and bellicose U.S. anti-communist pronouncements (not least in conjunction with Korean events), all clearly combined to produce apprehension in Moscow. It is in this light that one

\textsuperscript{15} Djilas, Milovan, "Conversations with Stalin", Pelican 1969, (Copyright by Harcourt, Brace & World, Inc. 1962), pg. 141.
should see J.D. Stalin's October 1952 report in which he indicated that the time might have come to pursue 'peaceful co-existence'. With Dulles becoming Secretary of State in Washington and with the influence of MacArthur's sentiments (if not his person) retaining and recruiting adherents, the implications of Dulles' "You can count on us" had finally to be seriously considered.

One further aspect or curiosa must here be presented. Following J.P. Beria's ousting after Stalin's death, a seemingly inexplicable rumour concerning his foreign policy aspirations gained wide-spread circulation in Eastern Europe. Tibor Moray, for example, reported that: "according to one report a secret Central Committee letter to satellite leaders accused Beria of having proposed after the East German riots to liquidate the East German regime in order to unify Germany in agreement with the western powers." The existence of the letter, not to mention Beria's intent, remains highly speculative. No conclusive evidence either way is yet available. The most plausible explanation may be that the leakage was inspired to compromise Beria's reputation and thus justify his removal, while at the same time reinforcing East European fears of German revanchist potentials - thus encouraging their dependence on Moscow.


What needs recognition is that an initiative such as described would be a logical alternative on the basis both of immediate history, viz. the Prague proposals and the March 1952 Note, and of the international situation at the time. If Stalin had feared that U.S. extremists might be attaining power such as to upset previous prognostications of U.S. action-patterns, then there were all the more reasons for his heirs to fear the influence of these extremists in a situation of Soviet political disarray or uncertainty. The East German riots and the lack of a definite and secure Soviet leadership hierarchy had to induce fear of "strike now while they are disorganized" advocates. Concessions such as that reputedly sponsored by Beria must have been considered in conjunction with the need to 'buy time' until domestic and East European stabilization was secured.

The prevailing view, however, clearly saw a furtherance of Stalin's lower-key posture as sufficing to buy the time necessary for essential arms modernization and development.

1 B MALENKOV - KHORUSHCHEV

The years following the death of Stalin saw a stagnation of the growth of the Armed Forces. The maximum personnel strength of 5,763,000 men appears only to have been reached in 1955. But the troop-reductions initiated by the demobilisation of 640,000 men in 1955 were foreshadowed by

the military budget cuts of 2% in 1953 and 8.9% in 1954.

These budget cuts were based on Malenkov's early championing of budgetary reallocations towards greater consumer goods priority, and the easing of international tensions.\textsuperscript{20} The premise was that modern weapons of warfare meant that war would result in "the destruction of world civilization"; the logical consequence being a "paralysing" of "the law of the inevitability of war".\textsuperscript{21}

This doctrine, that war had become impossible, remained the prime novelty of the Malenkov period. Although emerging opposition (see below) soon forced him to restrict his vision of the consequences of war to orthodoxy's belief in the destruction of capitalism, neither he nor his associates were ever to repudiate convincingly their belief in more all-embracing consequences (that is: the destruction of the USSR!).

Three inter-acting motives for his postulation of the doctrine may be envisaged:

1. Fear, arising from the credence accorded in Moscow to Dulles and like rhetoric, - combined with growing awareness of expanding U.S. military might. The indications presented above regarding Stalin's and Beria's attitude make this postulate likely. There was a realization that the United States was in too dangerous a mood for the Soviet Union to indulge in challenging postures, and that symbolic or otherwise concessions might have to be given. Especially in the light

\textsuperscript{20} Pravda, 9 August, 1953.

\textsuperscript{21} Gus\textsubscript{M.}, as quoted by Dinerstein, Herbert, "War and the Soviet Union", Praeger, New York, 1959. See especially pg. 71 and 171.
of growing evidence (see above and following chapters) that, notwithstanding the recent testing of a Soviet hydrogen bomb, the USSR remained extremely strategically vulnerable and weak vis-à-vis the U.S.A. Remaining sediments of international revolutionary ardour had to be encrusted in even greater caution than before ——.

2. A possible genuine belief in the deterrence value of the European-hostage concept, as strengthened through the acquisition of atomic and hydrogen bombs. But the public belief in this tenet, and the lack of any public acknowledgement of awareness of the USSR's vulnerability and limited capabilities within an inter-continental context, ought not necessarily to lead to the conclusion that the deterrence was really thought either adequate or acceptable. Two years later, and thereafter, came public admissions or intimations of the real strategic relationship (see below). But then also came the acquiring of such missile delivery capabilities as entailed some promise of escape from the strategic inferiority. It is hence plausible to view the pre-1955 credence accorded the European-hostage deterrence concept as politically and psychologically motivated.

This is supported by the described increasingly messianic character of U.S. anti-communism: the more religious the tone and the greater the ultimate evil of your opponent, the greater the ultimate good of his destruction, and the greater the immediate suffering that can be tolerated if necessary in the furthering of that destruction. The greater the element of fear or distrust, the less could Moscow rely on its capabilities versus Europe deterring the USA. Above-presented evidence provides the rationale for fear or distrust. In conjunction with the effects of ideology and experience, it could but lead to doubt as to the genuineness of the belief in the existing
"deterrence". Although for ideological, political and psychological reasons, it could not be mentioned in public, there must have been acute awareness of the fact that a war would result in the destruction of only one super-power, the USSR, and of a Western Europe of increasingly minor significance — as a power.

3. Economic strains resulting from the basic contradiction between military requirements and the need to buy time domestically. This need for relaxation and living standard increments — to alleviate the tense pace of Stalinist reconstruction and advance — was certainly felt by some to be as great as that relating to the international conditions. An early Malenkov article does not equivocate in its espousal of this view.22

One might elaborate on a hypothetical fourth motive, that of pure humane-ness recoiling from the horrors of war. But as this author tends towards the belief that such purity as a prime action rationale is incompatible with emergence through any existing 'corridor' to political eminence, the conclusion must rest in essence on a combination of factors 1 and 3 as having been decisive. International relaxation and domestic economic advances were considered necessary, (the latter for political reasons at the time and possibly also for the purpose of creating a future basis better equipped to sustain necessary military procurements).

But opposition to Malenkov's doctrine, and/or its consequences and implications, soon emerged, thereby producing yet another novelty of the Malenkov years: For the first time

there appeared what looked like purely military demands, for the continued predominance of heavy industry, for continued international vigilance, and for constant attention to military preparedness prerogatives.\textsuperscript{23}

The novelty of these demands and the articles' eloquent neglect of Malenkov's consumer policies may in part be seen to reflect on the novelty of the policies themselves. But they might further be seen to reflect on the greater professional autonomy apparently conferred on the military in late 1951. A decree highlighting the increasing desire and need for military efficiency then reputedly re-emphasized the principle of unified, one-man command.\textsuperscript{24} (The intervening post-war years had witnessed the reintroduction of extensive political involvement in command procedures and duties.) One cannot ascertain whether the decree reflected on Stalin's fluid operative theme of counterbalancing semi-competitive 'conveyor belts' of power, or whether it merely reflected on increasing international tensions.

It remains clear, however, that the more open military opposition to the prevailing line was accompanied by and probably received its main raison d'être from evident opposition within the Party. The international situation was apparently considered either too tense, or not quite as tense and precarious as judged by Malenkov, and the need for domestic consumer orientation not (yet) sufficiently acute. There must furthermore have been doctrinal and Party-justifying considerations leading to scepticism regarding Malenkov's doctrine.


\textsuperscript{24} Ibid., pg. 44 and 243.
By late 1954 Khrushchev gave a speech strongly emphasizing the place and role of heavy industry, and on the 21st of December Pravda (representing the Khrushchev-led Party) and Isvestia (representing the Government and Malenkov) openly demonstrated the serious divergence. The former supported, and was supported by, the articles in the military press, the second persisted with the championing of Malenkov's consumer re-orientation program.

The Khrushchevite gaining of ascendency in early 1955 therefore inherently entailed a semblance of victory for the Armed Forces. And this was further indicated by the promotions shortly thereafter of two Generals to the rank of Marshals, of the war-hero Zhukov to the post of Minister of Defence, and of Marshal Bulganin - who although basically a political general, would presumably be aware of and possibly sympathetic to military requirements - to the post of 'Prime Minister'.

The years of Zhukov prominence have been dealt with sufficiently elsewhere, but a synopsis supplemented with some additional comments is nevertheless appropriate.

---

27. Ibid.
28. See e.g. coverage in Fainsod, M., "How Russia is Ruled", revised ed., Harvard University Press, 1965, pg. 482-489, or Garthoff, op. cit., pg. 51-54.
While independence from Party control as such was never demanded, a number of military articles were to demand the maximum possible assertion of military professional autonomy. In September 1955 the purported 1951 decree was followed up, and the role of the Party organs within the Armed Forces was limited to educational and political rather than operational aspects. The military was evidently shying away from the previous integration, to such an extent as affected even local party-military organs' co-operation.29

And it pursued efforts to increase the role of the professional commanders in the formulation of strategy and theory. This was primarily through articles exposing Stalin's military miscalculations, his dogmatic dismissal of the potential importance of strategic surprise, and his on occasion faulty dispositioning.30 But it was further supplemented by the first open intimations that political leaders in general might make mistakes if they engaged in strategic decision-making without giving prime attention to the professionals' advice: "Political leaders must know the potentialities of strategy in order to set tasks skilfully."31

But such intimations, and the one-man command concept's corollary of a suppression of the old principles of criticism and self-criticism (according to which subordinates could criticise their commanders), clearly went against the grain of Khrushchev's inclinations. These may be synopsized as moving away from the 'conveyor-belts' of power practice, back to

30. An attack which gained Khrushchev's explicit support: See his 'Secret Speech' to the 20th CP3U Congress, 1956.
undiluted 'Leninist' Party dominance. And as favouring, albeit in a fashion primarily symbolic and not exempt from internal contradictions and vacillations, a lessening of disparities and a more egalitarian leadership. Viz. here his introduction of Party Rules which at least theoretically limited lengths of tenure and thus opportunities for patronage.32

Yet there were a number of reasons for acquiescence in the military self-assertions.

1. The Party may be presumed to have been not immune to divisive influences; supporters of Malenkov, as also he himself, remained prominent members.

2. The international situation remained strained, if not tense, and thus psychologically bolstered the case of the military. One might speculate that the 1956 Hungarian crisis for this reason prolonged Khrushchev's tolerance.

3. A presumed weakening of the security forces following Beria's ousting may further have worked against any Party clamp-down conceptions.

4. Zhukov's personality, combining as it did evident professional expertise with the war-hero aura, was in itself a powerful deterrent in combination with the above.

The alliance was furthermore politically useful. Thus Khrushchev's praising of Zhukov, and the promotion of Zhukov to Praesidium candidate member,33 were to contribute to Zhukov's possibly crucial help in the summer of 1957 ousting of the 'anti-Party' group.

32. Adopted at the 22nd CPSU Congress.
33. At the 20th CPSU Congress.
Ironically Zhukov's reward at the time (full Praesidium membership) also meant his emergence as an obvious wielder of ultimate power. And his emergence could, within the setting of traditional Party antipathy towards potential rival power sources, only lead to the crystallizing of a consensus favouring his removal.

May 1957, which witnessed a Central Committee instruction reasserting the rule and authority of political officers and organs within the Forces, was the first portent. The subsequent near silence regarding efforts towards increased Party control connected with the summer events was finally discarded in October. A more united and self-confident Khrushchev-led Party was by then to utilize a Zhukov visit to Yugoslavia to arrange the publishing of a number of articles reflecting Khrushchev's views. By the end of the month Tass has announced Zhukov's dismissal.

Yet this development ought not to be seen as revoking the professional autonomy that had been granted to the military. Later events, as will be shown, demonstrate considerable awareness of military requirements on the part of Khrushchev. The development ought rather to be seen as a basic reassertion or reminder of the bounds to the military professional autonomy, as well as a reflection on the inadmissability of Zhukov's 'Napoleonic' aura. Most of the military demands had been limited to non-political concerns, and one sees no reason for or evidence of any basic military-Party conflict beyond that indicated.

But one final concern of military articles of this period is of importance to our investigation, and must be mentioned before proceeding to 'the Khrushchev years' as such. This is that of the effects of nuclear weaponry and the potential role of strategic surprise.
Although temporarily politically impossible due to the implications of the Malenkov doctrine, there soon appeared reassertions of the Stalinist belittling of the effects of nuclear weapons. And this must surely be seen as inspired by a psychological need to bolster troop morale, a need made more obvious by command awareness of strategic inferiority on an inadmissible scale.

The subsequent appearance of articles asserting the potential decisiveness of surprise attacks and the need for such sophisticated intelligence as would allow the USSR to react against potential hostile attack preparations was only superficially contradictory. The noting of the possible need for the Soviet Union to strike first clearly indicated that she might otherwise be incapacitated. And the conclusion must be that these latter articles were directed at policy-making Party levels. The fact that they were published in spite of their apparent incompatibility with the morale-raising endeavors may then be seen to reflect on the acuteness of the military concern. And this may then again be seen reflected in the assertions that "political leaders must know the potentialities of strategy ---" and in the novel awareness inherent therein, of the need for more professional strategic research facilities, and new thinking.

34. See e.g., Olisev, D., Maj. General, in Krasnaya Zvezda, 3. August, 1955.
35. Although intimated in a February, 1955, article by Marshal Rotmistrov, this was first explicitly recognized by Emelin, V., in "Sovremennaya Voennaya Teknika", Moscow 1956, p. 131.
37. Ibid. provides the first indication of this trend, which finally received extensive elaboration in the article by Marshal Sokolovsky and Maj. General Cherednichenko in Kommunist Vooruzhiennikh Sil, No. 7, 1966.
Further points of friction, relating to specific aspects of strategy, have been suggested by other authors. But such are less easily ascertainable than the described aspects of more general military professional concern (See also following section, and Chapter 3 for cautions regarding exaggeration of the role of the debates).

One ought to be careful about focussing on details of strategic friction within the Soviet hierarchies. One ought to be equally careful about dismissing Soviet awareness of strategic constellations and thought processes. The lack of any explicit theoretical formulation of the deterrence-doctrine until 1962, need not imply previous lack of understanding. It might equally reflect merely on the lack until about that time of the physical wherewithall, capacity, to allow for a credible well-elucidated deterrence posture. There might be problems as to how much contradiction or undermining the above mentioned morale-upholding efforts could sustain (??).

As has been made clear there could be little doubt regarding military scepticism with respect to the practical value of the European-hostage deterrent. And this entailed considerable concern regarding the search for one of greater credibility, and the securing of a maximum war-waging capability in the case of its failure. The worries may have become most acute at the time of the Malenkov doctrine, but were of course not dissipated by the advent of Khrushchev.

38. Garthoff, op.cit., pg. 50, suggests a further downgrading of the role of the Navy initiated by Zhukov in 1955 and the establishment of a separate long-range missile command. But naval priorities had in practice languished prior to this, and the latter might merely reflect the novel characteristics of the weaponry ——.


40. Western theoretical expositions on the subject were made available: See for example Kissinger "Jadernoe Oruzhie i Vneshnaya Politika", Moscow, 1959.
The above referred to Khrushchev's attunement to military needs. This was indicated both in his alliance with the military against Malenkov's relative degradation of heavy industry, and in his early good relationship with the 'Stalingrad' generals who he was later to promote to Armed Forces Leadership (see below). His drift towards and final espousal of a massive retaliation missile strategy related to the priority need for an effective deterrent as soon as possible. His statement at the time that the Army, Navy and Air Force had had their importance decreased was relative, and must be seen in conjunction with the accompanying "quote: "A reduction in the size of the Army does not prevent us from maintaining the country's defence capacity at the proper level. We shall continue to have all the means necessary for the country's defence — while reducing the minimal strength of the Armed Forces we shall not reduce their fire-power; on the contrary, it will increase many times over in quality."

His policy presentation did therefore not entail disregard for the traditional branches of the Forces, but reflected rather a combination of military priority and economic considerations.

There is no doubt that Khrushchev was, or became, aware of the need for significant improvements of the domestic economy and the consumer goods sector. This is seen both in his justification for the 1960 troop reductions, that they would entail great savings (about 16-17 milliard roubles), and in his more explicit later admissions regarding the guns vs. butter

43. Ibid.
44. Ibid. (this author's stress).
45. Ibid.
quandary. But again, included in the former, there was the assertion that strategic capabilities and qualitative improvements would more than offset the apparent military loss. The point was that the military could not expect significantly increased infusions of finances and might in fact have to tolerate a lower level of budgetary allotments. The implication was that they must proceed with the introduction of qualitative improvements to replace and offset previous quantitative cushioning.

But they were at first conceded significantly augmented funds: there was a 12% increase in the military budget approved in 1955. Remembering that the first operational testing of an ICBM took place in 1957, and that the necessary 'lead time' (of research and initial development) meant that one would by 1955 be acquainted with the probable imminence of the long-awaited effective delivery vehicle, then this may be taken to indicate the scale of the commitment and considered needs. This scale is further emphasized by a consideration of the savings accruing from the troop cuts of the later 1950s.

1955: 640,000 were demobilized
1956-57: 1,200,000 " "
1958: 300,000 " "
1960: 1,200,000 " "

- Cuts which decreased the size of the Armed Forces to 2 million 423 thousand men.

An indirect confirmation of Ulam's estimate that previous high levels were not out of proportion to the Military's domestic and East European tasks, as well as confirmation that the new lower level was such as to demand extensive reorganization and qualitative innovations, is provided in an unpublished Moscow exposition of 1966. It was herein stressed that the demobilisations had resulted in the Armed Forces personnel level falling below that of the U.S.A. "In spite of the greater size of Soviet territory and the greater length of Soviet borders ...." the two factors quite evidently being seen as placing considerable demands on the Armed Forces.

There therefore ensued the enforced attention to modernisation which was to continue to provide a prime focus of military concern through the years of our investigation. Mobility and dispersal criteria came to be emphasized more and more, as also offensive operations - away from concentrated target areas (See also Chapter 6 C). The aim was to ensure the units' maximum independant capacity to overcome the effects of nuclear war. Thus 1955 saw the reorganisation of the air defence forces into a separate unified command with status equal to that of the other services, and 1957 witnessed the major upgrading and reorganisation of the logistics services. In the latter context M. Mackintosh quoted an illustrative comment by General Kurochkin:

50. Ulam, op. cit., pg. 404.
52. Ibid., pg. 26.
problems of transport, the defence of supply lines against destruction at their bases or during rail transport to the frontlines, becomes of prime importance in view of the deployment of new weapons".

The comment is interesting both for its highlighting of the problem and for its indication regarding the continued reliance on rail transport. The general trend clearly evinced a new determination that the Armed Forces be moulded and dispositioned so as to decrease their vulnerability to a knock-out nuclear blow.  

But it was the corollary to this Khrushchev-encouraged streamlining and emphasis on military qualitative improvements which was to produce the main ascertainable friction between the military and Khrushchev. The corollary was clearly seen by the military to be increased effectivity through increased discipline. Khrushchev's inclinations with regard to the place and role of the Party as described above were not, however, immediately conducive to the effecting of such discipline.

The 1957 reassertion of political authority within the forces, and the later repeated stress on the Central Committee being the only body competent ultimately to pronounce on questions of military science, strategy and doctrine (See Chapter 8 A), was not inherently inimical to military needs. But together with the encouraging of self-criticism and more extensive efforts towards increasing the military role and influence of the Party, it clearly perturbed the military, lest this should negatively affect their professional duties. The autumn of 1958 saw the emergence of a number of military

54. Emelin, V., Col., op.cit.
55. See e.g. Partinaya Zhizn, August, 1958, op.cit. and Pravda, 29 August, 1958, op.cit.
articles complaining of worsened discipline and lowered
efficiency, with political promotions and interferences being
assigned the blame with considerable frankness. 56

In fact it was Khrushchev's reluctance to concede and
respect a sufficiently precisely defined sphere of military
professional autonomy which was to provide the prime obvious
difference in Party-Military relations prior to and following
his ousting. 57 Hence this emerged as the prime public reason
for a possible military preference for his successors. As
opposed to him, they were not to place the same stress on vague
assertions of the "role and influence" of the Party, assertions
which inherently diluted the acceptance of the "one-man-command"
principle. 58

It was only after late 1958 that this really appeared as
an issue. But before proceeding to an analysis of the post-
Zhukov military leadership, it may be appropriate to present
a partial summary of the reasons for the early seemingly
complete, and even subsequent basic harmony - this issue only
excepted:

1. Regarding fear and international tensions: There were
efforts aimed at international disarmament agreements and the
abolition of nuclear stockpiles 59 (One presumes that expecta-
tions here were minimal, since the latter would have meant a
unilateral voluntary abdication by the U.S.A. of its position
of supremacy.).

56. See e.g. Marshal Malinovsky's article in Krasnaya Zvezda,
1 November, 1958.
58. Ibid. - compare.
59. See e.g. Soviet Government Proposals of 10th May, 1955.
There was the 1956 proposal to end nuclear testing, and the dramatic temporary Soviet halt to such testing in 1958.60 There was the January 1958 US-Soviet agreement on cultural, scientific and other exchanges and contacts (the "first step" towards a normalizing of relations)61, and the stressing of the potential benefits from further such agreements in an era when war was no longer seen as necessary.62 While there was a hard faction, one also now recognized a "temperate" faction within the U.S.A. hierarchy,63 and there were recurrent gestures made in its direction (not least of which were hints as to the possible harvest from increased trade64).

Notwithstanding other positive motives there was, however, also the military. The more eased the relationship, the less chance would there be that the lack of effective strategic retaliation capabilities would prove fatal. — And the less messianic the U.S.A., the greater the relative weight of the moral deterrent of the Europe-hostage concept.

2. Efforts aimed towards redressing the strategic imbalance. One may here observe that the troop cuts were a further stimulant to the efforts directed at easing the precariousness out of the cold-war confrontation. Meanwhile progress-reports and the initial procurement of missiles, as well as the moves towards Armed Forces modernization, brought

62. Pravda, 15 February, 1956, carried the relevant 20th CPSU Congress Resolution. And see Mezhdunarodnaya Zhizn', op. cit.
63. Tolnacheva, A.I., op. cit., pg. 31.
64. Mezhdunarodnaya Zhizn', 1963, No. 3, pg. 43, pointed out that over 1000 types of goods were then included on the US embargo list concerning trade with the USSR.
closer the prospect of achieving effective nuclear strike and war-waging capability. But the prospect remained unrealized until some time in the 1960s (see following chapter). And a part-reason must surely be economic, since further obvious infusions of funds beyond that of the early budgetary increase, and that accruing from personnel limitation savings, did not occur. Instead one saw the "deliberate, systematic (and consistent)" deception of the West perpetrated by Khrushchev between 1957 and 1962\(^6\), a policy made strategically essential by general budget allocatory decisions.

The psychological effect of the Sputnik successes was utilized. Thus Khrushchev, who in 1955 asserted that "we in cannot be intimidated by fables that/a new world will perish"," proclaimed in 1958 that "a future war would cause immeasurable harm to all mankind". Yet in spite of the accompanying assertions that war had become "madness", the morale-deteriorating Malenkov corollary that the USSR itself might be destroyed was never drawn.

Scepticism no doubt remained as to the extent American policy-makers (as opposed to the public) would be affected by the psychological up-grading of Soviet Strategic capabilities. Their access to reliable balance of forces estimates would be presumed; and possibly even relied on as ensuring a compromise Soviet force estimate sufficiently above reality to

---


\(^6\) Kuusinen, Pravda, 23 April, 1960.
inspire caution, while yet sufficiently below the psychological mirage to ensure against a catch-up effort such as would negate the Soviet progress —— (s). Moscow appeared to succeed, — until the feared latter "backlash" occurred under Kennedy (see below, and Chapter 5).

In the meantime, excepting occasional hints of hollowness such as sounded in ineffectual Soviet threats at the time of the 1958 US landing in Lebanon, the USSR did acquire the desired super-power aura. And this may not least have been due to the encouragement to chance more assertive postures which was offered by Eisenhower's extreme caution during the Hungarian crisis of 1956. By demonstrating that the aggressive Dulles-tone was on leash, it decreased apprehension. It therefore encouraged faith in the viability of the psychological deterrent as projected, and thus engendered trust in the slow-paced build-up of a genuine deterrent which Khrushchev's policies envisaged. Temporarily one did have the pleasure of both having and eating the cake ——-

To turn now to the post-Zhukov military leadership, the 'Stalingrad Group': The term became current primarily due to the work of Roman Kolkowicz, and while he probably over-elaborated on some of his themes — both with regard to group cohesion and intra-group and eventual group-Party friction — the concept is nevertheless a useful early focal point.

The group was defined as coming "almost without exception from the group of generals who were located at a single frontal sector (the Stalingrad Front) which was under Khrushchev's personal supervision during the six to seven months of the bitter battle for Stalingrad". The thesis concerning Khrushchev's

68. Kolkowicz, R., op.cit.
special relationship with the group was here based on "such empirical factors as close contacts under stress, opposition to common adversaries and promotions to positions of influence that paralleled the Party leader's rise to power". Sufficient evidence is provided regarding Khrushchev's rapport and harmonious working relationship with group members to encourage credence. Their rise to prominence, which climaxed after Zhukov's ousting, evidently paralleled Khrushchev's. (And that of Khrushchev's old protege, Brezhnev ---).

The group is seen as gradually splitting into two factions during the early 1960s. The one, including Marshals Malinovsky, Zakharov, Grecchko and Krylov, "viewed their obligations to the military establishment as paramount to others". While the other, including Marshal Birinuzov, Moskalenko and Chuikov, exhibited over-riding Khrushchev loyalties. And there is evidence for some divergence between these lines. Thus for example (post Cuba) January-February 1963 saw a number of articles on the 20th anniversary of Stalingrad in which authors 'belonging' to either faction appeared to differ on the relative prominence of Khrushchev and Malinovsky.

69. Ibid., pg. 279 and 281.
70. Ibid., pg. 224-238.
71. Ibid., pg. 241-255. They were also certainly not negatively affected by the purge of 250,000 officers inherent in the referred-to demobilizations.
72. Kolkowicz, R., op.cit., pg. 239.
73. Ibid., pg. 239 and 263.
74. Malinovsky himself wrote a February 1963 Pravda article which minimized the role of Khrushchev at Stalingrad. And one may find contrasts with other articles 'campaigning' for the Party's leading role to be emphasized and for the military to 'know their place'. See e.g. three articles by General Jepishev, Cmdr. of the Political Control Apparatus, during the same period.
But one ought to be exceedingly wary lest one over-emphasize apparent debate discrepancies, as this all too easily leads to non-credible exaggerations of Party-Military and 'factional' antagonisms (See also Chapter 3, 8 A and especially 9).

Assertions such as Malinovsky's of 1961, that "even if atomic weapons will play a prime role in a future war --- nevertheless --- final victory over an aggressor can only be achieved through combined operations" need not be seen as anti-Khrushchev. They may equally be viewed as fully compatible with Khrushchev's own thoughts as described above, and as suggested also by Kolkowicz' own sections on the original Khrushchev-Stalingrad group rapport. Black-white distinctions may be neat, but equally - facile.

And one must revert to our previous conclusions: the only issue which provoked ascertainable abiding military oppositional concern was that caused by Khrushchev's vagueness: "The Party Program emphasizes that single command is a highly important structural principle of the Soviet Armed Forces ---. At the same time we must always remember that Party leadership and a greater role and influence for the Party organisations in large and small units is the basic foundation of our military structure". 76

This refers of course only to the period ending in the Cuban crisis. After that the military, and especially those sections most frustrated with the above, may naturally have

---


tended to switch allegiance to Brezhnev. As Khrushchev's erstwhile deputy, he was the one other political leader with presumed close contacts with the 'Stalingrad group', and, most important, he was as mentioned considerably more inclined to tolerate a more consistent sphere of military professional autonomy.  

But by that time the remaining conjuring aspects of Khrushchev's deterrence policies had been exposed. The Kennedy administration's drastic expansion of strategic weaponry outlays and procurements made any gradual Soviet achieving of parity as regards deterrence dubious, at least in the short-term. The U.S.A. military budget was noted as increasing from 40,992 million dollars in 1960-61 to 47,655 million dollars in 1961-62. Parallel Soviet military budget increases were implemented (See Chapter 8 Bi). Yet these could obviously not suffice to secure the desired parity, although they were to contribute towards the early securing of some effective second strike capability (See below and Chapters 3 and 5).

It is to the strategic equation that a preliminary summary of the Khrushchev years must turn. The economic strain remained such as to strongly discourage increased military spending, and Khrushchev's awareness of this seems in fact to have grown towards the end (See footnote 46). There can be little doubt that he saw the solution in the utilization and advance of early missile technology achievements. The promise

77 Pravda, 4 July, 1965.
78 Ekonomika i Kapitalisticheskie Strany, 1962 g, Moscow, 1963, pg. 18 and 30.
79 Mirovaya Ekonomika i Mezhdunarodnie Otnoshenya, Moscow, 1962, No. 2, pg. 90.
entailed both a more reliable delivery-vehicle and potential capabilities offsetting those of the U.S.A. Hence his 1960 espousal of a "massive retaliation" strategy according to which escalation of war was inevitable. 80

But the early Soviet missile procurement-program was to prove highly inadequate. Missile degradation factors, to which we shall return, meant that her damage inflicting capability was low. The same factors applied of course to American missiles, and therefore in theory led to greater Soviet missile first strike survivability expectations. But on the other hand, the scepticism emanating from an awareness of degradation factor implications may not yet have pierced the awe of missile novelty, and anyway the U.S. strategic bomber-fleet alone retained sufficient penetration certainty to make Soviet missiles' survival most dubious. In other words: Moscow may have entertained overoptimistic expectations of the extent of her damage-inflicting capability. 81 But she must have realized that any such capability related only to first strike calculations - and U.S. superiority and deployment remained throughout likely to retain second-strike retaliation means of even greater impact. The USSR was checkmated (See Chapter 3 and 5).

80. Pravda, 15 January, 1960. See also Kolkowicz, R., op. cit., for comparisons with similar doctrine advocated by and subsequently abandoned by the U.S.A. in the 1950s. ( - Although this was based on very different and more secure capability prognoses).

81. Although the USSR clearly did realize that even then her forces' limitations were such as demanded their use to maximum effect, i.e. against cities, if they were to be effective at all. The USSR unlike the USA did not have the capabilities to afford contemplation of limited or varied target choice and strategy, such as relating to airfields and missile pads. See also explicit inference in Sokolovsky, op. cit., 2nd ed., pg. 84. And compare with later more sophisticated capabilities as reflected in Sushko & Kondratkov, Metodologicheskie Problemi Voennoy Teorii i Praktiki, Voenizdat, Moscow, 1967, pg. 147.
Considerable advance was made towards the end of Khrushchev's tenure. More sophisticated, better protected, and in some cases mobile, rockets were finally to provide a more dependable deterrent with significant first-strike survivability capacity. But the very achieving of this minimum aim presumably directed greater attention towards that of parity with the U.S., without which military strategists would not feel at ease. And as Khrushchev's final campaign clearly indicated that other needs precluded the assigning of funds to this end, and in fact demanded some re-allocation towards consumer interests, military dissatisfaction found open expression.

This late military 'opposition' was without doubt in part due to Cuban events. As concerns these, they appear most logically explained as resulting at least in part from a Khrushchevian venture to secure a 'cheap' augmentation of strategic capabilities and thus procure a more credible deterrent. Thus intermediate-range missiles in Cuba would have a range covering the U.S. heartland and therefore have the same effect on the strategic balance as an otherwise far more costly increase in ICBM numbers. And there was the additional advantage of dispersal of potential targets that had to be covered by US-forces. It appears reasonable to assume that the non-achievement of such considerable and anticipated

82. See e.g. Glagolev & Larionov in "International Affairs", No. 11, 1963, pg. 32, and testimony by Brezhnev and Kosygin in Pravda & Isvestia, 4 July, 1965, and the following Chapter.


85. See also Ulam, op.cit., pg. 669. Soviet sources in general concentrate exclusively on the explanation that missiles were installed at Castro's request to forestall perceived U.S. invasion schemes. The outcome of the crisis, with the U.S. pledging not to intervene, is hence seen as a victory which made the missile
benefits would, if only by highlighting their potential, lend greater urgency to the desire for their achievement through other means. The fact that the late and apparently extensive 'opposition' emerged in public may finally reflect equally on more general Party dissatisfaction with Khrushchev's economic and political schemes. One might draw a parallel with the Malenkov years, when the emerging Party opposition was powerful enough to provide protection.

One must again caution against exaggerating antagonisms. There was not to prove much difference between the two administrations' defence policies, except in emphasis. Khrushchev's final envisaged cutbacks were not implemented, and there emerged relatively more public appreciation of defence needs and requirements. But domestic demands were by Khrushchev's successors considered equally acute, and their first military budget was in fact cut by 4%. Later increases did no more than parallel U.S. military budget increases. And their achieving of 'strategic parity' by 1970 was to be primarily due to the 'slack' represented by the large proportion of the U.S. budget which was to be 'wasted' on the Vietnam war (See end of Chapter 3).

The seeming major military campaign for increased conventional forces was similarly not to result in troop augmentations following his ousting, but was nevertheless then

installations superfluous. See also Pravda, 11 February, 1963, for interesting comments.


88. Such as in Grechko, op.cit.

89. Sokolovsky, V.D., Marshal, Press Conference for Western journalists, Moscow, 17 February, 1965.
muted. The campaign may perhaps therefore best be seen as an over-reaction to Kh rushchev's final taking to extremes (if that it was) of his conceptions of both defence and budgetary priorities in general.\textsuperscript{90} But that is all.

The early evidence clearly negates speculation of such a general Khrushchev obsession with intercontinental missile needs as to lead to ignorance regarding complementary conventional needs. To the contrary - as seen also in speeches during his last years - he continued to recognize that the imperialists could not be allowed to achieve the superiority which would allow them "to impose their will and policy". And he assured that military requirements in general would not be jeopardized, nor would armed forces efficiency be impaired.\textsuperscript{91}

His tenure of office did from the beginning witness efforts towards a general streamlining and modernization of forces so as to make them suitable for nuclear war conditions. There appears to be no reason to doubt that he remained fully in accord, at least theoretically, with later assertions regarding the necessity for flexibility of operations and mobility - "the basic feature" of any utilization of nuclear strikes\textsuperscript{92} - , and regarding the obsolescence of old defensive concepts.\textsuperscript{93}

\textsuperscript{90} Pravda, 2 October, 1964 - herein Khrushchev published designs for a drastic shift in resources away from heavy industry ( - a last desperate reaction to domestic economic disappointments?).

\textsuperscript{91} Pravda, 15 February, 1964, op.cit.

\textsuperscript{92} Krasnaya Zvezda, 6 June, 1964.

And his very reluctance to allocate significantly increased resources, together with his determination that the missile forces be given priority, did as indicated spur the development. He ought thus probably to be given prime credit for forcing the Armed Forces to recognize and adapt to nuclear warfare implications.

This comment ought finally to be extended to a consideration of the development of interventionary-type forces. While their significant emergence was precluded by allocatory priorities, elements thereof were nevertheless procured under Kh rushchev. And it should be noted that this did not occur as a reaction to Cuban events. Although these did of course crystallize attention also on the then stark Soviet weakness regarding the ability to intervene or show force outside her continental environment.

Thus for example the significant upgrading of the Navy, of its strategic tasks, and of its commander, took place prior to the Cuban events. As did the redefinition of the Navy’s tasks: “to give battle to enemy forces at sea and at their bases” — a far cry indeed from the previously unchanged limited and defensive naval strategy of world war II.


95. Sokolovsky, op. cit. The stress is this author’s. Compare re 2nd world war role, of which Sokolovsky testifies: “Maritime operations had no decisive effects on the results”. See also McGuire, Commander, Brasseys Annual 1969, for exposition on the limited character of the Soviet Navy’s tactical mobility at the time — on its reliance on short-range shore-based air support.
One may conclude as follows: Soviet military concepts and capabilities under Stalin had remained largely conventional and orthodox, with a static continental role. Under Khrushchev considerable global strategic strike forces appeared. And there is evidence for seeing the general conceptual shift from continental restrictions to global perspectives as having occurred during his tenure and as having been spurred by his policies. Even if the drawing of some of the consequences was slowed by his determining of priorities, and for example interventionary forces as such did not appear on any significant scale until after his ousting.
CHAPTER 2

STRATEGIC TERMINOLOGY AND CONCEPTUAL BACKGROUND.

2A - Period Delineations of Soviet Forces' Evolution from Continental Limitations to Global Perspectives and Capabilities.

A tentative delineation of the post-war Soviet military developments must here be drawn. Some aspects have already been presented, others will be dwelt upon in later analyses and chapters. But clarity would seem to demand some further conceptual specification at this stage.

1945-55 was, as indicated in Chapter 1, a period during which both Soviet strategic and Soviet non-strategic forces were restricted to a continental environment. In other words, effective Soviet strike capabilities were restricted to the Soviet home area and immediately adjacent territory. There was at most an intermediate range capability, effective against Europe and parts of Asia, but not capable of striking at the U.S. home area.

The following years saw some increases in Soviet bomber range and capacity, but no assured or confident long range strike capability emerged. The limited strike capability that did develop is here seen to put the years 1954-57 in a limbo. For purposes of clarification however, the period may perhaps best be seen as an extension of that of 1945-53. As far as capability-confidence was concerned, Soviet forces remained basically contained within the continental environment.

1958-1961 was the period of initial long-range missile deployment. 1958 thus signified the attainment by the strategic forces of global capabilities and perspectives. Yet these capabilities remained primarily associated with first strike calculations.

1962-66 saw the development of assured second strike
capacities. Efforts aimed at decreasing or eliminating missile vulnerability, together with increasing missile number procurements, ensured the development of guaranteed strategic global capabilities.

1966-70; throughout the period during which the strategic forces acquired global perspectives, the conventional forces had remained confined within their continental environment. By 1966, however, one saw the emergence of naval vessels capable of long-range interventionary type utilisation, of more advanced long-range air transport capacities, and of military theory adaptations to global non-strategic considerations. The non-strategic forces were clearly also acquiring global perspectives. But a later date, such as associated with the world-wide Soviet naval exercises of April 1970, might perhaps be preferred as that at which the global perspectives became supported by significant and credible capabilities (and therefore as the date by which sophisticated General Forces and 'flexible response' capabilities had emerged).

It here seems propitious to present introductory definitions of some of the terminology and background relevant to strategic arms discussions.

2B - Strategic Terminology and Conceptual Aids.

Henry Kissinger's conceptual schemes,¹ and the parallel but more rigorous definitions of Morton Halperin,² will be used in this section. This author has however in many

---


cases modified or extended the definitions in question. Not all the defined concepts will reappear in our later analysis of strategic developments. These are nevertheless presented to facilitate comparisons and discussions. Those that do occur in our analysis should concur with the following definitions. Those of them that are not defined here are considered either non-essential or sufficiently defined, expressly or by implication, in the text in which they are found.

**Stability:** Technical stability is a favourite concept of H. Kissinger's. It is produced by missile systems incorporating sufficient missile numbers, locations and protection (and consequent capacity to survive assault), to counterbalance each other due to a technological certainty that neither system's controlling power may achieve "victory" by initiating an attack. Political stability is a strengthening of the above through the adding of credibility and acceptance. This is brought about with the emergence of stability-inducing strategies incorporating a decrease in belligerence and suspicion-producing postures — in other words, strategies probably of necessity based on mutual or unilateral arms control measures.

**Deterrence:** This is defined by Kissinger as requiring "a combination of power, the will to use it, and the assessment of..."
these by the potential aggressor. Deterrence is a product of these factors, all of which must be positive for it to be effective. The last factor, the credibility in the eyes of the potential aggressor, is obviously essential. Deterrence is aimed at dissuading an opponent from a course of action by making that course appear the worst of all alternatives. One may call it credible only if it commands attention, appreciation, and acceptance on the part of an opponent.

Vulnerability of weapons affects both the stability and credibility of weapon systems. It relates to the combined effect of such factors as a missile system's number of missiles, their spread, and their mobility, as well as possible protective strengthening of silos and other technical and technological measures. A vulnerable missile does not have secure prospect of surviving an enemy strike, neither does a vulnerable missile system as a whole.

First and Second Strike: The definitions of these concepts need to be paused on, as misconceptions are all too frequent, not least because the definitions have evolved considerably since first introduced. First strike was the term assigned to vulnerable missiles which one could not expect to survive a hostile attack. They would, therefore, have to be used first to ensure effectiveness. Second strike missiles, however, were those sufficiently non-vulnerable to warrant expectations of efficiency even after hostile attacks. These definitions were later altered through the addition of the term "credible" to the original concepts. Halperin was thus to define credible first strike as a force "capable of destroying most of the enemy's strategic forces."

A credible first strike force may comprise both vulnerable and non-vulnerable delivery vehicles, the condition being only that its utilisation will cripple the enemy's potential second strike forces. A credible first strike, therefore, entails that the opponent's second strike capability is not credible. While individual missiles may be deployed in such a fashion as to be considered either vulnerable (first strike) or non-vulnerable (second-strike), the over-all credibility will yet depend on the relative position between the super powers' forces. A credible second strike is, therefore, a force comprising a sufficient number of second strike missiles to ensure the capability to inflict unacceptable damage even after absorbing an attack.

A power with a credible first strike force need not, of course, also have a credible second strike, this being dependent on how big a percentage of the first strike force is composed of second strike missiles. It is furthermore clear that a first strike is not credible if the opponent possesses a credible second strike force. Where both protagonists possess a credible second strike force, neither can possess a credible first strike.

There are two primary confusions surrounding first and second strike definitions. On the one hand, there was the potential first strike utilisation of second strike missiles, but this has been treated sufficiently above. On the other hand there were the difficulties leading to the affixation of the adjective credible. This has also been sufficiently explained, but then yet another difficulty develops. As will become evident in our more basic analysis of strategic developments and capabilities (see following chapters), the late 1960s saw the emerging use of "first strike" as meaning "credible first strike". Alternate terminology such as
"initiating strike" was introduced to replace the rigorous original "first strike" definition.

Now, the preconditions for credible first or second strike forces do, of course, change as technological advances alter the definitions of vulnerability. This is usefully demonstrated by the following survey, which serves as an illustrative introduction to our later analyses.

Thus, the U.S. nuclear forces all retained non-vulnerability until the USSR developed sufficient quantitative and qualitative delivery vehicles to endanger U.S. ground-based missiles (and strategic bomber forces). During most of the post-war period the U.S.A. therefore retained the ability to deliver a credible first strike assault on the USSR, first with planes and later with missiles — first aimed at atomic installations and arsenals and later at missile sites.
(Although in reality of course most of the Strategic arsenal remained targeted on populated areas, in accordance with Eisenhower-Dulles creeds on maximum deterrence value based on second strike option choices.) The USSR remained vulnerable throughout.

But the development of Soviet missile force after the mid-1950's entailed the possibility that U.S. strike forces were becoming vulnerable. Hence the original concept of first strike became relevant, as some of the forces became vulnerable to a hostile (initiating) strike.

It was only in the late 1950's that there appeared recognition of the fact that the U.S. homeland was itself becoming exposed to potential threats. It was then that the famous article "The Delicate Balance of Terror" (by Wohlstetter) appeared, showing that developments were making

the missile balance precarious due to the emerging state, or conditions, of vulnerability. Under such conditions numerical parity alone was shown to be irrelevant; for numerical comparisons to have significance, they must be restricted to dealing with second strike missiles. A number of books and articles soon appeared dealing especially with surprise attacks and pre-emptive attacks (initiated by a power which considers an attack from an opponent as imminent, and therefore decides on the necessity of anticipating such action). It became clear that the balance of terror in an era in which the protagonists only possessed (vulnerable) first strike missiles, was most unsatisfactory.

Considerable intellectual effort became devoted to finding more satisfactory solutions. Kissinger\(^9\) was, in clarity and conception, in the forefront of such efforts. He advocated the development of non-vulnerable missiles and a changed U.S. strategy. Both concepts were adopted by the incoming Kennedy administration. As regards strategy, this involved the replacing of the (in his opinion) no longer credible all-out retaliation deterrent, with a strategy encompassing flexibility and escalatory capacities.\(^11\)

We shall not pursue this further here, but concentrate rather on his other advocacy. He saw that not only was a credible second strike capacity necessary, but a nation's

---


11. Ibid., p. 46. He explained that "if the threat of all-out war is to deter, it must produce the following calculations on the part of the aggressor: 1) that the U.S. would prefer to strike an all-out blow rather than acquiesce in a Soviet gain, however small; 2) that it is willing to suffer a Soviet retaliatory blow; 3) that despite its readiness to launch all-out war in retaliation, and despite the certainty that this would produce
power would be better judged by its possession of such. First strike capacities alone were both crude and irrational, and it was obvious that inter-super power stability depended on both having credible second strike forces (and thus foregoing attempts to achieve credible first strikes). Kissinger's main work here referred to is now somewhat outdated, since it was written in 1960, and he makes some mistakes. Yet a consideration of these in the light of later events only increases the book's introductory value.

Kissinger conceived of four phases in the development of nuclear weaponry: 1) The period of U.S. monopoly both of weapons and delivery vehicles; 2) The period in which the USSR acquired nuclear weapons, but the U.S. retained overwhelming superiority in delivery vehicles; 3) The period in which the USSR acquired delivery vehicles, but in which the U.S.A. nevertheless retained quantitative and possibly qualitative superiority; 4) The period in which the powers'...
stocks of weapons and delivery vehicles were near parity—and in which the USSR achieved superiority in certain aspects.

The work was written under the influence of the totally fictitious or misleading "missile gap" period, and he therefore considered phase 4 to have evolved by 1960. Since the Soviet missile strength conceived of by the "missile gap" was a myth, this placing of phase 4 was obviously incorrect. However, his scheme is useful if one alters his timetable, and considers phase 4 to have appeared in 1966 or thereabouts.

The following sketches are presented as conceptual aids. The details, as well as further-ranging discussion and analysis, will be returned to later. Some might oppose the arbitrary dividing into periods. But these are thought to represent as accurate a relative picture as is possible in this form and at this stage.

Pursuing our definition of vulnerability, in which it represents the lack of a credible second strike capability, while non-vulnerability represents the possession of such:

<table>
<thead>
<tr>
<th>U.S.</th>
<th>Vulnerability</th>
<th>non-Vulnerability</th>
</tr>
</thead>
<tbody>
<tr>
<td>USSR</td>
<td>vulnerability</td>
<td>1958-1962</td>
</tr>
<tr>
<td></td>
<td>non-vulnerability</td>
<td>1963 ——&gt;</td>
</tr>
</tbody>
</table>

---

12. Ibid.

13. Ibid. When considering this and the presented graphs, it should be noted that the superficial facts may have been misleading. Thus it may be that the great inaccuracies of early ICBMs offset their apparent total vulnerability, and would have ensured the survival of a number of the "target" missiles and installations. If so a case could be argued according to which the U.S.A. had never been in a position of real or extensive vulnerability, while the USSR emerged from such a position as early as 1958.
The period of U.S. vulnerability represents the period following the Soviet acquisition of a certain delivery capacity, and prior to the conversion of U.S. missiles from first strike to (non-vulnerable) second strike types. This conversion is postulated (hypothesized) as sufficiently completed by 1963, while it is suggested that the equivalent USSR conversion became sufficient in 1966.

The other suggested sketch:

An answer to the question mark will be attempted following our main analysis, to which it will be appropriate to turn after a final comment.

The above analysis of the emerging condition of stability and assured second strike forces of the late 1960's begs one question. The "missile" gap prognostications of the late 1950's and early 1960's having been proven misleading legends, what assurance is there that later data will not suffer a similar fate? And what are the chances that a determined effort by one power might not upset or revert the calculations arising from the presented statistics, as happened consequent upon "the myth"?

The answer, as will emerge from our later analysis, are:

1. Present intelligence gathering means, e.g., satellite photography, are seen to be far advanced of those prevalent at the time. An associate factor is that calculations at the time were to a large degree based on hazardous projections of
such flimsy data as existed, while such projections are not relied
upon in our analysis: 2. Related to the latter will be our
conclusion, which indicates that neither power can
hope significantly to upset balance calculation in the fore­
seeable future, due to present technological and strategic
 sophistications. The 1960's saw the conversion to assured
second strike capabilities such as could not become vulnerable
under foreseeable conditions (whereas, to reiterate, the
first strike type missiles of a generation earlier were all
too vulnerable to hostile offensive increments of any sizeable
order.) 14 Or, to put it another way: either power is now
believed technologically able to ensure the continuation of
the state of "second strike" for a sufficient section of its
offensive forces, and this capability is likely to remain
through at least the foreseeable future.

14. Our analysis thus expands and strengthens Secretary of
Defence McNamara's reported assertion (New York Times,
11 February, 1963) that the approaching era would make it
"increasingly improbable that either side could
destroy a sufficiently large portion of the other's
strategic nuclear force, either by surprise or otherwise,
to preclude a devastating retaliatory load."
The Khrushchev Legacy: Deterrence vs. General Purpose Forces Debates. (See also Chapter one).

Discussion and analysis of the debates follows. But first it appears propitious to return to a misconception referred to in Chapter 1, not least because of the general credence it has long been accorded.

Even the otherwise admirable 1964 analysis of the Khrushchev debates by T.W. Wolfe exemplified this. Against the background of definite Soviet inferiority in missile capability, and remaining continental restrictions to Soviet conventional forces, he interpreted the Khrushchevian notions of the inevitability of war escalation and "massive retaliation" to mean tacit Soviet acceptance of their strategic inferiority, and that Soviet ambitions did not extend to the creation of counter Force capabilities. He believed that financial and other considerations had forced Soviet leaders to accept the sufficiency of an ultimate deterrent.

The extent of Western credence for this theory is indicated further by a 1967 Hudson Institute Report, the relevant section of which had the title "Exploit the Present United States - Soviet Union Strategic Position". It contained this paragraph: "There is reason to believe that the Soviet Union/


the Soviet Union is in the process of trying to match a
counter-force strategy of ours with a minimum deterrence
position. This may be for reasons of economy, doctrinal trust
in our restraint, an inclination not to make major
provocations, a reluctance to indulge in an expensive or
hopeless arms race, a belief in the efficacy of secret
or for some other reasons. In any case this may represent
a mistake on their part".

But there is no reason to doubt that Moscow was aware
of the last point. By 1967 hardware and other evidence was
already appearing as visible rebuttals to the above tenet.
Lead-time considerations (the time needed for the research
and development of new systems) alone were strongly to
indicate that the tenet's rejection had occurred already
under Khrushchev.

As regards Wolfe's conclusions, they represented also
a rather hazardous inference from Khrushchev's actions and
speeches. As shown in Chapter one these might equally,
and as it proved more justly, have been interpreted very
differently. Economic necessities were certainly judged to
proclude any concentrated early drive towards general forces
capabilities. But this reflected economic priorities and had
no necessary causal connection with long term policies in
the strategic field. The moves that were made towards
enabling Force units' mobile, flexible and independent
operations under nuclear conditions, and towards reviving
and expanding naval capabilities, supplemented the securing
of a reliable deterrent. They furthermore created the
practical and theoretical nucleus on which more extensive
General Forces would rely, and from which they eventually emerged
the line of inquiry suffices to demonstrate why no other long-term aim could be ascribed to Soviet (super-power) policy-makers. It relates to the credibility of a posture permitting only all-out strikes or counter-strikes.

Quite apart from the supporting impetus of chauvinistic tendencies or desires: If your forces are such that only an all-out utilization of capabilities can ensure success, then how capable or willing can you be in deterring minor aggressions or taking initiatives? The knowledge that you can only inflict a maximum punishment in retribution for which you will yourself be destroyed does per definition crucially inhibit your freedom of maneuver, while conceding your opponent great low-risk freedom to initiate minor hostilities.

And the latter freedom can only be inhibited by fear that you will over-react to the minor hostilities, an exaggerating of their rationale or aim which led to fear for an all-out hostile strike might oblige you to launch a pre-emptive strike while your limited capabilities were still intact. The opponent might of course further feel forced himself to escalate to all-out action from fear that your fear might dictate such a pre-emptive strike ...

---

3. The early post-war and later disengagement-phase deterrence postures were never as fragile, since the Soviet-Union did not of course at the time have such counter-forces as would entail the suggested 'inevitability fear' syndrome, neither was there ever an equal dearth of intermediate-type weapon systems.

4. Garber, Michel, "A History of the Soviet Army", Hill Hall Press 1956, p. 207 - asserts: "There is no doubt that obsession with a preventive attack by the US must be very real in the USSR, which still has vivid memories of 1941 ---".
This situation must clearly be ultimately intolerable for strategic policy-makers, hence the Soviet pressures for the acquisition of counter-force capabilities. Such capabilities were necessary both to ensure against the consequences or irrationalities of the above-mentioned fear, and to provide the Soviet Union with more realistic freedom of maneuver and initiative.

The Debates.

Chapter one cautioned against such an exaggerated estimate of debates' value as led to non-credible conclusions regarding group antagonisms. There are thus vital questions that need answers before proceeding to reviews of debate contributions. They may be summed up as 'How real are the debates?' and 'Do contributions represent 'come differences' presented prior to, and thus meant to influence policy decisions? Or do they represent less important reflections of aspects of previously taken policy-decisions?'

An absolute answer can be presented, but there are strong indications that the latter interpretation is the correct one. The research and development (lead-time) stages of weapon-systems procurement are difficult to quantify into exact periods. But the lead-time activation, and therefore the time of the original decision-making, may most often be judged as preceding the appearance of relevant debates (even when these debates significantly preceded the first visible results of the procurement decision).

One example: major coverage of the potential benefits of interventionary anti-ballistic weapon systems, as well as of 'new-diplomacy', only really emerged after the appearance of the nucleus of the necessary capabilities.
These appearances could admittedly again be traced back, for example to Admiral Gorshkov's 1963 references to US Naval capacities and his hints regarding the necessity to counter them. But then Gorshkov's own efforts might be traced back to yet earlier evidence, such as for example the upgrading of the Navy by 1962.

One might here comment that the decision to assign the Navy a definite strategic role, and therefore the decision from which all of the above flowed, must in fact have been taken at about the time of Khrushchev's crystallizing of his 'deterrence-doctrine'. And prior to this one can certainly not find published evidence of any significant naval campaign.

---

5. See Krasnaya Zvezda issues the fortnight following, and referring to, the mid 1967 7-day war in the Near East. And see Timofeev, K., "The Role of Navies in Imperialist Policy", New Times, 28th November 1969.


7. See e.g. Isvestia, 19th May 1963.

8. Pravda 29th April 1962. Gorshkov's testimony regarding some emerging Naval strategic role and capabilities in Pravda 2nd February 1962 pushes the time-estimate of the political decision back even further.

9. Pravda 2nd February 1962, Ibid. Compare the implications of this to earlier conceptions, as typified by Sokolovsky's reported earlier comment to Gorshkov that the Navy had become a "totally obsolete" service branch under modern war conditions. See Giese, Fritz, Lt Cmdr, October 1959 'Wehrkunde' art., reprinted as "Behind the scenes of the Soviet Admiralty", Military Review, Fort Leavenworth, May 1960.
VI

Much has at times been inferred from the recurring military (Krasnaya Zvezda) pre budget-time articles on the importance of and needs for heavy industry. But with regard to no budget can causal connections be drawn between such articles and budgetary allocations as finally published. Or: if one for example interprets the mentioned late Khrushchev military articles demanding "multi-million-armies" and conventional force increments, as a campaign hostile to the political leadership, then the post-Khrushchev developments could only be seen as a political over-ruling of military aspirations. Similarly: credence might be given to rumours that the military desired a preventive strike against China in 1968-69 (See Addendum 4), - on the basis that a strike would be easy within the near future, but possibly far more problematic in later years. But again developments would have to judged as having demonstrated the finality of a political veto at the time. And the conclusion must be that the political authority remained absolutely paramount (See also Chapter 8 A).

On the basis of discrepancies and occasional inconsistencies between articles, one can sometimes present a case for the existence of factional splits within the Party, as between 'moderates' and 'conservatives'. One could then with theoretical profit co-ordinate such inconsistencies with like variations as between various military articles and/or as between military and Party articles. But there is/

10. See Chapter 10 B. - And see e.g. Michel Tatu's admirable "Le Pouvoir en l'URSS", Bernard Grasset, Paris, 1967.
is grave danger that the combining of too many inferences will emasculate them of their possible value.

The main intent in pursuing debate contributions ought therefore not to be the unearthing of policy differences, a task perhaps made impossible by Soviet censorship practices. It ought rather to concentrate on the extent to which the articles help to explain and elucidate policy decisions already taken and procurement programs already evident. Not least since such a course minimizes also the danger of confusing 'declaratory' policy with 'action' policy.

The type of article justly demanding attention may be exemplified by Marshal Krylov's of 1966. He then testified that it was only recently that the Soviet Union had acquired the sophisticated means necessary to cut to a minimum "the time required for putting missiles into combat readiness". Now if previous command and control procedures had not been sufficiently advanced to permit missiles' preparation and dispatch within comparatively limited time conceptions, then:

a) The Soviet deterrent must have been even more vulnerable to extinction from hostile strikes than anybody might assume;

b) It furthermore casts even greater doubt on speculations that the Soviet Union might have contemplated embracing first strike conceptions; under those conditions the USSR would have to expect that the US intelligence/information-processing/reaction times correlation would, at least in theory, permit a countering strike before the/
the contemplated Soviet strike ever got off the ground ....(!)

The debate contributions surveyed below are therefore approached primarily with a view to their relevance to:
a) The historical acquiring by the USSF of global perspectives and capabilities as concerns both strategic and interventionary-type forces (procurements and processes otherwise investigated in Chapters 5-7) and b) The evolution of the military's role in society and its relationship vis à vis the Party (See Chapters 8 & 9).

For purposes of simplification they will both here and in the following chapter be divided into the following headings: The Strategic Missile Forces; Nuclear-oriented Land and Air Forces; Naval Developments; The Military in Society.

The Strategic Missile Forces.

The priority development of these under Khrushchev may be divided into two periods, prior to 1961-62, and after that date.

The first period may be seen as that of possibly too extensive missile research and procurement. The degradation factors detracting from missile effectiveness and reliability were, as intimated, such as may not have been fully appreciated at first, thereby leading to over-optimistic expectancies. Nevertheless, as made clear in other chapters, even such expectancies had to acknowledge the limited capacity of early missile procurements vis à vis American capabilities. As a consequence there resulted the partly illusory strength assertions which served to psychologically augment the deterrent image.

Meanwhile research was extended to the field of antiballistic missile development. Again over-optimistic pronostications might well have led to this being seen as providing the missing link in the drive towards an imminent secure deterrent. And if one considers the reported tentative BMD deployment of 1962, and furthermore remembers lead-time considerations, then it becomes reasonable to assign to Khrushchev considerable realistic expectancy by 1961. Especially when considering also the supplementary benefits hoped for from the Caribbean missile installations shortly thereafter. One might see evidence for such an expectancy in an early 1962 Supreme Soviet decree:

(article 1): Starting in the academic year 1962-63 preconscription training for students in secondary schools and specialized secondary educational institutions is cancelled. This could thus be interpreted as reflecting (also) some satisfaction with military achievements and as indicating the first steps towards major re-allocations in favour of the sluggish domestic economy (along the lines of Khrushchev's late 1964 efforts).

13. Dr. J. S. Foster's (U.S. Defence Dept.) 5th August 1969 testimony to the House of Representatives Foreign Affairs Subcommittee, revealed that the U.S. had evidence of tentative BMD deployments around Leningrad as early as 1962. See also Krasnaya Zvezda 15th November 1963. And Pravda 19th November 1964 for premature but interesting capability-claims.


15. Izvestia 15th December 1963 and Pravda 2nd October 1964. One must note the effects of the drop in birthrates during the war and the consequent decrease in the number of 18 year olds available through 1960-70. But the resulting premium on manpower did of course equally affect the military. And one must hence caution against the view that civilian economy demands alone constituted sufficient reason for the development.
But complacent estimates of the Soviet deterrent value were already being challenged by increasing awareness of the great early 1960s US strategic procurement increments. And if the above inference is valid, then the scheme must at the latest have foundered when the 1962 Cuba events drove the point home. Hence the second period, which saw prime attention directed at increasing the survivability prospects of the existing missile strength, through silo hardening, launch mobility and dispersal schemes, and through perfecting control procedures. The correctness of this evaluation as well as the extent of the effort is indicated by: a) The lack of any evident major fund-diverting in favour of other military endeavors, combined with b) The increased military budget allocations of 1963 and 1964 (See Chapter 33), and c) The apparent hiatus in MID deployment following the initial procurements. This latter hiatus did of course probably also reflect appreciation of the unfavourable early cost-exchange ratios of relative defensive-offensive systems' offsetting values. And this appreciation must have provided a supplementary factor in the determining of priorities. But as it is the MID hiatus only serves to highlight the central interest of the later Khrushchev period.


18. See testimony by Dr. Foster, op.cit. and Chapter 55 for extensive treatment.
His late 1964 espousal of a drastic resources shift in favour of the domestic economy must hence in part indicate his belief that the deterrent had finally been secured. But, as has been indicated, this does not validate the belief of Wolfe and others. Domestic needs were clearly such as made Khrushchev intent on their satisfaction, but it was an intent based on temporary contemporary necessities as he saw them, and not representative of basic satisfaction regarding the lack of more genuine counter-force capabilities. This certainly appears the more logical inference from a consideration of his early speeches and associates, as well as of his later articles and procurement authorisations.

The first period may be symbolized by the following Malinovsky quotes. In 1959 he described as "twaddle" the contention that war between major powers could be "limited" or "local". And in 1960 he elaborated on the complementary theme of the great destructive power of Soviet-missiles. It was contended that the Soviet Union "could literally wipe off the face of the earth any country or countries attacking" her. Or, as formulated by the 21st CPSU Congress: "The traditional invulnerability of America is liquidated for all time".


There was Khrushchev's 1960 assertion that the USSR had achieved a nuclear balance of "cataclysmic implications, and that she could now afford and would henceforth pursue the policy of "maximum retaliation" as her deterrent. And Malinovsky followed up by exhibiting the confidence in this deterrent inherent in acceptance of US theories: "the best means of defence is warning the opponent of our strength and readiness to destroy him at the first attempt to commit an act of aggression".

But the flaunting of Soviet capabilities subsided as its implicit claim to parity and part-superiority began to look more and more suspect. McNamara's calm assertion to the Senate Armed Service Committee of early 1962, that the US was "fully capable" of destroying such "Soviet targets" as it might select, carried considerably more conviction than Malinovsky's riposte: "Such boasting is to say the least reckless. - Let us go so far as to grant that the forces are equal. We are prepared to agree to this in order not to fan war psychosis. But if our forces are indeed equal, the Americans should draw the correct conclusions from this and pursue an intelligent policy". The USSR was still declared able to "wipe out any target" and to possess forces "sufficient to destroy any potential enemy". And he shortly thereafter felt compelled to return to the point: "Do not touch us, imperialists!"


imperialists, and do not threaten us, because you will fall into the pit you are so carefully preparing for us and will be consumed without trace in a nuclear hell".25

A subtle difference could be detected between the uneasy contemporary demands for peaceful co-existence "which precludes war"26 and the more confident later assertions like (1965): "peaceful co-existence --- is --- an objective necessity resulting from the contemporary relation of forces between the two systems"27. It is the same subtle difference as one might infer from the disparity between the blustering Soviet Reaction to the 1958 Lebanon events and the more purposeful response to the 1969 events in that country.

But whatever the value of this inference, public preoccupations were certainly to change with the crumbling of the camouflage increments to Soviet capabilities.

The mid-50s has, as mentioned, seen public hints that the USSR's strategic inferiority was of a scale to demand a first strike for any success to be envisaged.28 And as late as 1962 there were warnings of US military threats to strike first, warnings which invited the inference that the USSR might not survive such an attack and might therefore have to strike first herself if she received relevant intelligence .29

29. Krasnaya Zvezda 11th May 1962. — Article by Col. I. Sidelnikov which is considered to contain also an excellent summary of Khrushchev's doctrine.
There was also Sokolovsky's pointed comment to US discussions of counter-force and city sparing strategies. He declared that such strategy and target choice discussions depended "to a considerable extent on the delivery systems available, and their numbers". And he explained that systems that might be inaccurate were ineffectual "against small targets like missile launch pads or airfields". Furthermore systems limited in numbers (of delivery-vehicles) could anyway "only be used against large targets like cities".

This is of course a concise characterization of Soviet capabilities prior to 1961-62.

Now with regard to the endeavors directed at securing the deterrent, Sokolovsky himself provided evidence of the more recently achieved (or still aspired to) designs:

He thus stated that "Missiles, which under today's conditions are absolute weapons, are emplaced in nearly invulnerable underground bases, on submarines etc." and noted significantly that "the trend towards increasing this invulnerability is growing all the time".

Previous admonitions on the need to protect against and prepare for nuclear war conditions had related primarily to land forces, and their requirements for mobility and flexibility. The specific stress on the need for this with regard to missiles was novel.

---

30. Sokolovsky, op.cit., 2nd edition, pg. 84, see also 3rd edition, pg. 235. And compare with Sushko & Kondrat'kov, op.cit., pg. 147 - Regarding the time when the USSR had finally acquired the capabilities necessary to permit such luxuries.

31. See Pravda 11th February 1963 for interesting Post-Cuban comment by Y. Zmukov which clearly reflects (enforced) awareness of US strategic power and capabilities.

32. Sokolovsky, op.cit., 2nd edition, pg. 84.

33. Thus also those contained in Smelin, op.cit., pg. 131.
And the new orientation was soon followed up: "Foreign military analysts" were said to be "talking through their hats" when they claimed that "Soviet nuclear rockets are highly vulnerable and (therefore) designed for a first and not a counter-strike"; "An aggressor would be unable to destroy all the counter-strike means with his first salvo, for these means are dispersed. A considerable part of them is constantly on the move. Another, even greater part, is in a state of almost instant readiness to take off. It is physically impossible - to knock out all the counter-strike means simultaneously".34

It remained of course doubtful that all this had yet been accomplished. Thus for example the previously referred-to 1966 article by Marshal Krylov clearly indicates that "instant readiness to take off" was not a quality the missile forces had acquired by 1963.35

But although articles a few years later were to carry greater conviction in assigning second-strike qualities to the missile forces, articles such as the above nevertheless serve as focussing the then current concern and endeavor.

Nuclear-oriented land and air-forces. Previous sections invited considerable scepticism regarding exaggerated inferences from the differing emphasis of various articles. By assigning some credit to Khrushchev for re-organisation schemes implemented during his tenure of office, and by granting some credence to his statements of concern for general armed forces

34. Glagolev & Larionov, op.cit., pg. 32 (art. on "Soviet Defence Might and Peaceful Coexistence").

efficiency, our investigation tends to minimize contradictions. The apparent differences, such as between the 1963-64 mass armies advocacies and Khrushchev's late 1964 contrary endeavors, may be said to reflect primarily on the difference between purely military considerations and considerations based on the wider concerns of the economy as a whole. The military emerges as a most powerful interest-group, but as contained within the Party-dominated hierarchy and with ultimate aspirations that are basically complementary to, rather than contradictory to, those of the Party establishment per se (See also Chapter 8).

The approach here pursued leads as indicated to assigning much of the credit, for the transformation of the forces' perception and capabilities from traditional to nuclear-oriented, to Khrushchev. And the restrictions and priorities asserted by him, on the basis of his wider-ranging considerations, are in fact seen as resulting in a faster transformation than would have been possible on the basis of traditional partisan military considerations. By removing the cushions inherent in these, by cutting back force levels and re-allocating funds, he enforced a stream-lining and modernisation process which might not otherwise have occurred with the same pace and urgency.

He had enjoyed considerable military experience, and he had apparently established good rapport with military commanders - from which one infers an understanding of their requirements and needs - .36 And it was with his rise to power that one saw the first moves towards the building of mobile and flexible

36. Kolkowicz, R., op. cit., pg. 224-238 (See also Chapter 1).
forces with considerable independent nuclear survival prospects and capacities.

The early re-organisations of the air defence forces and of the transport and logistics services have already been mentioned. Testimony with regard to armour further illustrates the efforts: "The Soviet High Command apparently has proven to its own satisfaction that armour and the Guderian designs of battle are ideal for fighting a war under nuclear and non-nuclear conditions".37 As evidenced in Chapter 6, the apparent factor of tradition is in this context superficial. The operative word is "nuclear". And the crystallizing of this, and the inherent awareness of the need for dispersion and mobility, was to become more pronounced as the 1960s progressed.

The military concern may be seen as epitomized by the following quote, cited by M. Mackintosh:38 "Even the appearance of atomic and hydrogen weapons and rockets cannot ensure the swift destruction of the armed forces, and consequently a swift conclusion to the war; A war cannot and will not be fought with these means alone"; Such weapons might in fact, it was declared, "prolong" rather than shorten a war's duration.

And while such expressions became more scarce during the following years due to the emphasis on missiles and deterrence needs, they were yet to be reflected also in Khrushchev's crucial 1960 promulgation. Thus (as quoted in Chapter 1) his espousal of a massive retaliation doctrine was followed by explicit commitments to the qualitative improvement of the older service branches, - qualitative improvements which

would more than offset quantitative restrictions.

These efforts could only gain impetus from the Kennedy administration's acceptance of McNamara's 'flexible response' doctrine and the consequent augmenting of US conventional and intermediate range capabilities. If only because of the resultant posture of US forces, one could not rule out low-scale aggression. The argument that any direct confrontation between the super-powers would inevitably escalate to a nuclear conflict left considerable conceptual flaws as to the initial stages of the confrontation, --- at least as long as one did not care to admit that one's own side might feel obliged to initiate the actual nuclear exchange --- . And this odious implication could only really be circumvented by securing, on the U.S. pattern, forces capable of lower-scale responses. 1962-63 articles clearly reflected this need. And they also reflected the complementary if theoretical need to be capable of rendering assistance to favoured national liberation movements (however carefully one refrained from specific commitments).

The logical conclusion(s) could not be brought to fruition while doubts remained concerning the efficacy of the essential shield of a visible secure deterrent, and while economic restrictions remained necessary. The 'odious implication', all the more odious for its inhibiting of freedom and flexibility of action and response, had to be tolerated --- until the visible deterrent became such as to inspire confidence that it


40. Izvestia, 11 December, 1963 (illustrative article by Chief of Gen. Staff, Marshal Biriunov).
could not be challenged. A capacity to engage in medium-scale conflicts not supplemented by an effective deterrent could not be utilized without inviting destruction. An effective deterrent without a capacity to engage in lower-scale conflicts is inimical to your interests but does at least guarantee against destruction. The priority concern defined itself. But one was clearly aware of longer term requirements, and the groundwork was, as indicated, laid.

A report of the principles of nuclear war, as approved by the Khrushchev-dominated 22nd Party Congress,\textsuperscript{41} is worth quoting:

1. "War will inevitably assume the character of a nuclear missile war". Consequently "nuclear missiles constitute the basis of the fighting power of all branches of the USSR forces". Therefore "we have created a new type of troops, the Strategic Rocket troops".

2. "Nuclear weapons make it possible to achieve military results in the briefest time at any distance and over a huge territory".

3. But "the decisive role of nuclear missiles in war does not lessen the importance of other types of weapons. Complete and decisive victory can only be achieved through joint actions; nuclear missile warfare will be waged by mass armies of many millions".

4. "The very first mass nuclear strikes are capable of determining to an extraordinary degree the entire course of war". Hence constant preparedness, intensified training and mobility are seen as becoming essential.

\textsuperscript{41} As per Sidelnikov, I., Colonel, Krasnaya Zvezda, 11 May, 1962 (stress added).
And this may be supplemented by the following quotes, \(^{42}\) judged to be equally representative of the Khrushchev-dominated consensus. \(^{43}\)

On the one hand what counted was "not the number of soldiers, but the quantity and quality of missile-nuclear weapons, rocket artillery, missile-launching aircraft and ships, especially atomic submarines, and also other technical means of combat", as well as "nuclear stores in general". \(^{44}\)

On the other hand, while the "strategic means will play the decisive role in the defeat of the enemy", there will be a "theatre offensive following nuclear strikes ---- airborne landings in great depth and rapid advances (of infantry and armour) with the support of the air force (will) complete the destruction of the surviving armed forces of the enemy". \(^{45}\)

---


43. Evidence for this may be seen in the wide publicity they were accorded. Thus e.g. Col. Korotkov (in "The Development of Soviet Military Theory in the Post-War Years", Voenno-Istorichesky Zhurnal, No. 4, April, 1964, pg. 39-50), who described Sokolovsky's book as "the most fundamental one". -- Quote found (also) in Wolfe, "Soviet Strategy ----", op.cit., pg. 268. And see same for treatment of the process: Kozlov's book's 1st edition evinced lingering scepticism re. Khrushchev's deterrence/strategic supremacy doctrine; it was criticised for this by Sokolovsky; it thereafter soon re-appeared in 2nd edition evidently more closely reflecting the operative consensus.  

44. Kozlov et all, op.cit., pg. 297 & 390.  

And "the offensive constitutes the basic method of warfare — only a decisive offensive can bring victory". 46

The inherent need for flexibility of operations under nuclear conditions, for mobility, is a recurring theme: "Manoeuvre has become the basic feature" of any utilization of nuclear strikes.47 Another inter-related theme is the championing of more offensively-oriented thinking: "in view of the striking power and range of present day weapons Soviet military doctrine regards the strategic defence as an unacceptable form of strategic operations in modern war." 48

However, such quotes do not only reflect on the streamlining and modernization of the Armed Forces. They certainly illustrate the development of a basis for flexible operational concepts and patterns, and thus for conflict varieties outside the restrictive all-or-nothing mould. But they furthermore reflect tendencies not consistent with the then still prevalent non-nuclear views of interventionary and flexible response forces.

The operative criteria may thus be summarized as

a) An emphasis on nuclear capabilities not restricted to a strategic context and in fact intimately associated with

b) Force units flexible not only with regard to independent survival capabilities but with regard to inter-service combined action potentials.

With the apparent support of both Khrushchev and his Minister of Defence, the Armed Forces were forced to transform themselves from World War II conceptual hostages to smaller but far more potent service branches and units totally oriented

46. Kozlov, op.cit., pg. 249.
47. Krasnaya Zvezda, 6 June, 1964 (Col. Vorobev. - Stress added).
towards the task of combat under nuclear conditions. And, as clearly demonstrated in Chapters 4 and 6, these operative criteria of a) and b) were to gain rather than lose in emphasis during the 1960s, until by 1970 the Soviet interventionary and other forces had acquired considerable and varied flexible response capabilities, but near-exclusively within a nuclear context. This will be treated more extensively in later sections. But one ought to mention that the deterrent is then, after a thorough analysis and examination, judged as 'secure', and that this is seen to lead logically to the conclusion that potential local conflicts between the superpowers will most likely see the utilization of nuclear arms, but without the previously envisaged escalatory repercussions (See also Chapter 10A).

It here suffices to follow up a point previously mentioned. Khrushchev's policy of extensive personnel-cutbacks and cost-consciousness did, in the context of his own emphasis on increased fire-power and combat capacities, inevitably result in the squeeze which forced the drastic modernisation process indicated above. And one might further judge the resultant squeeze to have been so severe as to necessarily entail the early nuclearisation of the non-strategic forces, at a time when the eventual inevitability of this process appeared not yet to be generally realized.

Naval developments. Early 1962 had seen confirmation of the Navy's definite upgrading and of her inclusion among Services assigned nuclear capabilities. (See end of Chapter one). The fact of the Navy's emerging with strategic capabilities was presumably connected with the described contemporary

49. Pravda, 15 February, 1964 (Khrushchev).
50. Pravda, 23 February, 1962 (Malinovsky). See also Air Marshal. Vershinei's Pravda 19 November, 1964, article, for more specific references concerning the air force.
awareness of deterrent-credibility deficiencies. It thus furthered the efforts towards dispersal which were component parts of the assigning of second-strike qualities to the deterrent. But it was not merely a reflection of temporary necessities. It soon became evident that it represented a more far-reaching awareness of naval potentials.

With regard to strategic implications, the subsequent period saw a number of pointed assertions and intimations regarding the value the U.S. derived from her fleet. A post-Cuba article, relating to "the Turkish-US accord at the end of January to liquidate nuclear bases on Turkish soil, and similar developments with regard to Italy" ("following the settlement of the crisis in the Caribbean"), is illustrative. It went on to emphasize that in fact the partial US withdrawals "by no means" signified "the first stage of disarmament", but to the contrary "a process of modernization of NATO's armaments". The forces involved were declared to be more than offset by the new world wide "sea-based mobile launching sites" (Polaris) then being build. And these were explained to represent not only an augmenting of US strategic power but a securing of this by making it less dependant on the whim of political allies.

And the implications were pursued by Admiral Gorshkov. After lampooning some US naval policies, such as the construction of aircraft carriers which he evidently considered as sitting ducks, he went on to warn that: "When Kennedy took over, the target date for building forty-one rocket-armed submarines

---

52. Isvestia, 19 May, 1965.
was moved up three years. The number of submarines under
case in 1961 and 1962 was increased from 5 to 10.
Beginning late in 1963 it is intended to commission one
submarine every month. At the same time the construction of
atomic anti-submarines is under way at an accelerated rate.
Whereas previously three such craft were started a year, in
1962 eight of them were started". He noted that "the Soviet
homeland" had given the Navy "the best rocket and nuclear
weapons" (vis. above). But there remained a clear implication
that more would have to be procured.

The previous ignoring of naval potentials, presumed due
to a combination of strategic conceptions and economic
necessities (Sec Chapter 1 and 6), was thus at an end. And
the indicated using of the US Navy's dispositions as a guinea­
pig qualitative yardstick for decisions of procurement
emphases and priorities not only reflected her status as
opposing super-power. It also reflected on the scale of the
naval efforts initiated and contemplated in Moscow.

These are treated more thoroughly in later sections, but
it is proper here to mention also the complement to the building
up of naval strategic capabilities. This is the emergence of
interventionary-type forces, - a development which may
of course equally be seen as a complementary to the previously
treated general emphasis on developing mobile independently
sustained units, with maximum operative flexibility, and
attuned to the needs of potential nuclear conflicts.

On the one hand Sokolovsky proceeded from the afore­
mentioned dismissal of the Navy's effective role during world-
war II to define the tasks of the 'new' Navy: "The missions
which the Navy will be assigned to perform in a future war" are
identified as long range: --- "to give battle to enemy forces
at sea and (at their) bases" and "to disrupt enemy ocean and sea transport". On the other hand there was the appearance soon after Khrushchev's ousting of "high-speed landing craft", and "marines" whose equipment "included missiles". The inter-relationship between the new strategy envisaging action against enemy bases and the appearance of amphibious capabilities is self-evident.

All in all, it is difficult to see Marshal Chuikov's assertion, - that Western powers had acknowledged the ruinous effects of "one-side" military theories and were hence building up their ground forces together with their strategic capabilities, - as reflecting more than at most a prod relating to allocatory decisions. And it may in fact merely have reflected Party convictions. Thus Khrushchev's orientation must despite its over-riding priority surely be seen as moving away from rather than establishing stereotyped dogmas ——?

The Military in Society. Considering the survey of Khrushchev-related data in Chapter I, as well as the extensive treatment of post-Khrushchev changes and developments in later Chapters (IV and VIII), there is no need to dwell long on the theme here also. But it must again be noted that it represented the most visibly sensitive military-oriented topic

53. Sokolovsky, op.cit., pg. 242-243, 3. ed. See also pg. 344.

And see Chapter 6.

NB. NATO Letter No. 9, September, 1970, pg. 20-22, asserted that the initial tentative procurement of Alligator and Polosny class landing vessels (as well as the initial marine infantry formations) could in fact be dated to as early as 1963. This of course more than confirms our dating of the origin of the Naval expansion effort, as well as our assigning to Khrushchev of credit for its orientation.
of the Khrushchev years. Attention ought to be redirected to the developing military frustration and concern regarding Khrushchev's reluctance to delineate clearly the admitted necessary - if limited - field of professional military autonomy. And in general it must be re-iterated that the vagueness of the Khrushchev-associated aspirations towards a more egalitarian yet Party dominated society could not fail to cause unease in circles in which the professional desiderata affecting policy decisions were judged paramount.

**Economic Considerations.** These have been mentioned above as providing a main rationale for Khrushchev's emphasis on deterrence and strategic sufficiency. We shall return later in more detail to the military's involvement in economic affairs and related considerations (Chapter 8), but some evidence must here be presented.

Khrushchev was himself to admit, quite explicitly, the "guns and butter" quandary; most notably in a speech in February 1964: "If we accepted an unreasonable reduction of military expenditures, if we started to build more housing and forgot about defence, we would be like blind men who cannot assess the real situation correctly". The implication worked both ways, and it was clear that while an "unreasonable" reduction in military outlays was unacceptable, so also was any "unreasonable" reduction in housing. Thomas Wolfe, who quotes the same speech, put it this way: "In light of these words there was a palpably hollow ring to Khrushchev's denial in the same speech that the Soviet Union was being "forced to reduce armaments and armed forces because of difficulties in economic developments"." 

One may further point for example to Sokolovsky's assertion that even the greater powers could not afford to keep such standing forces in times of peace as would be needed in times of war. In other words: while one would of course ensure the existence of a strong professional core, one would have to rely on mobilisation and extraordinary allocations to bring the forces up to a full-war standard. The inherent need for civilian training and civilian preparation for war-time roles and mobilisation was, as will emerge in later chapters, not resolved to the satisfaction of the military during Khrushchev's tenure. And it was hence another factor working against their acceptance of his tenets.

But as concerns the burden of the military on the national economy, it was, as our quotes have indicated, clearly admitted by Khrushchev and his associates. This leads naturally to the question as to how the Brezhnev-Kosygin regime later succeeded in closing the US-USSR disparity without resorting to drastically increased military budgets; why they succeeded when he did not? The answer may tentatively be indicated by the following:

On the one hand there were no immediate changes regarding the strategic balance; ABM developments remained in abeyance until the forthcoming event of more favourable cost-exchange ratios. And allocated funds continued to be diverted to a higher priority ICBM procurement program aimed at parity with the US.

At the same time, as regards non-strategic systems and the development of interventionary-type forces, the lack of obvious increments in funds may be seen to indicate that the basic

necessary research allocations had already been enacted by Khrushchev. One must remember that the program was never precipitate, and what may be termed sizeable interventionary forces did not really emerge until 1970, although the first procurements had been secured by the mid 1960s. Yet here continuing research and deployment (however gradual) considerations may be judged as financially demanding as the initiating efforts.

And if one finally views the effective procurement potentials of the respective US-USSR military budgets as being of similar orders — a conclusion which will receive support in our later analysis —, and acknowledges that no significant Soviet military budget increases have occurred — this will be supported in the same analysis —, then only one factor remains to account for the closing of the disparities. And that is the Vietnam War.

Sources close to the US Administration have calculated the cost of the Vietnam War to amount to 3% of the U.S.G.N.P. and nearly one-third of the military budget. And they have shown that force personnel augmentations necessitated by the war amounted to between one-third and one quarter of the total, depending on whether the basis excludes or includes the troops engaged in Vietnam.58

There can be little doubt as to the relative correctness of these figures. And there can therefore be little doubt that in her so-called "fight for freedom" in Vietnam the main U.S. achievement was the final destruction of her own

unchallengable world military superiority. Henceforth the fiction of comparable Soviet power was to become a reality. And, as will be later demonstrated, this reality of comparative parity was not of a kind which could be altered with ease by either side during the immediately following years.
CHAPTER 4.

The Acquiring of Extensive Counter-Force Capabilities.


These years may with profit be divided into two periods, with the first running through 1965-66. This period especially, as previously mentioned, demonstrated the extent of the general acceptance of many of Khrushchev's basic premises. — Not the least of which concerned the economic obstacles to ambitious military procurement increments.

Thus while the new regime pledged to "strengthen the country's defence capability",¹ and to arm "the Army and the Navy with the most modern weapons of warfare",² it nevertheless soon acknowledged that there was in fact a need for further if temporary financial cutbacks. A main rationale may be seen in the need for ambitious new civilian economy investment plans (— with agricultural necessities commanding the most acute concern³). The 1965 military budget was cut by about 4%. And it was made clear that Armed Forces personnel increases would not be contemplated.⁴

The limited savings may have been secured through administrative economies resulting from the centralising of defence industries.⁵ Or they may have been effected through further cuts in research allocations to uncertain projects.

¹ Izvestia, 20 October, 1964.
³ Pravda, 8 November, 1964 (Kalinovsky's 7 November Anniversary Speech).
⁴ See especially Kuarcz, Jerry, in 'Soviet Studies', October, 1965, op. cit.
⁵ Sokolovsky, V.D., Marshal, Moscow Press Conference for Western journalists, 17 February, 1965.
⁶ Izvestia, 4 March, 1965.
Here one thinks of such as the perceived post-1962 hiatus in R&D developments, which was seen to reflect a combination of deterrent priorities and initially unfavourable cost-exchange ratios (See Chapters 3 and 5). Or, of course, the saving might have been quite illusory, and compensated for by increments of 'hidden investments'; that is, military research allocations under other budgetary headings (See Chapter 8, B). But no concrete evidence can be found for this supposition.

As will also be supported by later quotes, it therefore appears that Khrushchev's basic policies were kept intact. Thus also the gradual nature of the further expansion of interventionary-type forces after 1965 indicates a natural progression from initial investment efforts under Khrushchev, and no qualitative change or innovation.

The only immediate changes affecting the military lay in a bridling of the Party's tendencies towards a too pedantic and possibly counter-productive supervision of military professional concerns (See below), and in new efforts aimed at decreasing international tensions. (Shades of previous efforts — See Chapter 1 — to engender such an international atmosphere as would minimise the sacrifices inherent in strategically-judged necessities; — an atmosphere entailing hopes for a minimum cost gradual approach ——— ).

As concerns the latter there was the Soviet proposal to reduce east-west arms budgets by 10 - 15%.\(^6\) The planned Soviet budgetary cuts were pointedly alluded to, and it was suggested that some of the savings might be diverted to aid/under-developed countries; a withdrawal of troops from foreign soil

---

was recommended, with asserted Soviet willingness concerning
the Warsaw Pact - on condition (only) of reciprocal US
willingness as concerned NATO; and it was suggested that
foreign bases be liquidated, nuclear proliferation be prevented
zones be disarmed, troop reductions be initiated, and a
NATO-Warsaw Pact non-aggression treaty be signed (with
observation posts in the respective territories to secure
against surprise attacks). There was of course furthermore
the complementary ending of polemics against China, and the
initiation of Soviet-Chinese border talks.

When the significant military budget increases of our
second 'period' were finally initiated in 1966 (See Chapter 8),
it was at a time when such increases seemed justified, both by
the increased American commitments in South-East Asia (Soviet
allocatory increases paralleled those of the U.S.), and by
the renewed Chinese anti-Soviet bellicosity.

But they also coincided with the apparent securing of
the deterrent and the therein inherent natural increase in
determination to close the still-existing 'strategic gap'.
And they coincided with a probable yearning for increased
development and procurement allocations for the non-strategic
forces, so as to hasten the acquisition of the advantages they
entailed. There was presumably less fear of a back-lash
offsetting increment of U.S. allocations; the Vietnam expendi-
tures were so high as to make potential U.S. legislative
approval of further allocatory diversions in favour of the
military most unlikely (excepting situations of too obvious
challenge), - while at the same time they entailed that the
military budget percentage that could be allocated to more
future-oriented research was that much smaller than in the
USSR (See also end of Chapter 3). And it must be noted that
the more steady post 1964 Soviet economic growth and the easing
of the agricultural situation made military demands more tolerable.

There might hence be reason to credit Suslov's apparently confident assertion of 1970. The emergence of counter-force capabilities during the intervening years and the then evident assertiveness of the Armed Forces (See below and following Chapter), clearly indicated such confidence as decreases the propaganda-value that one may impute. He stated: "We believe with legitimate pride that the mighty Soviet industry is now capable of solving the most difficult technical problems of our time, and of guaranteeing reliably the steady and rapid growth of our homeland's economic potential and of strengthening dependably its defence capacity".

The following analysis of debates and developments will adhere to the scheme of Chapter 3. It must be noted also that that Chapter's comments and cautions regarding debate-contributions' relative value remain of utmost relevance.

The Strategic Missile Forces. Here developments of our first period were referred to in Chapter 1, and the developments of the second period are treated extensively in the next Chapter. A comparatively brief synopsis will therefore suffice.

The first years saw the rounding off and satisfaction of the late Khrushchev concerns. The strategic Rocket Forces remained preeminent, but quantitative developments still

8. Pravda, 19 November, 1965. This article also expounds on some of the operative characteristics of ICBM's: Their reliability is thus explained to be "a function of the flight altitude measured in 100s of km.s and the speed permitting a rocket to cover a distance of more than 10,000 km.s in 30 to 35 minutes".
awaited their qualitative transferral into forces incorporating secure second strike characteristics or prospects.

The essence of the process was spelt out in emerging claims regarding its completion. Thus Brezhnev's mid-1965 assertion that one now utilized: "The most diverse types of launching of strategic rockets — surface, underground and underwater, both stationary and movable, including self-propelled — — " and that this ensured "the manoeuvrability and invulnerability of our Army's missile forces". It was elsewhere elaborated that: "The underground silos are carefully concealed from air and space reconnaissance and are securely defended against nuclear blows". And, no less importantly: "missile launching controls are in underground command posts equipped with the latest electronic apparatus".

The latter related to often expressed fears of acute accident dangers resulting from command- and control procedures not having kept pace with the sophistication of the equipment, but the implied accident proneness was not the only dangerous consequence of the early 'sophistication-gap' as between controller and controlled. There was also the

contd.

One might further point to Krylov's as yet somewhat premature claims regarding BMD capabilities, in Pravda 19 November, 1964, and the accompanying belaboured true but still rather hollow assertion that "the creation of the Soviet strategic rocket troops has put an end for ever to the trans-oceanic imperialists' reliance on the inaccessibility and invulnerability of their territory."

11. Ibid.
12. Expressed strongly e.g. by Herman Kahn during his 1969 lecture tours; this author was a guest at his seminar with Norwegian international affairs specialists in Oslo on 9 May, 1969 (arranged by N.U.P.I.)
inherent dilemma that either one facilitated early weapon utilization and thereby tolerated greater accident risks, or else one added cumbersome extra control procedures which militated against fast reaction prospects and therefore entailed a greater risk of extinction on the ground by an enemy strike.

That such a sophistication gap had existed, and that the Soviet Union had chosen to counteract it through the lesser evil of extra control procedures — with all the implicit ramifications for second strike confidence predictions —, was, as Chapter 3 mentioned, indicated by Marshal Krylov in 1966. The news that the USSR had by then acquired more sophisticated and secure launching control and command apparatus was thus followed by the statement:¹³ "Important changes (have now) occurred --- the time required for putting missiles into combat readiness has been reduced to a minimum."

The accompanying confirmation that the USSR possessed "missiles which can be launched from mobile installations"¹⁴ again re-emphasized the related programs of hardening and dispersal of launch sites. And the composite picture which emerges clearly tends to confirm the acquisition by 1966 of a secure second strike capability.

There remained the question as to whether secure was sufficient. And the answer was evidently no. Previous Chapters presented evidence why a progression from the securing of the deterrent to the acquisition of counter-force capabilities must long have been considered by Moscow as

¹⁴. Ibid.
inherently necessary. But one might perhaps also assign some
causal effects to the noted ever-increasing US embroilment in
Vietnam and/or to the once again deteriorating relations with
China.

Certainly it appears that the decision to match US
capabilities and operational flexibility must have been taken
by 1966. This conclusion is supported both by the increased
military budgets and by the great missile procurement incre­
ments which followed. (See Chapter 5 and 8, Bi.)

The thereupon changing strategic equation was dramatised
in 1967, when there appeared a book which seriously discussed
various selective strategic target theories. The USSR was
evidently no longer forced into a all-or-nothing dilemma (with
the 'all' having to be targeted on cities for even that to be
effective) due to inferiority. She could now afford the
luxury of entertaining more sophisticated scenarios. (See
Chapter 3).

And it was no less dramatised by emerging assertions
that the maintenance of the technical—military "superiority"
required that quality replace (and not merely complement) cost
as a selection criterium relating to advanced weapon systems;
by cautions lest "political organisations and their leaders
fail to use the emerging possibilities" inherent in the
revolution in military affairs; and by tentative assertions
(all too reminiscent of the aspirations of American conserva-
tive quarters) as to the necessity to possess arms offsetting
not only actual enemy capabilities, but also potential such.

15. Sushko & Kondratkov, op.cit., pg. 147.
16. Sokolovsky, op.cit., pg. 84. See Chapter 3.
17. Kommunist Vooruzhiennikh Sil, No. 18, August, 1969
18. Col. Bondarenko in Kommunist Vooruzhiennikh Sil, No. 24,
December, 1968, and Col.s Bandarenko and Rybkin in same,
April, 1969 issues (No. 7 & 8).
The problems of strategic parity were replacing those of inferiority; but however gratifying this premise, the new problems were to prove as grave.

Prime among these were the over-simplistic military aspirations for superiority, - over-simplistic because they appeared oblivious to the implications of their previous inferiority having per definition mirrored the discrepancy between American second strike capacities and Soviet lack thereof. The extent of the late 1960s' offsetting second strike capabilities; together with the sophistication of the respective technological bases, made aspirations by either for the re-establishing or establishing of superiority illusory. The only ascertainable result from further sizeable arms increments had by then become a mutually off-setting arms race; any other envisaged result had become most dubious. (See end of following Chapter, and also Addendum B, for 'New Weapon Systems' implications).

There furthermore appeared also military pressure for greater influence as affecting the extensive new military-political action options made possible by the new capabilities. The greater the emerging options for political utilisation of military-strategic facilities, the less could the military remain satisfied with their traditional concern for autonomy only in matters relating to organisation and the instilling of

19. Krasnaya Zvezda, 25 September, 1969 (Article by Maj.Gen. doktor nauk, and Professor Lagovsky). There had been previous admonishments that "the stern dialectics of development are that the struggle for superiority must be waged continually" (Bondarenko, in Kommunist Vooruzhennykh Sil, No. 17, September, 1966), but Lagovsky's pregnant implication had not been spelt out before.

20. Exhibiting awareness hereof, Pravda, 20 January, 1969, did in apparent contradiction to Bondarenko's implication (above), affirm Soviet interest in Strategic Arms Limitation Talks. Note also pregnant assertion in Kommunist, No. 14, September 1970, pg. 11: "Maximalists" who refused to acknowledge the
The need for "correct and timely" evaluations, and the increasing importance of "initial decisions" was seen to demand the erection of a new "supreme military-political organ". And this organ would further have to concern itself also with economic matters. As there were more extensive military implications inherent in and affected by more and more 'political' decisions, so there were of course military repercussions from economic decisions which affected the 'political' ones. The most obvious of such was followed up by Col.Gen. Shtemenko:

"The National economy will not have much time to reorganize during the course of military action --- everything needed for work in wartime conditions must be prepared in advance".

---

contd.

potential benefits or usefulness of partial measures and who insisted "on a futile all or nothing formula", were "doing a disservice to the cause of peace".


There had as early as 1957 been assertions that the strategic leadership was "duty-bound to act as consultant in questions concerning the state's economic life which influence the nation's defence capabilities", and it was then also stated that "military economists" must in fact be added even to regular "planning organs --- within the state's administration" (See Chapter 8 B). But the post late-60s strategic equations obviously added further aspects (and hence greater urgency) to the basic motivating factors ---
And while this, and further implications, will be returned to in later sections ('The Military in Society' below, and Chapters 5 and 8), the Party attitude must here be indicated. There was, interestingly, implicit acknowledgement that military and political policy repercussions were becoming increasingly intertwined, although the implication drawn appeared diametrically opposed. Thus: the tasks involved in modern war conceptions were seen to be so complex that their solution had to "fall completely within the competence of the political leadership"; — "modern weapons are such that the political leadership cannot let them escape its control".24

But this did not necessarily entail acute military-Party friction. There were warnings that separatist tendencies could not be condoned due to the political and economic consequences which they would involve.25 Yet these might equally be seen as preventive, or as reflections of the traditional Party jealousy of its prerogatives. The extent of the already existing integration of the higher military leadership within the Party-dominated hierarchy (See Chapters 6/A) encourages the caution of the previous chapter, against inferring too much antagonism from apparent contradictions.26 It is thus relevant to note that the above 'Party' reactions were presented by Military officers. And that they did furthermore also concede the need for improved military-political policy co-ordinating facilities.26

---

But the non-appearance of any new official body indicates that more informal arrangements or presumably increased consultations continued to be considered preferable and adequate.

In other words: apparently irreconcilable military-Party articles might well reflect at most differences in motivating rationale, or else the different scopes of inter-acting factors either had to consider. To the extent that policy-making (as opposed to executional or operational) decisions were arrived at within the integrated hierarchy, and to the extent that basic conceptual or programmatic differences did not appear to exist, to that extent must one caution against inferring antagonisms.

- **Nuclear Oriented Land- and Air Forces.** The operative criteria of efforts undertaken during the Khrushchev years were in Chapter 3 defined as evolving towards:
  
a) An emphasis on nuclear capabilities not restricted to a strategic context, and in fact intimately associated with

  b) Force units flexible not only with regard to independent survival capabilities but with regard to inter-service combined action potentials.

Developments during the latter sixties may be seen as a natural progression from, or evolution of, these criteria.

They were thus based on the squeeze between economically-determined personnel stringency, and political acceptance of the need for improved capabilities and greater flexibility. And the squeeze was seen as necessitating concentration on versatile forces utilizing the potentials of nuclear technology.
There was the straightforward following up of previous efforts. As to firepower within the Air Force, for example, there was the assertion that missiles had by 1965 become "the basic type of weapon of the strategic bombers, fighter-bombers, and all-weather fighter interceptors". 27

And there were such emerging claims as: "all branches of the Soviet Armed Forces" have been assigned "nuclear rocket weapons, perfected electronic equipment, and other material of the newest type". 28 Or, as asserted by Grechko in 1970: the technical equipment had undergone a radical change; the army had received far greater firepower per unit, and had acquired much increased mobility in general as well as in conflict —— "under atomic war conditions" (peacetime simulation techniques not specified ——). And the core of the Air Force now consisted of all-weather and supersonic missile-armed planes. 29

Superior "speed, cross-country ability, durability and weapon capacity" became the by-word of the land forces; 30 while the air force dictum came to demand that all pilots be capable of handling the most advanced planes from unsurfaced strips, regardless of adverse weather-conditions. 31

---

27. Ogonick, No. 25, June, 1965. The concentration on and scope of this conversion was indicated by Egyptian MIG's inability to counter Israeli 'strafing' capabilities during the 6-day war of 1967; the omission was recognized and rectified with the subsequent reintroduction of some artillery capability to supplement fighter missile capacities.


And see Newsweek 'Periscope', 21 September, 1970, for evidence that the Soviet swing-wing jets were by then being mass-produced.


Paralleling the increase of internal service flexibility came also increasing stress on the capacity to initiate and co-ordinate "joint military operations" involving different branches and services of the forces. And as a result the need for increased training and maneuver co-ordination and flexibility emerged as a prime concern.32

This did of course further entail the placing of a premium on commander and troop education and specialisation. Discipline and general capabilities were no longer enough. Expertise and special skills were becoming necessary rather than merely desirable.33

But this did furthermore increase the difficulties associated with potentially necessary mobilisations. As troop sophistication demands increased, so did the training time needed before 'raw' peasants or townfolk could be inserted to augment or replenish ranks. And as the era came to entail decreased potentials for long mobilization periods, so there arose an increased need for extensive pre-mobilization training of the populace.

The above, in conjunction with the general acceptance of the need for increased military-political (-economic) co-ordination, and with possibly increased awareness of the need for some Home Guard type capabilities (See Chapter 8), may thus be presumed to have part-motivated one of the more pregnant novelties of these years.

This lay inherent in claims that previous distinctions between front and rear had become anomalies in the nuclear age:

For the trend, see e.g., Pravda 25 January, 1968, (Air Chief Marshal Vershinin) and Krasnaya Zvezda, 17 May, 1969, op. cit

"war will become all-embracing, inter-continental —- the former distinctions between front and rear will no longer be preserved —- . All branches of the armed forces will be required for total victory —- . Everything needed —- must be prepared in advance."[34]

It thus soon became clear that the "everything" included the intensified training of civilians for insertion into wartime roles. This will be returned to below (as will the complementary inter-dependence between strategic considerata and investment and allocatory policies[35] — (See Chapter 8). But it must be noted that extensive programs to this end were initiated by 1968.

Naval Developments. Again, the relevant procurement/materiel developments may be found in Chapter 6, and we will here concentrate only on some of the illuminating or explicatory pronouncements accompanying the process.

Thus it was soon made clear that the naval expansion would continue and that US naval capabilities were indeed seen as the qualitative yard-stick:

"More than one-third of the strategic nuclear offensive weapons in the possession of the US and NATO armed forces belong to the American Navy. —- That is why our navy —- is playing an ever-greater role in strengthening our country's —- might."[36]

And the evolution of the Soviet Navy towards a strategic equivalent to that of the US Navy, with its inherent second strike advantages of dispersion and mobility, was soon further confirmed.

34. Nedelia, No. 6, 1965, op. cit.
35. See also e.g. Krasnaya Zvezda, 22 November, 1966 editorial.
Early 1965 saw the flaunting of the first submarine-fired strategic missiles. By 1970 the newest surface cruisers had been so totally oriented towards missile and nuclear capacities that they no longer retained even a semblance of conventional armaments.

And therein was to lie the main qualitative difference between it and the still quantitatively greatly superior US Navy. The combat orientation, and the much more recent commissioning of most of the Soviet vessels, certainly lessened remaining Soviet naval inferiority.

Marshal Sokolovsky had defined the 'new' Navy's main tasks as long range, directed both against enemy transports and Navies and against enemy bases. And he had noted that naval activities should no longer necessarily be contingent on land developments. He proceeded to define the means to the achieving of the tasks: strikes from missile-carrying surface vessels, co-ordinated with missile submarine activity, and in conjunction with missile carrying planes; "great possibilities" were seen to arise from the arming of the Soviet Navy "with nuclear weapons (in general), atomic missile submarines, and long range missile aviation."

---

38. Bundeswehr's "Soldat und Technik", No. 10, 1970, pg. 566-570. Concise article on 'Neue und Modernisierte Kriegsschifftypen der Sowjet-Flotte' surveys also new Kresta II cruiser, and presents pictures which are un-equivalent. Compare with other surveys in same, No. 11, 1969, pg. 626: The then surveyed vessels' only remaining cannons were so small (57 mm.) as to rule out any conception of conventional war. Note also the new 3,500 ton gas-turbine rocket-destroyer (NATO codenamed KRIVAK DDG) which 'appeared' in the spring of 1971, - embodying theory's total practical implementation. No equivalent vessel is either serving or (as yet) projected for service with any western navy.
41. Ibid., pg. 341.
Similar definitions of tasks and means remained current during our period. A mid 1969 article by Fleet-Admiral Kasatonov is illustrative. He began by confirming that it was Soviet policy to "build and further perfect an ocean-going fleet capable of solving strategic tasks of forward character." After asserting that the core of such a fleet had by then been formed, and after describing its prime components as "advanced missile carrying vessels", submarines, and a vaunted "naval aviation" he proceeded thus:

"The Fleet structure (now) incorporates also the determined & unbeatable marine infantry. This is intended to be utilized over wide ocean expanses in troop-landing craft, to break through enemy shore defences and to solve tasks on the shore." Here were the means for accomplishing Sokolovsky's 'task' vis-a-vis enemy bases.

And it becomes of interest to revert to a Sokolovsky elaboration of the relevant means: thus Naval fronts (where appropriate, in conjunction with land and air fronts with parallel perspectives) will "complete the destruction of enemy forces" by "taking advantage of the results of missile blows of strategic significance", and they will "occupy (the enemy) territory."  

42. Ibid, pg. 246.
43. Ibid, pg. 344.
44. Krasnaya Zvezda, 27 July, 1969 ('Nadezhni Forpost Rodini'). See also Kasatonov in 'Starchina Sersjant', No. 7, 1969, for further treatment of the extensive naval quantitative and qualitative build-up, and for descriptions of the extending of Naval operational patterns until these came to cover all major oceans.
45. Krasnaya Zvezda, Ibid. He further confirmed that "an important role in the secur ring of bases and combat operations is executed by aid vessels of various types" (i.e. electronically equipped merchant and fishing vessels).
Although defensive and offensive strategic potentials as such retained prime importance, it thus became clear that the development of Naval interventionary-type forces was seen as a complementary theme. This inference was supported both by increasing public Soviet awareness of the benefits that might accrue from local interventionary-type conflicts, and by the steady expansion of amphibious marine landing capacities following the first 1964-65 procurements (See Chapter 6).

The theme, as well as the importance attached to it, was further confirmed by reports such as that carried by Tass in 1970. An exposition on the exercises and events of the worldwide 'Okean' maneuvers at the time (See Chapter 6) included this passage:

"In the Northern Fleet the firing (described as 'missile and artillery'), as well as the landing of marines on the shores of the Rubachi peninsula, were attended by the Minister of Defence of the USSR, Marshal Grechko, General Epishev, the Chief of the Main Political Administration of the Army and Navy, Admiral Gorshkov, the Commander in Chief of the Navy, and Marshal Batitsky, the Commander in Chief of the Air Defence Forces."

In conclusion: It appeared that the development of marine amphibious/interventionary-type forces demanded considerable attention. And their training orientation towards the utilization of missile (nuclear) strikes furthermore much increased the impact potential of their as yet limited numbers.

As to defensive, Ibid., pg. 363, focusses on the crippling of hostile air-craft carriers and missile submarines, — because of their strategic capabilities.

Tass, 29 April, 1970.
(It must here be noted, with regard also to land and paratroop forces, that the 'clean' lack-of-lasting-fallout-effects nature of the nuclear warheads by then available made it possible for forces to occupy targets very soon after a 'take-out' strike.) With regard to different scenarios, it must of course be said that the forces also entailed considerable psychological pressure advantages even in situations not allowing the full utilization of their combat capacities. (Again, see Chapter 6). And, finally, the TASS communique might be seen to again reflect the attention accorded to 'combined-action' potentials.

**The Military in Society.** One might distinguish four inter-related but separate aspects: a) Efforts towards establishing more advanced strategic research facilities; b) Concerns relating to military-economic inter-dependencies; c) The increasing need for pre-mobilization training for civilians, so as to permit their fastest possible insertion into more sophisticated war-time roles; d) The general need for maximum general nuclear war survival prospects. The first three have been referred to previously, and all will be treated more extensively in later chapters. But, at least with regard to the last two aspects, certain preliminary data and comments fall within the present context.

'c' will be treated first. Some military training or education of and for civilians had long been accepted. But its extent had if anything contracted under Khrushchev (viz. the early 1962 decree cancelling preconscription training for students of secondary schools and institutions). And it was

49. See Chapter 10A for further exposition as to why one could by the late 1960s envisage local nuclear conflicts not entailing escalatory probabilities.
only after his ousting that the scope of the practice was significantly extended.

Previous sections described the military's acquiring of greater autonomy from 'Party' meddling in matters relating to organisation and training; the stress on the need for "one-man command" was relieved of the old accompanying and partly contradictory reminder of the "role and influence" of the Party; the Party was to continue to give valuable "assistance" but in terms of support which might be called for rather than "influence" which had to be accommodated or bowed to. And it soon became clear that Party acceptance of military training requirements incorporated acceptance of the need for increased pre-mobilisation training.

Party and public organisations were directed to be "more concerned with the military-patriotic upbringing of schoolchildren". And similarly: "The YCL (Komsomol) committees are obliged to carry out more actively the work of military and patriotic education of Soviet youth and preparing them for service in the ranks of the Armed Forces".

There was furthermore to be established "patronage over military units by workers, collective farmers and cultural figures", officially to help "strengthen and expand the army's ties with the people". The intent is elucidated in testimony by Pavlov, then Komsomol First Secretary:

51. Izvestia, 16 November, 1965 (Yefimov).
"Following the example of the Pacific Fleet, entire youth flotillas have been set up in the Black Sea, the Baltic, and the North Sea. In all corners of the Soviet Union this summer, tents were pegged out for the "Sons of the Regiment" camps where juveniles learned about military technology and studied the heroic history of the USSR Armed Forces."  

That such training of "workers, collective farmers and cultural figures" as well as "youths" and "juveniles" was to take on increasing importance was finally emphasized in 1968. One then saw the introduction of decrees which not only extended the scope of the training, but also made the previously voluntary participation obligatory. (See Chapter 8).

The Advantages for purposes of mobilisation are self-evident.

Now with regard to 'd': The basic concern did of course complement also that of 'b' above, and could be defined as follows: "to create the conditions for the uninterrupted operation of units of the National economy if nuclear war should break out". Civil Defence, which constituted the means for the fulfilling of this task, was of course not a novel conception. But it was now to receive increased, if strictly limited, attention: shelter-building facilities were focussed on the protection of national-economy essentials, while educational drives were directed at the populace with a

55. Although foreshadowed e.g. by Maj. General Zemskov, Krasnaya Zvezda, 5 January, 1967, on the further extention of para-military training for civilians in schools and outside.
view to promoting realistic self-help prospects. (See Chapter 5 B).

Civil Defence was thus in 1965 defined as "a system of state-wide defence measures being carried out throughout the country for protecting the populace and national economy from the weapons of mass destruction, and also for rescue work in the zone of a possible strike". Civil Defence was thus in 1965 defined as "a system of state-wide defence measures being carried out throughout the country for protecting the populace and national economy from the weapons of mass destruction, and also for rescue work in the zone of a possible strike". 57 "Every city and inhabited point" was to be given protection. 58

As for the population as a whole the limitations were stated frankly. "Planned and systematic" training would be given to "workers, employees and the general public." 59 But "first of all attention is being focussed on the preparation of the entire populace, on the ability to help oneself and help one's neighbours". 60

Both sources quoted made it clear that the program was encountering some opposition from enterprise managers and their ilk who disliked the loss of time involved in the training of their personnel. And such opposition might be seen to relate equally to the other civilian training endeavours treated above.

Yet in spite of this the programs were plainly of considerable scope and importance.

57. Pravda Ukrainii, 28 October, 1966 (article by Head of Civil Defence, Marshal Chuikov).
60. Ibid.
It remains only to suggest that the encouraging of some military training of the civilian population may not appear inimical to Party interests as interpreted by its leaders, but may in fact appear conducive to their furthering— The programs encouraged may hence be seen as not merely concessions to modern military necessities, but also as part-motivated by beliefs in further-ranging advantages accruing from a more disciplined society— Factories, not to mention Party cells, could on occasion also do with more discipline—
Soviet Strategic Concepts and Capabilities: Their Implications for Foreign Policy (late 1960s-1970s).

The following will be primarily concerned with Soviet developments, but Western (US) parallels will be treated where these are considered relevant for the sake of clarity or placing in context. Thus, some of the conclusions emerging will be seen to pertain as much to a more general East-West strategic framework as to specific Soviet conditions.

There are two main prerequisites of military concern which determine the credibility and thus the effects of a nation's foreign policy commitments. One is the nation's ability in a last resort to provide sufficient military support for the fulfillment of pledges. The second is the awareness of others of its capacity to provide such support. If this is doubted (whether rightly or wrongly), other nations will feel neither the confidence nor the apprehension which they might otherwise be induced to feel (depending on the quality of their relations with the power in question).

The USSR until the mid-1960s totally lacked the capacity of the USA to intervene effectively in areas outside her immediately adjacent environment. Her capacity to defend the homeland and these adjacent areas carried some credibility, as did her capacity to inflict unacceptable punishment on her strongest adversary within a first or pre-emptive strike scenario. Yet even this capacity was inhibited by the knowledge of the far greater and more reliable US capacity to bring destruction to the USSR landmass.

The USA, therefore, retained a marked psychological advantage, a position of superior bluffability. That is, a US bluff could logically be carried further. (And this might,
for example, be seen as having been of relevance to the 1962 Cuban crisis sequence of events.)

The 1960 Kennedy presidential campaign gave wide publicity to statistics which purported to demonstrate a developing missile gap in favour of the USSR. The comparison did not include all US delivery vehicles capable of reaching the USSR (e.g., bombers). It did however include Soviet medium-range missiles covering Europe, — a force potential the deterronco value of which was strictly limited to Western Europe's ultimate value in the eyes of the U.S.— The reliability of the statistics was therefore dubious, and misleading as an indicator of relative strength. But the acceptance of the statistics testified to the popular credibility of Soviet "massive retaliation" at the time, a credibility buttressed by the psychological impact of the Sputnik successes.

The consequent priority on ICBM development by the Kennedy administration therefore did not close the gap, but, to the contrary, temporarily exacerbated it. The real gap, with the US in the position of superiority, had narrowed with the Soviet attainment of limited missile capabilities. But the emerging US quantitative superiority was such as to minimize and possibly eliminate the chances of the unprotected Soviet first generation missiles surviving a hostile strike.

The limited Soviet capabilities of the late 1950s had been psychologically up-graded in the hope of inducing a US belief in a new situation of genuine balance. This was presumably in order to gain such a bargaining position as could otherwise only be claimed following the climax of ongoing procurement endeavors; by APPEARING to possess offsetting super-power capabilities, the USSR hoped to erect a smokescreen which would permit her to effect these capabilities at a less financially demanding pace, while yet
permitting the early enjoyment of the fruits which would accrue from the efforts. But the design backfired, the result being an exacerbation of Soviet vulnerability. The result of this again was inevitably a more open Soviet drive, first qualitatively to improve her missile complexes by protecting them and giving them a 'second-strike character', second to implement the quantitative increase necessary for the achievement of irrefutable counter-force capabilities. This drive had succeeded by, respectively, the mid and late 1960s. The second-strike character of both US and Soviet forces was thereafter to minimize the destabilizing potential of force increments by either; the balance could no longer be upset as easily as in the days of primitive first strike type missiles.¹

It is intended in this chapter to trace and analyse the Soviet development of strategic arms and capabilities. No exhaustive summary of military and technical innovations is attempted. Rather, as will be seen, the analysis will concentrate on such factors as are considered by themselves or in conjunction with each other to have specific implications on foreign policy choice and scope. Available data is believed sufficient to make tentatively valid assertions. But before pursuing this attempt it remains appropriate and necessary to echo John Craven's caution regarding the difficulties of both critical analysis and rebuttal when information as to (e.g.) a weapon system's effectiveness lies in the classified field.²

¹ For evidence regarding the scenario-definition at the beginning of the paragraph, as well as for an analysis of the 'debates' relating to the described process as a whole, see Chapters 1, 3 and 4.

A further difficulty, relating to such data as is released, must also be noted. This was indicated by reports of a 1969 Pentagon internal paper on "Improving the Acquisition Process for High Risk Military Electronic Systems". The conclusion which followed an analysis of previous weapon (system) developments saw achieved operational efficiency to have been consistently much inferior to theoretical and planned-for efficiency. One should hence caution against inclinations to view "achievable" as meaning "that which is achieved".

5 A Strategic Offensive Capabilities

Some comparative statistics must here be introduced.

1. Growth of inter-continental and submarine launched ballistic missiles:

(Mid-year strengths) USSR-ICBM ; USA-ICBM ; USSR-SLEM; USA-SLEM

<table>
<thead>
<tr>
<th>Year</th>
<th>USSR-ICBM</th>
<th>USA-ICBM</th>
<th>USSR-SLEM</th>
<th>USA-SLEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>Some</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>1960</td>
<td>35</td>
<td>18</td>
<td>None</td>
<td>32</td>
</tr>
<tr>
<td>1961</td>
<td>50</td>
<td>63</td>
<td>Some</td>
<td>96</td>
</tr>
<tr>
<td>1962</td>
<td>75</td>
<td>294</td>
<td>Some</td>
<td>144</td>
</tr>
<tr>
<td>1963</td>
<td>100</td>
<td>424</td>
<td>100</td>
<td>244</td>
</tr>
<tr>
<td>1964</td>
<td>200</td>
<td>834</td>
<td>120</td>
<td>416</td>
</tr>
<tr>
<td>1965</td>
<td>270</td>
<td>854</td>
<td>120</td>
<td>496</td>
</tr>
<tr>
<td>1966</td>
<td>300</td>
<td>904</td>
<td>125</td>
<td>592</td>
</tr>
<tr>
<td>1967</td>
<td>460</td>
<td>1054</td>
<td>130</td>
<td>656</td>
</tr>
<tr>
<td>1968</td>
<td>800</td>
<td>1054</td>
<td>130</td>
<td>656</td>
</tr>
<tr>
<td>1969</td>
<td>1050-1350</td>
<td>1054</td>
<td>160-2008</td>
<td>656</td>
</tr>
<tr>
<td>1970</td>
<td>1300-1440</td>
<td>1054</td>
<td>280-3509</td>
<td>656</td>
</tr>
<tr>
<td>1971</td>
<td>up to 1500</td>
<td>1054</td>
<td>up to 400</td>
<td>656</td>
</tr>
</tbody>
</table>


7. In Laird's Statement, ibid (-estimate).

2. Estimate of Comparative Strategic Strengths - mid 1971:

<table>
<thead>
<tr>
<th></th>
<th>USSR</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICBM</td>
<td>up to 1500</td>
<td>1054</td>
</tr>
<tr>
<td>IRBM &amp; MRBM</td>
<td>700</td>
<td>0</td>
</tr>
<tr>
<td>Cruise missiles</td>
<td>100+</td>
<td>0</td>
</tr>
<tr>
<td>SLEBM</td>
<td>up to 400</td>
<td>656</td>
</tr>
<tr>
<td>Submarine-launched cruise missiles</td>
<td>362+</td>
<td>0</td>
</tr>
<tr>
<td>Long-range bombers</td>
<td>175-195</td>
<td>569</td>
</tr>
<tr>
<td>Medium-range bombers</td>
<td>500</td>
<td>35</td>
</tr>
</tbody>
</table>

2 B. Anti-ballistic missiles - mid 1971:

Number of launchers: USSR = 64; US = 0.

3. Total Offensive Force Loadings - mid 1971:

USSR = 2000; USA = 4600.

But US quantitative superiority must be related to yield inferiority: in terms of megatonnage the USSR was estimated to have achieved parity already by late 1967.

3 B. The backbone of Soviet ICBM forces by mid 1970 consisted of "over 300" SS9 with warheads of 20-25 megatons, and 900 SS11 with warheads of one megaton plus (similar to US Minuteman ICBM loads). Multiple warhead - re-entry vehicle capacity was being assigned to both models; some SS9s were developed for a fractional orbit bombardment system (FOBS) or a retrofired depressed trajectory ICBM.

13. Ibid.
17. Ibid.
STATISTIC FIGURES:

a) Figure estimates show some discrepancies. Not only do different sources provide different estimates, but one can often find inconsistencies between figures provided by the same source. The discrepancies may perhaps be seen to illustrate the degree of uncertainty of intelligence estimates. Pentagon's preference of the higher figures may then be taken to reflect on an inclination always to present the maximum of any probability range estimate of enemy forces available at any one time. The inclination represents a logical precaution on the part of officials responsible for a nation's defence. That it is also one with inherent dangers will be documented later.

b) As regards SBLM figures it ought to be noted that remaining Soviet inferiority was due to her older nuclear and diesel submarines having only 3 missile tubes each. But she was rapidly converting to 'Y-class' nuclear missile submarines, each with 16 tubes (corresponding to US practice): this force rose from 4 operational units in early 1969 to "at least" 17 operational units by late 1970, with another 15 "in various stages of assembly and fitting out", and with production proceeding at the rate of 7 - 8 (i.e. 112 - 128 missiles) a year. She could therefore expect to equal US force levels by 1974. A similar development related to the quality of the missiles available. Soviet SBLM reach had been consistently inferior to American standards but by 1970 she was converting to new types of comparable quality.

---

18. See footnotes 5 to 10, and/or figures provided by yet other sources, - e.g. Capitaine Raoust, in Revue de Defence Nationale, April 1969, Paris.

c) The US quantitative stagnation after 1967 may be seen as partly reflecting a strategic decision of sufficiency, partly a dearth of funds — as about one third of the military budget became diverted to the conduct of the Vietnam war (See Chapter 3).

d) The slow Soviet quantitative growth until 1967 reflected priority concentration on the development of second-strike characteristics (hardened silos, mobile launching pads, initial ABM endeavors etc.). The consequent effecting of missile hostile strike survival expectations mitigated Soviet vulnerability, and gave her a security she had not possessed since the war. But her quantitative inferiority nevertheless still detracted from the public credibility of her deterrence. Soviet expositions on the subject had never allowed room to doubt her determination to counter US capacities. It was therefore to be expected that the qualitative securing of the USSR's existing forces would be followed by the quantitative increments necessary for them to effectively counter US capabilities (and the US "bluffability" advantage). By 1970 she had manifestly succeeded. Her momentum was furthermore leading to a position of apparent superiority ("apparent", since the U.S.A.'s earlier effecting of second-strike force characteristics ensured against critical vulnerability; a constellation of mutual check-mate had emerged).

20. Laird's 9 March 1971 Statement, op. cit. More rapid Soviet conversion rates have been asserted by others; See e.g. (Senate Armed Services Comm. member) Senator Jackson's closing remark in the US Senate debate on ABM authorizations, 6 August, 1969.


QUALITATIVE DEVELOPMENTS:

a) There was the development of silos capable of withstanding and offering protection from comparatively close-proximity nuclear explosions\textsuperscript{24} - See 5 B for further treatment.

b) Control facilities were greatly improved. Early procedures and techniques had been most primitive. So much so that safety considerations alone had entailed considerably longer missile preparation times than those theory envisaged. In was only by the mid 1960s that the USSR perfected sufficiently sophisticated capacities to cut reaction and missile preparatic time demands to a respectable minimum.\textsuperscript{25}

c) Missile technology advanced considerably. Liquid fuel missiles needing fuel changes every few days were replaced by missiles needing fuel changes only every few months; these were finally replaced by solid fuel missiles exempt from fuel-changing restrictions. Power and accuracy improvements meanwhile permitted missile trajectories previously ruled out by prohibitive cost implications.\textsuperscript{26}

26. Minimum energy flight trajectory, with a flight time of say 20 min.
Early missiles followed high "minimum energy" trajectories, with peak altitudes of perhaps 800 miles. A more flexible trajectory choice was to pose problems for a defence; a lower trajectory cut down the time available for detection, identification and reaction.

d) The USSR pioneered mobile solid fuel ICBMs. The speed and accuracy of modern satellite detection techniques might have been thought to make their ground immunity uncertain. But authoritative Soviet expositions later testified to a conviction both regarding these missiles' survival prospects and regarding their offensive potential.

c) Another Soviet innovation was the development of an orbital or sub-orbital bomb. The advantage of these bombs lies in the fact that their low orbital altitude of about 100 miles poses defensive problems not fully alleviated by the contemporary development stage of 'Over-the-Horizon Radar' (Again, see 5 B). The further development of OHR may however be presumed to eliminate the relative immunity of the sub-orbital bomb. And as regards its fully orbital brother, satellite course predictability makes its interception easy. Even first-strike conceptions would not allow of a high military value: synchronization difficulties ensure that a large percentage would at any one time have orbital locations defying immediate firing — these could therefore not be effectively utilized. The main potential of these bombs is

---

29. See e.g. Marshal Bagramian et al., "Istoria Voin i Voennovo Iskusstva", Section Four, Voenizdat, Moscow, 1970.
therefore psychological, relating to popular unease or fear of "bombs overhead".

f) The 1960s further saw the development of sophisticated decoys (PENALDS, or penetration aids) aimed at confusing and increasing enemy identification problems so as to ensure the unintercepted arrival on target of a missile. But the value of PENALDS became dubious by 1968-69. This was because of the development of high speed short range ABMs (such as the American Sprint), and more sophisticated 'floating' long range ABMs (such as introduced by the Soviet Union in 1968), with associate radar facilities. The former envisaged interception only after the atmosphere had separated the warhead from the dummies (differences in weight and density entail differing re-entry times); the latter allowed for interception prior to the release of the dummies. The cost of effective sophisticated dummies was approaching the point when "one might just as well use several warheads on each missile". Or, as USIS put it: "As opposed to other methods of penetration, MIRV is regarded as more certain since defense against it must necessarily utilize —— ABMs for each individual MIRV warhead."

g) The research and development of MIRVs (Multiple Individually-targeted Re-entry Vehicles) was at first considered a US preserve. But by 1968, it became clear that the USSR was

32. See treatment in "Non-Proliferation Treaty", Hearings of the U.S. Senate Foreign Relations Committee, 1st Session, 1969.
equally determined to produce such weaponry. And by 1969 came American confirmation of "very successful" extensive Soviet MIRV tests, and affirmation that the Soviet testing did concern MIRVs and not merely the less sophisticated non-individually targeted MRVs (Multiple Re-entry Vehicles "dropped" during descent). It was at the same time stated as a fact that "Both the USA and the USSR already have a limited number of rockets capable of delivering multiple warheads ready for use, and both are continuing their development." The imminence of major genuine MIRV deployment could not be doubted.

35. A rocket of a multiple warhead type was shown at the 7 November, 1968, Moscow military parade. No specifications were announced. — As noted by Strategic Survey, 1968 (ISS, London), Soviet testing of a multiple re-entry vehicle was reported to have occurred in August, 1968.

36. Dr. John S. Foster, Jr., US Defense Dept., Director of Research and Engineering, in testimony to the House Foreign Affairs Committee, US Congress, 5 August, 1969 (text released by Pentagon same day). Another official US Government account is less categorical, but does confirm that the SS9 certainly at least "possesses MIRV homing and control equipment, which in a few years will possess sufficient accuracy for the destruction of US Minuteman III rocket silos." The same source further affirms the much greater size of USSR MIRV warheads. (USIS release, op. cit.)

NOTE Perhaps it ought to be noted here that probably the most useful definition distinguishing MIRV from MRV (and one inherent in the above description and the following diagram), at least for defensive identification and monitoring purposes, is that which defines MIRV as a missile the re-entry vehicles of which have a lateral variation from the flight plan exceeding a certain number of degrees. — A definition of little additional conceptual value, but possibly essential within a context of arms limitation and control posts (= as concerning SALT).

37. USIS Release, ibid.
The Principle of MIRV may be diagrammed thus:

<table>
<thead>
<tr>
<th>Boost phase</th>
<th>Mid-course</th>
<th>Terminal phase</th>
</tr>
</thead>
</table>

Individual rockets (vehicles) released with boost variations of 10-20 m/sec.

Boost velocity about 5 km/sec. (Compare: A boost vel. of 11 km/sec would shoot a vehicle out of the atmosphere completely.)

Note: The effect on spread by a difference of 1 m/sec. in boost velocity equals

\[
\left( R = \frac{v^2 \sin \theta}{g (= \text{about 10}) } \right) \Rightarrow \frac{dR}{dV} = \frac{2V}{g} ; \quad dR = \frac{2 \times 3000 \text{ m}}{10} = 1600 \text{ meters}.
\]

A very considerable spread, or "footprint", may hence be effected with only very minor velocity variations between individual vehicles at the time of their release.

There were apparently some variations between US and USSR concepts. That of the USA saw a single guidance and propulsion system controlling the velocity of a "bus" from which re-entry vehicles are released sequentially. The bus realigns its trajectory and velocity each time in accordance with the desired targeting of the next-to-be released vehicle.
As opposed to this, there were indications that the USSR was pursuing the concept of having each individual warhead equipped with a separate guidance system. American comment labelled this concept "more cumbersome" and less sophisticated, but this might perhaps in part be seen as a partisan comment, since the Soviet concept's effectiveness as such remained unchallenged:

Released re-entry vehicles with self-targeting facilities.

A prime advantage of the MIRV concepts is that the early flight trajectory ejection of independently guided re-entry vehicles make it possible to discount the danger of an anti-ballistic missile destroying the booster prior to dispersal. This had been a real danger of the "old" MRV concepts.

MIRV target accuracy achievable with present technology is thought to lie inside a 0.25 nautical mile (350-400 meters) radius from the target ("achievable" ultimate accuracy is considered to lie within a radius of 30 meters from a target!) This should be related to the impact, or kill, probability, calculation of which correlates the effects of warhead accuracy and yield. As evinced by the formula: improved accuracy permits smaller warheads for constant impact probability, and therefore significantly lessens the cost of warheads in relation to the booster and silo costs.

38. Newsweek, (Periscope), 16 June, 1969, quoting US "intelligence" sources and official "analysts".
39. Dr. Brennan, presentation of evidence released by Pentagon, op cinco.
The US seemed to have decided on allocating only three re-entry vehicles to each land-based ICBM, but 10 to each Poseidon (submarine-based missile). This was on the calculation that a greater concentration in land-based missiles would too significantly increase the temptation for an opponent to initiate a pre-emptive strike. The relative invulnerability of SLBM's, however, permitted the installation of a near maximum number of warheads in these without creating similar temptations. The corresponding calculation on the part of the USSR might be presumed to effect similar deployment decisions in the Soviet Union, although the greater size of the SS9 might increase the maximum number of warheads which could be carried.

One could thus anticipate an early 1970s' multiplying of either side's offensive missile capability by a factor of between 3 and 10.

OVERKILL: It is illuminating to relate the existing numbers to such as are considered to guarantee the destruction of either superpower. Already deployed Soviet "overkill" capacities seem to emerge from Secretary of Defense Laird's spring 1969 testimony to the US Senate, that 200 nuclear warheads of one megaton each would assure the killing of 55% of the US population. On the other hand, he claimed that it would take 1200 US one-megaton warheads to destroy 45% of the USSR population, due to the more scattered pattern of Soviet industrial and population centres.  

---

40. But see discussion in "The Military Balance 1970-71", which concludes: "To an unmeasurable extent, however, that advantage may be offset by the greater administrative and ideological centralization of the Soviet system, and its consequently greater vulnerability to the destruction of a few centres of control."
The comparison might be suspected as being based on "maximum efficiency" criteria with regard to Soviet, and "minimum efficiency" criteria with regard to US capabilities. Yet even so it sufficed to demonstrate also US overkill capacities, when account was taken of existing bomber and Polaris forces. (Senate Armed Services Committee member Gore shortly thereafter reportedly estimated that there were 48 American strategic weapons for each of the USSR's largest cities.41)

DEGRADATION FACTORS: But although prima facie calculations strongly confirmed either power's "overkill" or excess force capacity by the late 1960s, there yet remained a number of uncertainties. These "Degradation factors" could be listed as follows:

1. Missile availability: a certain number of missiles would probably always be unusable, through undiscovered technical and other faults;

2. Readiness availability: a certain number of missiles might for various reasons, although technically up to standard, not be prepared or available for immediate firing;

3. Launch reliability: launch facilities might in certain cases not be ready for action, e.g. due to unpreparedness of personnel or equipment;

41. Quoted by The New York Times, 10 April, 1969. See also e.g. Secretary of Defense McNamara in his "Posture St." of 1967, pg. 68, regarding the number of tactical warheads in Europe. And e.g. Secretary of Defense Laird in "Hearings on Military Posture", Comm. on Armed Services, House of Representatives, 1969, Part I, pg. 2467, regarding the number of Polaris and ICBMs.
4. In-flight reliability: undiscovered faults could negate the in-flight reliability of a percentage of the missiles;

5. Remainder after first strike: the calculation as to how large a percentage of one's forces remain intact and available after an initiating strike by an enemy;

6. Remainder after meeting ABM defense: the calculation as to how large a percentage will penetrate a potential BMD.

Factors 1-4 could each detract from effective missile numbers by, say, 5-20%. Factor 5 could inevitably detract a significant percentage, the exact size depending on one's own missiles' vulnerability, on enemy intentions, and on enemy missiles' yield and accuracy. (It was of course with this in mind that US Secretary of Defense Laird warned that the Soviet SS9 might be capable of destroying even strong silo-protected US ICBMs, and that the USSR might infer the possibility of crippling US capacities for decisive second strike retaliatory action. Suffice it here to note that the warning was intended also as a spur to ABM deployment, and to remind our readers that only land-based US missiles were affected.) With regard to the sixth factor, ABM developments are treated below. But for illustrative purposes one might see this degradation as detracting another 5-20% from effective strength.

42. Secretary of Defense Laird, ibid. The Hearings concerned BMD authorization. – See also testimony by Dr. Panofsky, Professor and Director of Stanford Linear Acceleration Centre, Stanford University (in "Authorization for Military Procurement, Research and Development Fiscal Year 1970, and Reserve Strength", Part 2, Hearing before the US Senate Committee on Armed Services, GPO, Washington, 1969, pp. 1129 and 1175): "It is consistent with known technical intelligence information on their high yields and accuracy on target, that each SS9 missile could destroy a Minuteman launch control centre and/or silo". And see footnote 36, second paragraph.
One understands how military calculations of guaranteed deliverable weapons, in each case using the maximum degradation factor, may leave a "reliable" number of possibly only one tenth of the theoretically available missiles. The full conversion to MIRV, with its multiplying of utilizable warheads, would consequently appear to be necessary to secure second strike capability confidence.

A further consequence of high degradation factors' estimates is, of course, that by decreasing missile cost-effectiveness expectations, they also lead to an upgrading of bomber cost-effectiveness expectations. Competitive such have been suggested to emerge if the 'deliverable' missile force percentage was judged to be as low as or lower than 30%.

This would lead to pressures for the continuing R & D of advanced bombers which would be considered out-performed and out-dated when faced with more optimistic missile degradation factors' estimates.

Finally, to sum up 1970 Soviet postures and capabilities: 1) The Soviet Union considered that she had achieved strategic parity; she furthermore felt confident that she could secure its continuation and she could effectively demand that

this parity be recognized as the operative base for any potential SALT discussions and agreements. She felt confident that she had secured forces commensurate with any need and that she could maintain this stance. Her strategic targeting options were no longer restricted to counter-city prospects; she could afford the luxury of integrated counter-force, counter-city and counter-administration foci forces—she had secured capabilities permitting an impressive scale of hypothetical strike option choices.

5 B Strategic Defensive Capabilities

Before analyzing the BMD problem complex, a few words must be said about the radars on which it depends. A hostile ICBM can only be detected by land-based radar during one of a few specific periods of its flight, as indicated by the following diagram:

---

This limited range of detection possibilities must be related to the wide range of natural cosmic disturbances, such as meteors, which can induce false radar readings. It hence becomes clear why a number of scientists of the late sixties believed that (for example) decoys would add a hopelessly confusing factor to BMD radar tasks, and make BMD designs utopian in practice.48

A further difficulty could be seen in the possibility of "advance" high altitude atomic explosions, which might have the consequence of completely blacking out ground radar capabilities.

But there followed official belittling of both of these problems, and of the defensive problems posed by decoys and separate warheads. And the embarking on the path of BMD deployment indicated that the belittling was backed up by considerable confidence. One reason for this might relate to progress being achieved towards the development of satellite radars with the capacity to go beyond the detection of the firing and burn-out phases, and to actually track a missile's flight path. A look-down radar of this type would not only be generally advantageous, but would greatly facilitate defense especially against low trajectory and submarine-fired missiles, and against MIRVs (by monitoring their early separation spread and the paths of their re-entry vehicles). But the prospect was one belonging to the 1970s.

48. Richard Garwin and Hans Bethe, "Anti-ballistic Missile Systems", Scientific American, March, 1968. Their questionable quoting of McNamara (p.31) leaves considerable room for misinterpretation (see "Authorization for Military Procurement — Fiscal Year 1970", op.cit., part 2, p.1340). But otherwise, the article is both good and instructive. "Authorization for Military Procurement — Fiscal Year 1970", op.cit., part 1, furthermore contains more optimistic evaluations of radar possibilities, as well as useful graphs of the various relevant radar types (pg.173-181). In this context it should be noted that the use of relay stations necessitated by "Forward Scatter" may be made
The basic radars being utilized in the late '60s could be summarized as follows. There were the "ordinary" EAMWES radars which penetrated the atmosphere but were limited by the horizon line. Then there were the previously referred-to developments of Over-the-Horizon radar. This operates on the same principle as radio, with radar beams "bouncing off" the ionosphere, then to be bounced back off earth relay stations, with the pattern capable of repetition until the waves take on global characteristics. But aside from being affected by atmospheric false echos, meteors and other 'normal' problems, OTH efficiency versus ICBM trajectories is limited by the rockets' short stay beneath the low ionosphere level. The EAMWES hence remained necessary, if only as "back-up" radars. OHR and EAMWES facilities were, finally, supplemented by infra-red censors designed to detect missiles' boost and burn-out phases (the censors were traditionally carried aboard planes flying in complementary formations, but increasingly form part of emerging satellite capabilities).

---

superfluous through the development of "Back Scatter" (what might be termed a "self-relaying" beam).
Once detection had been accomplished by a radar facility, there remained yet other problems. One was, as indicated, that with the associated/definite screening and identification of the detected object. Another related to the subsequent transmitting of data and interpretation to the officer or body entrusted with the responsibility to decide on the response. Then there was the process of sending the decision back through the same channels, of coordinating its implications into the mechanisms of the defence, and of initiating consequential actions. These procedures had of necessity to be taken in sequence. And they had to be completed within the remaining flight-time of the ICBM (under 20 minutes) for ABM utilization to be possible. One does not need to be an expert to perceive the complexity of the problems involved.

Resultant scepticism concerning the potential efficiency of a EMD clearly motivated early US concentration on other means of protecting her retaliatory capacities, and her early spurring of defense in depth concepts. She hence concentrated for example on increasing the PSI (blast overpressure in pounds per square inch), or blast resistance, of silos. \(^{49}\) By 1969 there were reports that silos capable of withstanding 2-3000 PSI could be constructed; this meant that they could survive even close proximity nuclear explosions. \(^{50}\) But Secretary of Defense Laird's 1969 testimony, that the Soviet SS9 had the correlated power/accuracy potential to destroy missiles in silos, nevertheless indicated emerging doubt as to the ultimate

---

49. That the USSR followed the US example and secured (at least some) "hardening" of all their ICBM silos/testified to by Secretary of Defense Laird in "Hearings on Military Posture", Comm. on Armed Services, House of Reps., 1969, part 1, pg. 2467.

50. Dr. Brennan, Hudson Research Institute, op.cit.
efficacy of silo-strengthening (possibly also on grounds of cost). (And the doubt is supported by the presented impact calculation, \( \frac{\text{yield}^{2/3}}{\text{accuracy}^2} \); this formula means that an improvement in accuracy by, say, a factor of 2, has the same effect as a ten fold increase in warhead yield, or as a ten fold improvement in silo blast resistance capacities.\(^51\)

BMD scepticism was, however, deeply rooted. The depth was indicated by US Secretary of Defense McNamara's last official prediction, that in an all-out nuclear exchange in the mid-70s either power would be capable of inflicting about 120 million fatalities on the other, regardless of which country struck first.\(^52\)

BMD sceptics retained confidence in the viability of a second-strike capability (the acknowledged viability of which was recognized as the best deterrent), without a BMD. Their logical premise must have related to the impact blast effects notation on our diagram on stages of detection possibilities; even if individual radar detection fails, then the unmistakable first arrival of a hostile missile would be guaranteed to activate reaction procedures. And there would be sufficient time for reaction in force. Because quite irrelevant of the take-out capacities of more powerful and accurate rockets, attack synchronization problems were alone of a scale to make any concept of ideally co-ordinated first-strikes untenable. The greatly differing geographical locations of launching sites as well as of ultimate targets, and the widely spread

\(^{51}\) See also Strategic Survey 1969, ISS, op.cit., pg.30-33.  
\(^{52}\) US Dept. of Defense Posture statement for 1968 (including fiscal 1969). –– He must have known the formula presented above.
multiple and independent nature of count-down and targeting procedures, ensure that missile arriving times vary considerably. They therefore entail a guarantee of sufficient reaction time for a considerable percentage of land-based forces to be activated. One could hence rely on a sizeable land-based force to survive, and to supplement (the already sufficiently powerful) Polaris and other forces, to provide continued double-ensured second-strike capabilities. BMD deployment therefore appeared to be unnecessary and superfluous.

**Ballistic Missile Defences**

Yet in spite of the outlined reasons for scepticism regarding BMD radar potentials, and in spite of the given reasons for confidence in second-strike capabilities even without a BMD, the USSR nevertheless early demonstrated a contrary conviction, by pursuing BMD development. She evidently considered pro-BMD considerations and rationales as of greater validity. We shall return to these below.

What was considered to be a primitive ABM (the "Griffon") was shown at the 7 November, 1963, Moscow military parade. Shortly thereafter an article in *Krasnaya Zvezda* conveyed the definite impression that a partial and probably experimental BMD deployment had already been implemented. The following year's parade unveiled the improved solid fuel Galosh, the missile presumed to form the core of early BMD...
deployment patterns.

There was visible evidence of some deployment by 1966. What appeared to be the protective domes of a BMD battery's radar complex could then be glimpsed from the Leningrad road north-east of Klin, about 65 miles from Moscow. And what appeared to be elements of a long-range BMD radar warning system, such as the huge aerial arrangements, could be seen from the Minsk road, about 50 miles from Moscow.

Initial American reports specified only Moscow and Leningrad as centres of BMD activity. But it appeared logical to assume that initial deployment patterns extended also to the protection of at least some ICBM sites. Confirmation that deployment patterns did extend beyond Moscow and Leningrad was finally given by implication in a McNamara statement of 1967. It was further supported by a London Institute of Strategic Studies assertion that existing Soviet AEMs were intended for area defense, in particular of the North-Western USSR.

The same source characterized the Galosh missiles as having ranges of "several hundred miles" and being equipped with "nuclear warheads in the 1-2 megaton range". The AEMs were in other words programmed for early and high-altitude interception of incoming missiles. The power of their warheads appeared sufficient to disrupt the homing equipment of

55. When this author visited Moscow.
56. As regards the Moscow BMD complex, President Nixon was in 1969 reported as testifying that it encompassed at least 67 Galosh AEMs "The New York Times", 15 March, 1969.
57. Secretary of Defense McNamara, at a San Francisco press conference 18 September, 1967, revealed that there had been initiated offsetting increases in US ICBMs targeted on AB M defended "cities and areas".
59. Ibid.
hostile missiles at some distance beyond that affected by the immediate blast consequences. 60

There was no evidence that initial deployment encompassed also greater thrust short-range missiles such as the "Sprint". (This was the missile envisaged as the back-up to the longer-range "Spartan" in the limited US BMD authorization of 1969.) And there was, furthermore, no evidence of any significant expansion of the early deployment patterns during the remaining 1960s. 61

Yet this was not logically explained by perceived Soviet misgivings regarding BMD potentials. Dormant BMD deployment expansion designs were more logically explained by economic allocatory decisions subject to, and expected to, change with the late 1960 advent of more favourable cost-exchange ratios (see below). A related secondary rationale for the BMD development hiatus was to be found in the evident priority initially accorded to ICBM procurements and improvements.

Throughout the period Soviet BMD research (as opposed to deployment), continued unabated. It received funds far in excess of equivalent US programmes. 62 One tangible consequence was the unveiling of a more advanced and sophisticated version

60. US News and World Report, 6 February, 1967, pg. 36, produced a report according to which the USSR had succeeded in producing "the so-called X-ray effect in intense proportions"; with the described result being a neutralizing of ICBM guidance equipment and even fissionable material at considerable distances from the ABM detonation. See also Technology Week, 2 January, 1967, pg. 10-12, according to which this effect would not be hindered by present US warhead shielding materials.


62. See "Non-Proliferation Treaty", Hearings of the Foreign Relations Committee, US Senate, 1st Session, 1969, pg. 419, for Secretary of Defense Laird's testimony regarding Soviet BMD R & D and ABM testing. In a nationally televised Washington interview, 9 February, 1969, Laird asserted Soviet BMD research allocations to be four times those of the USA, and expanded by claiming that this represented a seven times greater relative effort when related to differences in GNP. 
of the Galosh ABM in 1968. This missile had the capacity to "float" for a while after its take-off until it had definitely identified its target ("controlled float"); its propulsion would then be re-ignited, and it would be guided towards the target. There was also the parallel deployment of new large and improved Anti-Ballistic Missile radar complexes, presumed to give sophisticated guidance to the afore-mentioned ABMs.

A more basic consequence was revealed when the US in 1969 "acknowledged" that the experience accruing from early Soviet research and development efforts provided the basis for a substantive Soviet BMD technological lead. President Nixon crystallized the situation: "The Soviets have already deployed an ABM system which protects to some degree a wide area centered around Moscow. We will not have a comparable capability for over four years. We believe that the Soviet Union is continuing its ABM development directed either towards improving this initial system or more likely, making substantially better second-generation ABM components."

One should here expand by refuting also the belief that the referred-to development hiatus was based on apprehension that further deployments would precipitate increases in US arms procurements. Although this might have been a secondary factor, the USSR implicitly stressed that she considered any


65. "Diplomatic and Strategic Impact of Multiple Warhead Missiles", Hearings before the Sub-committee on National Security Policy and Scientific Developments of the Committee on Foreign Affairs, House of Representatives, 91st Congress, 1st Session, 1969, pg. 244.
such action-reaction sequence to be unnecessary as she saw no necessary causal connection. The view warrants credence in view of the fact that she never once objected to early US BMD procurement efforts. Prior to the entertaining of President Nixon's "Safeguard" concept for initial US BMD deployment she furthermore never indicated that she might consider any potential US BMD programme as a danger which demanded increases in Soviet strategic offensive forces. Kosygin expressly propounded the belief that a BMD was a stabilizing development, that is was therefore desirable and that it was not something one was interested in banning.

A further indication that the USSR did not consider BMD developments as necessarily affecting the relative strategic balance could be seen in a 1964 statement by Major General Talensky. He argued in favour of BMD deployment since this would "make (the state's) defenses dependent chiefly on its own possibilities, rather than merely on mutual deterrence."

66. President Nixon's News Conference, 14 March, 1969, announcing the Administration's intention to proceed with the deployment of a modified Sentinel BMD system, the "Safeguard" system. See Keesing's contemporary Archives, 1969-70, pg. 23289. Also see Secretary of Defense Laird, 9 February, 1969, interview, op.cit. By this time there was also concern that a very large-scale expansion of BMD capabilities might be imminent through the conversion of anti-aircraft defenses (such as the Tallin line) (by the introduction of advanced BMD radars) — See e.g. Laird's 1971 statement, op.cit.

67. Approved by the US Senate after the defeat (6 August, 1969) of (1) the Senator Margaret Chase Smith amendment; (2) the Cooper-Hart amendment, op.cit.

In conjunction with the above interpreted Soviet attitude, this statement may be seen to support the view that should limited BMD effectiveness be achieved, and should costs prove surmountable, then a decrease in expected casualty rates could, and ought to, be effected through the relevant reallocations of funds. As long as the resulting casualty expectation reductions are not of sufficient order to make consequent expectations any more "acceptable" (say, a reduction from 120 to 80 millions), then BMD programmes might be initiated through the reallocations of otherwise offensive oriented funds; there was no logical reason why BMD endeavors need entail adding to these funds and fuelling the "arms race". See below for a more comprehensive discussion.

It here becomes necessary to present more exact cost and efficiency measurement data. One can only judge such as presented by the USA, but one may probably presume that Soviet data with regard to scientific developments do to a large extent parallel those arrived at by the USA for similar projects.

As to costs, the US Department of Defense presented the following calculations in 1967. Posture A related to limited BMD deployment and Posture B to a more extensive programme.


70. One might here interject a supporting quote from Dr. Brennan, "Hearings on Military Posture", before the Committee on Armed Services, House of Rep., 1969, part 1, pg. 2189; "One major Russian scientist who is closely associated with the Soviet missile programme has said (to Americans) that effective missile defense is on the whole probably realizable". The stress is Dr. Brennan's. See also Sokolovsky, ed., Voennaya Strategia, 3rd ed., pg. 361.
Either programme calculation was based on intended early 1970s deployment schedules. Posture A Posture B

<table>
<thead>
<tr>
<th></th>
<th>US $ Bill</th>
<th>US $ Bill</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Radars (MAR, TACMAR, PAR, MSR)</strong></td>
<td>6.5</td>
<td>12.6</td>
</tr>
<tr>
<td>Investment costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Missiles (Spartan &amp; Sprint, no number given)</strong></td>
<td>2.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Investment costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total DOD (Dept. of Defense)</strong></td>
<td>8.9</td>
<td>17.4</td>
</tr>
<tr>
<td>Investment costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AEC (Atomic Energy Commission, fabricating warheads at est. cost of US$ 5 mill. each. The Postures represent 2000 and 4000 warheads respectively)</strong></td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Investment costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total investment costs (excl. R &amp; D)</strong></td>
<td>9.9</td>
<td>19.4</td>
</tr>
<tr>
<td><strong>Annual operating costs</strong></td>
<td>0.38</td>
<td>0.74</td>
</tr>
<tr>
<td><strong>No. of cities with local defense (i.e. protected)</strong></td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

These estimated costs may be compared to about $50 billion spent on "normal" air defenses since the Second World War, with $1.9 billion projected for 1968. The first figure included accumulated operating and turnover costs and might for fairness of comparison purposes possibly be halved. But even so, the figures indicated that a BMD, if effective, would reduce fatalities to a greater degree and at less costs.

71. UD Dept. of Defense "Posture Paper" for 1967, pg. 49 - see also subsequent Senate Hearings.


73. A view forcefully propounded by Dr. Brennan at the 1968 Oslo Conference.
The US Defense Department release quoted above went on to present the following "cost-exchange" ratios\textsuperscript{74} (This is the relationship between the cost of the offensive system increment needed to offset an increased defensive capability, and the cost of the defensive increase needed to offset specific offensive systems. It had until then greatly favoured the offense. Now, however, this appeared to be changing):

For a BMD restricting US fatalities from the otherwise expected 100 million plus down to 20-30 million, the cost-exchange ratio incurred by a Soviet attempt to offset the fatalities' reduction through offensive increments would look like this:

\begin{center}
\begin{tabular}{c|c}
40 million & 1 : 4 \\
60 million & 1 : 2 \\
90 million & 1 : 1 \\
\end{tabular}
\end{center}

\textsuperscript{74} related to a Soviet second-strike (i.e. US first-strike).

Bluntly - The Soviet offensive increment needed to up US casualty expectations to 40 million would cost only $1/4$ of the US effort. But the Soviet offensive increases necessary to force a return to the previous status quo of 100 million expected US fatalities, would incur greater costs than had the US BMD programme which had decreased the casualty expectations.

The following year the equivalent annual Posture Paper altered the figure of 100 million. It now anticipated 120 million US deaths to result from any early 1970 exchange, even if the USA struck first. It was clear that BMD research had proceeded to the state when a small decrease in casualty expectations could, at least in theory, be effected at less cost than that of the offensive increment necessary to effect

\textsuperscript{74}. US Defense Department "Posture Statement" for 1967, pg. 53.
an equivalent increase in enemy casualty expectations; it was clear that an invariance of the "value for money" effect of defensive versus offensive weaponry now existed in relation to a sizeable decrease/increase in casualty expectations; it was clear that it was only beyond that level that offensive increments became cheaper (the more so the higher the level).

There remained sceptics who not only doubted BMD operational efficiency, but who believed that the cost of any potentially efficient system would increase far beyond projections. This did in fact seem likely, as previous (offensive) weapon systems had invariably proven more costly than anticipated. But no convincing evidence was presented as to why a BMD system's eventual costs should exceed estimates to a greater degree than any other new weapon system's costs. The BMD estimates might be presumed, if anything, to have passed more than usually sceptical scrutiny, since they were presented by a Secretary of State who opposed the system's deployment (on political grounds). It appeared reasonable to presume (as did, for example, Dr. Brennan), that the cost-exchange ratio would in fact become more favourable to the defense. Further technological advances are probably more likely to be achieved in relation to new weapon-systems than in relation to older ones.

75. Garwin and Bethe, in Scientific American, March, 1968. Rathjens, ibid., April, 1969; And see Senator Jackson's Senate speech of 6 August, 1969, op.cit., for a useful list of scientists opposing BMD deployment. Also, see R.L. Rothstein "The ABM, Proliferation, and International Stability", pg. 487-503, Foreign Affairs, April, 1968, and C.M. Herzfeld "BMD and National Security", Annals of the New York Academy of Sciences, New York, 1965. Herzfeld's critique that "any defensive system can really do no more than raise the entrance price which an attacker must pay in order to destroy a target" may of course, in the view of later developments and our analysis, be seen as misconceived and in fact providing a basic rationale for BMD deployment (!).
Two further statistics, appearing in the Defense Department's 1968 Posture statement, deserve reproduction.

They are to some extent based on unverifiable assumptions (e.g., with regard to either's chosen emphasis of attack). But they provide as relatively accurate a graphic representation of BMD potentials as is available.

---

76. Wm. C. Foster testified, e.g., to development and production costs of an ICBM missile increasing from US$ 3.3 million in 1960 to US$ 8.75 million in 1965, in "Prospects for Arms Control", pg. 413-433, Foreign Affairs, April, 1969.

77. D.o.G. Brennan, "The Case for Missile Defense", pg. 433-449, Foreign Affairs, April, 1969, and testimony of same to US Senate, see "Authorization for Military Procurement for Fiscal Year 1970", op.cit., part 2, pg. 1358-1350. (Testimony by, e.g., Rathjens, is to be found just before that of Dr. Brennan; testimony by other leading scientists are to be found in the same volume).


### SOVIET FIRST-STRIKE

**US Retaliation at USSR Cities**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Some) ABMs</td>
<td>None</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Sentinel</td>
<td>None</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>(Limited BMD System)</td>
<td>PENAIDS</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>Posture A</td>
<td>None</td>
<td>40</td>
<td>120</td>
</tr>
<tr>
<td>(More Extensive BMD)</td>
<td>MIRV &amp; PENAIDS</td>
<td>110</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>+ 100 ICBMs</td>
<td>110</td>
<td>120</td>
</tr>
<tr>
<td>Posture B</td>
<td>None</td>
<td>20</td>
<td>120</td>
</tr>
<tr>
<td>(Even more Extensive BMD)</td>
<td>MIRV &amp; PENAIDS</td>
<td>70</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>+ 550 ICBMs</td>
<td>100</td>
<td>120</td>
</tr>
</tbody>
</table>

### US FIRST-STRIKE

**USSR Retaliation at US Cities**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Some) ABMs</td>
<td>None</td>
<td>120</td>
<td>80</td>
</tr>
<tr>
<td>Sentinel</td>
<td>None</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>(Limited BMD System)</td>
<td>PENAIDS</td>
<td>110</td>
<td>80</td>
</tr>
<tr>
<td>Posture A</td>
<td>None</td>
<td>10</td>
<td>80</td>
</tr>
<tr>
<td>(More Extensive BMD)</td>
<td>MIRV &amp; PENAIDS</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>+ 100 ICBMs</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>Posture B</td>
<td>None</td>
<td>10</td>
<td>80</td>
</tr>
<tr>
<td>(Even more Extensive BMD)</td>
<td>MIRV &amp; PENAIDS</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>+ 550 ICBMs</td>
<td>90</td>
<td>80</td>
</tr>
</tbody>
</table>

The US first-strike was postulated as aimed at strategic targets, while the USSR first-strike was presumed aimed at both strategic and city targets. It must, of course, be noted that the actual strategic balance at the time would more properly have been represented by an inverting of the first two columns (so as to evaluate US attempts to offset Soviet BMD programmes through increased offensive forces).

The graph reflected Secretary of Defense McNamara's concern to show that a USSR BMD programme could be offset through offensive dispositions, and that it would therefore not necessarily warrant the building of a US BMD system. But the graph's
most unequivocal evidence led elsewhere. It confirmed that a BMD could significantly reduce casualties.

The second graph related to US fatality rates expected from potential Chinese attacks during 1975-1980.\textsuperscript{81} The limited number of missiles conceived of as available to the Chinese by the mid-1970s was presented as a factor of \( x \). \( x \) was not specified but could be presumed to represent 10.\textsuperscript{82}

<table>
<thead>
<tr>
<th>Expected US Fatalities (in millions)</th>
<th>No. of Chinese Missiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without Sentinel (limited BMD)</td>
<td>( x ) 2.5x 7.5x</td>
</tr>
<tr>
<td>With Sentinel</td>
<td>1 ( x ) 1 ( x ) 1-2 (1)</td>
</tr>
</tbody>
</table>

\( x \) less than one, and possibly none.

Against any possible 1970s Chinese attack prognostications presented by (as yet) anti BMD officials hence affirmed that fatalities could be kept to a 'negligible' total with the introduction of even a limited BMD.

Before turning to our Strategic Debate analysis, a few words must be said regarding super-power civil defense (shelter) programmes, - the more so since they could be seen, and most often were seen, as necessary adjuncts to any effective BMD. At the same Senate hearings which examined the Johnson administration's conception of initial BMD deployment (the Sentinel system), General Wheeler of the Joint Chiefs of Staff declared the following: (Relating to potentials) "A full fall-out shelter programme should be able to preserve the lives of some 22 per cent of the population. We are talking in terms of 40 million fatalities in the time frame of 1970." \textsuperscript{83} (With relation to a BMD) "--- (if we did not have civil defense programmes) the Soviets could defeat our anti-ballistic missile defenses by the tactic of shooting away from the (defended) target rather than shooting at it." \textsuperscript{84} - That is,
they could rely on the fall-out drifting on to the target." There was, however, no corresponding budgetary allotment of consequence.

In the USSR the same belief was expressed, that active civil defense and shelter programmes could limit the effects of a nuclear (and/or chemical/bacteriological) exchange, and thus contribute to national survival. By 1970 she had implemented comparatively extensive programs. But they were not of the scale envisaged by Wheeler, and did therefore not entail the strategic consequence he had referred to. Because of this they will be dealt with rather in our analysis of military civilian integration (Chapter 8).

81. Ibid.
82. As it was presumed by Dr. Brennan at the 1968 Oslo Conference, op. cit.
84. Ibid., pg. 257 (this author's explanatory insertion).
The Strategic Debate

It appears proper to begin by reiterating our earlier conclusion, that the USSR had by the late 1960s achieved a dynamic equilibrium with the USA as regards strategic capabilities. There remained American individuals (especially military) who insisted on achieved present and necessary future US superiority. The novelty emerged rather with the appearance of Soviet authorities or individuals who insisted on the obverse, i.e., Soviet superiority (see Chapters 8 and 9). While superficially contradictory, such verbal and in part psychologically inspired claims might perhaps be judged a natural outgrowth of a situation wherein both powers were assured of confidence in their ability to destroy the other.

The major debate here referred to accepted the basics of the above, and concerned itself instead with the possible dangers inherent in the dynamism of the equilibrium.

On the one hand, there were the firm proponents of BMD deployment, such as Dr. Brennan. They drew from the revealed data the conclusion that the new cost-exchange ratios invalidated all previously elaborated rationales for the continued pre-eminence of offensive forces. They claimed that the powers' relative positions could now be maintained through vigorous defence programs. And they went on to see the traditional offensive-oriented "assured destructability" concept as having become "assured vulnerability". Stressing the emerging "invariance" in offensive/defensive procurement
costs, they concluded that "one dead Russian equals one live American". They demanded that US policy give precedence to the latter, and re-orient her strategic thinking accordingly. As concerned arms limitation talks, they based themselves on the new cost-exchange ratios, and demanded that the desired effects be brought about through reductions in offensive, rather than limitations in defensive, armaments. They saw a clinching argument in the "fact" that a major war was less likely to be initiated if both sides possessed a "heavy defence"; this argument related to the view that escalatory war was more likely than immediate all-out war.

The presence of a BMD was seen to limit the potentials for accidental war, as it promised to provide protection from limited attacks. Yet another desirable consequence was seen in the fact that it would eliminate "counter-city" blackmail possibilities of limited missile exchanges, by providing that any successful strike would have to be part of a major effort. By increasing the "threshold", one guaranteed that the initiation of hostilities entailed greater necessary consequences; this was considered in practice to mean a more secure deterrent.86

Then there were the equally convinced BMD opponents (see footnote 75). They tended, as indicated, to raise doubts regarding both BMD cost and efficiency. Yet this seemed to be a secondary consideration. They did not so

86. Dr. Brennan, op.cit.
much refute the above reasoning, as question one of its implicit premises. That is, they doubted whether a potential BMD deployment would or could be effected as but a different way of ensuring the same relative security. This was because they related impressions from the US efforts to counteract initial Soviet BMD endeavors through offensive increments, with the belief that decision-making authorities had followed, and would continue to follow, the advice of "hawkish" military advisors. They saw no reason to hope that BMD deployment could be initiated on the bases of a diversion of offensive funds. To the contrary, they were convinced that such deployment would necessarily be accompanied not only by "normal" offensive increments, but by offensive increases based on the desire to counteract enemy BMDs. In other words, they thought that the basis, of securing a status quo as concerned relative security, would drown in a psychologically misguided but inevitable arms race of ever-increasing proportions.\(^\text{87}\)

Rather than view BMD as qualitatively different, they viewed it as what might be called a negative offensive increment. It was, therefore, seen to represent yet another cycle in the action-reaction syndrome of offensive increases, a syndrome encouraged by lead-time (research and development) considerations. In other words, there was concern that either side not only augmented its forces in reaction to

\(^{87}\) See especially Rathjen's article in 'Scientific American', April, 1969, op.cit.
actual increases by the other, but had augmented, and possibly must augment them, in reaction to anticipated increases by the other (on the principle of preparing for the worst...) Original Soviet BMD development was seen as possibly in part a reaction to the early 60s (and later shelved or postponed) American designs for new supersonic bombers. The prime reason was no doubt rather part of the Soviet resolve to gain strategic parity with the USA. But one cannot dismiss the possibility that conceived American designs might have influenced the decision and/or the urgency. – Further action-reactions were seen as US MIRV development in response to Soviet BMD efforts, massive Soviet ICBM build-up and Soviet MIRV endeavors in response to the US MIRV program, and, finally, US BMD in response to Soviet offensive advances.88

The main fear was that the advent of overkill and possibly multiple over-kill capacities might not be accepted as guaranteeing the survival of second-strike capacities. They feared that it might rather be seen to make possible a "first strike" - a strike so massive as to rule out any major retaliation, or at least sufficient to limit survived second strike capacities to a tolerable or manageable threat for a nation possessing a BMD. While a BMD might by one side be considered an essential effort to limit fatality expectations, the other side was expected to react by introducing MIRVs to maintain the credibility of its destructive capacity,

88. See 'Ibid.' for a good exposition of this belief.
its deterrence; finally, a nation having acquired a population-defending BMD might, with the acquisition of MIRV, feel that it could survive the retaliatory forces retained by the other after a MIRV attack. The inherent temptation to attack would be reinforced by apprehension if the other side also possessed both weapons systems, - to the extent that a pre-emptive strike might be considered necessary in a situation of mistrust in the other's intentions. 89

One might further highlight the fears by postulating, as did William C. Foster, a full mutual conversion to MIRV, with each booster containing a mean of 5 re-entry vehicles. 90 Hypothetically this would mean that one booster rocket would suffice to destroy 5 enemy silos, each containing 5 warheads, - i.e., a total of 25 warheads. The "temptation" aspect emerges as self-evident (at least as long as the invulnerable Polaris/Poseidon type forces are conveniently forgotten).

The psychological insecurity objection here outlined formed the basis for most BMD opponents' views. A number of other points were also raised, but most of these could, as indicated, be refuted with greater ease. (As concerned, for example, the objection that current BMD designs would become outdated: certainly, but so would current offensive system designs, and no cogent reasoning was presented as to why this should be significantly more so with regard to the BMD. As concerned the objection that while cost-exchange and efficiency prognostications might point to one conclusion,

89. See, e.g., Dr. J.S. Foster's Congressional testimony, 5th August, 1969, op.cit.
90. Wm. C. Foster, 'Foreign Affairs', April, 1969, op.cit.
one could not rely on this proving correct without inconceivable operational testing: this appeared equally applicable, to offensive systems' penetration capabilities versus a BMD ... Any analysis of the pros and cons had to allow the potential validity of BMD opponents' fear of a psychologically-induced vicious circle of arms (and cost) escalation. But by 1969/70 certain facts, and counter-"uncertainly factors", had to be considered. We shall treat the latter first.

Following France's successful building of missile firing nuclear submarines, there emerged evidence that the stage had been reached when the relevant technology had become widely available. In other words: a number of technically nations could by the late 1960s effect the production of a Polaris-type submarine, provided only that they were willing to invest the necessary funds.

As Dr. Herman Kahn strongly suggested, this meant that the super-powers would relinquish their privileged position, if they did not implement a BMD, - the technology of which would remain their preserve for the foreseeable future. Their positions would be relinquished, since any nation possessing even one primitive "Polaris" with ten nuclear warheads, would be assured the capability to destroy the ten most populous cities of a superpower.


92. Dr. Herman Kahn, Director of the Hudson Research Institute, at a 9th May, 1969 seminar arranged by the Norwegian N.U.P.L., and attended by this author, presented this as the definite conclusion of his Institute's specialists.

93. Ibid.
Any second-rate power thus capable of inflicting unacceptable destruction could bluff, act, and blackmail as if it was a super-power. Any fear as to the potential irrationality of the USA or the USSR would of necessity be multiplied by any such situation.

This uncertainty, and the fears induced thereby, can be seen as reflected in the apparent fact that the USSR had at some time prior to 1969 deployed ABMs in such patterns as to also protect against potential Chinese attacks. (See above for US Defence Dept.'s efficiency predictions regarding a US "anti-Chinese" BMD.) This was revealed in the reported testimony by President Nixon: 94 "Today their (Soviet BMD) radars are also directed towards Communist China". (Although it must be noted that his evidence may well have related merely to additional east-directed BMD radar facilities around Moscow, or it may have teetered on logical inference only, - logic overcoming evidence ...?)

There was another dimension to the uncertainty, that of a genuine accident. The position by the late 1960s was such that some leading scientists considered it very much an accident that an accident had not occurred: 95 ("Dr. Strangelove"). That many of these scientists enjoyed access to classified material lent credibility to their assertion. The fact that they considered the danger of accidents to be less acute by 1969, with the introduction of more sophisticated multiple-


control measures and equipment, did not mean that the possibility either was or could be eliminated.\textsuperscript{96}

One might therefore with some confidence declare that the uncertainty complex associated with a no-BMD situation, was more acute and dangerous, than the uncertainty problems focussed on by BMD opponents. Our analysis of attack synchronization problems indicated that even the conceivable massive attacks of a post-MIRV era would be most unlikely to destroy an opponent's second-strike capability before it could be activated. First strike take-out success could not logically be expected by either super-power's strategic experts, - even without considering degradation factors and other conceivable difficulties surrounding any initiation of attack. The temptation factor therefore decreases, and would probably in reality be negligible.

This did not mean that "arms race - temptation" uncertainty should or could be completely discounted. Only that, on the theoretical side, a different, and quite possibly more ominous, uncertainty, made some BMD deployment appear essential. And, on the practical side, there was the fact by the late 1960s of the existing Soviet BMD deployment, and of the authorization of some US deployment by the US Congress. The USSR seemed already to have made the decision that she must protect herself against second-rank power capabilities and against accidents. The USA seemed at the very least to have indicated that she leaned towards the same conclusion.

\textsuperscript{96} Ibid.
But, if the decision to effect a limited BMD deployment was thus taken, and probably irreversibly, on grounds of overall security considerations, a number of worrying factors yet remained. One related to the referred-to spiralling military costs, a spiralling frighteningly encouraged by military authorities' tendency to over-react in their desire to counter enemy programmes conceived of as threats to their deterrence capabilities. And to anyone sceptical of a nation's strategic analysts being proficient enough to perceive the im possibility of a successful pre-emptive attack, even if this im possibility was dictated by both logic and technology, to him there remained indeed a dangerous "temptation" factor inherent in any "arms race".

There were therefore reasons for hoping that BMD deployments would be effected to the extent necessary to eliminate no-defence uncertainties, - but that they would not be effected to the extent where they might mistakenly be conceived of as endangering the other super-power's ultimate deterrent. There was a consequent need for an agreement to this effect, an agreement of sufficient mutual credibility to allow for limitations on offensive arms increases and, potentially, to limitations on existing stocks.  

[97] In other words: there was need for an agreement to accept the existing relative

---

[97] An early appreciation of this on the part of some US Govt. quarters is found in the US Draft Treaty of 29th April, 1965, to the Geneva "disarmament negotiations". It suggested a reduction in offensive strategic forces by cutting a substantial percentage from the forces of either side in each of two stages. The reductions would be effected so as to preserve the relative balance. The proposal came to nought (as was probably expected) and was not followed up. Yet the indicated thought process, hopefully, gestated ... - see 'Authorization for Military Procurement ... Fiscal Year 1970', Op.cit., p. 1345.
strategic balance, if possible with a lowered level of 
"guaranteed" casualty-inflicting capacities.

The necessity to accept some approximate of the existing relative balance situation was stressed by Kosygin in a meeting with US Senators Gore and Fell on November 19th, 1968. He presented three prerequisites to any proposed arms limitation talks: (1) peaceful co-existence; (2) detente; (3) avoidance by either power of attempts to acquire positions of greater ("superior") relative strength.

The third point referred to President Nixon's ambiguous election campaign pledges that he would only negotiate with the USSR from a position of strength. Soviet advocacies of the necessity for USSR superiority (see also Chapter 8A), represented a clear warning not only that the Soviet Union could also play the escalating arms race game, but that Soviet military pressures for such would not be resisted without a curtailing of the parallel US tendencies. The era of US strategic superiority had to be recognized as at an end, and as "non-resurrectable".

Hence the SALT (Strategic Arms Limitation Talks) initiated in Helsinki in November, 1969, engendered considerable expectations. At least their very opening indicated wide-spread appreciation of the NEED for agreement(s) ... .

---

Overkill. Two factors must be delineated: one, the overkill capacity necessary to ensure kill capability in the minds of defence planners maximizing all factors potentially detracting from such a capability; and two, the popularized ludicrousness of 'killing the enemy x times over'. The latter is preposterous. The former is not, although it can often be seen to be in danger of becoming the latter...

Degradation factors (re. missile effectiveness prognostications) indicate that the 1970 missile numbers might, even when correlated with contemporary conversions to MIRV capabilities, yet conform merely to the requirements of the first type of overkill. One can envisage credible degradation percentages of such a scale as to make the consequent warhead number necessary within the logic of cautious defence planners. But when or if this number is further multiplied, as implied in US prognostications of 2500 Soviet ICBMs by 1974-75,\(^{99}\) then the logic becomes more questionable.

Even the resultant equation MIGHT be seen to effect only the first type of overkill if degradation factors are maximized even more, for example through the powers' development of more extensive and sophisticated BMDs than currently envisaged. But in this author's judgement the powers will at that juncture have engaged in procurements relating to the second overkill category. Present semi-balanced large-scale

---

offensive forces complemented by a limited BMD are considered to be reasonable and/or necessary. But multiplications of offensive capacities justified by "hostile" BMD system expansions can only lead to a higher level of mutually offsetting offensive-defensive increments, leading to the same basic balance being retained.

There can be little doubt regarding either power's capacity to effect the increases in its own forces necessary to offset increments in those of the other. The logic herein drives towards a recognition of the present balance, a recognition which might permit the balance to be retained at a "lower" level (through BMD expansions accompanied by offensive contractions).

It has to be in thus "lowering", without altering, the inter-super power balance, while simultaneously assuring the Super powers' security and relative positions vis-a-vis lesser powers, that one might envisage ultimate SALT success. The argument and process is contingent upon a recognition of our premise — that attack degradation and synchronization problems, juxtaposed with defence dispersal and "second-strike" qualities, guarantee against the possibility of either achieving a "credible first-strike" force through any conceivable force augmentations of the foreseeable future. But the premise is supported by the technological facts.

Over-reacting dilemma. A few additional comments ought to be made concerning this related quandary, some aspects of which have been dealt with previously. On the one hand there
are the mentioned inducements to an arms race psychosis which are inherent in long lead times. Research and development time demands are such that present achievements may be said to have been determined by debates of 5 years or so ago; the present debates determine the postures and capabilities some 5 years hence. It is in this context that the above conclusions take on crucial significance.

The same is true with regard to the other aspect (although it is made all the more difficult by it): this is the psychological inheritance of the past Soviet obsession with the need to achieve balance and offsetting capabilities. The obsession with the need to eliminate the weaknesses of vulnerability might cloud the realization that the task has basically been achieved. There is a danger of being so intent on reaching parity, as to pass it, and threaten an obverse imbalance — with all its arms race connotations. Or to put it differently: there is a danger of over-consciousness of the strategic quagmire of the vulnerable, to the exclusion of strategic considerations affecting the non-vulnerable, with the result that when the latter position is attained, it may not be accompanied by the appropriate thought and plan level. There were, however, indications of appropriate political leadership appreciation, — as seen in the SALT negotiations. And this was of greater import than cruder military endorsements of the need to pursue no longer realizable, but destabilizing, superiority designs. (See also Chapter 8.)
CHAPTER 6

The Development of the Navy and the Emergence of
Soviet Interventionary-Type Forces; The Soviet Navy's
Acquiring of Global Capabilities and Perspectives

By 1970 the Soviet Navy had assumed a strategic role
of considerable significance; she had acquired vessels with
such qualitative combat orientations as did to a considerable
extent mitigate residual quantitative inferiority; and she
had developed interventionary-type forces of notable
importance. She had achieved world-wide mobility and a
flexibility of operation and response which covered the
gamut from strategic warfare to interventionary activity
in areas not adjacent to the USSR.

Russian desires for such capabilities had been long­
standing. One may for example point to the fact that she
kept a naval squadron in the Mediterranean throughout most
of the period from 1769 to 1830. But at no time had she
previously had the capacity to sustain more than a very
limited presence in foreign waters.¹

Even the sizeable second world war fleet had to restrict
its operations to territorial waters, where it could rely
on land-based air-cover, and concentrate on defence against
potential hostile landings.²

1. This appears a fair assertion in spite e.g. of her
important assistance to the Royal Navy (then paralized by
mutiny) before the battle of Camperdown in 1797, in spite
of her nuisance value during the 19th century (especially
in the Mediterranean), and in spite of her (Baltic Fleet)
round the world odyssey to disaster at Tsushima,
27 March, 1905.

2. Sokolovsky, V.D., Marshal, "Voennaya Strategia", 3rd
Mc. Guire in Brassey's Annual, 1969, for a good exposition
on the limited character of the Soviet Navy's tactical
mobility at the time, and on its reliance on short-range
shore-based air support.
The Cold War saw a considerable build-up of the submarine fleet, but little else. The maximum expectations that might be ascribed were analogous to those relating to the German Navy during the war: to foil but not to replace hostile control of the seas. In fact even such circumscribed expectations appeared not to be seriously entertained, since the submarine production centered on smaller types with restricted action radii. Operational emphasis apparently remained limited to defensive anti-invasion conceptions and tasks, with enemy control disruption endeavors providing merely a secondary consideration.

Yet Soviet recognition of the theoretical NEED for more extensive capabilities was evident as early as the time of the Spanish Civil War.\(^3\)

And the viability of this recognition is evinced in Stalin's reported remark concerning the post-war Civil War in Greece. Despairing of breaking Allied communication lines, due to their being protected by the world's "most powerful" nation, he concluded that "--- we have no navy. The uprising in Greece must be stopped, and as quickly as possible."\(^4\)

---


One might interject that Stalin did even before the War apparently consider it theoretically necessary ultimately to build aircraft carriers, heavy surface ships, destroyers, U-boats, supply ships, etc., so as to challenge the traditional seapowers. But as with Admiral Raeder's famous Z plan of 1936, the means for immediate or early realisation were not available ---.
One may postulate two reasons why the recognition of the advantages of greater naval capacities did not result in relevant procurement programs; - why the naval expansion that did occur was neither in quantity nor quality such as entailed the potentials indicated as desirable or necessary by Stalin/Kouznetsovs:

a) Insufficient priority in the face of such acute budgetary stress as was publically intimated by Malenkov.\(^5\)

b) During the late 1950s - early 1960s there was the further impediment of over-optimistic initial missile procurement and capabilities prognoses.\(^6\)

But the situation was to change drastically in the 1960s. The early 1962 upgrading of the Navy\(^7\) coincided with emerging awareness of missile unreliability (high 'degradation factors' minimizing effectivity expectations) and vulnerability ('1st strike characteristics'), an awareness which was encouraged or forced by the Kennedy-administration's procurement policies. - See Chapters 3 and 5. The consequent efforts to provide the missile forces with second-strike qualities, through silo-hardening, increased launch mobility and/or dispersal, and more sophisticated missile control and dispatch procedures,\(^8\) may be seen to incorporate and thus cause

---

See also Chapter 3: The Khrushchev Legacy; Deterrence vs. General Purpose Forces.
the naval build-up. Far from having become superfluous in the modern age, the Navy was now recognized as an important ingredient of a balanced and secure strategic posture.

Once the basic decision had been taken, however, it was evidently extended to encourage the development also of non-strategic naval capabilities. (See below). And the changes and procurement developments were soon reflected in strategic promulgations of note.

The New Navy was no longer to be a mere adjunct to other service branches. A high stress was placed on inter-service co-ordination and support, but the Navy was clearly to be capable also of independent operations. She was assigned definite strategic defensive and offensive tasks, but was further to be capable of interventionary-type action against enemy bases and presumably, by extension, other targets. And it is significant that such action, whether of a strategic or a non-strategic nature, was to be accomplished by personnel trained to operate under and to utilize nuclear conditions and technology. It was clearly accepted that modern de facto equipment requirements made a mockery of traditional nuclear/conventional distinctions; troops and officers were trained to utilize the implications of such sophisticated nuclear technology as was making possible 'clean' take-out strikes rapidly followed by physical occupation.

9. Giese, Fritz, Lt.Cmrd., in 'Wehrkunde' (FRG), October 1959, reprinted as 'Behind the Scenes of the Red Admiralty', Military Review, Fort Leavenworth, May 1960, quotes Sokolovsky's comment (to Gorshkov) that the Navy was "totally obsolete" for modern warfare. But these were the halcyon days of undaunted projections of the implications of missile procurements.

12. Ibid. pg. 242-245, 246, 344 and 366.
Finally, there emerged a complementary awareness of the potential peace-time psychological advantages accruing from the mere existence of evident naval capacity. These development trends will be traced in more detail below. But it appears propitious first to turn to the other aspects of the trilogy of Soviet maritime assertions: 

a) A navy with a striking power surpassed only by that of the USA.

b) A merchant marine among the world's largest and most modern, and the largest and most modern fishing fleet in the world.

c) A unique program of oceanographic research.

The Merchant Marine: The emergence of a sizeable, modern and specialized merchant navy is treated also in Chapter 8, under 'Strategic Utilization of Economic Factors'. Yet one must here note its dynamic development from representing 2% of world tonnage in 1960 to 6.5% in 1967 (about 12 million tons d.w.), with an achieved and projected tonnage increase


rate of about 1 million tons d.w. per year.\textsuperscript{16}

The fact that a significant proportion of the Soviet grain purchases from Canada (and, to a lesser extent, Australia) of 1963 and thereafter had to be transported in foreign vessels\textsuperscript{17}, highlighted early Soviet tonnage limitations, facie There was thus clearly a prima\text/end{case} for such merchant marine expansion as would facilitate minimal self-sufficiency in Soviet export-import transport capability.

But having identified this basic strategic consideration one must proceed to reflect further on some of the related desiderata.

There are the purely political implications of an awareness in foreign ports of modern Soviet ships frequenting the harbours. The implications are abstract and any defining of their scope must be contentious. But one should not underestimate the impact of the emerging 'normalcy' of previously unknown routines. This will be returned to below.

Then there are the more concrete advantages which accrue from not having to submit cargo to foreign scrutiny, whether such might be deemed undesirable for strategic, moral or other reasons. The military relevance was demonstrated during the 1962 Cuban crisis when merchant vessels, evidently constructed to accommodate military needs, were utilized for


\textsuperscript{17} This author was himself temporarily employed on board such a vessel in 1965 (a Norwegian vessel working out of Vancouver).
the transport of missiles. And one may perhaps presume a continuing utilization of this military capacity, with relation e.g. to arms exports.

This ability to carry military hardware did of course also entail ability to accommodate military personnel. The Naval transport capacities later developed provided more potent means, but did not obviate the advantages of supplementary merchant marine facilities. These remain an important adjunct to Soviet strategic capabilities.

The Fishing Fleet: Captain Raoust succinctly delineated the relevant factors of contemporary and abiding significance. After describing the Soviet merchant fleet as "the most modern in the world" and as operating on "all seas", he continues: "In a normal period 400-500 fishing vessels are concentrated in the North Atlantic. They may repair to Havana where a base has been specially constructed with the aid of Soviet capital and technicians --- as with the merchant fleet --- (it) is utilized equally for military-political ends such as --- control of occidental maritime activities ---. But above all --- sonars utilized for the detection of fish may also no doubt be utilized to detect larger objects. It is not implausible to infer that Moscow knows the deployment of American Polaris submarines nearly as accurately as Washington." 19


A NATO source goes further: "The Soviet 'fish-factory' ships and trawlers now range over the world's oceans, and it is significant that a large proportion of them are outfitted for intelligence gathering. They carry comprehensive monitoring equipment and highly sophisticated electronic gear. Their speed is often in excess of that usually associated with such craft. It is not unusual for such a trawler to attach itself to NATO formations during exercises as an extremely persistent observer." 20

A determining of the extent and utility of data thus derived by the USSR necessarily rests on educated guesswork. But that it is substantial may be inferred from Fleet Admiral Kasatonov's assertion that: "an important role in the securing of bases and combat operations is executed by aid vessels of various types" (i.e. electronically-equipped merchant and fishing vessels). 21

The Oceanographic Research Programme: The same Revue de Defence Nationale source 22 stated categorically that by 1968: "the number of (Soviet) research vessels (of various types) is greater than the combined number of ships performing analogous missions for all the other nations of the world". Accepting this correlation as accurate, the import is clearly relevant to an investigation of Naval capabilities.


22. Raoust, op.cit.
Most scientific data, such as relating to ocean floor contours and ridges, ocean currents, ocean salination and temperature levels, and ocean marine life, may be utilized by Naval authorities engaged in sub-surface activities. Furthermore, as with the fishing fleet, one might expect the presence on board of electronic and other equipment intended for the discovery, tracking and supervision of hostile vessels. Such vessels might be photographed, their electronic equipment (radio, sonar, radar et all) tapped, and their activities audited.23

It was presumably knowledge of this activity which prompted Admiral Rickover to suggest that the USSR would by the mid 1970s possess the knowledge and techniques necessary to destroy the U.S. Polaris fleet.24

This appears to be an exaggerated evaluation of an emerging situation of US loss of non-vulnerability. A glance for example at the National Geographic Magazine's charts over the Indian Ocean (1967), the Pacific Ocean (1968), and the Atlantic Ocean (1969) floors would indicate that a proportion of a nuclear submarine fleet ought to succeed in finding a safe haven among the myriad ridges (North-South in the first, East-West in the latter oceans).

But the programme's aid to Soviet anti-U-boat tracking and killing capabilities and its general contribution to such knowledge as required by the expanding surface fleets, must nevertheless be of a considerable scale.

The Navy: The qualitative and quantitative innovations which signified the end of the deliberate or forced defensive strategy previously/operation were plainly evident by 1965-66. The Navy Day propaganda of July 1966 stressed the Soviet Union's new stature as "A Great Naval Power", and announced the end of the "complete domination of the seas by the traditional naval powers". The assertion was hasty with regard to contemporary force balances, but significant as a statement of intent. And it further reflected the results of the substantial infusion of funds into Naval developments and the priority rating of such, both of which may in view of development-time demands be dated back to early 1962.

This dating of the initiating efforts is furthermore suggested by a consideration of the basic requisita that had to be provided even before any particular procurement design could be envisaged. General ship-building, dock, and dry-dock facilities had to be expanded and modernized, and the communication networks within, to and from ports had to be improved.25

Yet even the amphibious forces development had by 1963 reached the stage when suitable landing vessels (of the Alligator and Polosny classes26) were being produced, and marine infantry formations had been established.27

26. The Alligator - about 5000 tons d.w.
   The Polosny - about 900 tons d.w.
By 1965 the developments were referred to extensively in the Soviet press. One now possessed "high speed landing-craft (carrying) ground units and marines with all their light and heavy equipment, including missiles".  

By 1967 there were the first public demonstrations of mock amphibious manoeuvres and operations (with Polosny craft each carrying two amphibious tanks and four amphibious armoured personnel carriers). And there were the first public parades of specialist naval infantry ('marine') forces.

The trend was thereafter evinced by more and more frequent and detailed articles dealing with amphibious operations, training and techniques.

As concerns the regular surface, and the strategic fleet, qualitative innovations will be returned to below. But their implication (if not their scope) was forced on world awareness by the 1967 sinking of the Israeli ship

---

29. On 1967 Navy Day near Leningrad, — witnessed by a colleague of this author.
31. E.g.: Krasnaya Zvezda, 24th June 1969, pictured landing craft nudging ashore, emitting amphibious tanks; Krasnaya Zvezda, 3rd August, 1969, carried pictures/stories of amphibious operations; Krasnaya Zvezda, 2nd November, 1969, did same (Amphib. tanks and personnel carriers were on or reaching a beach with marines storming on; the mother ships lay 100 yds to a mile off shore); As did also Tass, 29th April, 1970 (Extensive report on Rubachi landing exercises, — as one aspect of the worldwide Okean exercise).
Eilat by a missile from an Egyptian-manned Komar class Patrol boat, --- so much so that it immediately sparked off NATO efforts to develop similar weaponry for member navies.\textsuperscript{32} "The seriousness of the Styx missile problem is evident in that no surface-to-surface missile system with an adequate range is in general service with the US Navy or the navies of Allied countries --- Naval forces must drastically alter operating procedures".\textsuperscript{33} But quantitative developments must here be referred to.

Mediterranean trends were among the most easily ascertainable, and were illustrative. Thus according to one authoritative source:\textsuperscript{34} "Between 1963 and 1966 Soviet Mediterranean forces increased tenfold". Soviet submarine operating days in the Mediterranean were asserted to have increased 2000\% during the same period. One 1969 survey ascertained that "the number of Soviet vessels in the Mediterranean varies between 25 and 60 and has included vessels which can land tanks and a helicopter cruiser";\textsuperscript{35} another evidenced the

\footnotesize{\textsuperscript{32} The Penguin, developed in Norway (with which this author became acquainted while working for Norway's Defence Research Establishment), and the Exocet, developed in France (see e.g. Le Monde, 31st May, 1969, and 31st July, 1969, for comment), are sea-to-sea missiles thus being developed.
- And see US Fiscal Year 1969 Navy Budget Posture St., pg. 1 and 7, for description of the Sea Sparrow tentative anti-ship-to-ship missile.
- See also Revue de la Defence Nationale, Paris, Jan. 1968, for further comments.


\textsuperscript{34} U.S. Ambassador Harland Cleveland in NATO Letter, Nov., 1967, Brussels.

fact that the over-all Soviet naval expansion had already made her navy "larger than all the Navies of Western Europe put together". 36

The Soviet Navy's combat potential clearly remained severely restricted when compared to U.S. Naval capacities. But it had equally clearly already acquired a status which enabled it to entertain a far wider policy option spectrum than ever before. This may be illustrated by the following survey.

Four credible potential action-initiating scenarios relevant to a Navy such as the late 1960s Soviet Navy may be schematically delineated:

1. - Is the type represented by the limited 1961 British landing in Kuwait; - a landing in support of a friendly regime feared threatened by foreign intervention (in this case from Iraq).

2. - May be exemplified by the 1958 U.S. venture in Lebanon; - a landing to stabilize a perceived friendly regime at times of internal political disintegration, the consequences of which are feared. Analogous operations might of course be initiated to encourage or stabilize the fortunes of a friendly power faction engaged in utilizing the political disintegration (Thus for example Soviet Ships in Latakia at the time of a hypothetical Syrian C.P. coup attempt could be decisive. Quite apart from limited interventionary support potentials, the mere providing of an escape route could be

XIV

sufficient, in that it would encourage coup leaders to 'hang on' through the crucial hours/days following a seizure —.) 37

3. May be seen as 'gun-boat diplomacy', a modern example of which was provided by the DRK's seizure of the Pueblo in 1968. 38

4. The last scenario complex is that encompassing symbolic actions designed to lend conviction to national policy; manoeuvres, deployments and redeployments are tools at hand.

These may be contrasted with three action-deferring scenario complexes for which the resources of such a Navy suffice: 39

1. Is represented by the 10th July, 1967, arrival of 8 Soviet warships to Alexandria and Port Said (in conjunction with the Arab-Israeli War), and their possible role in deterring any design for crossing the Suez canal that Israel may have envisaged. (The Soviet Admiral in charge announced that his command might join the Egyptian armed forces in the face of aggression across the canal.) Or one may point to the analogous Soviet Naval presence in Alexandria at the time of the sinking of the Eilat, as having been instrumental in deterring Israeli reprisal schemes ——?

2. Might be illustrated by referring to the spring 1969 unrest in Lebanon, a situation resembling that of 1958: in 1958 the USSR had protested vociferously but to

37. This potential scenario was elaborated on by James Cable, of I.S.S., in discussion with the author on 4th February, 1970.

38. See also Timofeev, K., op.cit.

39. This classification matured and profited by the mentioned discussion with J. Cable, op.cit.
no avail against the U.S. intervention; in 1969 she merely warned mildly that any similar sequence of events would be opposed. The consequent U.S. denial of intent appeared genuine, but any such intent would otherwise certainly have been strongly affected.

3. - May be seen in the (in this case possibly coincidental) deployment of one Soviet Naval Squadron west of and one east of Libya at the time of the 1969 revolution. This would necessarily have caused concern to any Western intervention scheme had such been envisaged ---.

As this survey indicates: a belittling of Soviet capabilities was not only becoming militarily dubious, but it might be seen per se to represent a misconception. It thus appears clear that the political value arises from the mere capacity to assert a presence, and is not contingent on relative military strengths (except at a time of general conflagration). Thus an elaboration of the second action-deferring scenario example would see political considerations exaggerate the effectiveness of a militarily inferior Soviet flotilla stationed between potential interventionary force vessels and the cost ---. It is the political value which is strategically relevant in times of peace.

The capacity to show face was therefore a crucial extension of earlier capabilities: by the late 1960s the emerging forces already sufficed to initiate significant supporting and diversionary action.

One final illustrative example may be treated with profit, namely the impressive scale of the Soviet link-up manoeuvres - followed by simulated 'landings' on the Kola
peninsula - around the Norwegian coast, after the intervention in Czechoslovakia. The size and character of the forces involved, including amphibious forces, escorts and air-cover, was impressive enough to cause serious concern in the Norwegian government. This was evinced by the subsequent address to Parliament by the Minister of Defence. He dwelt at length on the fact that "the Soviet Navy, which is today the second largest in the world, is constantly being expanded with, (inter alia), new rocket cruisers, nuclear submarines, helicopter carriers and amphibious landing vessels. The increase in amphibious capacity, that is in landing vessels, coincides with the establishing and expanding of marine infantry". This was followed by a documenting of similar recent Soviet manoeuvres in the North Barents and Baltic Seas. The psychological novelty of finding oneself potentially interred BEHIND established enemy front-lines necessarily enforced a profound re-evaluation of policy concepts.

The last part of the decade witnessed a dynamic furthering of these trends. Three strands might be differentiated: strategic/missile developments; amphibious capability patterns; and world-wide mobility/flexibility achievements.

The dynamic aspect is perhaps that on which attention ought to focus with regard to all three. It may tentatively be documented with the following quote by Lord Balniel, British Minister of State (opening the Parliamentary Debate

on Government Policy of 19th November, 1970): "Five years ago the average number of Soviet vessels (in the Mediterranean) was 3 surface warships, 3 submarines and 10 auxiliaries. This year it was 24 surface ships, at least 13 submarines and 24 auxiliaries. Five years ago there were no Soviet naval vessels in the Indian Ocean. This year there were 7 surface warships, at least 4 submarines, and 9 auxiliaries. The Soviet Union builds a nuclear submarine every 5 weeks."

As concerns strategic/missile developments, the 1967 missile sinking of the Bilat was soon demonstrated to have been not merely indicative of experimental endeavors, but to have been illustrative of a conscious, all-embracing and novel combat orientation programme. By 1969 it was clear that the Soviet Navy had engineered a near-total conversion of its vessels' armaments from artillery to rockets. Developed vessels only retained such small-caliber cannons (57 mm) as could not effectively be utilized under conditions of general combat; they could no longer even theoretically engage in so-called conventional conflicts. It became abundantly clear that (nuclear) missile technology would be utilized even in local combat constellations, where these vessels were involved.

---

By 1970 new warships were apparently no longer equipped even with symbolic concessions to old conventional theories; the Kresta II class destroyer had no ascertainable conventional armament at all, - only missiles. 43

Even the limited helicopter complement (one or more) of these vessel types appeared uniquely oriented towards missile technology considerata, as they were most probably conceived of as helping to provide "self-contained target location beyond the radar horizon". 44

And it was within this context, of ever-increasing evidence of unprecedented qualitative innovations towards the effecting of a totally missile-oriented fleet, that the world-wide Okean maneuver of that year took on increased significance. Thus the maneuver deployment patterns 45, when co-ordinated with missile radii data 46, strongly indicated that a prime exercise aim related to deployment and dispositioning for global atomic warfare. And if this correlation

43. Ibid, No. 10, 1970, pg. 566-570; Concise article on 'Neue und Modernisierte Kriegschifftypen der Sowjet-Flotte', with accompanying, detailed and confirming photographs. See also The Military Balance 1969-70, op.cit, for lists of various vessel and missile types.

NOTE also the 3500 ton gas-turbine rocket destroyer (NATO codenamed KRIVAK DDG) which 'appeared' in the spring of 1971, - embodying the new theories' total practical implementation. No equivalent vessel is either serving or (as yet) projected for service with any Western navy.


46. Ibid, No. 7, 1969, pg. 381 - see graph relating to capabilities of Soviet SARK, SERB and 3rd generation missiles (respective radii: 1500, 2000 and 3000 plus km).
of the evidence is accurate, as appears indubitable, then
Okean may well be seen to augur a new naval era. It will
be returned to below.

As concerns amphibious capability patterns one ought
perhaps to turn first to the helicopter carriers which were
being produced by the late 1960s, as they impinged on a
wide gamut of strategic thinking.

Their initial assignment related to the defensive
strategic purpose of submarine tracking and killing. Their
contingent of 36 helicopters might hence be presumed
oriented towards this role, as well as towards performing
tasks analogous to those of the helicopter(s) of the regular
cruisers. But they could clearly also be utilized by the
marine infantry for purposes of sea-borne landings - then
presumably divided into 3 echelons of 12, in accordance
with traditional Soviet tactical preferences (see below).
The limited character of the force potential lessened the
likelihood of its use against organized land forces of
significance. But it entailed considerable consequences
within scenarios such as were traced above.

The helicopter-carriers had furthermore been developed
after a lengthy and sceptical consideration of the modern
role and utility of traditional aircraft carriers. Admiral
Chabanenko had declared these to be "extremely expensive

47. Two were commissioned during 1968/69.
48. Krasnaya Zvezda, 28th May, 1969, carried a picture of
the first helicopter carrier to be commissioned, the
Moskva, with a caption defining it as an anti-U-boat
cruiser.
See Sokolovsky, op.cit, pg. 363; hostile subs, and
aircraft carriers are defined as prime targets.
giants of very doubtful efficiency"; 49 his Cmdr. in Chief Gorshkov had stated flatly that they were "eight times the cost of an atomic submarine", and strongly implied that they were in reality much over-rated sitting ducks. 50 The cost scepticism was born out by relevant U.S. estimates 51; the effectivity scepticism must, in view of the referred-to combat re-orientation programme, have been born out by achieved missile performance standards.

Yet there was no doubting Soviet awareness of the need for air-cover for distant operations. It had to the contrary been emphasized ever since the inception of the naval expansion efforts. 52 But overall cost-effectiveness considerations had evidently dictated reliance on "long-range missile aviation" based on land. 53

In consideration of this strong awareness (footnotes 52 and 53), it would be logical to assign considerable causal influence, as relating to the helicopter carriers, to new

51. U.S. News and World Report, 9th September, 1969, asserted that the U.S. Navy spent about 40% of its funds in supporting its strike carrier program and activities.
52. Sokolovsky, op.cit., pg. 246, lists the co-ordination of the activities of missile-carrying vessels, missile subs and missile-carrying planes as the essential requisita for action against distant hostile bases and territories.
53. Ibid, pg. 344.

And see Krasnaya Zvezda, 27th July, 1969, op.cit. - This was obviously why "some people, previously and at present continue to fight for the construction of aircraft-carriers". - See Admiral Gorshkov in Morskoi Sbornik, February, 1967, pg. 19.
aviation developments. It was in 1967 that an all-jet Soviet VTOL (vertical take-off and landing) fighter was first unveiled in public.\textsuperscript{54}

And it therefore appeared most probable that some advanced version of this VTOL was intended for assignment to the helicopter carriers by the early 1970s. Aircraft carrier needs would thus be obviated, - with the sought-after advantages of air-cover flexibility being provided by cheaper vessels of probably superior mobility and flexibility.

Meanwhile the general emphasis on amphibious capacity was, as already mentioned, becoming ever more pronounced, with self-evident implications also for the auxiliary tasks of expected future 'helicopter-carriers'. One may again with profit turn to 'Okean', in conjunction with which there were extensive amphibious exercises on the Rubachi Peninsula.\textsuperscript{55}

The landings of marines were specifically stated to have been co-ordinated with missile firings, and to have been witnessed by an impressive array of prominent Armed Forces personalities.\textsuperscript{56}

\begin{flushleft}
54. - At Domodjevo, 8-9th August, 1967, the VTOL showed similarities with the British Hawker Siddley Harrier, - the only Western equivalent.
- A first prototype model, a plane-helicopter with motors on the wingtips and rotors placed above these, had been demonstrated as early as 1961, at the (Soviet) Tushino Air Show, 9th July, 1961.
56. Ibid.
\end{flushleft}
One must again emphasize the implied 'nuclearisation' of the forces involved: "All branches of the Soviet Armed Forces are now equipped with nuclear rocket weapons, perfected electronic equipment and other material of the newest type."  

The amphibious forces themselves were to be operationally flexible. They plainly entailed potentials for local interventionary-type activities. But they were also assigned a definite strategic-oriented role. They were to utilize (clean) nuclear take-out strikes against hostile points, and be able to proceed quickly to occupation of the site(s) and remaining facilities: "In maritime regions --- naval fronts --- will take advantage of the results of missile blows of strategic significance --- complete the destruction of the enemy's forces, (and) occupy his territory".  

Attention must now be reverted to the world-wide mobility/flexibility factor.

A NATO source indicated the tendency: "(The Russians) have intensified their surveillance of all maritime activities west of Bornholm. From a tentative start some years ago, there is now a constant and wide coverage of the Danish Straits and all waters leading to it by Naval and specialized surveillance vessels". And it appended a chart of 'Soviet Naval Exercises 1960-70' which displayed the increasing outward thrust and extending of regular Soviet maneuver patterns: from Baltic and Arctic Seas, to North Sea, to Icelandic

---


waters, and then to mid-Atlantic maneuver settings. 59

But Soviet sources were themselves equally candid in describing the extending of their naval activities into distant oceans and ports. 60 Fleet Admiral Kasatonov was quite explicit in a 1969 exposition on the extensive naval qualitative and quantitative build-up, an exposition which went on to describe the extending of naval operational patterns until these came to cover all major oceans. 61 And other sources were unequivocal in asserting Soviet rights, 62 and in emphasizing that the developments would be continued and were not to be regarded as transient phenomena. 63

A 1970 chart 64 over recent Soviet maneuver patterns in the Mediterranean does as a consequence take on increased

59. NATO Letter September 1970 (pg. 6 - 11, for described charts).

60. See e.g. Izvestia, 3rd September and 1st October, 1969; Krasnaya Zvezda, 13th May, 1969, which deals with the return of a fleet just completing a 7 months cruise of African and Asian ports; or Admiral Gorshkov, in Pravda, 27th July, 1969: "Units of the Pacific Fleet have just returned from a 6 months cruise in the Indian and Pacific Oceans, covering more than 30,000 miles and visiting 30 different nations". And note their progress in constructing floating docks and complex logistic and supply depots off sheltered coasts; See Murphy, F.M., 'The Soviet Navy in the Mediterranean', U.S. Naval Inst. Proceedings, March, 1967.


63. See Admiral Gorshkov in Ogoniok, 3rd February, 1968.


And see evidence regarding rapid turnover in operational commands and short tours of duty, presented in the Bulletin of February, 1969, of the Munich Inst., for the Study of the USSR.
significance. It clearly indicated that short tours of duty and frequent rotations as between Northern, Baltic and Black Sea Fleets were standard. The Mediterranean Fleet was thus shown as probably not being a separate unit of defined ships and crews. One rationale might be that Mediterranean duty was seen as a compensation or reward for more trying duties elsewhere, due to the advantages of climate and ports of call, as well as to the professionally stimulating(?) shadowing of the U.S. 6th Fleet. But it appeared a fair inference that a primary or auxiliary rationale was a program in process, to train rapidly expanding Navy personnel cadres in as diversified tasks as possible. This inferred demand for experienced cadres does of course support, and is supported by, the above evidence that new ships and commands would be developed — in accordance with the described dynamic trends of previous developments.

'Okean' may again be seen as a turning point: — this time as the first manifestation of the world-wide nature and range of the new Soviet Navy. Over 250 ships participated, deployed over every major ocean, as well as up some of the major rivers, of the world.65 In the north: “Ships and

65. See e.g. Pravda, 14th, 16th and 20th April, 1970, or Izvestia, 14th and 17th April, 1970. — For Western reports, see e.g. The London Times, 25th March and 24th April, 1970. The Guardian, 23rd April, 1970, or the Sunday Times, 26th April, 1970 (for interesting radar photograph). — For good synopsis, see Soldat und Technik No. 8, 1970, pg. 428 – 431.
submarines moved back and forth between the Atlantic and the Mediterranean in a display of rapid redeployment and reinforcement available to meet the requirements — meant to tell NATO that the Soviet Navy can operate wherever circumstances dictate, be that by their choice or NATO's."66

And it finally served also to highlight Soviet awareness of political considerata and potentials, - of the psychological import of political appearances. Thus the manoeuver was not wound up by the prompt return of participating vessels to their home bases or routine patrols. Instead they dispersed to a variety of 'neutral' harbours around the world; a flotilla of smaller warships even went up the Danube to Vienna —.67

CONCLUSION:

**Combat potentials:** The qualitative novelty of its combat orientation not only mitigated residual quantitative inferiority, but did, in conjunction with the high priority quantitative expansion efforts, entail Soviet Naval potentials of an order far above that generally appreciated.68

**Peace-time implications:** Two quotes may serve to synopsizc our tenet: - "Navies are not created solely to fight other navies. Sometimes we lose sight of this fact.

68. Cmdr. Mc.Guire's Guardian feature of 26th August, 1970, perpetuates this now outmoded underestimation (although this may be explained by contemporary political considerations; the article discussed Soviet interests only as related to the U.K. South African Arms Debate). - Compare with SACEUR General Goodpaster's October 1970 interview; see e.g. Aftenposten, 29th October, 1970, Oslo.
Navies are also instruments for the projection of national power, when circumstances require us to be strong in distant places.\textsuperscript{69} And: "...it is no longer possible to keep military and political considerations in separate water-tight compartments --- whatever may be the military assessment of the significance of the Soviet Fleet in the Mediterranean --- the presence of this fleet is having a profound effect on men's minds --- it is contributing significantly to the rise of Soviet influence.\textsuperscript{70}

There was thus a considerable kernel of truth in, for example, the propagandistic Soviet assertion that her Mediterranean Fleet was "preventing the U.S. 6th Fleet from carrying out with impunity the aggressive designs of the Pentagon and from lording it in the area in the same uncere­monious fashion as previously.\textsuperscript{71}

And therein lay the essence of a very changed international situation indeed.

Note: - Naval bases considerata are dealt with in the following Chapter, on "Geo-Politica Considerations; The Kola and Vladivostok Core Area Problem Complexes".

- The emerging Naval leadership is treated briefly in Chapter 9, in the section on "The Changing Pattern of Military Leadership".


\textsuperscript{70} Admiral Sir John Hamilton, Former Cmdr. in Chief of Allied Forces Mediterranean, in 'The Changing Strategic Naval Balance' (USSR vs. USA), op.cit., pg. 31-32.

\textsuperscript{71} Krasnaya Zvezda, 12th November, 1968.
- See also Izvestia, 11th November, 1968, op.cit., and Pravda 27th November, 1968 (art. by V. Yermakov).
Related Air and Land Developments

The great Soviet stress on inter-command unity and flexibility of operations and training, and the related equally embracing stress on Armed Forces units effecting the specialization and mobility required for nuclear combat conditions, does necessitate some attention to other fields.

Two Air Force developments are of particular relevance:

1. The introduction of transports such as the giant AN-22, and the increasingly extensive utilization of helicopter strength, greatly increased the mobility of the airborne divisions. But they furthermore entailed considerable consequences relating to a co-ordinating of land and sea follow-ups to strategic (or non-strategic) missile strikes.

2. The 1967 presentation of a VTOL (at the same Air Show which saw the Soviet variable geometry swing-wing jet first demonstrated), was referred to above - where also the implications were elaborated upon.


See also Chapters 5 and 4.


75. Sokolovsky, op.cit.

76. In mass production (about 12 a month) by 1970, according to Newsweek's 'Periscope', 21st Sept., 1970.
As concerns land developments, relevance may be assigned to operational tactics --- again on the basis of the official stress on specialization and flexibility, the striving for independent survival capability plus easy insertability into joint operational endeavors. Like the naval marines, the land units were trained to operate under, and to utilize, nuclear conditions.

The use of nuclear weaponry, either for take-out strikes or for high-altitude defence disruptive type explosions, is presumed to be standard; (- as indicated also by:) ambitious land advances of about 60 miles a day are planned for; 'deep' helicopter/paratroop landings are envisaged, with coordinated thrusts by armoured units drilled in automatic and smooth transitions from marching to attack formations; no front and rear forces are delineated; rather, there are three consecutive 'echelons' with the ones behind/on or through immediately the front falters or slows down; infra-red


78. See e.g. comment by Sir John Hackett, recently retired BOAR Commander, to New York Times, 29th November, 1969; A Soviet offensive might (then) be expected to reach the Rhine within 48 hours.

79. Soviet attack formation: 0 = tank; □ = armoured personnel carrier

<table>
<thead>
<tr>
<th></th>
<th>Limits of 500 mtrs across</th>
</tr>
</thead>
<tbody>
<tr>
<td>First two echelons</td>
<td></td>
</tr>
<tr>
<td>attack at 10 km/h</td>
<td></td>
</tr>
<tr>
<td>1st echelon 300 meters</td>
<td></td>
</tr>
<tr>
<td>2nd ech. 700 mtrs</td>
<td></td>
</tr>
<tr>
<td>3rd echelon (or troop)</td>
<td>5000 meters</td>
</tr>
</tbody>
</table>

(The Company as a whole stretches 6 kilometers)
equipment is standard, as is extensive amphibious water-fording equipment.  

And it may be proper to end by reverting to the aspect of specialization. It came to cause increasing awareness of the worth of the individual, and a novel, if limited, emphasis on the need for subordinate commanders to display individual initiative. The complexity of the weaponry and conceived combat conditions demanded high levels of troop education; inherent in the recognition thereof was a profound principal shift from earlier attitudes relating to combat personnel.


81. Seen e.g. in articles like Army Gen. Belik's in Krasnaya Zvezda, 4th January, 1970, which dug out relevant Lenin quotes.

82. See e.g. Marshal Vershinin, Pravda, 26th January, 1968 - and above references.
No analysis of the extraordinary mid- and late 1960s
qualitative and quantitative improvement of the Soviet Union's
strategic capabilities can be complete without a consideration
of geographical determinants. One here thinks of such as have
long affected Moscow and Leningrad (resulting in the age-old
insistence on control of the area north-west of Leningrad, and
in the according of FMD development priority to the industrial
and population basin of north-western USSR.1) The operative
concept is that of an area, the strategic importance (and
"equipment") of which is vital to a nation's survival, and
therefore an area in regard to which it is vital for that
nation to control the adjacent land, sea and air masses, or
at least to ensure that these are not utilized by hostile
powers.

By the late 1960s dynamic developments on the Kola
peninsula and in the southern Far East singled these areas
out as cores of equally decisive actual or potential strategic
significance. They gained singular importance as the main
base-complexes of both naval interventionary and naval strategic
forces (the most potent and reliable component of the USSR's
assured second strike capacities), an importance further
augmented by forward FMD and ICBM deployment. Our concern
relates to the geographical factors which made these develop­
ments and dispositions inevitable.

A brief survey of alternate naval bases is first necessary:

a) A glance at a map suffices to ascertain that the strategic role that can be assigned to the Black Sea and Baltic Fleets is seriously limited by the vulnerability of the respective straits leading out of the two seas. The Dardanelles and Öresund straits are both narrow enough to be closed with ease, either through action from hostile shores, or through aerial (bomber) bombardment and mining. Improvements of the overland canal and water artery system between the two seas have facilitated inter-Fleet mobility and thus affected dispositions. But this relates only to peace-time operations and to defensive considerations, as attested to also by the fact that the overland water system drenchings have not been such as to permit the passage of larger atomic submarines (about 10,000 tons). Geographical factors thus eliminated these fleets from effective strategic concern.

b) Freedom of access limitations have led to a search for alternate bases, and it is clear that some facilities have been provided by Cuba, Algeria, Egypt, Syria, the Sudan, Yemen, India and others. But they appeared of "depot and repair" rather than "base" character. And political considerations alone would in any case militate against the USSR's accepting a decisive reliance on foreign facilities.

c) Other efforts have encompassed the designing and constructing of floating docks, as well as complex floating logistics and supply bases off sheltered coasts. But these must be seen as a complement to b) above, and as inhibited by similar considerations. They could never serve as prime base areas.

The only realistic alternatives as major bases for the strategic fleet, were therefore such as could be found along the northern and Pacific shores. As the first two maps following clearly show: Ice conditions effectively restrict the sections of these shores that may be utilized to part of the Murmansk coast, the tip of the Kamchatka peninsula, and the Vladivostok area.

A technical variation may be noted: The maximum extension of the ice in the Far East regions occurs in February, while in the Kola (Murmansk) region it occurs during March-April. This is caused by the rivers flowing north having their upper reaches melted before their lower. The pressures which build up as a consequence "push" the ice out while simultaneously "screwing" it. It is the emergence of this type of ice which extends the hazardous period, and area. The Far East, of course, has no rivers of similar characteristics.

See also e.g., The New York Times, 16 July 1968, and Neue Zürcher Zeitung 15 Dec. 1968.

7. See e.g., Komsomolskaya Pravda 28 May 1971 for text of new Soviet-Egyptian Treaty: This might result in somewhat more extensive arrangements.


The Kola Core Area.

The area in question is presented in a close-up schematic form in the diagram which follows the maps. On and below this sketch are furthermore to be found some of the relevant characteristics of the area.

At its maximum extension (see maps) the ice curves around at a mean distance of only 180 miles from the Kola coastline, until it turns southwest to meet the coast near Mys Svjatoi Nos. 10 The distance from the Norwegian border to the ice-limit is 240 nautical miles, not counting the fjord leading into Murmansk and the smaller bays. While a harsh winter may partly freeze even the fjord, the bays, and some of the surrounding waters, 11 this strip of the coast can be kept open at all times with the use of ice-breakers when necessary. The coast is comparatively steep, with granite cliffs and slopes which often reach heights of between 300 and 600 feet. 12 With access assured and land composition and formation thus conducive to the protection of installations, the area's development as a centre for naval bases was inevitable. Aside from the natural opportunities afforded by the area towards the establishing of bases - which can be blasted into the rock - , and the tolerable ice condition, there is also the fact that navigational depths are satisfactory. This emerges clearly from a study of the third and fourth maps (and see footnote 10).

12. Ibid.
The limitations to the length of shore line available for bases, the fact that the area must accommodate also the Soviet merchant and fishing fleets of the Arctic and their facilities, and the fact that the Norwegian Cape sector lies nearly 300 nautical miles closer to the Atlantic, all contribute to cause fear of Soviet designs on Northern Norwegian shores. But such fears, in the form generally expressed, seem based on false premises, and appear therefore to lead to misconceived and somewhat misleading conclusions.

Two comments, both relevant to our purpose, must be made regarding Western fear of Soviet desires for bases in Northern Norway. Although the number of existing bases in the area is classified, maps 3 and 4 strongly suggest that the geographical capacity for base expansions cannot have been exhausted. The rapid conversion of the strategic fleet to the nuclear fuel during 1960s entail a significant lessening of the fleet's need for extensive base complexes. And finally, as regards the distance to the Atlantic, it might be added that enemy action against the Kola complexes would be hampered by a loss in range and time comparable to, and thus partially offsetting, the disadvantages for Soviet operations. There might yet remain a Soviet rationale and desire for "mobile bases" utilizing depot ships, as support facilities in the event of a major war. The Norwegian coast would be admirably suited for such. But they would constitute a convenience and not a necessity.

13. The Swedish Deputy Minister of Defence has identified these as constituting one of the major Soviet objectives in Europe: "Sveriges Säkerhetspolitik", Stockholm 1955. See also Capt. Araldsen, "The Soviet Union and the Arctic", US Naval Institute Proceedings, June 1967, pg. 49-57.

Towards the end of the war, in a discussion with the then Norwegian Foreign Minister (and UN Secretary General to be) Trygve Lie and Ambassador Andvord, Molotov presented the basic Soviet concern. The quote serves both to synopsize this, and to indicate the enduring character of the Soviet considerations involved. He had demanded that Norwegian suzerainty over Svalbard be exchanged for a joint Soviet-Norwegian administration to act "as a condominium", and that Bear Island should be transferred outright. When the demands were turned down he continued with unusual and revealing frankness:

"... the Dardanelles ... here we are locked in ... Öresund ... here we are locked in. Only in the North is there an opening, but this war has shown that the supply-line to Northern Russia can be cut or interfered with. This shall not be repeated in the future. We have invested much in this part of the Soviet Union, and it is so important for the entire Union's existence that we shall in future ensure that Northern Russia is permitted to live in security and peace."

His concluding statement of confidence in the Norwegians as "friendly neighbours" was rounded off with the question "shall we settle this in a friendly manner, or shall there be a dispute?"

Admiral Golovko summed up: "Without the Kola inlet the Northern Fleet cannot exist. The Kola inlet is necessary to the state."

15. This view is presented by Tor Gill Wulff in "Kungliga Krigsvetenskapsakademiens Landlingar och tidskrift", No. 9. The Royal Military Science Academy, Stockholm, Nov. 1958 ... in a comment on Jan Klenberg's "The Cap and The Straits", Occasional Paper in International Affairs, No. 17, Harvard Univ., Feb. 1968. (With evidence such as presented above Klenberg denied any Soviet "need" for Norwegian bases).

16. Molotov, as quoted by Trygve Lie in "Hjemover" (Homeward), Tiden Norsk Forlag, Oslo, 1958.

17. Trygve Lie, ibid.

Over 25 years of dynamic expansion of Kola base facilities and the introduction and build-up of strategic naval forces in particular, must have greatly increased the importance thus attached to the area by Molotov. Since potential physical bases in Norway cannot be judged to constitute an important Soviet objective, for reasons outlined above, it becomes necessary to look elsewhere for the main contemporary causes for concern and sensitivity.

The prime causes and imperatives derived therefrom, must be seen in the light of the Strategic Balance of Power and categorized as follows:

1) DEFENCE. The number of steps to be taken in sequence (radar contact and identification, information processing, command decisions, etc.) prior to the activation of ballistic missile defence and other defence systems require that:

a) Hostile offensive weaponry, especially missiles, can not be tolerated within a certain minimum distance without making a mockery of the security of the base complexes.

b) Certain forward military facilities, especially radar, must be acquired to ensure tolerable, adequate reaction times.

19. These concerns are referred to e.g. in "International Affairs", No. 12, 1969 (Moscow). On pg. 62 it quotes "NATO Letter", Sept. 1969, pg. 16, to the effect that "from the point of view of NATO strategists the coast line of Northern Norway affords the best surveillance sites for controlling the exits of the Russian Arctic Fleet into the Atlantic Ocean". It goes on to refer from the same source, pg. 19, as showing that "they (NATO strategists) persistently recommend increasing the co-operation between the United States, Britain and Norway, in reconnaissance operations in this area".
As concerns a), one might see a tacit Norwegian recognition of this in the refusal to permit any stationing of offensive missiles on her soil, and the refusal to permit NATO exercises within about 300 km. of the Soviet border. The same may be said regarding Norwegian insistence that she has not permitted and will not permit the peace-time utilization by Polaris submarines of Norwegian radar facilities. Some tactical electronic and other surveillance by the Norwegians must obviously be tolerated. Especially since for example the Western coast of the Hatachi Peninsula is within visual (naked eye) surveillance distance from the border — as shown by maps 3 and 4. But anything beyond this would clearly tread on some very sensitive Soviet corns. (See footnote 19).

Thus, one Spring 1969 Krasnaya Zvezda article most forcefully condemned alleged radio and radar communications between Northern Norwegian installations and US nuclear submarines on patrol in Northern waters —. There appeared little reason to doubt the Norwegian assurances. One might furthermore presume that this state of affairs has been and can

20. Confirmed by Col. Hope (Senior Research Officer) of the Norwegian Defence Research Establishment, May 1968. And verified by a perusal of public accounts of past manoeuvres, their general rationale and course (as always made available through the nat’l press and TV broadcasting networks). And see J. Klenberg’s "The Gap end the Straits" op cit.

21. See e.g. Norwegian Minister of Defence, G. Harlem, in Parliamentary Debates (Stortingsforhandlinger) 1964-65, Vol. 7, pg. 2475: incl. " --- it is correct that the new very low frequency radio station which has been authorized for construction in Norway will not serve Polaris submarines".

be verified by the Soviet Union. Soviet allegations such as
the above may then be seen as representing not a belief, but
a fear regarding potential activities, and a definite warning
of the unacceptable nature of such. In fact, if the prime
concern has been correctly identified, then it appears that
such activities as indicated would not only be theoretically
unacceptable but would demand countering actions. In other
words: a Norwegian departure from the tacit concession to the
legitimate (necessary) demands inherent in the core area
character of Kola cannot be initiated with a view to improving
Norwegian bargaining positions. To the contrary, it could but
mean an invitation to "a Cuba in reverse"; Kola security
demands would probably be considered so essential as to entail
acceptance of the risks associated with intervention. 23

As concerns b) it, of course, incorporates also the
requirement for verification and control posed by a), as well
as the need to provide the necessary general early warning
capabilities. The failure to acquire Svalbard and Bear
Island facilities has been compensated for by the establishing
of military bases (and radar installations) on ice floes in
the Barents and White Seas, as well as on Franz Josef Island. 24
These facilities, complemented by electronically equipped
surface vessels, have evidently been accepted as complying
with at least minimum requirements.

23. NATO-aligned communications and early warning systems,
NATO maneuvers as previously conducted and preparation
of bases to permit wartime reinforcement of men and
equipment - described by Ann Sington in "NATO defensive
installations in Norway", NATO letter, Jan 1966 -
certainly represent cause for Soviet anxiety. But such
NATO activity can be (and has been) tolerated and
accepted. It does not infringe on essential Kola security
requirements in the way that the described potential
radar utilization would.

24. T.J. Laforest, "The Strategic Significance of the North
Sea Route", United States Naval Institute Proceedings,
December 1967.
2. OFFENCE. Here the obverse considerations are (potentially) involved. Any potential Polaris or Poseidon AHE capacity which was automatically synchronized with Norwegian radar capabilities would seriously detract from the effectiveness of ICBMs from the Northwestern USSR. It would make interception of an ICBM during the ascent phase of its trajectory, the period of its greatest vulnerability, a distinct possibility. It would, therefore, inherently detract from calculated "assured" offence capabilities, and thus seriously affect strategic missile considerations and deployments.

3. THE OCEAN FLOOR. There is one further consideration which must cause concern, although its implications have never been publically (or officially) recognized in either the Soviet Union or Norway. Yet at least one Norwegian strategist (Col. Egge) has indicated awareness of the situation, and Soviet awareness thereof may be presumed.

a) As shown by the accompanying sketch, the ice-limit not only restricts the area where bases can be located, but furthermore, forms what can be termed one shore of a narrow "fjord" leading into the bases and with its mouth spanning the area Svalbard/Norway's Cape. This has resulted in a geographically-determined very narrow "shipping lane", a fact which inherently increases the necessity for close supervision and control.

25. Col. Bjørn Egge, ex-military attache to Moscow and Senior Research Officer of the Ministry of Defence, Oslo, touched on this problem-complex in numerous informative and informal discussions during 1968-69, while this author was fortunate enough to work as his colleague.
b) Another related cause for concern may be seen in the shallowness of the ocean floor of the mouth of the "fjord" (see maps 3 and 4); this was such as to place the floor within "exploitable" limits by 1970 or shortly thereafter. The contemporary international law defines a nation's privileges off its coast to extend to a depth of 200 meters or such depth as to which exploitation of resources is feasible. An astonishingly accelerated process in underwater exploratory techniques allowed one already by the time the treaty was ratified to envisage the elimination of any restrictions to "exploitable depths". It followed, therefore, that the treaty could be interpreted to grant a coastal power exploitation rights over all waters inside the half-way mark between it and the coastal nation on the other side of the waterway, sea, or ocean. In our case, it would mean a form of Norwegian control over the entire ocean floor between Northern Norway and Svalbard. And it could thus provide the legal rationale, however tenuous, for NATO "base" type installations.


27. Mr. Mollingen of Norway's Technical Natural Scientific Research Institute has pointed to the following development (in a discussion with the author on 28 Jan. 1969, at the Institute): Already by 1968 oil drilling and exploitation was conducted regularly at depths of 200 metres and experimentally at depths of 300 metres, (especially by the French), while exploitable depths of three times that were acknowledged by most experts as reachable within 5 - 10 years. Unweildy bathyscopes had reached the deepest ocean floor 8 years previously (August Piccard). Now new maneuverable (and even nuclear) deep-submurgence vessels were being constructed. See also Arvid Pardo, "Who will control the Seabed?", Foreign Affairs, October 1968.

28. Arvid Pardo, ibid.
Quite apart from the general unacceptability of any Treaty interpretation such as outlined,\textsuperscript{29} it could obviously not be tolerated by the Soviet Union due to the possible military implications,\textsuperscript{30} accentuated by Norway's NATO membership. In fact, it appeared by 1969 that military under sea developments already threatened to jeopardize the treaty's provisions through the establishing of fait accompli installations (developments in our area being dictated by Soviet determination to safeguard her security prerequisites).\textsuperscript{31}

Leaving the legal and technical possibilities aside, the above will suffice both to highlight the geo-political considerata affecting Kola, and to indicate the limited and therefore vital security policy options activated thereby.

A final observation must be made concerning the Soviet Naval manouvers of the latter half of the 1960s. Repeated naval (and naval air-arm) manouvers and operational patterns in the North Sea and the Eastern Atlantic\textsuperscript{32} could be interpreted as an attempt to establish a definite outer defence perimeter along lines west of both Iceland and Great Britain. Aside from guaranteeing access to Kola, this would have the additional benefit of limiting the danger of enemy penetration to that other bottleneck, the Danish Straits. (And it would of course also affect the potential strategic utility/role of the Baltic Fleet.).

\textsuperscript{29} Arvid Pardo, ibid.
\textsuperscript{31} Jens Evensen, ibid.
\textsuperscript{32} One may, for example, point to the Soviet naval manouvers in the Atlantic of April 1969 and 1970. Non classified data on the manouvers can be obtained from the Ministry of Defence, London, or NATO Secretariat, Brussels.
Such operations as the Sever "pinch" and other amphibious forces manoeuvres around and outside Norway, might thus be regarded as evidence of, and symptomatic of, an intent to establish a regular presence in the area. Such a pattern of regular presence would, of course, ease any hypothetical intervention deemed necessary. U.S. (NATO) assistance might not be equally forthcoming if it risked encountering major resistance en route. But this operational pattern might equally be seen as making Norwegian territory even more superfluous, since the evolution here indicated would place it at a considerable distance behind the Soviet front-lines.

THE FAR EAST.

It becomes appropriate to turn to the Far East. Here are located the three other important Soviet base complexes with "direct" access to the sea, namely Petropavlovsk on the Kamchatka Peninsula (especially for submarines), the more extensive Vladivostok installations, and Sovietskaya Gavan', opposite Sakhalin and about 500 miles North East of

32. cont.: See also NATO Letter Sept., 1970, pg. 6-11; Art. on Soviet Naval exercises 1960-70, documents and charts Soviet Naval exercises of the period, and demonstrates the increasing extension and on ward thrust of the regular manoeuvre patterns; Baltic and Arctic Seas - North Sea - Iceland - Mid-Atlantic.


34. See also Col. B. Eggc "De Danske Streders betydning i Sikkerhedsstrategisk perspektiv" (The Role of the Danish Straits in a Strategic Perspective), Copenhagen, 1970. He draws the conclusion following a similar exposition that the SU sees the Baltic, the Norwegian and the North Sea as belonging to the same functional strategic buffer terrain protecting the USSR's Western Flank as does the Barents Sea. They are to be similarly considered.
Vladivostok. As with the Kola bases, the areas available for extensions are seen to be limited, mainly due to the ice conditions, although the presently utilized sections can easily be kept open through ice breaker activity.  

A delineation of the relevant characteristics may be presented thus:  

VLADIVOSTOK. The port has about 85 days of fog and freezes for three months, as of December. However, it may easily be kept operational through ice-breaker activity. An additional problem lies in the fact that all channels of access into the bay, except the shallow and frequently iced Tatar Strait, can be said to face Japan (from which hostile surveillance and barrier operations could restrain Soviet mobility).

SOVIETSKAYA GAVAN incorporates a major submarine base and has dock facilities sufficient to accommodate any naval vessels. However, the base is ice-bound from December to March, and excessively prone to fog (up to 22 foggy days have been noted in July only!).

PETROPAVLOSK is more ice free. Although it freezes in December and remains thus for three to four months, it is easily kept open by ice-breakers. It is furthermore protected from winds and fog by Kamchatka’s volcanic mountain ranges. The settlement’s sole raison-d’être is naval activities. It is primarily a submarine base, and presumably that responsible for severing the East-West shipping route from the USA (500 miles south) in the event of war.

35. T.J. Laforest, op.cit. See also the first map.
Core area type definitions and considerations may be applied to all these complexes, singly or together. But proximity to operational theatres of consequence gives VLADIVOSTOK pride of place. Its geographical location and natural harbour ensures its position as the Pacific Fleet Headquarters and as the home base for naval operations in the Japan, Yellow, and China Seas, in the Southwestern Pacific and in the Indian Ocean. A consideration of the major missile base at its neighbour Khabarovsk\(^{37}\) suggests a defining of the core area as based on the Khabarovsk-Vladivostok axis.

Its crucial significance, dictated by geo-political considerations, may be seen as emphasized by a 1957 Council of Ministers' Decree.\(^{38}\) This designated Peter the Great Bay, within which Vladivostok and the naval bases are located, as part of the internal waterways of the USSR. The closing line or limit established for the bay was 108 miles in length, with the justifying principle evoked being that these waters constituted an "historic bay".

Soviet definitions of this designation are based on it being part of the internal waters of the coastal state and subject to this state's unlimited sovereignty.\(^{39}\) Thus, the White Sea within the Sviatoi Nos-Konin Nos line, the Azov Sea, and Riga Bay have been similarly classified, as have others.

---

37. This should be noted as of primarily Asian import. Because as concerns the direct USSR-USA configuration even Western USA is within closer reach of missiles from Western USSR than from Khabarovsk.


such as the Kara, Laptev, East Siberian and Chukotsk Seas.  

Two general considerations emerge from the above core area concepts. As in the case of Kola, the areas’ proximity to potentially hostile borders entails certain security imperatives. Thus, for example, a Soviet concession concerning the Japanese demand for a return of the Southern Kuriles (given up in 1951) would most probably be seriously affected by reasons of security.

In the case of the more sensitive Khabarovsky-Vladivostok basin, basic core area considerations (viz. our delineation of these with regard to Kola) entail and demand a certain supervision of or over the adjacent Chinese territories. The frequent Chinese allegations that such have occurred (allegations which proliferated after the Czechoslovak intervention) may, therefore, be regarded as confirming Soviet appreciation of the security prerogatives involved. Overflights of Chinese territory near Vladivostok-Khabarovsky must be seen as complying with a permanent military demand which is not of a nature such as might be affected by the state of political relations. Or, rather, while adverse political circumstances might lead to demands for more intensive supervision, favourable ones would not lessen the military need for continuous (adequate) supervision.


41. At the San Francisco Peace Treaty, claims were only renounced partially.

42. LCNA (the New China News Agency) 16 Sept. 1968, listed about 40 Soviet Air sorties into Heilungkiang province between 9 and 29 August, 1968. Their purpose was designated as "reconnaissance, harassment and provocation".
The military sensitivity of the area must have entailed strong military support for an uncompromising Soviet position vis-à-vis such Chinese aspirations as were highlighted by the 1969 Ussuri border battles. It may furthermore entail a military pre-disposition in favour of a more active forward stance in general, whether of initiating or responding character, so as to ensure the satisfaction of Soviet requirements in the area.

A few comments specifically regarding the NORTHERN SEA ROUTE appear finally to be desirable. This sea route, which is kept open for up to 150 days a year by ice-breakers (including the nuclear powered "Lenin"), was on 28 March, 1970, declared by the Soviet Union soon to be opened to commercial shipping of all states. It was furthermore announced that unspecified fees would be charged. The commercial significance needs no elaboration. It is self-evident both for the Soviet Union itself, in view especially of the recently discovered major oil and gas deposits of Northern Siberia, and for, among others, participants in the Japan/Far East–Europe trade, the distances of which would be most significantly shortened.

But more important to our analysis are the military implications of the implicit Soviet confidence in her ability

---

43. See treatment by Rochard Doyle, "Arctic Passages of North America", US Naval Institute Proceedings, Jan. 1969, pg. 52. The sea route is deemed Soviet territorial waters since passage must be made through the straits between Severnaya Zemlia and the mainland (Vilkitskovo) and between Novaya Zemlia and the mainland — both of which are less than 24 n.miles across (Soviet-specified territorial waters extend 12 n.miles from any coast line). Of interest is the 1967 refusal of passage through Vilkitskovo to the US Coast Guard vessels Edisto and Eastwind, which had attempted to pass north of Severnaya Zemlia, but been forced south by the ice.

44. See also T.J. Laforest, "Strategic Significance of the Northern Sea Route", U.S. Naval Institute proceedings, Dec. 1969, pg. 50-65.

And S.A. Swartstrauber, op.cit., for description of secondary Soviet Naval bases in the area, and of fuel and depot bases for the Northern Sea Route.
to keep the route open and navigable. Submarines had long been able to use the route, winter as well as summer, for travel from, for example Vladivostok to Murmansk. The described development meant that surface ships could make the transit with equal ease through a major part of the year. Two prime advantages accrued: 1) The major cutting down of transit time; 2) The security bonus of making hostile surveillance attempts far more problematic. The transit time involved, as well as the adverse geographical conditions, remained of a sufficient scale to discourage major redeployments along the route in peace-time. But the development greatly facilitated war-time contingency planning.

CONCLUSION

Geographical factors clearly dictated - and delineated - the evolution of the Kola and Far East regions into vital and sensitive core areas. The importance of both regions was long recognized by Soviet planners. Some of the traditional considerations and consequences no longer apply (e.g. the need for more base space, made superfluous by the conversion to nuclear power.) But these have been replaced by others of even greater sensitivity and further-reaching ramifications: they are such as are associated with the development of strategic concepts and capabilities, with the implications of strategic technology.


CHAPTER EIGHT - GRAND STRATEGY

SA. Soviet Strategic Terminology:

Indications Regarding the Military Hierarchy's position vis-a-vis the Party.

"Strategy - Generalship, the art of war, management of an army or armies in a campaign, art of so moving or disposing troops or ships as to impose upon the enemy the place and time and conditions for fighting preferred by oneself". (The Concise Oxford Dictionary, 5th Edition, London, 1965).

The above definition of purely military strategy can be seen as describing only one aspect of a political entity's enduring concern with survival and security. Grand Strategy (or Indirect Strategy\(^1\)) however, transcends these bounds and encompasses any means or action which contribute to the said security. It is therefore concerned not only with the utilization of military capabilities, but equally with economic, social and political endeavours designed to secure or strengthen such capabilities - with any endeavour/policy whereby the most facile route to the achievement of one's aims vis-a-vis other political entities may be found and traversed.

---

Nothing approaching a comprehensive presentation of Soviet strategic thought or doctrine was published prior to Marshal Sokolovsky's book of 1962 which is discussed below. What little had been published was at most excerpts of thought patterns together with some "basic" Statements of a generalised nature. Thus, there are the statements derived from the authors' ideological convictions, and reinforced by the state of their contemporary society, statements derived from conviction regarding the inherently necessary and non-compromising enmity of capitalist or imperialist societies towards communist ideals and aspirations: "(Socialism) .... will be victorious first in one or several countries, while the others will remain bourgeois or pre-bourgeois for some time. This must cause not only friction, but also a direct striving by the bourgeoisie of other countries to defeat the victorious proletariat of the socialist state,"^3 may be seen as a prototype.

It was early accepted that original Marxian views of the army, as unnecessary except as a tool of oppressing class structures and therefore an anachronism in socialist societies of equals, were both impractical and impossible.^4 A class-based military organisation was soon seen as/

---

2. Since the 1920's, when a multitude of fractured thoughts on the subject were expressed; representative of the two main divergent trends are Trotsky, with his insistence on the existence of a military science "applicable equally to capitalists and proletarians", and Frunze's insistence on a "completely new unified proletarian doctrine". (R.L. Garthoff, "Soviet Military Doctrine", Rand Corporation 1953.)


as a necessary prerequisite to the overthrowing of a bourgeois manipulating state power channels. And it was subsequently recognised as necessary to galvanize the populace behind the Party for the defence of past achievements, and for conducting the war against the bourgeoisie which would be necessary in order to secure and further those achievements.

As regards the latter, Lenin concludes the paragraph quoted above with these words: "In these cases a war from our side would be lawful and just. This would be a war for the liberation of other peoples from the bourgeoisie".5

But the struggle has never been seen in isolation as military. The 1961 definition of peaceful co-existence declares that it:

"serves as a basis for the peaceful competition between socialism and capitalism on an international stage and constitutes a specific form of the class struggle between them. As they consistently pursue the policy of peaceful co-existence, the socialist countries are steadily strengthening the positions of the world socialist system in its competition with capitalism. Peaceful co-existence affords more favourable opportunities for the struggle of the working class in the capitalist countries and facilitates the struggle of the peoples of the colonial and dependent countries for their liberation".6

"Politics is the guiding force, and war is only the tool".7

5. Lenin, V.I., op.cit.
6. Program of the CPSU, as adopted by the 22nd Congress (Foreign Language Publishing House, Moscow, 1961).
7. Lenin, V.I., Leninskii Sbornik, XII, Moscow,1931, p.34.
Marshal Sokolovsky differentiated thus between the relevant terms: military strategy encompasses the study of "the conditions and factors that determine, at any given historical moment, the nature of a future war, the distribution of military and political forces, the quality and quantity of weapons, the military and economic potential, the probable composition and strength of the opposing coalitions and their geographical distributions", and it should "develop the means for its (the future war's) conduct".

Military doctrine, however, is "the officially approved system of concepts on the fundamental problems of war"; "the general political line of the (every) state's ruling social class determines military doctrine." Military strategy only proceeds "from these general positions, develops and studies concrete problems bearing on the nature of the war" and is therefore subordinated to military doctrine. The distinction corresponds to that between war and politics.

Some further quotes provide good syntheses of the doctrine(s): Colonel Sidelnikov started by defining Soviet military science as the absolute base, which consists of "a unified system of knowledge about the preparation and waging of armed struggle". Military doctrine is thereafter defined as "the unified guiding view accepted by the Soviet State concerning the nature and aims of a possible war, concerning the fundamental/


fundamental problems of preparing the country and the entire people" .... "It is based on the conclusions of Soviet military science ..... (and) is a synthesis of (its) knowledge". 10

Military science cannot "decline to analyse new phenomena" 11 as it must look to the future and consider all possibilities and hypotheses. Military doctrine, however, consists of that which is appropriate to the contemporary period, and is therefore inherently correct and non-flexible. Any challenge to it would hence cause "a serious fissure in the entire military structure", 12 and would consequently be unthinkable.

Finally, a definition by Colonel General Shtemenko: 13 
"(One elaborates) a single statewide system of views on the character and purpose of war in the given historical conditions, the principles of military construction and the art of war, and (prepares) the country and the armed forces for war. Such a system .... has been arbitrarily called military doctrine".

Both Sidelnikov's and Shtemenko's contributions 14 are of interest also for what they said concerning the historical development of Soviet strategic thought. Sidelnikov emphasised that Soviet Military Doctrine is based on "Lenin's keystone ideas", and such developments of these as exemplified by M.V. Frunze's 1921 article on "A Unified/
Unified Military Doctrine and the Red Army. Shtemenko was equally firm as to the origin of military science and doctrine, as forming part of "Lenin's legacy". But then they both go on to admit to a dearth of strategic thought thereafter.

Sidelnikov declared that Stalin had attempted to "erase" and "belittle" Soviet military doctrine: "There were (consequently) almost no well-worked-out general principles and theses on waging military operations by the troops in the initial stages of the war" (Second World War). It was only later that advances were again made: "A veritable revolution has taken place in military affairs since the Second World War". But the Doctrine was only really to be "developed ... in the materials of the 22nd Party Congress". Shtemenko amplifies: "... during the personality cult Lenin's military legacy was hushed up and distorted .... military theory was formulated largely according to the dictums of J.V. Stalin. .... The possibility of the enemy invading our territory was completely ruled out".

This confirms the evidence presented in previous chapters regarding the 'newness' of Soviet strategic thinking. It furthermore reflects on Khrushchev's partial liberation of such thinking from the encrusted dogmas, and on his forcing of the military to consider nuclear and missile developments and implications within a sophisticated framework.

It also focuses on the extent of the Party's absolute authority as the sole definer of military dogma at any one period. The military leadership's authority is absolutely/

15. 'Voennaya Nauka i Revolyutsia', No. 1, 1921 (See Sidelnikov).
absolutely limited as within the frame of the definition. It has, as quoted above, to "proceed from these general positions", and can develop and study only "concrete problems". It can put the theory into practice and it can develop the theory's implications, but it cannot alter the theory.

It can generally control and manipulate the material accorded to it by the theory. But even this is limited as regards "modern weapons", since these "are such that the political leadership cannot let them escape its control." In other words, they and their potential use have political implications which inherently categorise them as falling within military doctrine. Hence the demand for absolute control inherent in previously treated comments on strategic preparedness, and inherent equally in the approaches to SALT.

Yet there remains, of course, a 'grey area'. The mentioned SALT approaches highlighted one such area, with apparent discrepancy between Party and government positive interest, and military scepticism and distrust. In a favourable feature article on the opening of SALT negotiations in Helsinki on 18th September 1969, Pravda wrote: ".....V.S. Semionov (head of the Soviet Delegation).... stressed the great importance attributed by the Soviet Union to the negotiations that are now beginning, the positive results of which will undoubtedly benefit Soviet-American relations as well as strengthen general peace. The slowing of the strategic arms race, the limitations and then reduction of such weapons, V.S. Semionov noted, is an important aim." 17

The military press, however, chose largely to disregard the talks, and instead made pointed reminders regarding the need to be vigilant and not jeopardize Soviet might.

But one must be careful. The most belligerent of the "military" spokesmen, and those most often cited by commentators convinced of the existence of acute military-Party tension—namely Colonels Ribkin and Bondarenko—18—are in fact political officers. Both are instructors at the Lenin Military-Political academy, and therefore speak for the Party; their most uncompromising articles in 'Communist of the Armed Forces' have been accompanied by small-print announcements that they form part of special Party lecture series. Or one may revert to Pravda coverages of SALT developments: Their favourable inclination should not be allowed to obscure their unwavering support for a high relative state of Soviet readiness; agreement is favoured, but not if it endangers Soviet security.19 A final comment might encourage a more complex conception of Party aims and endeavors than that commonly accepted in the west. Differing tenor and superficial contradictions as between articles are often explained by a consideration of different readerships, and/or contemporary domestic or external politics. There is after all censorship; real editorial independence in the western sense does NOT exist (see also footnote 18). Articles in the military press have certainly been cleared by Party censorship organs.

18. Kommunist Vooruzhiennikh Sil, See especially No. 17 September 1966, No. 24, December 1968 and Nos. 7 & 8, April 1969. Note: Bondarenko's old thesis was titled "The Revolution in Military Affairs" (Sovremenaya nauchno-tekhnicheskaya revoliutsia i dialektika rasvitiia boevoogo oruzhia); this partly explains his preoccupation. But see Krasnaya Zvezda 15th January, 1970 for yet another assertion of absolute Party authority over Military Doctrine, and for a defining of strategic problem complexes as lying within the Party's domain. Party military friction inferences are superficial, and all too often evince only a...
Military Representation on Party and Government Bodies.

It is clearly often all too easy to infer military-Party friction; apparent discrepancies are usually misleading. There is a considerable degree of integration of the military within the Party.

On the one hand Party membership is more widespread in the Armed Forces than in any other profession of any scale. Thus by 1965 Malinovsky could assert that "almost 90% of our officers, Generals and Admirals are Communists or Young Communists". Just over a year later, on 3rd April, 1966, he revised the figures as follows: 93% of officers were then declared to be Party or Komsomol members, as were 80% of total Armed Forces' personnel. There remained some variations as to relative Service percentages. For example "nine-tenths of all sailors are Communists or Young Communists". But in no service was the percentage very significantly below average.

On the other hand there was considerable military representation on the higher elected organs of both Party and State. The latter will be considered first.

Overall scale of representation is indicated by the late 1965 announcement that "10,760 fighting men have been elected to the (1966) USSR Supreme Soviet, the Union and Autonomous Republic Soviets, and to the local Soviets". A similar number was elected in 1969; of these 58 marshals,

18. (cont.) faulty appreciation of the Party's role.

19. See e.g. V. Shestov's long analysis in Pravda, 3rd February, 1971. Note: V. Shestov is suspected of being a pseudonym for Semionov.


marshals, generals and admirals were elected to the
Supreme Soviet which convened in June 1970.\textsuperscript{23}

They included all the Military District commanders,
all the Fleet commanders, both PVO (air defence) commanders,
and all the commanders of Soviet military Groups abroad.

Turning to military representation on Party bodies,
it was in 1966 announced that the 23rd CPSU Congress was
attended by 352 military delegates representing 890,000
Party members and candidates.\textsuperscript{24} T.H. Rigby considered it
appropriate to correlate Border Guard representation,
and concluded that a disproportionate 7\% of the total Party
membership belonged to the Armed Forces or the Borderguards.\textsuperscript{25}

But it is more appropriate to analyse the Central
Committee elected by the Congress, and to base the analysis
on that elected by the 24th Congress in 1971\textsuperscript{26} - as
providing the latest data. There were few changes from the
1966 Congress. 13 military representatives were re-elected
(Bagramyan, Batitskiy, Gorshkov, Grechko, Dement'yev,
Yepishev, Zakharov, Konev, Krylov, Moskalenko, Sokolov,
Chukikov and Yakubovsky); 3 ex-candidates became full
members (Lyashchenko, Maryukhin and Ogarkov\textsuperscript{27}); 6 new members/


\textsuperscript{26} Pravda, 10th April 1971.

\textsuperscript{27} The fact that Col. General Ogarkov, the Soviet Military Representative at SALT, was raised to full membership while V.S. Semjonov, the Senior Soviet Representative at SALT, remained a Candidate does not reflect so much on SALT relationships as on Ogarkov's position as 1st Deputy Chief of the General Staff, - his predecessor here was elected a member of the 23rd Congress.
members were elected (Bugayev, Ivanovsky, Kulikov, Kutakhov, Pavlovsky and Shavrov). 5 candidates were retained (Budenny, Getman, Crushevoi, Lobov and Psurtsev); 9 new ones were elected (Gorchakov, Koldunov, Kurkotkin, Mayorov, Okunev, Salmanov, Smirnov, Tolubko and Tretyak), — their distinguishing feature being youth, with the 'old man out' 56, the youngest 47 years old. It ought to be noted that the size of the turnover is deceptive: a large number of 1966 members or candidates not retaining their seats in 1971 had died.

The smaller number of candidates elected in 1971 meant a decrease in total military representation, from 10 to 9 per cent. But the net addition of 6 full members meant that the military voting strength increased from 8.2 to 8.7 per cent (thus even more disproportionate than their share of total Party membership).

Service-wise the 1971 C.C. looked as follows: The Navy had 3, the Air Defence 5, the Strategic Rocket Troops 2, the Air Force 2, the Rear Services 1, the Political Administration 4 (no change) and the Ground Forces 2 representatives.

Only the most critical Military Districts, Groups abroad and Fleets gained representation on the Central Committee. Changes here are therefore noteworthy. In 1971 they reflected first of all the Chinese border tension: 1966 had produced Candidate memberships for the Pacific Fleet and the Turkestan Military District commanders, and Audit Commission membership for the Far East M.D. Cmdr.; 1971 produced Candidate stature for the Pacific Fleet and the Far East M.D. commanders, Audit Commission membership for the Trans-Baikal M.D. Cmdr., and full Member stature for the commander of the new Central Asian M.D. which was carved/
carved out of the Turkestan District. - In the west: the commander of Soviet Forces in Germany was raised from Candidate to full Member; the commander of the Central Group of Forces (Czechoslovakia), which was constituted following the 1968 intervention, was appointed a Candidate member.

These bodies are too unwieldy in size (The 1971 C.C. contained 396) and meet too infrequently to serve as effective policy deliberators. One must therefore turn elsewhere for the decision-making agencies concerned with such matters as military doctrine or strategy - see following chapter. But a study of the composition of the elected organs remains of value as one indicator of military-Party-government inter-relationships.

88 Strategic Utilization of Economic Factors:

The USSR may have conducted more serious research than any other power into the necessity for a close alignment between the economy and strategic concepts, and into the benefits to be accrued from such a relationship.28

Symptomatic of this was the 1957 publication in Moscow, by the Military Publishing House of the Ministry of Defence, of a lengthy investigation by Colonel A. Lagovskij29 entitled "Strategy and Economy", with the sub-title "A Sketch of Their Mutual Inter-connection and Influence". The book/

28. Adler Karlsson's "Western Economic Warfare 1947-67" (with a foreword by Gunnar Myrdal), Almquist & Wiksell, Uppsala, 1968, which documented the extensive economic warfare conducted against the "West" through embargoes and other control measures, confirms (especially) US awareness of such. Yet these actions and measures remained somewhat "implicit". The treated Soviet analysis may or may not have been affected by U.S. practices. It remains unique in its semi-official thoroughness. See Pravda 13th November 1969 for article re contemporary and continuing Western economic warfare.

29. Given to me with most helpful comments by Colonel Egge of Norway.
book deserves note both for its subject-matter and its pioneering public and frank treatment of this. The first chapters gave an historical summary of the increasingly close connection between strategy and economy, of strategy's increasing dependence on the conflicting parties' levels of technical and economic development, and of its dependence on their economic potential. A nation's economic, moral and military potentials were accepted as inherently inter-related.

The central third and fourth chapters presented a systematic survey of the economy's determining effect on strategy. It was noted that military dispersal considerations might dictate the building of smaller but more numerous factories of plants, even when considerations of optimality would otherwise favour greater concentrations. The necessity to co-ordinate the economy in peacetime with potential military requirements was taken for granted, and part of the analysis concentrated on evolving the most efficient method for such co-ordination: "The strategic leadership is duty-bound to act as consultant in numerous questions concerning the state's economic life, which in one way or another may influence the nation's defensive capabilities".

Similarly: "Under modern conditions a demand has arisen for officers who are specialists in military economy. Let us call them (analogous to military engineers) military economists. Such specialists must be added to higher military staffs, but also to the planning organs and the economic organs within the state administration".

Finally: "One must not believe that the military under modern conditions shall concern itself only with purely military concerns, and the economists with economic concerns".
concerns*. The book also contains an analysis of the effects on strategy of an enemy’s economy. The author treats the USA’s and Western Europe’s dependence on overseas resources (a table showing "strategic raw materials" and their locations is provided) and on sea transport. Naval strategies and technical innovations which affect such transport are dealt with in some detail. But the quintessence remained within the scope of the above quotes. And it clearly commands the same acceptance today as it did then.

It is relevant to compare the quintessence with the previously quoted definition of peaceful co-existence, found in the Party Program adopted in 1961 (at the 22nd CPSU Congress).30 This definition was quite explicit in defining peaceful co-existence only as the policy alternative which, at the time, was most likely to facilitate the "struggle of the working class in the capitalist countries", and the struggle of the nonliberated peoples, "through the strengthening of the position of the World socialist system". The theoretical implications of this thesis were not cogently pursued or elaborated in the West until General Andre Beaufre and his colleagues (Institut d’Etudes Strategiques) presented their thoughts on "indirect" strategy in 1965.31 They saw international relations as a battlefield in which the communist powers, having lost the/

30. Program of the CPSU, Crosscurrents Press, New York, 1961; See also Chapter 8A.

the option of force due to the nuclear stalemate, now attacked the West through indirect means. And while one might question the premise (the effects of the nuclear stalemate), this does not lessen the value of focussing attention on the alternative "weapons"; Beaufre's analyses explicitly considered both political and economic manoeuvres as strategic manoeuvres.

As Michael Howard put it:32 strategy had progressed from the "operational" (Clausewitz and Jomini), through the "logistic" (the great build-ups of World War Two), to the indirect. Beaufre's tendency to present his ideas as assumptions, and not argue them out, was lamented by Howard. But he clearly agreed with the conclusion, that the old concepts of strategy are today probably worthless. And it is not difficult to find concrete examples that may serve as evidence for Beaufre's views.

For example: in the USSR during the latter 1960's the rate of expansion of certain areas of the economy was such as could not always easily be explained in terms of "immediate" national needs, actual or potential. Three areas to which attention has been drawn by various commentators are:

(1) The dynamically expanding merchant marine;

(2) The vigorous build-up of aluminium producing capacity, especially following the greatly increased power production of the Baikal and Siberian river hydro-electric complexes;

(3) The greatly augmented oil and gas extraction and procurement made possible through, for example, the newly discovered Siberian fields, and through the completion of the trans-continental pipe-lines to Northern

Northern, Central and Southern Europe (one might also mention the 1968 agreement to link Persian fields to this net).

A few comments regarding two of these areas, those of shipping and of oil and gas, will suffice to clarify the point at issue and to give it a just perspective.

In a February 1969 APN (Novosti) interview, Soviet Merchant Marine Minister Victor Bakajev gave the following data for the expansion of the Soviet Fleet: it then stood at over 11 million tons d.w., and was expected to stand at 13 million tons by 1970. After that one expected an increase of one million tons each year, with a tonnage of 22-23 million tons by 1980. The building program which saw the Soviet Fleet increase from 2% of the world total in 1960 to 6.5% in 1967 was thus clearly envisaged as continuing. The dynamic nature of the expansion was shown by also/ the facts that: over 80% of the fleet's ships were built within the last few years; two-thirds had speeds above 14 knots; and individual size (cargo capacity) in 7 years increased by 50% for freighters and 80% for tankers. There was furthermore an emphasis on the building of "specialist" ships such as container vessels (whose share of goods transport was expected to multiply by 4 or 5 times within 7 years).

When one considers the fact that (as Bekajev noted) total world fleet capacity was expected to rise only from about 2 billion tons in 1968 to 3 - 3.5 billion in 1980, it/

it is clear that the Soviet expansion must affect the relative position of other fleets and established consortiums. The cutting of rates (economic warfare) is a weapon that may be necessary to assure access to those trading lanes organized by Western consortiums and monopolies. (As was demonstrated in 1968 with regard to the Australia trade, until a compromise was arrived at, and limited Soviet participation in the established consortium was agreed upon).

But the clear Soviet appreciation of the inter-relation between economic, military and political factors, and the appreciation that economic criteria on occasion both must, and can, be subordinated the other criteria, points to further aspects. It is evident that a fleet of the size in question, the operation of which permits unfavourable economic returns to be considered as compensated by political or other rewards, must represent a potent weapon. Its potential use has strategic, as well as economic, consequences and dangers for "Western" merchant fleets.

With regard to Norway in particular the danger appeared to be acute, because of the unusual dependence of her/

34. The Times, 21st January, 1969: 36 cut-price Soviet sailings per year were envisaged - about 12 was the number finally agreed on. See also Sunday Times, 10th November, 1969 for a relevant and interesting article by Dennis Bloodworth.
her balance-of-payments on the large "invisible returns" from her fleet. 35

Yet the Norwegian Shipping Federation — as opposed to other quarters — saw little danger. They remained convinced that projected Soviet capacities were not incompatible or unreasonable in consideration of projected/

35. The figures and information are taken from "Shipping and Society", Norwegian Shipping Federation, Oslo, 1969.

Figures for 1st July, 1968, (in 1000 brt.):

<table>
<thead>
<tr>
<th></th>
<th>Total Fleet</th>
<th>Tanker Fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>194,152</td>
<td>69,214</td>
</tr>
<tr>
<td>Liberia</td>
<td>25,720</td>
<td>14,663</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>21,921</td>
<td>8,372</td>
</tr>
<tr>
<td>U.S.A.</td>
<td>19,668</td>
<td>4,487</td>
</tr>
<tr>
<td>Norway</td>
<td>19,667</td>
<td>9,992</td>
</tr>
<tr>
<td>Japan</td>
<td>19,587</td>
<td>6,755</td>
</tr>
<tr>
<td>USSR</td>
<td>12,662</td>
<td>2,936</td>
</tr>
</tbody>
</table>

- US figures include old reserve fleet.
- Liberia's fleet is a liberty flag fleet ("no tax") encompassing a motley collection of foreign owners.
- Norway's is the newest fleet aside the USSR's, with about 50% of her fleet less than five years old as opposed to the world average of only 30%. Her fleet does not enjoy government support, and it flourishes only due to its ability to specialise, modernise and provide efficient service.
- The other fleets are all government aided in various ways; thus as of 1966 the U.K. government subsidized their Lines' ship acquisitions (investments) to the extent of 20-25% of costs. One might venture that this lack of efficiency necessarily crystallizes the fleets' vulnerability in free market conditions, a vulnerability necessarily magnified when opposed to indirect strategy (price-cutting "warfare").
- The US fleet exists only due to Government subsidy measures based on strategic defensive needs.
projected Soviet export increases. One might perhaps infer a confidence that, should their prognostication prove wrong, then the sophisticated character of their fleet would nevertheless ensure its future — a confidence that other, more outdated, Western fleets would suffer more (see footnote 35).

A comparable situation emerges when analyzing Soviet oil and gas procurement prognostications. On the one hand, extraordinarily large production increases have been envisaged by 1980; at one time about 700 million tons presently about or somewhat less than 600 million tons. Reports of the discovery and development of new fields underlined the sense of forced development. A 1969 report, for example, declared that extraction at the new Tiomen fields in Northern Siberia had increased from 1 million/

36. My then colleague at the Norwegian Defence Research Establishment, Mr. Overregn, ascertained this (partly on my initiative and on my behalf) through numerous conversations with leading officers of the Federation; Oslo, May, 1969.

37. Pravda, 19th October, 1967 (in accordance with the somewhat overoptimistic directives of the Programme of the CPSU of 1961; Foreign Languages Publishing House, Moscow, 1961).


million tons in 1965 to 3 million tons in 1966, 6 million in 1967, 12 million in 1968, and finally, 20 million in 1969; the indicated progressive increase rate was projected indefinitely. An other major new area of extraction, in Western Kazakhstan, has been described as "one of the richest oil-bearing regions in the world" — with its main fields (at Mangyshlak) producing 10 million tons in 1969, 12 million tons in 1970, and 100 million tons projected for 1980. Drastic parallel increases of gas procurement were equally confidently envisaged.

When this is coupled with reports of a serious undercutting of Western prices in oil export markets (of at times over 20%), then the cycle of suspicious apprehension again starts to roll. But a report from the "Petroleum Press Service" suggested that the Soviet "salesdrive" was not of a size or character to justify apprehension. And recent estimates of the 1980 requirements of Soviet domestic/

---

40. Pravda, 16th February, 1970 sets the ambitious targets for 1975.


43. Ibid., And see e.g. Soviet News, 28th January, 1969, p. 42, as published by USSR Embassy, London.

44. Carlson, V., "United States Naval Institute Proceedings", May 1967, noted Soviet oil prices as being 10-20% lower than Western prices on the world markets; Foreign Report, 11th March, 1969, London, noted contemporary "dumping" of Soviet oil in Western Europe at about US$12.75 per ton, or about $5.00 per ton lower than the European price of Gulf oil. The report was contained in an analysis of Soviet expectations of increasing sales to the FRG from 4 million tons to about 6 times that figure.

domestic consumption do indicate that the expected production can be fully utilized in the home market.\footnote{46}

The conclusion must therefore be restricted to a reiteration of the comment regarding the merchant fleet. The Soviet undercutting of world export prices cannot be shown to represent more than a necessary sacrifice, to achieve a distribution of trade commensurate with her economic growth as a whole. The only threat is potential; it lies in the willingness to utilize production capabilities in a non-orthodox fashion - a willingness inherent in the express acceptance of "Grand strategy".

8B(i) The Military Budget: Guns and/or Butter?

Some discussion of the 'micro-factors' involved appears necessary, to round off the treatment of economic effects on strategy. There is no doubt that some disagreement has existed, and does exist, regarding the relative weights to be assigned to military vs. civilian economic needs, with the protagonists only partly split along professional lines.

The size of the problem is indicated by looking at (for example) the 1967 budget. Defence allocations officially constituted 13.2 percent of the total budget. But unofficial reports then circulating in Moscow credited/

\footnote{46. "Research Bulletin" \textit{Ibid.} Valentin Sushin, USSR Minister for the oil extraction industry confirmed this at a reported 1969 press conference. He "doubted if Soviet oil exports would rise much in the near future because domestic demand was increasing so fast." He placed Soviet 1968 oil exports at 57 mil. tons and estimated 1975 domestic needs at 480 mil. tons of oil ("Soviet News", 28th January, 1969, Embassy of the USSR, London).}
credited Brezhnev with admitting that 18 percent was a more realistic figure, when taking into account military value-endeavours incorporated in other budget posts. Western strategists in Moscow tended to increase this again, to 20-22%. Reports of Academician Aganbegyan's "secret speech" of 1965, which indicated that defence industries accounted for about a third of the national total, supported exaggeration of the military's economic role and position.

Or, one might turn to, for example, the 1969 budget. This was presented to the Supreme Soviet by Finance Minister Garbuzov on 10th December, 1968, and allocated 17.7 billion roubles to defence. Western reactions were epitomized in the Economist's estimation, that the realistic figure was between one-fifth and on-third above the official allocation. In other words, the realistic budget was estimated to be of an order of 21-24 billion roubles. Estimates along these lines received support also from information provided by U.S. Secretary of Defence Laird.

There were two basic problems involved. One concerned the size of "hidden" budgetary allocations, and the other concerned the rouble-value question. Estimates of either (are at best) educated speculation, since the essential primary data are unobtainable. But a survey of some such/

47. Information received by author in Moscow, May, 1969.
48. Information received by author in Moscow, May, 1969.
such speculation will be presented below, since it does help one acquire a more composite picture. It is thought to convey as accurate an impression as may be gathered at this time.

It appears conceptually advantageous first to present a chart of the last years' military budgets, and the percentages these have formed of the total Soviet budgets:

<table>
<thead>
<tr>
<th>Year</th>
<th>Defence Budget in Billion Roubles</th>
<th>Defence Budget as A Percent of Total Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958</td>
<td>9.4</td>
<td>14.6%</td>
</tr>
<tr>
<td>1959</td>
<td>9.4</td>
<td>13.3%</td>
</tr>
<tr>
<td>1960</td>
<td>9.3</td>
<td>12.7%</td>
</tr>
<tr>
<td>1961</td>
<td>11.6</td>
<td>15.2%</td>
</tr>
<tr>
<td>1962</td>
<td>12.6</td>
<td>13.9%</td>
</tr>
<tr>
<td>1963</td>
<td>13.9</td>
<td>15.9%</td>
</tr>
<tr>
<td>1964</td>
<td>13.3</td>
<td>14.4%</td>
</tr>
<tr>
<td>1965</td>
<td>12.8</td>
<td>12.6%</td>
</tr>
<tr>
<td>1966</td>
<td>13.4</td>
<td>12.7%</td>
</tr>
<tr>
<td>1967</td>
<td>14.5</td>
<td>13.2%</td>
</tr>
<tr>
<td>1968</td>
<td>16.7</td>
<td>13.5%</td>
</tr>
<tr>
<td>1969</td>
<td>17.7</td>
<td>13.2%</td>
</tr>
<tr>
<td>1970</td>
<td>17.9</td>
<td>12.4%</td>
</tr>
<tr>
<td>1971</td>
<td>17.9</td>
<td>11.1%</td>
</tr>
</tbody>
</table>

One analysis of interest is Emile Benoit's, of 1968: "Economics of Arms Control and Disarmament, the Monetary and Real Costs of National Defence".52 Weighing "real procurement costs", "opportunity costs of defence", and other similar data, as well as the difficulties surrounding the establishment of their value, he hazarded the following estimates of "Purchasing Power Equivalents" (PPE), as between US and USSR Defence costs at the time:

---


<table>
<thead>
<tr>
<th>Country</th>
<th>Real Costs Million $</th>
<th>Real Cost Per Capita PPE $</th>
<th>Monetary Cost (National Unit as % of Currency, Millions)</th>
<th>Monetary Cost as % of GNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>63,283</td>
<td>322</td>
<td>63,283</td>
<td>9.1%</td>
</tr>
<tr>
<td>USSR</td>
<td>44,500</td>
<td>191</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

There is little doubt that considerable military-oriented funds, for example as pertains to research and development, are "hidden" under other budgetary headings (And one may compare this to similar non-disclosed expenditures in the U.S., e.g. research and development financed by private firms competing for contracts). One ought to be sceptical regarding the all-too-easy over-rating of the extent of these practices. But if one minimizes US 'hidden expenditures', e.g. by considering a large proportion of such private company endeavors as duplication-waste, and if the 1967-69 data presented above were correct, in estimating that "real" Soviet defence expenditures represent an increase of, say, 25-30% of the official figure, then this would tend to produce respective PPE's of near comparable order (see below).

Two recent estimates deserve appreciation, R.W. Davies and R. Amann calculated in 1969\(^{53}\) that ".... the USSR operates a research and development establishment comparable in size to that of the U.S. The differences between the two are getting fewer". Abraham S. Becker of the Rand Corporation elaborated:\(^{54}\) he declared that defence did not take, twice/

---


twice as large a proportion of Soviet GNP as did the equivalent U.S. allocation out of a GNP nearly twice as large. To the contrary, the respective percentages were in fact similar. But as regards finance allocated to the military, and military hardware costs, there was reason to believe that the USSR received in excess of US$2.00 worth per rouble (vs. official rate of $1.11 = 1 rouble). The USSR furthermore enjoyed favourable manpower costs. For these reasons Soviet military expenditures could be declared equivalent to those of the U.S., in spite of her having only about half the U.S. GNP, and yet allocating only a similar percentage to defence.

Becker cautions against the overrating of "hidden" expenditures, and he is plainly aware of and wary of the consequences of the common ignorance of price behaviour in the military sphere. But his hazarded conclusions support the judgement that the effective military value procured through the respective budgets is comparable, - as is the respective strain on the economies (See also Economic Analysis in Chapter 3, and below).

Two further points must be mentioned. One relates to the 1969 U.S. Arms Control and Disarmament Agency survey of World Military expenditures. It established the fact of rapid

55. U.S. News and World Report 13th April, 1970, p.34 presented an extract from a list of U.S. weapon systems being developed, prepared for the Senate Armed Services Committee by the State Department. The figures concerned 22 weapon programs: Total original estimates - $39,750 million; total current estimates - $54,673 million; note also the 1969 Pentagon report, which concluded, following an analysis of previous weapon developments, that achieved operational efficiency was consistently far inferior to theoretical or planned-for efficiency (See Chapter 5A)

56. As yet unpublished 1969-70 research by Professor Ariki at the Institute of Soviet Studies, Glasgow, clearly demonstrates the adverse effects on the economic growth rate of military budgetary allocations.
rapid world-wide increases in armaments, as also the fact
that the relevant graph is going up at a faster rate than
the World GNP graph. It thus documented that military
expenditures constitute an ever-increasing drain on
resources; it expanded by noting that those expenditures
already, with only a few exceptions (these exceptions not
including the U.S. and the USSR), significantly exceeded
the nations' expenditures on education and health.
Other authorities have documented the increasing economic
drains of military procurement. One of the more prominent
was the Stockholm International Peace Institute; its 1969
report received the following acknowledgement from Pravda:
"The compendium documents the yearly spiralling of the arms
race that continually increases the danger to international
peace and the burdens of expenditures to support it".

The second, related, point concerns military over-spending and unreliance. It is clear that U.S. military allocations
have been wasteful, with ultimate weapons system costs
spiralling far above the original estimates on which their
approval was based, and with achieved weapon efficiency far
too often proving greatly inferior to the prognostications
which had justified their budgetary allocations (= See
footnote 55). Soviet industry's structural kinship to the/

Bureau of the U.S. Arms Control and Disarmament Agency,
1969. A synopsis is available by A. Alexander, "The Cost
of World Armaments", Scientific American, October, 1969,
pp. 21-27. - The analysis, in practice, accepts relative
U.S.-USSR PPE estimates akin to those by Benoit presented
above.

58. "Yearbook of World Armaments and Disarmament Problems",
Stockholm International Peace Institute (Director: Gunnar
Myrdal), Stockholm 1969.

the monopoly situation of U.S. Defence industries encourages
the inference that similar developments had occurred in
Moscow, though perhaps not on quite the same scale. The
waste resulting from monopoly and bureaucracy is probably
comparable, but the financial waste of the immense profits
in the U.S. industry is presumably greater than that
possible under Soviet conditions (?).

One further aspect to this military unreliance must be
considered. This is that inherent in the 1969 testimony by
Jonathan B. Bingham (U.S. Congress Representative, and
Member of U.S. U.N. delegation), and which he himself
called "illustrative" of "the present trend": "In a
presentation with regard to relative Soviet and U.S. strength
in submarines, the Navy deducted from effective U.S. strength
x percent for those vessels that would have to be in home
port at any given time. When asked what percentage had been
deducted from the Soviet strength figure for the same
reason, the answer was that no deduction had been made;
the incredible excuse was that 'we don't know what percentage
their lay-up is'"(!)

The problem is the same as that referred to in Chapter
5, with relation to the military's propensity to maximise
degradation factors associated with its own weapons, and to
minimise those of the antagonist (See also the 'overkill'
discussion at the end of the same Chapter).

It remained clear, however, that neither economic
(or uneconomic) considerations, nor otherwise induced
stringency, could alone force curtailment of military/

60. Bingham, J.B., "Can Military Spending be Controlled?"
military procurements thought necessary by the decision-making authorities. Referring to projected Arms Control/Disarmaments talks with the USA, a prominent Soviet Diplomat is reported to have emphasized the following in the Spring of 1969: 61 Soviet authorities considered an arms agreement as desirable and necessary, but as no more pressing on economic grounds for the USSR than the USA. He declared a firm belief that "the 1941 complex" was still vivid enough, to ensure that the Soviet populace would endure the financial hardships necessary to guarantee that defence requirements were met, - while he doubted that the same was true of the Americans.

The assertion had a certain propaganda value, but the belief is nonetheless one widely held. The Soviet Union had clearly become confident regarding her capability to sustain whatever military expenditures she considered to be necessary. 62

61. Vorontsov, of the USSR Embassy in Washington was the Diplomat; the comments were made to a colleague.

62. An interesting light is thrown on soviet defence industries' privileged position as regards scientific manpower, on its productive capacity, and also on Soviet military-civilian intergration, by Brezhnev's assertion: ".... 42 percent of its output is used for civilian purposes". See his Report to the Central Committee, the 24th CPSU Congress, 1971 (pg. 77 of the Novosti edition). Our inference of confidence is more than brought out by the Report as a whole.
Neither the scope nor the underlying assumptions and operational motifs of contemporary Soviet Civil Defence programs appear to be properly appreciated in the West. The rare intimations, such as in Elise Nouël's highlighting of the similarities between Soviet programs and Norway's unique (as concerns NATO countries) "total defence" system, have been too restricted both with regard to perceived concern and to depth of analysis.

The most common defect relates to the prevalent lack of a proper recognition of Soviet conceptions of nuclear implications. This was illustrated by those who contrived to see in Dnjepr and other manoeuvres of recent years a Soviet trend away from nuclear and back to 'conventional' concepts. Yet Soviet sources have been, and are, frank and unequivocal: the introduction of nuclear arms is seen as of quite a different scale of implication than, say, the introduction of planes or tanks. It is accepted as introducing a new era in the way that the introduction of gunpowder once did; an era/

63. Nouël, Elise, "Civil Defence in the Soviet Union and Chechoslovakia" NATO Letter, January-February 1971, pg. 13-16: "(The USSR's) main objectives are to protect the population against nuclear, chemical and bacteriological weapons; to protect industrial establishments and maintain production; to protect agricultural resources; lastly, to mount rescue operations and to eradicate as quickly as possible the effects of an attack."

era in which most previous concepts become irrelevant, and in which traditional military assumptions and techniques have become obsolescent and unsuitable for all but the most limited of operations - such as against military pygmies (1968), or such as may be described as police operations (Ulster).

The inherent strategic and administrative implications have been accepted: dispersed economic investments are sanctioned even where concentration is optimal\(^6\)

\(\text{every}\) branch of the Armed Forces is trained to nuclear-oriented requirements (independent unit survival capabilities plus maximum operational flexibility, intra-Force and inter-

\(\text{Force, are prime concerns})\(^6\), and equipped with suitable materiel (indicative of which are the new Kresta II class destroyers, which are not even assigned conventional armaments!)\(^6\)

\(\text{every}\) civilian receives extensive training and/or education oriented towards nuclear eventualities, and the combatting of their effects. A secondary rationale of the latter is the effecting of more potent partisan/

\(65.\) Col. A. Lagovsky, "Strategy and Economy - A Sketch of their Mutual Inter-connection and Influence", Voenizdat, Moscow, 1957: Officer specialists on military economy must be added not only to higher military staffs, but also to the planning organs and economical organs within the state administration; the military must to-day concern themselves also with non-military affairs ....


\(67.\) See e.g. Bundeswehr's "Soldat and Technik", No. 11, 1969, pg. 626, and same No. 10, 1970, for art. on "Neue und Modernisierte Kriegschiff-typen der Sowjet-Flotte", (incl. survey on 'Kresta II').
partisan potentials: guerilla, or "People's War", concepts are seen as the remaining adjunct, complement, or alternative to nuclear-affected modes of warfare.

Soviet nuclear perspectives are of long standing, but the emphasis on and scope of the related civilian-oriented programs were significantly extended during the late 1960s. During the Khrushchev years their implementation had been hampered by the vagueness and resultant policy vagaries of his insistence on the Party's "role and influence". After his ousting it was more readily acknowledged that the Party must restrict itself to providing "assistance", and that the military must be given freedom and responsibility to effect the programs accepted by the policy-makers. The military desiderata -- instilling the relatively sophisticated skills now required by potential mobilizations as well as improving survival prospects and general preparedness -- were possibly augmented by increased Party appreciation of the side-effects -- e.g. more factory discipline etc. -- (?).

   - And see e.g. Marshal Grechko in "Voenno-Istorichesky Zhurnal" No. 6, 1966, or Col. Gen. Yefimov, Dep. Cmdr. of Chief Polit Admin. of Soviet Army and Navy, in Izvestia, 16th November, 1965.
Civil Defence was in 1966 defined as "a system of state-wide defence measures being carried out throughout the country for protecting the populace and the national economy from the weapons of mass destruction, and also for rescue work in the zone of a possible strike". Every city and inhabited point was to be given protection. Prime shelter-building efforts were to be directed towards ensuring "the uninterrupted operation of units of the national economy if nuclear war should break out". As for the population, cost and technical difficulties precluded any encompassing shelter-building program. But "planned and systematic" training would be given to "workers, employees and the general public"; "attention is being focussed on the preparation of the entire populace, on the ability to help oneself and to help one's neighbour". Evacuation and self-help became adopted concepts (with the implicit corollary that a nuclear era declaration of war was not likely to be immediately followed by the initiation of hostilities affecting super-power 'home areas'.)

It appears propitious first to present a tentative summary of the basic Economy-oriented efforts: shelters were constructed at or for important enterprises and institu-

72. Ibid.
73. Pravda Ukrainii, 28th October, 1966, op. cit.
74. Ibid. And see e.g. Pavly and Isivelev. "The evacuation of Urban populations", in "Sposob Zashchitii ot Yadernovo Oruzhia", Moscow, 1965. See also Text below.
institutions, and around the production equipment of industries which must continue functioning. They were built to withstand (unspecified) blast pressures, heat, radiation and potential chemical and bacteriological attacks.

And they were built for long-term occupancy, with a space allotment of 2-2.55 metres per person. Civil Defence personnel involved were organized along existing territorial-administrative structure lines, and subject to the authority of the relevant administrative director (e.g. Soviet or Sovkhoz chairman). Their work has been part-time but obligatory, with the men undergoing a minimum of 35 hours of instruction, and their civilian superiors a minimum of 70 hours. Full-time military personnel have throughout been assigned to guide and direct each "task force". And finally: the total number of active participants was claimed to have reached 20 million under Khrushchev. See below for further developments.

---


77. A. Kharkevich, op. cit.

78. Ibid. - To the extent possible, and presumably for reasons both of convenience and cost, population shelter designs are incorporated into peace-time civilian activities and needs; this author "inspected" the Arbat Metro station's protective door (to shut passage way and isolate shelter) in 1969, - and others since.


Wider-ranging efforts - Program extensions: The above endeavors were, together with the para-military cum sport like voluntary training long provided by DOSAAF, to be considerably supplemented. The first portents were soon evident, viz. the following 1965 statements:

Party and public organizations were directed to be "more concerned with the military-patriotic up-bringing of schoolchildren". And it was noted that "The YCL (Komsomol) committees are obliged to carry out more actively the work of military and patriotic education of Soviet youth and preparing them for service in the Armed Forces".

It was announced that there was to be established "patronage over military units by workers, collective farmers and cultural figures", - officially to "help strengthen and expand the army's ties with the people". The scope and perspectives were further indicated in testimony by Pavlov, then YCL First Secretary.

"Following the example of the Pacific Fleet, entire Youth flotillas have been set up in the Black Sea, the Baltic and the North Sea -----. In all corners of the Soviet Union this summer tents were pegged out for the 'Sons of the Regiment' camps where juveniles learned about military technology and studied the heroic history of the USSR Armed Forces".

And they were equally indicated by a number of other subsequent articles affirming the need to extend paramilitary programs for civilians in schools and outside. One of these revealed that new "military-political organs" had been established to administer the USSR in the event of nuclear war.\textsuperscript{85} The concept was reminiscent of earlier espousals of a more formal co-ordination of military-economic-political planning and administration, as a necessary consequence of nuclear considerations and their ramifications.\textsuperscript{86} Its apparent implementation at this time was pregnant, but more information was not made available. The portents thus remained unclear, as also the essential question of whether there had been a real innovation or merely a confirmation of an already existing formal or informal structure.

1968 saw the first concrete expressions of the new developments. On the first of January existing voluntary programs were extended to take in all youths down to grade 9. They were at the same time put on an obligatory basis. Then in November their scope was again extended, to incorporate also the training of pioneers. A lengthy September 1969 Isvestia progress report on the implementation of the decrees serves to provide an illustrative résumé.\textsuperscript{87}


\textsuperscript{86} A. Lagovsky, op. cit.

\textsuperscript{87} Isvestia, 13th September, 1969, art. by I. Potapov and V. Sysoyev on "A Matter of State - The Law on Universal Military Obligation is in effect" (The Decree in question: "New USSR Law on Universal Military Service on the training of young men of pre-conscription age").
It confirmed that all establishments, schools, institutes, factories and farms were now obliged to provide training facilities. But while some areas (Moscow and Leningrad were among those named) had done so fully, others had not yet provided the necessary facilities. Certain enterprise and collective farm executives were furthermore said to have paid only superficial attention to the required military instruction. This could be interpreted as indicating that exam papers and results had not been made obligatory. Or it could be seen to mean that satisfactory marks were handed out no matter the level of achievement, by managers whose concern or need for their men's productive capacities led them to discourage the time-consuming and non-productive military training.

Yet such deviations were to be ensured against, according to the article. It stressed that all youths had to receive preconscription military training. They must all study the service regulations and the serviceman's oath, and classes must be held to ensure mastery of drill and the firing of small-caliber weapons. Military instructors were to be chosen from reserve sergeants and first sergeants. The Komsomol should aid DOSAAF in the organization of the training, and public education agencies and military commissariats should aid both in ensuring supervision and verification of procedures and results. As a further security and benefit, the review recommended that every school and other training centre be adopted by some military unit or warship.

Five months later, in March 1970, another progress report appeared. This stressed that the Party and Komsomol/
Komsomol organizations do of course retain ultimate responsibility for insuring the universal implementation of the program (the scope of the responsibility delegated to the military being restricted to questions of curricula and modes of instruction). It was asserted that the military-patriotic theme must as a consequence "never" be absent from the pages of provincial Komsomol newspapers.

It acknowledged that there still remained areas in which the programs were not carried out sufficiently. Some areas of Central Asia and the Maritimes were singled out for criticism. It the former there were, revealingly, declared to be cases of managers taking "the wrong attitude" to the organization of mass defence work (See reasons, as analyzed above); In the Maritime territory there was said to exist "no clear notion ---- of the number of persons acquiring military-technical specialities, their distribution, or the technical centres involved."

The report stressed that this lagging must be rectified, and Kursk province (and the city of Saratov) was held up as the standard which must be emulated. There the Komsomol had organized the young people of "every district" to work on Sundays so as to earn money for the construction of shooting ranges, clubs, and "method centres" for military and patriotic training. Military reservists were utilized in the actual instruction, and participants were taught military history and theory as well as the handling of guns, rifles and other equipment. Military sports were furthermore engaged in, to secure the desired physical standards.

There did not emerge any new formal program specifically oriented towards increased shelter-construction or similar/
similar endeavors. But educationary efforts were evidently being given increased priority by the late 1960s. Not only were there such as might be presumed to be encompassed within the scope of the above described programs. There furthermore appeared a spate of surprisingly frank books for the general public, which expanded on nuclear potentials, pressed the need for relevant knowledge and suitable preparation, and provided detailed explanatory diagrams. A typical example\[89\] began by discussing various contemporary nuclear missile weapon systems and concepts. It then dwelt on strike blast, heat and radio-active effects, and provided illustrative charts and diagrams. There finally followed a comparatively lengthy treatment of Civil Defence theory and practice, again accompanied by relevant charts, sketches and diagrams (on the effects encountered at varying radii from a strike centre, on the potentials of various protective measures, on simplified air-filter construction techniques, etc.).

And it was indicative that even Moscow University, that most privileged and duty-exempt of institutions, became involved. Exhortatory posters were prominently displayed: "Comrades! Master the knowledge of national defence!"; "Every citizen must learn how to protect himself from the effects of nuclear attacks, and how to/\[89\] A. Ivanov, I. Naumenko, L. Pavlov, "Raketnoyadernoe Oruzhie i evo Porozhajushchee Deistvie", Voenizdat - Nauchno-Populyarnaya Biblioteka, Moscow, 1971. For shorter articles specifically re. related shelter developments, see e.g. I.Kraznov in Voemoie Znanie No. 1, 1967, or Lt.Gen. Shuvyrin in same, No. 10, 1968.
to protect his comrades!"  

By 1970-71, if not before, it had become impossible for anybody not to have acquired at least some knowledge. And it was clear that a large majority had received or was receiving at least some active training or instruction.

**Conclusion** - One may distinguish between three inter-relating strands: the endeavors' effect on mobilization calculations; their effects on general survival prospects; and their implications vis-à-vis 'Home Guard' and 'People's War' potentials.

**Mobilization calculations:** The 1968 intervention in Czechoslovakia and the spring and summer 1969 Ussuri border battles afforded illustrative glimpses. The former witnessed efficiently camouflaged selective mobilizations (and one may note that the utilization of Aeroflot capacity evident at Prague airport testified also to the further-ranging military-civil co-ordination treated above). The latter were accompanied by a progression of divisional up-gradings. Some previously classified as grade 3 (30% manned) were thus brought up to grade 2 (about 60% manned) standards, while some grade 2 divisions were re-inforced to grade one requirements (60-90% manned).  

Two factors deserve comment: 1) Concerns the technical aspects of acquaintance with weaponry and the utilization thereof, and/complementary abstract that the resultant knowledge must increase confidence, and hence morale. Familiarity with one's weaponry induces confidence/  

---

90. This author spent the academic year 1970-71 in Moscow, on the British/Academic exchange program.

91. Information received by author in Moscow, August 1969; The three degrees of readiness are also referred to e.g. in 'The Military Balance 1969-70', I.S.S., London.
confidence in one's ability to utilize its capabilities. —

2) Concerns the greater ease and speed with which trained civilians may supplement reservists, and be incorporated into divisional structures so as to affect their upgrading and combat readiness. This must facilitate military policy calculations and increase military options. An action such as the Czechoslovak intervention might for example otherwise have demanded a slower and more easily detected mobilization process, and might, therefore have met or meet better prepared counter-measures.

General Survival prospects: 'Familiarity' and its implications are again of paramount importance. A universal common minimum of knowledge of the theory and implementation of protective techniques, actions and devices must inherently decrease the likelihood or scope of panic, and increase survival prospects. The precise effects do not allow of calculations since they depend on too great a variety of unknowns (e.g. warning-time given) and abstracts (e.g. psychological factors). They will not suffice to negate U.S. second-strike potentials, and will therefore not affect the 'axioms' of the present era of mutual assured second-strike capabilities: it is no longer logical to expect local wars, even if nuclear, to escalate to encompass the home-areas of the two super-powers; since mutual second-strike forces entail self-destruction for the initiator of a/

of a first strike, such becomes logically inconceivable; excepting and until the procurement by one of means negating the other's second-strike, both will explicitly or tacitly accept locale restrictions throughout the course of a future war.

But Civil Defence measures and knowledge will significantly improve prospects vis-a-vis the smaller and 'cruder' nuclear powers, which remain theoretically susceptible to the crisis-temptation of initiating a first strike due to the extremely vulnerable non-second-strike nature of their missiles. When added to the more important super-power BMD endeavors, the effecting of universal comprehensive Civil Defence training may be seen as resulting in practical immunity as concerns nuclear eventualities of this type.

Home Guard - People's War Potentials: A home guard, or territorial Army, had never really existed in the USSR. She always appeared satisfied with the regular Army, supplemented by special border guard units. The practice of sending personnel to serve in other than their home provinces further emphasized the resultant defensive gap as far as potential guerilla or partisan activities in the face of invading forces were concerned. The gap may have been considered of less importance in view of the post-war stress on offensive operations, and the emerging confidence that a future war would not be fought on Soviet territory. And some might have been inclined to consider it as irrelevant in an era in which nuclear capacities would be used against an invader. /
invader.

But the emerging problem-complex of the mid and late 1960s, acute Sino-Soviet tension over a militarily highly problematic border, clearly resurrected fears of hostile incursions, and stimulated a desire for supplementary capabilities. The above described training of civilians had as its implicit auxiliary the improvement and extension of Home Guard potentials. And the emphasis of the above-quoted Pravda article on laxness in the Maritime Territory, and on the need to eliminate this, may then be correlated with the fact that this area was obviously that for which a Home Guard appeared most important at the time.

This is supported by a Pravda article of May 1970. After first lauding the border-guards (They are "mobile, motorized and technically-equipped and possess crack cadres, modern arms and a high degree of combat readiness," and (are) capable --- of repelling --- armed provocations on both the dry land and maritime sections of the border ---"), it proceeds to concern itself with "the working people of the borderlands": "The local Party and Soviet agencies hold a leading position in the organization of military - patriotic work and of mass mobilization for the rendering of assistance to the border-troops in the safeguarding of the frontier".

One may finally consider the USSR's persistent refusal to acknowledge the Geneva convention according to which civil defence forces are prohibited from performing combat duties. Her 'grazhdanskiye oboroni' have throughout been accepted as an integral part of her Armed Forces./*

Forcés.

And it becomes logical to conclude that the USSR has in practice if not in theory effected a substantial 'Home Guard' equivalent. ----

8D An Official Exposition: "The Political Side to Soviet Military Doctrine".

Towards the end of 1968, Colonel candidate Milit. Larionov, (now retired, and working with the Academy of Science's "Institute. U.S.A"), then on the General Staff, wrote the above named article. It constitutes one of the most comprehensive presentations of contemporary official thinking. Excerpts from it may therefore be quoted as a valuable supplement to our discussion, as well as an interesting yardstick for comparisons:

"Within Soviet military doctrine it has been agreed to distinguish two facets - one political and one military-technical. This is a haphazard differentiation, since our military doctrine emerges as a united harmonious system of the Party's and State's ideas and decisions. Thus Soviet military doctrine emerges as a concrete expression of the

Communist Party's military policy. The Communist Party and its views regarding questions of war and peace in the present epoch retain the leading role in the formulation of Soviet military doctrine. (wars') objective existing origin (is) imperialism. Realistically viewing the possibility of new imperialist aggression, the Party finds it necessary/

94. Colonel Larionov, Kommunist Vooruzhiomnykh Sil, No. 22, November, 1968. The quotes are as translated by this author, who is also responsible for the emphases occasionally added.
necessary with all means to strengthen the economic and military might.

......the CPSU 23rd Congress directives on the new Five Year Plan state that we must always show concern that our Armed Forces have the most modern types of military equipment at their disposal. The growth of Soviet defensive might is a necessary prerequisite to peace and people's security." "....four-fifths of the industrial growth (in the USA) since 1910 occurred during the two World Wars and the Korean War ..... monopolies have broken through State borders .... super-concerns are formed ... (and) military coalitions hostile to the socialist countries are built .... In the USA the military personnel occupy many leading State positions, and they are often appointed as diplomatic representatives, especially to countries where the USA conducts armed interference in local conflicts ....." ".....The characteristics/classifications (of war) can in our opinion be divided thus: according to a war's political character; according to the class structures of the warring nations; according to the extent of the military conflict; according to the type of weaponry which is utilized .... V.I. Lenin divided wars into just and unjust ... just wars are those conducted to liberate the subjugated from capitalism's slavery, wars to protect freedoms won, and to achieve and assure national independence...... A decision as to a war's justness or unjustness is inextricably tied to its classification into/

95. Materials from the CPSU's 23rd Congress, p.233.
into types determined by the main lines in the social
struggle. Such lines are: struggle between opposite social
systems - socialism and capitalism; the proletariat's
revolutionary attack on the bourgeoisie; the human masses'
joint struggle against monopolistic amalgamations; peoples'
national liberation wars against colonialists; battles between
capitalist nations to strengthen the positions of monopoly
capital. From these characteristics one may divide wars of
our time into the following four categories: wars between
states with opposite social systems; civil wars; national
liberation wars; wars between bourgeois states."

"The most bitter character belongs to wars between states
with opposite social systems, wars in defence of a socialist
fatherland against imperialist aggression. Such wars know
no compromise and are conducted with a maximum utilization
of all forces and means at the States' disposal. Soviet
military doctrine views such wars by socialist states as the
most just of all wars history has known.

"...The Communist Party and the Soviet State take
full cognizance of the international situation which has
emerged, the balance of forces on the world arena, the
qualitative advances seen in the military field, and the
capabilities of our probable enemies and the socialist
brother nations. But at the same time our doctrine rests on
the superiority of the Soviet Armed Forces over the strongest
capitalist armies, not only in technical-military sense, but
also, and this is especially important, in the sense of
military preparedness and morale.

"To another category belong national liberation wars. ...
The uniting of different anti-imperialist forces often occurs
on a national basis, and this often gives such wars a/
wars a nationalist character. This must be taken into account..... Imperialist forces often interfere in genuine civil wars under cover of "activity for peace", ostensibly to protect democratic liberties and with reference made to a request for help from the "legitimate" government. ...... (the existence of) the socialist camp, of course, limits and restrains the possibilities for imperialist intervention ... but .... one cannot exclude the possibility that it can become necessary to provide the most determined opposition to interference into such countries from outside. Therefore ... the Soviet military doctrine reflects the thesis of active support to the proletariat's armed struggle in civil wars and readiness to cut off foreign interference with other nations' internal affairs.

"In wars between bourgeois states, which are conducted to satisfy the interests of the exploiting classes, ..... various political compromises are permissible. ..... enormous calamity for the people..... Leaders of the proletariat have always condemned the wars, while encouraging the people to unite in a revolutionary war .... to turn a mutually destructive war of conquest into a civil war.

".... Wars of our time may be world-wide or local. .... A world war may cover a great part of our globe, including all continents and oceans, and space adjacent to the earth. Such a war will from the beginning have the character of a class war .... (the parties) will set themselves determined political aims. .... the Soviet Union will (then) be forced to employ all its material and moral forces and possibilities so as to crush aggressors and once and for all smash capitalism as a system. In full accordance with this .... the Soviet military doctrine directs its main/prime attention/
attention towards the preparing of the nation and the Armed Forces for a world-wide thermonuclear war.

"On the basis of means for the conducting of conflicts, wars of our time may be divided into nuclear and non-nuclear ... the Soviet Union's conduct is based on humane considerations..."

"Within the State's activity to ensure the nation's defence capacity, its economic organisational policies play a major role. One cannot escape a mutual interlocking of tasks concerning the development of the USSR's defensive might. An interlocking of considerations towards developing of the national economy and towards strengthening the nation's defence in peace-time make it possible to ensure that the Armed Forces correspond to today's demands.

"In war time one achieves interlocking of ... internal domestic and external political functions through a near complete subordination of all to the achieving of the tasks of the nation's military defence.

"Soviet military doctrine determines the political principles for the military build-up .... Lenin formulated the political principles for building up of an army of the new type. He placed the party's leading role in the forefront .... certain population groups were (in the beginning) deprived of the right to serve in the army. .... the army's composition of several nationalities, due to the particular domestic circumstances of our State, serves as a clear expression of the principle of internationalism in the build up of the Soviet Military.

"A most important principle .... is the single man leadership. ... (it) ensures the necessary centralization of directions under conditions with very mobile and dynamic operations ... the personnel is organized and disciplined.
disciplined.

"....(the necessity) to keep a regular cadre army built on the basis of general conscription. ... (we must) at any/every moment be prepared to beat back an attack and inflict defeat on the enemy.

"The principles of a harmonious development of the branches of the Armed Forces .... do not entail that one keeps all forces and weapons-types on the same level, but that one seeks to have a rational ratio between them corresponding to .... combat possibilities and tasks at any one time.

".... the Party stresses... the increasing role of the personnel of the Army and the Fleet, and its morale. It correctly sees the moral-political and psychological education of the troops as one of the decisive factors towards achieving victory in a modern war. .... A good result is based on humans equipped with modern material, who are fully conversant with such, who are ideologically steadfast and convinced that their cause .... is just."

"Important are ... the principles of adherence to the demands of military science and the art of war, of combining of theory and practice in education, of taking account of technical developments in our nation and abroad, and of uniting a centralized leadership of the troops with initiative from the commanding cadres, and securing constant combat preparedness....."

Comment seems unnecessary, except to note the stress on the troop morale factor, and to note the discrepancy between the generalities attached to the last three categories of war and the commitments attached to the first category - the only one which includes the USSR, by definition.
Conclusion:

The Armed Forces are thus expressly stated to constitute (only) one of the instruments at the disposition of a political leadership in the pursuit of its goals and aspirations. But the instrument should not be a dormant factor which is only to be activated in times of war. It has to be used actively in the battle for advantage also in the period of tension, of no peace - no war, in which the contemporary world lives.

There are two inherent necessities, both of which we have dealt with. The first (See Chapter 6) is the development of the requisite physical range and capacity to allow effective political utilization of military capabilities in areas not adjacent to the homeland. The other is the campaign to enlarge and secure the home base by increasing civilian support and co-operation; - by both augmenting domestic support for the aims, and by increasing domestic aid towards the effectivizing of the means.
Institutional Inter-Relations and Command Changes.

The previous chapter indicated that the inter-relationship and inter-dependence between the military and Party establishments was of such a complexity and order as to cast question on any crude division of functions or spheres of influence.

The present chapter will first survey some developments with regard to strategic research facilities and the Military Command apparatus. This will be followed by a return to aspects of the inter-Party/inter-Armed Forces alliances and allegiances dealt with in Chapter One. The final section will thereupon review post-Khrushchev military appointments. The aim will be to pin-point doctrinal decision-making venues and to identify such doctrinal, institutional and personnel-allegiance changes and fluctuations as may have occurred.

The efforts towards the establishment of better-qualified strategic research and decision-making councils were in part referred to in earlier chapters. Initial developments were there perceived as lying within the context of exhortations such as: "Political leaders must know the potentialities of strategy in order to set tasks before it skilfully (at each historical stage)"\textsuperscript{1}; of assertions that even economic developments entailed such strategic implications as made military participation within the relevant planning organs both desirable and necessary\textsuperscript{2}; and of pointed reminders regarding

\begin{enumerate}
  \item "Voennaya Mysl", edit., March 1956.
  \item Lagovsky, "Strategia i Ekonomika", Voenizdat, 1957, op. cit.
\end{enumerate}
the implications of specific strategic realities.

The inherent anxieties and the logical conclusions were spelt out in the period following Khrushchev's removal. There was the major Grechko article "25 years ago", of 25 May, 1966, wherein a review of past experiences led to the unambivalent assertion that political leaders COULD in theory make mistakes when dealing with military matters. And Grechko himself followed this up the following year, again on the basis of a review of the 2nd World War and of the mistakes and hesitations which preceded it, by emphasizing the fact that "correct and timely evaluation of the situation prior to war, and the reaching of initial decisions" took on increased importance and urgency in "the nuclear age". Further articles in a similar vein are related in Chapter 4.

As to conclusions, these were first explicitly pursued by Marshal Sokolovsky and Maj. General Cherednichenko in a 1966 article. Its theme expressly concerned the need for greater flexibility — and improved quality — of military doctrine in particular and strategic thinking in general. Their main argument concerned the Soviet need to match the combat readiness and deployment spread with which NATO was credited: NATO's asserted peace-time deployment of forces in the right places, numbers and proportions for the achievement "of its main war tasks in a short period" was held up for emulation. And the

3. Emelin, "Sovremennaya Voennaya Teknika", pg. 131, Voenizdat 1956, op.cit. (- Referring to the inferiority-induced necessity to strike first if limited capabilities were to be effectively utilized.)


implied NATO sophistication was utilized to support the recommendation that either one established research institutions such as the RAND Corporation of the U.S.A., or else one encouraged more extensive strategic discussions at General Staff levels than had hitherto been possible.

These aspirations clearly won establishment appreciation of the need for significant military-expertise access to defence policy decision-making councils. There even emerged informal admissions regarding the theoretical need for a new "supreme military-political organ", through which information might more easily be procured, and decisions more easily disseminated.

The fact that no announcement was to be forthcoming about the establishment of such an organ or institution was not in itself conclusive. One must caution against drawing the negative inference, if only because this has too easily led, and can too easily lead, to an assigning of responsibility to presumed Party prejudice against a body potentially able to affect decision-making. A comment is appropriate: There appeared no reason why a body of this type should have more political leverage than could anyway be exercised singly or collectively by military leaders already enjoying prominence within the establishment. While it might have stream-lining benefits of efficiency, its political weight would in fact most likely merely reflect that of these same military eminences.

8. On the basis of articles such as Colonel Sabin's in Krasnaya Zvezda, 6 April, 1967; he presented cautions against such separatist tendencies as could not be condoned due to the consequences they would entail.
And while an inter-service research body might forestall potential strategic one-sidedness occasioned by the disproportionate prominence of one or other partisan of a particular service-branch or doctrine, it might equally be dominated by the said partisan.

Indirect evidence does in fact cast doubt on the obvious inference of an establishment consensus — (however motivated, and however encouraged by the inertia inherent in familiarity and/or satisfaction with traditional procedures) — that acknowledged necessary qualitative improvements could be effected through existing procedures. It is to these traditional channels that one must turn for guidance.

9 A — A historical survey of the apex of the Military Command Apparatus is essential for an understanding of its present-day composition and function.

March 1918 saw the establishment of a Higher (Vyshniy) Military Council, composed of "the military leader and two Political Commissars", and responsible for "leadership of all military operations of the Red Army". "Subsequently the composition and tasks of the higher Military Council were significantly broadened". And "From April 1918 the People's Commissar for War and Naval Affairs, members of the Collegia of the People's Commissariat for Military Affairs and also specialists on military and naval Affairs were on the higher Military Council".

9. One here thinks e.g. of suggestions that Zhukov was responsible for the continued (and even increased?) neglect of naval strategic potentials during the mid-1950s. — See Garthoff, "Soviet Military Policy —— "., op. cit., pg. 50.

10. For much of the below I am indebted to the detective-work and translating of Harriet Fast Scott. — See her SRI Paper on "Soviet Military Doctrine, Its formulation and Dissemination", pg. 60-64.

But it failed to cope satisfactorily with war-time demands, and was re-organized: "On 2. Sept., 1918, by special edict of the VTsIK, the country was declared a military camp, and the Revolutionary Military Council of the republic was formed as the highest organ of direction of the Red Army".¹²

The Revolutionary Military Council continued to function throughout the Civil War and until 1934, when it was replaced by the Military Council, attached to the People's Commissariat of Defence.

This was again re-organized, in March 1938, when it became the Main (Glavny) Military Council of the Red Army:

"It was attached to the People's Commissariat of Defence. It examined basic questions on the organizing of the Red Army and on the strengthening of the defence capability of the country". "At the same time the Main Military Council of the Navy was formed".¹³

On the second day of the war the Stavka of the High Command was formed, taking over responsibility from the Main Military Council. Peace saw the Stavka replaced by the Higher Military Council.

"In February, 1946, the Higher (Vysshiy) Military Council, which was attached to the Ministry, was formed".¹⁴

"In March 1950, subsequent to the division of the Ministry of the Armed Forces, the Higher (Vysshiy) Military Council was created. It was attached to the Council of Ministers of the USSR. Main (Glavny) Military Councils were formed which were

¹². ibid.
¹³. '50 years of the Armed Forces of the USSR', pg. 199, Voenizdat, Moscow, 1968.
¹⁴. Ibid, pg. 256.
attached to the War and Naval Ministries.\textsuperscript{15}

The immediate pre-war terminological confusion was evidently resolved by naming the highest organ, at Council of Ministers' level, the Higher Military Council, and the Service Ministry organ or organs as Main \textsuperscript{16}. Evidence suggests that this practice was continued after the 1955 reuniting of the Service Ministries into the Ministry of Defence, with one Main Military Council being attached to the Ministry\textsuperscript{17}. The most important questions of military policy are discussed and decided collectively at Congresses of the Party and Plenums of the Central Committee. Organs of collective leadership are also found directly in the Armed Forces in the Main (Glavny) Military Council, and in the military councils of the services of the Armed Forces, military districts and fleets. Military councils, collectively examine and decide all important questions in the daily life and activity of the troops.

This author could find no exact reference to the work of the supreme Higher Military Council during the early and mid-1960s. Sokolovsky (who was quoted above), did however refer to the Stavka. The reference was most unclear and ambiguous, and produced the impression that the Stavka did not exist at present but would be created at times of war.

\textsuperscript{15} Ibid., pg. 478.
\textsuperscript{16} S.S. Lagovsky, "Army of the Soviets", pg. 403, Politizdat, Moscow, 1969.
\textsuperscript{17} A.S. Zheltov, "V.I. Lenin and the Soviet Armed Forces", pg. 143, Voenizdat, Moscow, 1967.
But by the late 1960s came evidence that the Stavka was synonymous with the Higher Military Council, or at least that the bodies enjoying either title had been so similar in function and composition as to encourage inter-changeability of designation. And by 1971 came evidence that a Stavka DID exist:

"In correspondence with --- (Respective-C.G.J.) --- tasks each service of the Armed Forces is designated for waging military actions primarily in one definite sphere --- on the ground, at sea, or in the air --- and accomplishes the fulfilment of tasks under the leadership of the Commander in Chief of this service of the Armed Forces, or directly of the Stavka of the Supreme Commander."  

Sokolovsky's obfuscation may then be seen either as intentional and motivated by political or security considerations; or one might presume the Marshal to be correct, and infer that the Stavka remains formally a war-associated term for the body otherwise known as the Higher Military Council. Or it might be due to the book being out-of-date (it was prepared in 1967). In this case the later existence of a Stavka might be seen to reflect on the representations described in the first section of this chapter (above) --- ! ?

The hierarchy established by the early 1970s may in conclusion be delineated as follows:

1) The Stavka, cum Higher Military Council, attached to the Council of Ministers. One can procure no information regarding its size. But "reliable sources" name Kosygin as chairman, a Col. General of the General Staff as Secretary, and


Marshal Zakharov as enjoying a pivotal role. There are also indications that the Minister of Defence, and his 1st. Deputy and Deputy Ministers are members. One might perhaps further presume access also as concerns CPSU General Secretary Brezhnev and the Secretariat's 'strategic overseer' Ustinov, if that is indeed his role.\(^\text{20}\)

2) The Main Military Council, attached to the Ministry of Defence. Its composition is unknown. But representatives from each Service may be presumed to be members, together with the Minister and his Deputies.

3) The Military Councils attached to individual Service branches and Military Districts. These were in 1958 (on the occasion of Khrushchev's re-emphasising of the Party's directing role), expanded to include the military commander, his 1st. Deputy Commander, and his Chief of Staff, plus his "political" military colleague, the Secretary of the local Party committee and "leading workers".\(^\text{21}\) Apropos of military-party integration and mutual sympathy: Among the local Party Secretaries then included\(^\text{22}\) were K.T. Mazurov, V.P. Mzhavanadze, M.V. Podgorny and A.P. Kirilenko. The first, third and fourth are to-day full Members of the Politburo, the second is a Candidate Member --- all with a number of years of close contact with the Commanders of their areas' Military Districts behind them. Many of the latter have meanwhile become leading members of the Ministry of Defence and the Defence Establishment.

\(^{20}\) The designation is inferred from a) his long association with and supervision of defence industries, combined with b) his Secretariat status. It is supported by his protocol ranking above the Minister of Defence (See e.g. Krasnaya Zvezda, 9 July, 1969).

\(^{21}\) Yu.P. Petrov, op.cit, pg. 444.

\(^{22}\) Ibid.
The exact importance, function or responsibility of the different councils is unknown. There are, as shown, indications that the Stavka/Higher Military Council may for some years have been in abeyance as a formal body, only to be resuscitated following the acceptance of the need for more sophisticated research and policy-coordinating facilities. But these indications may be misleading. And although the body now appears to be formally constituted, its operational mode may in practice be more akin to the British pattern. That is, with most policy deliberation and decision-making conducted not in quorum, but through informal ties and consultations between the political leadership and some of the more prominent military professionals. As for strategic research, no more is known. It appears plausible to view it as still basically fragmented between the various headquarters and commands. But one may presume a certain amount to be co-ordinated, on direct commission from the supreme body or one or more of its members, or through research facilities attached to the General Staff.

9 B Inter-Party/Inter-Armed Forces alliances and allegiances:
One must again revert to Chapter One and the therein treated "Stalingrad group" (See also the introductory comments of Chapter Three). Kolkowicz' treatment of the group's constellation, was viewed with some scepticism due to its in part non-credible assertions regarding post-war group allegiances and factional preferences, due to the unanswered questions which arise from his inferences regarding the 1950s and

1960s. And one may in fact question also the basis for his group identification. Common war experiences certainly acted as a cementing agent. But the identified group members had bonds of even greater age: Most of them studied together, at the Frunze Academy, or at the General Staff Academy. Nevertheless, the "Stalingrad" categorisation can be justified and may be retained, in tribute to Kolkowicz' diligent data gathering, if not to all his conclusions.

As regards the contemporary situation, with 'group' members retaining positions of pre-eminence: The long history of their relationships must be stressed. A reading of the memoirs some of them have written encourages the superficial conclusion that each is the others' best friend... This may be correlated with the evidence referred to in our section above (supplementing Kolkowicz' documentation), of an extraordinary history of working contact with political leaders eminent at the present time. The logical conclusion must emphasize harmony, both of basic concepts and of basic aspirations.

As concerns future developments, Kolkowicz himself pointed out how group members were spread after the war. One section occupied prime command posts in the east, another in the north-west, a third in Warsaw Pact or West Central areas, and a fourth in Moscow. There was some movement within and between these categories. But it was not until after 1963 that

'the group' as such might be said to re-assemble, this time in Moscow. And while the separation appears not to have affected inter-group affinity, one may infer a somewhat ambiguous consequence of relevance to the future.

It may be presumed that each prominent 'group' member gradually acquired a separate retinue of commanders and officers, as well as separate ties with local or provincial Party members. In the absence of any definite indications of post Brezhnev-Kosygin political successions or policies it is impossible to gauge the future importance of any of the foetus 'groups' thus developed. Any such attempt would entail greater promise for pitfalls than for illuminating inferences.

It is best to restrain oneself to pointing out that the days of contemporary group conceptions are numbered.

9 C. The final investigatory venue of some promise relates to post-Khrushchev military appointments; the changing pattern of military leadership; a synopsis of the more important changes will be followed by an analysis of inferable characteristics.

Marshal Malinovsky's death was soon followed by a rather extensive replacement, transferal and supplementing of leading cadres within the Armed Forces. Although his death will be seen as a co-incidental and not a causal factor, it serves as a convenient point of departure.

At the centre, Marshal Grechko's 12th April, 1967, appointment as Minister of Defence was by the end of 1967 accompanied by: Marshal I.I. Yakubovsky's elevation to 1st Deputy Minister of Defence, and Warsaw Pact Supreme Commander;

27. The data of Chapter One and Three strongly support this assertion.
Army General S.L. Sokolov's transfer and promotion from Cmdr. of the Leningrad Military District to 1st Deputy Minister of Defence (and co-ordinating officer within the Ministry); Army General I.G. Pavlovsky's promotion from Cmdr. of the Far Eastern M.D. to Deputy Minister of Defence, and Commander in Chief of Soviet Land Forces; and Naval Cmdr. Gorshkov's elevation to Admiral of the Fleet of the Soviet Union.

By the end of 1968 eleven of the Military Districts had been given new Commanding Officers: Belo-Russian M.D. - Col. General Tretyak (June 1967); Carpathian M.D. - Col. General Bisyarin (October 1967); Far Eastern M.D. - Col. General Losik (May 1967); Kiev M.D. - Col. General Kulikov (July 1967); Leningrad M.D. - Col. General Shavrov (June 1967); Moscow M.D. - Col. General Ivanovsky (June 1968); North Caucasus M.D. - Col. General Altunin (October 1968); Odessa M.D. - Col. General Shurupov (May 1968); Siberian M.D. - Col. General Tolubko (June 1968); Trans-Caucasian M.D. - Col. General Kurkotin (May 1968); Volga M.D. - Col. General Parshikov (May 1968); And a new Military District, the Central Asian M.D., was created - carved out of the old Turkestan M.D. in response to increasing Chinese border tensions. It became responsible for all areas bordering on Sinkiang, was headquartered in Alma Ata, and put under the command of Army General Lyashchenko.

---

28. Armed Forces appointments and transfers in general emerge only through a scrutiny of the Soviet press, typically through the printing of an article by the affected officer, with the new title or position noted beneath the officer's name at the end of the article. A variation of this practice was exemplified by Pavlovsky's promotion. This was first noted when a Krasnaya Zvezda report on a speech he gave to military journalists (24th Dec., 1967) ascribed the said title to him.
Five Military Academies received new Commanding Officers:

- The Gagarin Air Force Academy - Air Force Marshal Rudenko (October 1968);
- The General Staff Academy - Army General Ivanov (October 1968);
- The Finze Academy - Army General Stuchenko (November 1968);
- The Military Armoured Corps - Col. General Babadzhanyan (October 1967);
- The Military Commanders' Academy, Anti Aircraft Forces - Col. General Zimin (December 1967).

Other notable changes of this period: Marshal Batitsky, previously 1st Deputy Chief of Staff under Marshal Zakharov, was appointed to head the P.V.O. (Static Air Defence) and was subsequently promoted. General Shumenko, Deputy Chief of the General Staff became also Chief of Staff, Combined Armed Forces of the Warsaw Pact. Air Force General Kutakhov emerged to become 1st Deputy Commander in Chief of the Air Force, and was promoted to Marshal in anticipation of an imminent succession to ageing K.A. Vershinin as Commander in Chief;

Army General Maryakhin succeeded the 71 year old Bagramian as Deputy Minister of Defence and Commander of the Main Directorate For the Rear Forces. Col. General Malykhin was appointed Maryakhin's 1st Deputy; Col. General Grigoriev became 1st Deputy Commander of the Strategic Rocket Defence.

---


31. Krasnaya Zvezda 6 August, 1968 (A comeback towards the authority he enjoyed as Chief of Staff under Stalin).


33. duly confirmed by Krasnaya Zvezda on 19 March, 1969 following also his elevation to USSR Deputy Minister of Defence (Krasnaya Zvezda 26 April, 1969).


Col. General Ogarkov was promoted from Cmdr. of the Volga M.D. to 1st Deputy Chief of the General Staff⁴⁷ (Presumed to be in charge of Operations); Lt. General Mayorov became Commander of the new Central Forces Group⁴⁸ (Czechoslovakia); and Lt. General Sozinov became Chief of Staff of the Air Defence System⁴⁹.

1969-70 saw a continuation of this high rate of transfers and replacements, the chief of which were: Col. General Tolubko was transferred to Commander of the Far Eastern M.D.⁴⁰, while his predecessor there, Col. General Losik, became Commandant of the Tank Academy in Moscow⁴¹; Lt. General Ivanov replaced Col. General K. Provalov as Commander of Southern Forces⁴² (Hungary); Col. General Khomulo was transferred from 1st Deputy Cmdr. in Chief of Soviet Forces in the DDR to Commander of the Siberian M.D.⁴³; his former Commander, Marshal Koshevoi, was soon thereafter replaced by Col. General Kulikov⁴⁴; Lt. General Salmanov took up duties as the new Commander of the Kiev Military District⁴⁵; while Col. General Dankevich became Deputy Commander of the Strategic Rocket Defence⁴⁶.

---

⁵³. Krasnaya Zvezda 31 July, 1969; Khomulo’s successor in the DDR was Lt. General Govorov; as re. his Siberian fief, a new Chief of Staff, Maj. General Pashuk, had been assigned just prior to Khomulo’s transfer. See Krasnaya Zvezda 24 May, 1969.
⁵⁴. Krasnaya Zvezda 17 November, 1969, and Isvestia 1 May, 1970 (For his promotion to General of the Army).
The survey of 1967-70 land and air command changes may be rounded off by noting Marshal Kutakhov's confirmation as Commander of the Air Force (see footnote 33), and by mentioning the 1970 promotions of Col. General Silant'yev, to Chief of the Main Air Staff, and Lt. General of the Tank Corps Obaturov, to Commander of the Carpathian M.D.

Within the Navy the same period saw the appointment of Rear Admiral Ya. N. Globa as 1st Deputy Commander of the Baltic Fleet 47. But of greater importance was the appointment of Admiral Smirnov, ex. Commander of the Fleet's Operations Department 48, to Pacific Fleet Commander. His predecessor, Admiral Amelko, was transferred on 1 April, 1969, to Assistant Commander in Chief of the Soviet Navy.

Shortly thereafter the incumbent Deputy, Fleet Admiral Kasatonov, was promoted to 1st Deputy Commander in Chief of the Soviet Navy 49. This was followed by the promotions to Fleet Admirals also of Sergeyev, the Chief of the Admiralty Staff 50, and (significantly) of Lobov, the Commander of the Northern Fleet 51.

The top naval leadership was thus to look as follows:

Commander in Chief - Admiral of the Fleet of the Soviet Union 52
Gorshkov; 1st Deputy Commander in Chief - Fleet Admiral Kasa­
tonov; Assistant Commander in Chief - Admiral Amelko; Chief of
Admiralty Staff - Fleet Admiral Sergeyev; Commander of the

47. Mors. Oboron No. 4, 1969.
48. During which time he served as Cmdr. of the Fleet in the Mediterranean and wrote a lengthy article on its activities; his transfer was first noted in Izvestia, 20 May, 1969.
52. Izvestia, 29 October 1967.
In attempting to draw relevant implications from these changes, the first comment ought perhaps to be that they brought a new generation of commanders into prominence. The amorphous 'Stalingrad group' retained its hold on policy-influencing positions, as indicated for example in memberships of the Central Committee. But younger cadres were being promoted at a rate not generally appreciated in the west (see below).

Special importance continued to be attached to certain positions and areas, especially the Kola and Far East Command areas (the geo-political reasons for this were analyzed in Chapter 7. And historical Soviet appreciation of these reasons is reflected in a list of previous commanders: Zakharov, Krylov, Eremenko and Malinovsky in the east; Stuchenko, Zakharov, Krylov, Bagramian and Kazakov in the north-west). Previous distinction appeared to be a pre-requisite for commands in these areas, as seen for example in the cases of Tolubko, promoted to Army General in May, 197053, and Admiral Smirnov. And a successful execution of command seemed to lead to positions of high central military authority, as seen in the cases of General Pavlovsky54 and General Sokolov, and Admiral Amelko.

54. Brought to Moscow in June 1967 after (according to Moscow Army sources) having "revolutionized" Far East defences while Commander of the Far Eastern M.D., to perform the same on a national scale. One of his minor but interesting Far East innovations is thought to be the introduction of helicopter inspection of the Mongolian-Chinese border by joint Soviet-Mongolian crews.
This is testified to also by the fact that both the Pacific Fleet and the Far East M.D. Commanders are Candidate Members of the select CPSU Central Committee, together with the Northern Fleet Commander, while the Leningrad M.D. Commander is a full Member (as are the former M.D. Commanders Pavlovsky and Sokolov)\(^55\). One ought however to note that the prominence thus attested related primarily to the positions, not to the incumbents. Admiral Amelko had to give up his Candidate standing upon leaving the Pacific command, in spite of his promotion. This reflects both on the exclusive character of the Central Committee (Gorshkov himself, a full Member, is the only other naval representative)\(^56\), and on the vital role attached to the above-mentioned commands.

Some commentators saw Tolubko's transfer as epitomising a new policy, according to which prior experience with both conventional and non-conventional weaponry brought priority consideration for any promotions of consequence. This was based on the fact that he had been a tank officer prior to being transferred to the Strategic Rocket forces (where he served as Deputy Commander, before being given the Siberian M.D.). Khomulo has also been seen as exemplifying this perceived trend, in consideration of the accredited thorough nuclear/conventional integration of his former command, Soviet Forces in the DDR.\(^57\).

\(^{55}\) Pravda, 10 April, 1971.

\(^{56}\) Ibid. (and see Chapter 8; - 1971 C.C. elections resulted in 3 representatives from the Navy, 3 from the Air Defence, 2 from the Strategic Rocket Troops, 2 from the Ground Forces, 1 from the Rear Services and 4 from the Political Administration.

\(^{57}\) See e.g. Peter Kruzhin, in the Bulletin of the Inst. for the Study of the USSR, Munich, Vol. XVI, No. 10.
Yet this appears to be incorrect. The integration of nuclear weaponry within the Armed Forces clearly placed a premium on corresponding training and experience. But the real trend was towards greater specialization, not towards generalized acquaintance.

This is supported by the following assertion by Cd. General Grigoriev, 1st Deputy Commander in Chief of the Strategic Rocket Forces (in a review accompanied by photographs, of the role and present capabilities of his command)\textsuperscript{58}:

"Our troops are composed of mature and highly educated cadres. It is enough to mention that more than 95% of the missile officers have a higher and secondary education. The officer corps possesses outstanding command skills and organizational abilities. The percentage of engineering and technical personnel in our units is growing constantly. At present these personnel account for 80% of the entire officer corps. The commander who is at the same time an engineer has become a central figure."

Or, as stated by Marshal Krylov\textsuperscript{59}:

"A missile soldier has no right to be a specialist of only average competence; he must be a true master of his profession."

And similar assertions became increasingly prominent also with regard to other Service branches, the Navy in particular\textsuperscript{60}.

\textsuperscript{58} "Powerful Strike Force", in Isvestia 20 November, 1969.
\textsuperscript{59} "Strategic Missile Troops", in Pravda 19 November, 1969.
\textsuperscript{60} See e.g. Kasatonov, in Krasnaya Zvezda 27 July, 1969.
Tolubko's promotions therefore reflected not so much the 'integrated' nature of his experiences. His original transfer from the Strategic Rocket Forces reflected rather the fact that he was not really a missile specialist, and had no engineering background of relevance. (Although his 'strategic' background and reputation was not to come amiss in the Far East, where it later served to re-emphasize the importance assigned to the command). Khomulo's promotion may be better explained by recalling his reputation as an expert on combat training: his recall to a domestic command was presumably motivated, or influenced by, the re-organizing of combat training practices and concepts at present being implemented.

This primary emphasis on the requirements of the position rather than on the character of the incumbent invites also a focusing on Maryakhin. His appointment as Commander of the Main Directorate for the Rear was made important by the crucial nature of logistics within Soviet tactical concepts. (See Chapters 1, 3, 4, and, especially, the end of Chapter 6). With the achieving of strategic parity, and the emergence of interventionary and general purpose forces, the question of logistics necessarily commanded increasing attention and priority.

But it is nevertheless time to survey also the character of the new incumbents. The first point must relate to their relative youth. There remained a number of older officers still serving in prominent positions, such as Marshal Zakharov (born 1898), or Deputy Ministers of Defence Marshal Krylov (born 1903) and Marshal Vershinin (born 1900). This reflected partly the fact that Marshals of the Soviet Union never retire: they are exempt from the 60 year retirement age which applies to all officers up to 4-star rank. But it may be assumed to reflect also on their capabilities. And it reflected, finally, on a
reported shortage of higher officers (1) - presumably arising out of the cumulative effects of the Czechoslovak intervention and continuing tension along the Chinese border. The service of these elder officers ought not, however, to be allowed to obscure the trend towards promotion of youth.

A large percentage of prominent incumbents in 1970 were under 60, a considerable number were in the 50-55 year bracket, and some were still in their forties. They generally made their name originally as lower and middle rank officers during the 2nd world war, achieving the first rank of General only in the 1950s. Army General Maryakhin's career pattern is a typical example.

Many of them did not choose or feel obliged to join the CPSU until comparatively late in their careers. Typical are Navy Commander in Chief Gorshkov, who only joined the Party in 1942 (a year after becoming, at 31, the youngest Admiral of the Soviet Navy); Admiral Amelko, who joined the Party at 30 years of age, in 1944; and General Ogarkov, who joined the Party in 1945, when he was 28.

Yet they subsequently gained access to the highest policy councils, excepting only the Politburo itself. An analysis of the 100-odd top marshals, generals and admirals (including CPSU Central Committee Members and Candidates, Supreme Soviet representatives, and the remaining 4-star rank and above

61. The existence of a deficit in the number of higher officers was "revealed" by Colonel Losik, then Military Attache (ex-Cmdr. of the Moscow garrison, and with Siberian experience), to a colleague in 1968. The deficit is startling when compared to what has been considered the reverse situation in the West during the post-war years, and the inference above therefore appears warranted.

62. It is proper here to comment on Western speculations regarding Soviet military senility and/or purges, such as were occasioned by the 23rd April to 10th May, 1969, Krasnaya Zvezda announcements of the death of 12 Generals. On that occasion 6 of the deceased were over 65 years of age. And a wider reading revealed that the 12 deaths brought the number announced so far that year to only 33; the number who died during the same period the year before was 27.
personnel of the Armed Forces), points to two conclusions:

The first confirms the conclusion regarding relative youth. The second relates to the fact that well over half occupy seats in the Supreme Soviet high Government posts (outside the military). Yet only a few are Political officers, as opposed to regular staff officers and line officers.

This second point further supports our tentative conclusion of a greater stress on professionalism within the Armed Forces. Military competence was accorded somewhat greater priority vis-a-vis "political" considerations than might have been the case in the past. This does not mean that political considerations, in the form either of fine ideological variations or of personal contact with politicians, may not remain a factor of concern. In fact, rumours that such are responsible for this or that promotion can often be picked up in Moscow. But the evidence of our previous sections encourages a discounting of these (on the grounds of their being misleading and/or of their pursuit being inherently futile). The available evidence clearly suggested a basic and mutually recognized compatibility of Party and military aspirations. And it suggested that this compatibility was of an order to allow the Party confidently to delegate most problems of military concern to the councils of military professionals.

The deaths may therefore be seen merely as confirming the suggested demand for experienced officers to remain in active service.

63. See Harriet Fast Scott, The Soviet High Command-Age Analysis, in "Soviet Military Doctrine, Its Formulation and Dissemination", S.R.I. Paper, April, 1971. The treated CPSU CC is that elected in 1966; the Supreme Soviet that elected in 1970. It must be said that the CPSU CC-elections of 1971 only confirm her conclusions. See also our Chapter 8, Section on Military Representation on Party and Government bodies.
Conclusion: The aim of this Chapter was defined as "to
pin-point doctrinal decision-making venues and to identify
such doctrinal, institutional and personnel-allegiance changes
and fluctuations as may have occurred."

The first aim was pursued through a historical tracing
of military command developments. This endeavor clarified
some of the obfuscation surrounding the complex of contemporary
institutions. And it made possible the delineation of the
Military Council hierarchy of to-day.

As regards the further aim: our analysis of the increasing
professionalism and specialization of the new officer cadres
encouraged us to decrease the importance attached to institu-
tional and personnel-allegiance factors. When correlated also
with the more balanced contemporary development of the service
branches, this indicated that no single service or institution
could any longer hope to gain disproportionate dominance. Even
Krylov's missile command would henceforth share its important
strategic influence with the Navy and the Air Force. Aside
from the aspect of specialization, no common denominator could
be found to embrace the new cadres.

With reference specifically to doctrinal changes: the
analysis invited scepticism regarding the extent to which
these could be deduced. The importance of a personnel change
was generally determined not so much by the character of the
man, as by the status of the post. Maryakhin's professionalism
is a case in point. His appointment's importance was indicated
by his background, but was more reliably gauged in the light of
such doctrinal emphases as could be inferred from ascertainable
policy declarations, and visible procurement orientations.

Naval developments provide a similar example on a wider
scale. The type and quality of the relevant promotions,
together with the increasing assertiveness of naval literature.
suggested doctrinal changes or re-adjustments in favour of the Navy. But they might on the other hand be seen as merely mirroring the more conclusive evidence. This consisted of general policy pledges, plus such procurement programs as could not have been initiated if the indicated changes or re-adjustments had not already occurred.

It is appropriate once more to resurrect the caution of Chapter Three and elsewhere. So many part-contradictory motives can determine the orientation of given speeches or articles, as to cast serious doubts on the using of a study of these as a prime source for doctrinal inferences.

64. See e.g. Kasatonov's articles, as related at the end of Chapter 4.
CHAPTER 10
SUPER-POWER IMPLICATIONS

10 A Super-Power Status: Reflections.

Henry Kissinger is the best known exponent of the "military bipolarity, but diplomatic multipolarity" concept, as that best describing the situation of the later 1960s. He considered this to have evolved once the mutual destruction capability of the super-powers became assured. With mutual destruction capability assured, one could no longer envisage a raison d'être for either to initiate a nuclear exchange; he concluded that the very strength of the super-powers' nuclear arsenals in fact provided greater security for lesser powers. It gave them greater freedom to pursue independent national interests.¹

But the argument may be at fault. Assured mutual destruction and second-strike capability did evolve. But this does not necessarily preclude the use of nuclear weapons in some capacity in local military conflicts, interventions or initiatives. It could to the contrary merely ensure that local conflicts, whether nuclear or not, would not escalate to the stage of involving either super-power's "home area". Military bipolarity may in fact not militate against either's involvement in local conflict-areas (through fear of escalation and destruction), but rather encourage involvement, since its inherent corollary would inhibit the other from escalating beyond the local confines.

It might be expressed somewhat differently: excepting the real possibility of significant changes, through the

development of unknown or new weapon systems, present developments leave little room between "breakthrough" level and "elimination" level. What is referred to, of course, is the anomaly whereby the super-powers have not only reached some kind of equilibrium in their technological and weapon systems development, but have achieved or can achieve invulnerability to all but major assaults by the other. This author consequently tends to conclude: (a) There no longer exists a plausible basis for expecting either superpower to intervene against the other's national area or sphere, no matter the cause or circumstance (always remembering/above reservation); (b) it follows that vital inhibitions on potential inclinations to engage in fringe interventions may thereby be removed. This could lead to an escalating scramble to secure the adherence of non-committed states to either's sphere, a scramble which could see "preventive interventions" - based on the logical conviction that the other will not interfere against the presence of one's own forces.

Herein lies a basic potential for instability, as well as for super-power confrontations. The crucial point which follows from (a) is that such confrontations will be local, or at least remain in areas outside the two's immediate spheres, whether the confrontations are nuclear or not. The limitations are restricted to locale, not to the scale of the conflict.

As regards the possible removal of inhibitions affecting

2. Viz., the cost-exchange ratios revealed by the US Dept. of Defence's "Posture Papers" of 1967 and 1968, op.cit.; the assertion refers, of course, to the technological possibility of BMDs of great effect. See previous presentations and discussions.
interventionary designs, this may have consequences not immediately obvious. Concerning West Europe some strategists concluded by the late 1960s that any expectation of US retaliation against Soviet aggression had become utopian, and/or irrational, with the advent of an assured Soviet capacity to strike against the US homeland. They proceeded from this conclusion to urge acceptance of the thesis that the installation of a US BMD did not reflect or entail US isolationism. By providing some credible defence capability, it to the contrary reintroduced the otherwise defunct possibility that the US might intervene in defence of West Europe.

The argument is correct, but insufficient. The credibility of US assured destruction capabilities did, together with the credibility of her activating and utilizing this, act as a deterrent to any Soviet designs that might be envisaged. But the emerging credibility of the Soviet countering capabilities, acted as an equally powerful deterrent against US reactions (or actions). If our suggestion, that the development of mutual capabilities had reached the stage wherein any direct action by either against the other's home area was inconceivable, then a very different alternate conclusion emerges.

This would see the elimination of the deterrence on both action and reaction, by either super-power - as regards non-direct confrontations. The possibility and/or likelihood

3. Herman Kahn presented this view forcefully at the 1969 Oslo Conference, op.cit.

4. Ibid. "... no-one should or can expect the USA necessarily to intervene in aid of friends if she herself is not attacked and if her intervention may mean self-destruction! That is: in a last resort self-preservation considerations would outweigh moral commitments.
of local conflicts, even on the European continent, would be increased, at least as long as mutually acceptable agreements were not arrived at (e.g., through a European Security Conference of some type).

There remained the possibility that a cycle of super-power interventions leading to localized super-power confrontations might nevertheless lead further, to mutual declaration of war. But our analysis of nuclear stalemate, resting on secure second-strike capacities, leads one to query the effects of any such declarations. They would most likely reflect psychological considerations; they would not reflect immediate intent. Mutual all-out hostilities would remain implausible, or illogical. The result would probably be a shadow war of some years, with both super-powers concentrating on all-out civil defence constructions, plus energetic BMD research and deployment efforts, — in the hope of achieving survival capability.5 The most likely conclusion would be a truce based on the results of the localized fighting, without any all-out exchange ever being initiated (— in lieu, of course, of potentially decisive New Weapon Systems developments, or plain irrationality).

In this context it is relevant to challenge also the commonplace belief that the distinction between conventional and nuclear conflicts is of necessity clear-cut. One might (as has, e.g., Professor Erickson)6 imagine a hypothetical status quo testing Soviet attack into West Germany, — an

5. This hypothesis was tentatively discussed at the same Conference, ibid.
attack utilizing nuclear weapons only at high altitudes, for defence-disruptive purposes, and which is halted at the Rhine. In response to this scenario West Germany would probably herself veto allied use of nuclear weaponry to dislodge the intruder. But, of greater consequence: since no actual ground or human destruction explosion had been effected, - could one really consider the "nuclear threshold" to have been crossed?

Whether because of logical or practical reasons, the old nuclear-conventional distinction had clearly become obsolete by the late 1960s. The distinction held potential value only as long as one feared escalatory war, leading inevitably to all-out exchanges. The inhibition associated with passing the threshold was diluted, and possibly eliminated, when it became unrealistic to expect that local nuclear exchanges would entail the ultimate involvement of the super-powers' "home areas".

This analysis received indirect support from the new NATO policy of December 1969, which permitted the initiating use of tactical nuclear arms against Warsaw Pact aggression in Europe. But (on US insistence) such a utilization of nuclear arms was authorized only against possible East European (forward) bases, and not against USSR (rear) bases .... The policy decision was supported by deployment decisions, whereby only missiles incapable of reaching the Soviet heartland were stationed in West Europe.

7. **BBC News, 3 December, 1969, 10.30 p.m.**

8. **The Times, 2 December, 1969, written by Defence correspondent Charles Douglas-Home.**

9. **Major-General Hansteen, protocol for Norwegian Disarmament Committee Meeting 1 December, 1969 (released by Norwegian Foreign Office), p.9.** - re discussion as to which weapon systems might be considered comparable within the context of Strategic Arms Limitation Talks.
Further indirect support of the above analysis may be seen in Soviet practice. The integrating of nuclear capabilities in all branches of the Soviet armed forces implies: a) she no longer conceives of non-nuclear wars of consequence; b) she conceives of the possibility of total war, but not as resulting from escalation caused by the use of tactical nuclear weapons. (Non-nuclear scenarios, such as e.g. relating to the Czechoslovak intervention of 1968, are, when juxtaposed with Soviet capabilities and concepts, best viewed as "police-operations").

But attention must be reverted, to the "new" balance, and to the above-treated lessening of associated inhibitions. The emerging situation was also one of increased potentials for the political utilization of strategic strength. For example: what would or could Sweden answer if the USSR approached her, stating that present technological and reaction time considerations demanded Soviet ABM (atomic warhead) interception of US ICBMs over Swedish territory? The USSR might declare that this was in order to secure the safety of Soviet territories, - the priority consideration of Soviet defence calculations. - "We presume the consequent but unavoidable fall-out to be undesirable for Sweden. But in order to make earlier interceptions possible we need radar facilities and installations on Swedish territory. May we ... ?"

A Swedish analysis similar to ours might logically see the danger as tolerable, since any such nuclear exchange would be considered to be highly unlikely. Yet one must always allow for uncertainty factors, so ... ? And there remained, of course, the corollary that if the analysis was correct, and if Soviet "aggressive" designs were a fact, then refusal might precipitate the physical advances which
were made more conceivable by the analysis...... Potential mutually acceptable, and preferably wide-ranging, agreements. again appear to represent the only hope.

An other sequence equally possible as a 1970's scenario involves hypothetical Soviet action against Northern Norway. This would be unlikely to be motivated purely by a desire to test or alter the status quo; and the decreasing need for bases (associated with the Soviet fleet's conversion to nuclear propulsion) lessens the importance of the fjords in the area. The area's strategically dangerous proximity to the "core area" of the Kola peninsula, could, however, tempt intervention, if the USSR feared a hostile utilization of its capabilities (e.g. "close" radar supervision and detection affecting missile interception or exchange potentials - see Chapter 7). The strategic balance would imply considerable impunity as regards action, and considerable leverage as regards political pressures based on credible action alternatives or needs.

But it is relevant to pose a reminder. While local conflicts with super-power engagement can now occur without Armageddon implications, the range of political, military and economic factors involved in any decision to intervene remains substantial - even if the prime immediate deterrent will be political, and the prime long-term deterrent the attrition costs of unfriendly occupation. (The deterrence value of non-super power armies has become of secondary value to both perspectives.)

The lesser powers' military capacity to deter has rightly met with scepticism. Two developments concerning the defensive options of lesser powers are of interest:

(1) In Norway tanks and other heavy equipment have been assigned to the limited conscription forces available
forces entrusted with the task of hindering the establishment of hostile forces in Northern Norway, until the expected NATO aid). This orientation of military procurement is being questioned by some Norwegian experts. They consider heavy conventional army units to be vulnerable, and believe that the distance between their bases in any case makes immediate action against certain enemy initiatives difficult. They fear, for example, that a naval landing might enjoy the benefit of surprise, if a peace-time pattern of naval manoeuvres off the coast had evolved during the preceding period. A beach-head, as well as more far-reaching objectives (e.g., an airfield), may well be secured by an enemy before native forces had time to engage. Within such a scenario immediate if small-scale engagement prior to an enemy’s establishment could cause relatively far greater damage than consequent counter-attacks by conventional units. This "school of thought" therefore seeks an expansion of the existing home guard, with armed depots scattered sufficiently to always ensure immediate access. The resultant posture is expected to represent a more viable deterrent. The Swiss pattern, of peace-time weapon distributions to citizens, causes interest.

(2) In France early 1969 saw the emergence of a related debate, through numerous articles published in Le Monde. Among the more notable was an article by J. Georges-Picot, "Apres l'universite, L'Armee". He defined the present "trilogie" of forces dissuading enemy action as (a) the nuclear force, (b) the regular army, and (c) the operational territorial defence (now practically non-existent).

10. Le Monde, 1 January, 1969, ("It took the May revolution to reform the university; will it take Soviet tanks in ..., to reform the army").
He suggested that the regular army be disbanded, as he considered that it was no longer capable of serving any function commensurate with its cost. He thought that the nuclear force (concentrated e.g., in Polaris-type vessels) should be kept, since it expanded the concept of deterrence to encompass also retaliatory capability (however dubious the extent of this might appear).

The article then referred to the wars of France (1942-44), Indo-China, Vietnam, Biafra (and Czechoslovakia?). These were seen to have demonstrated the efficacy of a "territorial defence equivalent". The third factor of the "trilogie" should, therefore, be that relied on. The present barrack system, with its inherent time-wasting, was declared to be conducive only to instilling distaste - especially when its futility was recognized. The aim of reform must be to involve everybody, not least the intellectual and moral elite. Decentralization of authority, even down to communes, and the incorporation of natural student leaders into responsible positions, were seen as necessary complements to a training which must be truly universal, and short-term but frequently repeated ("refreshed"). The "regular army" would then basically be composed of only the needed number of instructors and the like. (Similar features were incorporated into the 1969 Yugoslav national defence law; it emphasized decentralized small-unit independent capabilities, and "total mobilization".)

Yugoslav and Norwegian experience during the Second World War, the Asian wars of the 1950s and 60s, and even the Palestinian "resistance" following the Arab defeat by Israel

in 1967, may be said to support the thesis that a "people's war" (guerilla movement), which enjoys popular support, has greater durability, and attrition possibilities, than more traditional forces - at least when these forces are of the order within reach of lesser or medium powers.

A related line of thought indicates that such a policy might not only prove a better deterrent. It might conversely be that best used against the super-powers themselves, - through encouraging or aiding their dissident ethnic or other minorities. The 1965 Watts Negro riots in Los Angeles, the spectacle of the 1968 Chicago democratic convention, and similar events, may be seen as evidence of US vulnerability. The most vocal Soviet supporters of the Czechoslovak invasion were party leaders from the areas most exposed to the reception of ideas from Czechoslovakia (the Ukraine and especially "Zakarpatskaja oblast")\(^{12}\). This could be taken to indicate Soviet unease about potential Soviet vulnerability.

The suggestion inherent in the above, is, of course, that as the super-powers have increased their military capabilities to the extent of securing near military immunity, this has not affected their vulnerability vis a vis internal unrest. This vulnerability has furthermore been exacerbated through the greater dissemination of people's war-guerilla type theories, which occurred during the 50s and the 60s as a result of Chinese and Vietnamese experiences.

In 1954 the Vietnamese victory at Dien Bien Phu destroyed only a small section of the French army, which remained militarily superior, but it crystalized a moral defeat and weariness which brought about the French withdrawal from South-East Asia.

---

12. See e.g. Partinaya Zhizn, 6 January, 1969 (or Pravda, 13 February, 1969, for parallel evidence re Tadzhik nationalism).
Equally instructive (although questionable) is Professor Galtung's theory of the chances of success if the Czechoslovak reaction to the 1968 intervention had been "friendly disapproval". Galtung noted the historic incidents, of Red Army soldiers refusing to fire on fraternal workers in East Germany in 1953 and in Hungary in 1956. He suggested that while despairing of the efficacy of armed opposition, the Czechoslovaks ought not, as they did, have chosen a mixture of moral condemnation and passive obstruction (e.g., refusal to provide food and lodgings). They ought instead to have "invited them in". Instead of severed contact, this would have resulted in far more extensive Red Army personnel awareness of the issues. This awareness would then have had a better chance of seeping eastward, where the decisive changes would have to come from. (One must comment that the far-sighted discipline implicitly demanded of the Czechs may not be within human reach ...).

Both the actual events, and the hypothetical event, indicate the potential strength of otherwise inferior population groups - when united. The necessary degree of unity would in most cases remain ephemeral. But while a universal knowledge of guerilla techniques is of no consequence when there is no unity or will, small conventional armies are of no consequence even when there is unity and will.

The previous section indicated that the following situation had emerged by the late 1960s: (1) The Soviet Union had increased its strategic capabilities so as to achieve a guaranteed second-strike capacity; this breaking of the earlier US monopoly of such capacity produced a logically secure guarantee against either nation escalating any local super-power conflict to the point of affecting the other's 'home area'; (2) Soviet non-strategic capabilities were furthermore such as to overwhelm those of any but its fellow super-power. The implication was that the Soviet Union had finally achieved full security vis-a-vis any potential exterior military threat, — the inference being that such security could only be challenged by internal threats (if at all).

It is therefore intended here to engage in a limited survey of domestic considerations with a view to judging whether or to what extent such threats exist. Two venues will be pursued; first, instability within the leadership or establishment,¹⁴ and thereafter instability external to it. Information with regard to both became more accessible after the ousting of Khrushchev, and especially following the Czechoslovak intervention of 1968. These years will therefore be those concentrated on.

The years saw a multitude of rumours of shifting Politburo personnel alliances and conflicts. Most of them were

¹⁴ Such has been pursued further in this author's "The Party Leadership" — a 1969 draft to the Institute of Soviet Studies of a thesis chapter later excluded. It is hoped to revise and publish this separately as an article.
related to Shelepin - presumably due to his youth and the image of 'more dynamic competence' which he left with people who came into contact with him - , and Suslov - presumably partly due to his long shadowy tenure as the Party's ideological spokesman, and partly due to intriguing questions arising from his seeming conversion from 'Stalinist' to 'moderate' beliefs.\(^\text{15}\)

But there were also others relating to Polyansky - presumed dissatisfied with the tardy implementation of agricultural investment programmes,\(^\text{16}\) - to Podgorny - presumed over-eager to placate consumer demands before military necessities had been secured\(^\text{17}\) - , and to other members of the Politburo.

There were periods which saw the demotion of groups of lower officials who appeared to have been particularly close to one or another Politburo member, and such were most often taken to indicate the failure of a supposed drive for greater power by that member. The first major such purge was of "the Kharkov group" of officials indebted to Podgorny's patronage,\(^\text{18}\) in 1965.

The second such was of officials associated with Shelepin.\(^\text{19}\) This process coincided with his being relieved of his membership of the Secretariat and the Council of Ministers, as well as with the abolishing of the Party State Control Commission which he had chaired. Although he later added the chairmanship of the National Trades Union Congress to his Politburo membership (July 1967), the above was taken to confirm the failure

---

15. See e.g. "Soviet Decisionmaking ... the Czechoslovak crises", NUPI, Oslo, 1969.
16. See e.g. speech printed in Kommunist, No.15, October, 1967.
17. See e.g. Podgorny's speech as related in Pravda, 22 May, 1965 and Suslov's 'answer' in Pravda, 5 July, 1965.
18. This is traced by Michel Tatu, in "Le Pouvoir en l'URSS", Bernard Grasset, Paris 1967.
19. E.g. KGB Chairman Semichastny, Moscow Party chief Nikolai Yegorichev, Head of Tass Dimitry Goryunov, and finally (1968) Komsomol 1st Secretary Popov.
of an attempt to replace Breshnev as 1st Secretary in October of 1965.

There were furthermore periods during which the lengthy absence from public view of Politburo members occasioned vivid speculations regarding their demotions or their purge involvements. The fact that these periods most often coincided with normal flu epidemics did seldom affect the speculations. Early 196920 and early 197021 saw especially strong such rumours.

Another variety of power-shift indicators may be seen in the following: The junior Secretary Katushev, whose "domain" included supervision of relations with ruling CP's, seemed during the latter part of 1968 temporarily to replace Kuznetsov as the official responsible for Czechoslovak relations. In mid-December he was strangely referred to by Pravda as the "Secretary attached to (pri) the Central Committee", an unprecedented formulation. He was by some regarded as a Breshnev protege, in recognition of an interpretation of his role as being that of Breshnev's "right hand man" (with Kirilenko). However, although his quick rise to prominence indicated high level tutelage, there was scant evidence supporting such a categorization. And since his previous career encompassed industrial tasks away from Moscow, there was no reliable evidence as to political inclinations. But his emergence was by some observers seen as mirroring an assertion of greater authority by Breshnev, his perceived mentor.

Yet none of the conceived or actual policy and power challengers were themselves removed from the Politburo. A number of their sometime purged associates were in fact to make partial come-backs. Semichastny, for example, who had not been heard from since his May 1967 demotion, was by November-December 1968 again referred to in public as functioning in his new position as 1st Deputy Premier of the Ukraine; Pavlov, who had been demoted to Chairman of the Central Council of Sport Societies and Organizations, had his new responsibility upgraded to a Union-Republic committee in November 1968.

This leads to the conclusion that while allegiances and policies might shift, they did never do so to an extent which permitted the definite ascendancy of any one power group or concentration. This was partly because no Politburo member (with the possible exception of Suslov, whose health was dubious) enjoyed a combination of seniority and eminence sufficient to establish hegemony, and partly because of a tendency for unity in the face of domestic and external tension. The latter was caused originally by lingering strategic inferiority, later by pressures arising from the Czechoslovak intervention and the border dispute with China.

The result was relatively greater freedom for the airing of divergent viewpoints, and a related tendency towards a devolution of power and some greater autonomy to the various pressure groups or establishments on which the power-elite depended. As concerns the latter tendency, previous chapters (3 and 4) have already provided some verification relating to

22. As indicated e.g. by Breshnev's speech on the state of the economy in Pravda, 16 December, 1969.
the military establishment. As seen in the footnotes of the same chapters, it appeared that the tendency was accompanied by a trend whereby military debate articles were moved from the pages of Pravda and more Party-controlled newspapers, to those of Krasnaya Zvezda and other papers of more specific military expertise and concern. The trend reflected that previously evident with regard to economic matters: professional journals like Ekonomicheskaya Gazeta came to print more (and more of) economic debates, with the national Party papers concentrating rather on general policy announcements, directives and indicators.

A similar development, as well as an apparent consolidation of Shelepin's position, surfaced by early 1969. There was increasing public exposure of Shelepin at this time (notably through a visit to Cairo, and through unusual prominence in the reception of a Czechoslovak delegation to Moscow). Then came the controversial articles by Anatole Shub. He first related a Partinaya Zhizn article which in theoretical terms attacked inclinations to one-man rule and management. One-man and committee decisions without prior consultations with the relevant organs or assemblies were derided. Shub drew a parallel to the manner in which the decision to intervene in Czechoslovakia seemed to have been arrived at.

His detractors viewed his identification of Breshnev as the "target" as hasty, and chose to view the article as having a more general, and thus not as significant, intent. But Shub went on to note that Trud placed the final communique of

---

23. Of interest is a Krasnaya Zvezda article of 11 February, 1969, by General Yepishev. He admitted that some military newspapers and journals did (by then) lack "a correct and principled Party evaluation" - "of works which tolerate attempts to a subjectivist and one-sided approach".


the Czechoslovaks' meetings (which featured Shelepin and others, but not Breshnev) on its front page, while a Tass bulletin referring to Breshnev's separate meeting with the delegation leader was placed on a back page (the other main papers placed both "reports" on their front page).

A few days later a long article in Trud 26 pursued Partinaya Zhizn's theme. It emphasized that there was trouble if a leader "starts to become dizzy with a success, if he abuses his official position, if he gets puffed up and thinks he is infallible, if he stops consulting people and fails to show them concern and consideration".

A comparison supporting Shub's thesis that Breshnev was the leader in question, and that the very appearance of the article therefore meant his relative degradation, could be made with the Pravda editorial on the ousting of Khrushchev. 27 Although the latter went further in its recapitulation of "sins", the tone and form of their descriptions were similar (it may further be noted that Pravda had not specified the possessor of such sins then either, but left the inference as obvious). Shub finally 28 pointed out that, as opposed to previously, Trud was now becoming a forum for the introduction of news of significance.

This, and its variance with other papers' reports was evident on 11 February. Then Pravda commentator Gregoryev delivered a normal denunciation of the FRG, coupled with strong support for the heralded DDR attempt to obstruct the West German Presidential elections to be held in West Berlin on March 5. Trud (commentator: Grigoryants), however, chose an unusually mild tone in its disapproval of Bonn policies, and

27. 17 October, 1964.
featured a call for a European Security conference (an idea which had been dormant since the call for such at the 1967 Karlovy Vary Conference). The "old" minimal conditions of (a) recognition of existing European borders, (b) guarantees against FRG atomic weapons procurements, and (c) recognition of two German states, were reiterated. Yet the tone was mild and the desirability of such a Conference was emphasized to the exclusion of semantic paraphernalia. It thus augured the later Warsaw Pact initiative of 17 March, 1969.

Shortly thereafter Trud again reaffirmed its emergence as a paper of import. This was when it published the first comprehensive account of the Chinese "bandit attack" on an unsuspecting Soviet border-guard detachment on the Ussuri. The account was strongly nationalistic in fervour, invoking a "holy" soil of the motherland reference and emphasizing the patriotic indignation sweeping the Eastern provinces.

While no major leadership change occurred this time either, the above remains of interest for two reasons. On the one hand it demonstrated the advent of yet another organ with a certain licence to pursue policy-affecting printing policies. The fact that it appeared to serve the Trade Union Congress Chairman's policies rather than typical Trades Union interests did not detract from its interpreting as evidence of some devolution of authority. This fact moreover provided yet another example of the dangers of associating any Soviet leader with definite policy leanings: the western-oriented material was most 'moderate'; the eastern-oriented material could be seen as jingoistic and hard-line, if not 'Stalinist'.

30. See e.g. the New York Times, 4 March, 1969, and The Observer, 9 March, 1969, for rumours as to hard-soft line Politburo splits.
32. It is of interest to note that much dispute regarding Shelepin's inclinations existed among western observers. In
One final 1969 sequence of events further illuminates both the aspect of leadership disagreements and the extent of the consequent freedom for divergent opinions:

Suslov's "opposition" during and after the Czechoslovak intervention is treated elsewhere. It is there also noted as significant that while many of the ideological justifications for the Czechoslovak policies were authored by members of ideological institutions associated with Suslov, the most prominent ideology cadres, such as Suslov himself and Ponomariov (supervisor of relations with non-ruling communist parties), remained aloof. This was no doubt partly due to their responsibilities with regard to the gathering of the then planned world CP conference. The need to produce harmony, and to soothe apprehensions arising from the "limited sovereignty" doctrine, may in fact have been the prime reason. There was probably greater consensus as to the need for increased supervision of Czechoslovakia following the intervention, than there had been regarding the intervention itself.

But at the Comecon meeting in Moscow on March 25, 1969, a further "new" policy was enunciated by Suslov, and to some extent also by Ponomariov. This was associated with the anti-Stalin attacks and trends which had been gradually stifled since the 23rd Congress and which had practically disappeared since the August 1968 events (the intervention in Czechoslovakia).

32. Cont. early 1968 the majority adhered to the view of NYT Moscow correspondent Harrison Salisbury, who saw him as a 'neo-Stalinist' of sharply reduced influence. But a minority (notably Henry Shapiro) disagreed strongly. They saw Shelepin's influence as continuing, and characterized him as liberal and anti-Stalinist, citing the fact that he was the only Politburo member with a "humanist" education (he graduated from the Moscow Institute for History, Philosophy and Literature).

34. Among the few references to Khrushchev's endeavours was a summer 1968 booklet by Anna Klyueva on the 20th Party Congress, which contained numerous derogatory references to Stalin (although Khrushchev was not mentioned).
Typical of the published material had been such as the military memoirs favouring Stalin's war-time role, which were reviewed by Ye. Boltin (Deputy Director of the Marxism-Leninism Institute) in Kommunist. While not furthering the praise of Stalin as such, the reviewer concentrated approvingly on the memoirs' implicit attacks against Khrushchev's 1956 anti-Stalin campaign.

Another example had been the Voprosi filosofi article of December 1968. Attacking revisionist East European theorists (especially Czech and Yugoslav) who saw Stalin as material proof for rejecting ideological dogmatism, the article whitewashed the deprivations endured under Stalin. The article provided justification for a continued use of coercion, societal discipline and political controls, even after the material conditions for a better life had been created.

Now came the first published attack on Stalinist procedures by a CPSU leader since the 23rd Congress. Ponomariov heralded the attack when he wrote in the issue of Problems of Peace and Socialism published before the meeting that "the negative consequences of the personality cult of Stalin, and the retreat from Leninist norms connected with it, were also expressed in the work of the Comintern - mainly concerning its cadres". In a generally laudatory review of Comintern history and achievements, Suslov followed up by specifying that the "consequences of the cult of Stalin" had "adversely affected the activity of the Comintern in its later

36. Written by D. Chesnokov.
years". His comments may again have been motivated solely by considerations associated with the forthcoming CP meeting. They did, however, appear stronger than necessitated by the imagined motive. This and attendant policy disagreements may have caused the failure of the Tass summary to mention it at all.

A further departure from previous policies was evident in the differences over the role of social democracies, as between Suslov's and Ponomariov's speeches, and that of Ulbricht. Ulbricht's traditional and emphatic defining of the Social Democrats as the "main" historical enemy was ignored by the former. This may not only explain the unceremonious departure of Ulbricht on March 27, but might also be seen to relate to the new detente approach towards the FRG (an approach initiated in February). It is of significance that the FRG's new policy of comparative approachment towards the USSR and Eastern Europe, a policy partially aimed at isolating the DDR, was enunciated by the Social Democratic leader, Foreign Minister Brandt. The implications inherent in greater appreciation of Brandt's "Wander durch Annäherung" (change by coming together) and "Geregeltes Neveneinander" (regulated coexistence) must have caused DDR apprehension, an apprehension which may have been further increased by rumours that the USSR contemplated withdrawing its troops from Czechoslovakia.

38. In Kommunist No. 5, May 1969, he was to further it by the flat statement that one could now no longer speak of "a leading centre for the communist movement".(!)

39. Contrary to normal protocol he was seen off by only Pelshe of the Politburo and Katushev of the Secretariat, after having had no recorded meeting with Brezhnev or Kosygin.

40. In Prague these were widespread, and attributed to "high sources", towards the end of March; to increase with the leadership changes of April (1969).
(Although in the latter case it might have been assuaged by the introduction of official pre-publication censorship, and tighter domestic discipline against reformers, which was agreed to by the CSCP in response to the anti-Soviet drift of the large demonstrations accompanying the return of the national ice-hockey team in late March.)

Yet again the enforced or otherwise policy changes caused no real leadership dislocations. Early 1970 saw rumours of a new Shelepin-Suslov design to establish ascendancy - with the subsequent pendulum swing towards entrenchment and orthodoxy explained as resulting from the design's failure.

But the only definite conclusion that could be drawn in the summer of 1970 was that a relative devolution of authority had occurred, and that somewhat more extensive 'official' debates were being tolerated.

41. See CSCP presidium's communique 2 April 1969 and Dubcek's speech 3 April 1969 (Czech radio and TV).
These measures were not unexpected, but the putting into effect of such should not be accorded significance outside the peculiarities of the Czechoslovak situation. In this connection one must remember that the Soviet-Czecho-Slovak Treaty of October 18, 1968, could (until its agreed abrogation) be used to permit the unhindered and unlimited entrance of Soviet agents and/or troops, even after the withdrawal of most, or all, of the troops stationed in Czechoslovakia. Of greater significance, then, was the composition of the Soviet delegation to Prague, whose statement of the Soviet position precipitated the introduction of the new control measures (and the subsequent instatement of Husak). Beside Ambassador Chervenienko and Deputy Foreign Minister Semionov, this consisted of Minister of Defence Marshal Grechko and Commander of the Soviet troops in Czechoslovakia, Colonel General Mayorov (Pavlovsky had then returned to Moscow). Semionov may be presumed to have commanded the delegation. But the prominence of the military, in discussions of primarily political security relevance, could be taken to mirror relatively increased military influence in Soviet policy councils.

42. Newsweek, 13 April, 1970; Newsweek, 20 April, 1970 - and major Western newspapers of the preceding week(s). The younger Politburo members D. Poljyansky and K. Mazurov were also reported as supporting the "opposition". 
No immediate threat to basic Party hegemony was ascertainable. And it appeared that the internal autonomy accorded, for example, to the military hierarchy, would not so much threaten the Party as be balanced by the greater autonomy accorded other hierarchies within or without the Party. The Party remained the arbiter and final decision-making authority. The position might be seen to have reverted somewhat from Khrushchev's single Party hierarchy back towards Stalin's encouragement of competing hierarchies - of which the Party was only one, and over which he himself was the only ultimate authority. The 1965-70 difference was that ultimate authority was divested not in a single person, but in a carefully balanced collective in the Politburo ( - a collective which was moreover, as a group, acutely aware of the dangers of single person dominance).

With regard to pressures external to the establishment, these may be perceived primarily through the mirror of establishment reactions. Evidence of the stern official attitudes prevalent at least in some authoritative quarters during 1968-1970 are to be found in quotes like the following:

There were numerous fears expressed concerning apathy and lack of consciousness. In December 1968 Sovetskaya Rossiya attacked a youth's claim that his generation was developing "immunity against ideological demagogy". This was pursued by complaints against "apolitical attitudes" and "non-class interpretations of such concepts as democracy, personal freedom and humanism".

43. See e.g. Feinsod, "How Russia is Ruled", op. cit. pg. 109, 185, 387 and 578.
44. Sovetskaya Rossiya, 12 December, 1968.
There evidently existed a widespread view according to which ideology was seen merely as an other "emotion". To some extent this was acknowledged as a result of a generation-gap which appeared to have developed also in the Soviet Union. But it was furthermore seen as reflecting a more general malaise, of attitudes such as adopted for example by Academician Sakharov; he denied any positive value to any ideology, and took refuge in traditional liberal humanism.

The malaise was clearly considered to reflect dangerous hostile subversive influences and bourgeois propaganda, some of which emanated from or through East European sources. This was seen as all the more odious for accompanying nationalist and separatist propaganda.

There therefore ensued strong demands for "vigilance" over writers, artists, the communication media, and what was termed "purveyors of alien views" in Soviet life. Pravda attacked "certain authors of scientific and literary works" who "sometimes depart from class criteria", and castigated "certain workers in publishing houses, press organs and television" for "insufficient steadfastness".

47. Literaturnaya Gazeta, 2 July, 1969.
49. Kommunist Ukrainy, No. 1, 1969 (see reported speech by Yuri Tlititsky, 1st Secretary of the Transcarpathian oblast).
50. See e.g. Partinaya Zhizn, 6 January, 1969, and Pravda 13 February, 1969, re Tadzhik and Central Asian developments. And Pravda, 19 February, 1969, re "tenacious" and "dangerous" national sentiments in Lithuania. See also Kommunist, No. 1, 1969, which demanded more cultural uniformity; and Literaturnaya Ukrainy, 9 December, 1969.
52. Ibid.
In a similar if cruder vein, Piotr Shelest was reported, at a Kiev rally of 18 February 1969, to have attacked "some young people, including students" who were "spreading various rumours and fables from the dirty wave of foreign radio broadcasts". They were declared to employ a "dissolute manner" and "dirty tricks", "insulting their elders" and "falling prey to the erosive bourgeois culture".

Less emotive were a number of stern warnings concerning the permissible limits of criticism, as well as reminders that the Party retained the power to silence those who continued to criticise action policies, or who attempted to develop factions within the Party.\(^5\) It was made clear that such warnings would be acted on if necessary. The reported trials of recalcitrants, such as that of Chernyshevsky in Kiev in early 1968 (which followed his persistent challenging of the legality of previous closed trials involving Ukrainian intellectuals),\(^4\) testified to Party determination.

The dissidents and 'civil rights' champions were clearly not stifled, and they continued to express themselves in illegal Samizdat printings.\(^5\) But it remained highly questionable whether such had much import outside their own groups. There remained reason to believe that the groups were basically isolated, and that the major population groups were, if not hostile to them, at least indifferent.\(^6\)

---

55. Ibid.
56. See also, *e.g.*, Chapter 8, re. Civilian Training, for related establishment efforts.
In conclusion: the Party remained acutely aware of the danger of internal opposition and threats, as to some extent it had always been. But there was reason to believe that the vigour of its public concern reflected anxious over-reaction to limited, if persistent, circles of critics, rather than the true extent of these critics' disruption potentials. There was no evidence that opposition might be either widespread enough, or sufficiently organized, to represent any real threat to the establishment's power apparatus.
CHAPTER 11
PERIMETER DEFENCE

11 A The Warsaw Pact - Military Integration into
Soviet Command Structure.

In a comment on this subject-topic, NATO Secretary General Brosio declared in late 1967: "A veil is drawn over the fact that the Soviet Union has already concluded a network of bilateral pacts with its allies, such as to render the Warsaw Pact superfluous, and make the dependence of the Eastern countries upon the Soviet Union even more entire."  

1 As concerned military relations, the first point was true even at the time of the Warsaw Pact's founding,  

2 and has remained so since.  

3 This fact gives credence to interpretations of the Warsaw Pact as a super-structure created primarily for political and psychological reasons.  

4 It is here, however, intended only to indicate the extent of the military integration within the Warsaw Pact, and to clarify the extent to which East European military events must be viewed as concerning or influencing Soviet military decisions, and vice versa.

5 It was only in 1961 that joint military manoeuvres became acknowledged. Since then such manoeuvres have become regularized, with between two and seven every year, a frequency which in itself suggests close integration. Military Staffs and Defence Ministers' meetings or conferences became more frequent, especially after 1965.

The same years witnessed a trend for most of the manoeuvres (and talks) to be organized in, and to involve primarily, "northern tier" countries. The development could be seen as partly motivated by strategic considerations, which were far more involved where the northern countries were concerned. This interpretation explained the fact that Bulgaria, while certainly one of the staunchest supporters of unity, nevertheless often participates on a lower level than the other active members. There could conversely be little doubt that political differences, or scepticism regarding utility, was a factor in the case of Rumania. She did not participate in any manoeuvres between September 1964 and August 1967, and did thereafter again refrain from participation until March-April 1969, and even then only to a limited extent.

But, with the probable exception of Rumania, there were indications that military integration between Warsaw Pact nations increased further during the late 1960s. That integration was the operative word, rather than mere coordination, was made clear by the then Warsaw Pact Chief of Staff, Army General N.I. Kazakov, in 1967. He "made it abundantly plain that the basic organization of the air defence forces..."
of the Warsaw partners was 'different from former times' in that it formed part of a unified system which included the air defence system of the USSR. This arrangement, he was careful to stress, gave the PVO forces of the Warsaw Pact the capability 'of striking at air targets far from the installations to be safeguarded'.

On March 17, 1969, in Budapest came the first Warsaw Pact meeting after the five-nation intervention in Czechoslovakia. The two-hour meeting, presided over by Alexander Dubcek, produced two published documents: the one referred somewhat vaguely to new command structures; the other was a moderately-worded call for a European Security Conference. Western speculation concluded that the very vagueness of the first meant defeat for a hypothetical attempt to streamline the Pact according to the requirements of Soviet control. And Dubcek's elaboration upon his return to Prague, that the meeting had established a Committee of Defence Ministers, and had promulgated a "Statute on the Combined Armed Forces and Combined Command", and that the Conference's main purpose had in fact been the improving of the "organization" of the combined command of the Pact's forces, was interpreted to mean that the USSR had agreed to Rumanian-Czech demands for a greater sharing of command and policy authority. Subsequent


11. See The Times, 19 March, 1969, for comments regarding a perceived (probably incorrectly) Soviet desire for Warsaw Pact troops to be stationed on the Ussuri river.

12. Rude Pravo, Prague, 19 March, 1969
rumours, that consideration had been given to the idea of a joint staff, in which the participation of members would be in proportion to their contribution to the alliance (a la NATO.), were similarly interpreted. Later evidence, however, indicated that, while the Pact meeting had achieved or at least presaged a greater unification of Pact command procedures, this was not of a kind to diminish Soviet authority.

The first evidence appeared in April. Unification of command over the Pact's air defence forces was created, or reaffirmed, when Marshal P.P. Batitsky, Commander in Chief of Soviet PVO forces, was appointed to act also as Commander of the PVO forces of the Warsaw Pact as a whole.14 (Retroactively the appointment of Cmdr. of Soviet Land Forces Army General Pavlovsky, to act as Cmdr. in Chief of the Warsaw Pact Forces engaged in the intervention in Czechoslovakia, might also be seen to reflect on command unification endeavors.)

Command unification, under the relevant Soviet Commander, may be intended to be activated or enforced only for the more vital manoeuvres or events. But the import is of great importance. It should be related to indications that the Soviet military presence, at least as concerned the northern tier of the Pact, was increasingly regarded as permanent rather than temporary.

This assertion rests especially on two 1968 events. There was first of all the Czechoslovak intervention and the resulting Soviet-Czechoslovak Treaty. This clearly indicated

such permanency. Then came the DDR, 7 November, 1968, celebrations, at which Marshal Koschevoi was addressed as "The Supreme Commander of the Soviet Armed Forces stationed in the DDR".\textsuperscript{15} The titulation contrasted with previous practice: "temporary" (\textit{zutweilig}) had always been inserted before "stationed". In January 1970 came apparent confirmation that the indicated unified command pattern had been instituted on a wider basis than that of just individual or specialized services or tasks (in an editorial by Army General Shtemenko,\textsuperscript{16} which referred specifically to the 1969 Warsaw Pact meeting). It remained for Western analysts to draw the conclusion that, if instituted to any extent, then such a unification of command must be presumed to encompass only "northern tier" countries, and perhaps Bulgaria, with only a symbolic contingent from Rumania.\textsuperscript{17}

It may, however, be proper to view Schtemenko's article not as reflecting an innovation, but rather as confirming previously developed and known practice.\textsuperscript{18}

This expands on the fact that Warsaw Pact territory, and especially that of the Northern tier, is considered per definition to constitute the forward defence area of the USSR (which necessarily represents the core of the Pact and its defence).\textsuperscript{19} This, again, reconfirms and augments the tenet that a prime concern of the Pact's forces is to secure that "(Soviet) ... installations ... be safeguarded."\textsuperscript{20} Regular

\textsuperscript{15} DDR News Media, 7 and 8 November, 1968.
\textsuperscript{16} "Boevoe Bratstvo", Krasnaya Zvezda, 27 April, 1970.
\textsuperscript{17} E.g. Victor Zorza, "Unified Command for Pact Forces", The Irish Times, 4 February, 1970.
\textsuperscript{19} Krasnaya Zvezda, 8 May, 1970, an article by Warsaw Pact Cmdr. Yakubčik made it quite clear that the Soviet Union would not consider giving up what she deemed legitimate Second World War gains.
training and administration procedures to this end appeared to have been instituted...

The conclusion must reflect the previously presented evidence, regarding Soviet strategic and tactical concepts, and American recognition of these. The data presented above furthermore provides desirable emphasis to a factor and degree of military concern in Eastern Europe which necessarily entails a "military influence" on inter-state policies. It points to the need to consider military requirements.

The developments may be synopsized by the following quotes

1963: "Operational units of the armed forces of different socialist states can be created to conduct joint operations in military theatres. The command of these units can be assigned to the Supreme High Command of the Soviet Armed Forces." 21

1970: "Until recently Warsaw Pact Forces (of USSR, Poland and GDR) operating in the Baltic were separate but

20. Kazakov, op. cit. One might also point to an article by Colonel S. Lipitsky in Voenna Istoricheskky Zhurnal, No.1, 1969, in which he explicitly draws a parallel between the contemporary situation of "countries of the socialist community" and the post-revolutionary situation of the Soviet Baltic, Belorussian and Ukrainian republics: eventual unity was then forged through the instrument of military alliance and integration; with regard to the socialist community this venue was all the more necessary to counteract separatism encouraged by pro forma political independence... (4).

similarly equipped entities. This is no longer true, as intensive training has made them capable of being integrated under a single command team." Grechko elaborated: "To better co-ordinate co-operation each Armed Forces has allotted staffs and formations from the Army, Air Force, PVO and Navy. There exists a Military Council for the united forces; the statutes for the committee of Warsaw Pact Ministers of Defence have been sanctioned (ratified)." 23

And Pravda weighed in with the following doctrinal (and conceptual) promulgation: "The boundaries of the Soviet Union and other socialist states are boundaries of a new type. These brothers-in-arms see that their international duty lies in the reliable safe-guarding of their states' frontiers as component parts of the whole socialist camp's boundaries. The idea of fellowship in arms runs like a red thread through all these treaties." 24 (The referred-to treaties were those recently signed with Hungary, Poland, Roumania and Czechoslovakia.)

One may juxtapose this with the contemporary definition of the main 'duty' of the Soviet armed forces: - To defend the Socialist Fatherland and socialism's and communism's victories, and to halt the spread of counter-revolution. 25

Note the relevant diagram which is attached to this section; it was procured in Moscow, summer 1970.
25. Krasnaya Zvezda, 30 July, 1979 - lengthy article by Maj. General, Professor E. Sulimov and Col., Dsenst A. Timorin. (Both believed to be political officers). Previous interventions in Czechoslovakia, Hungary and DDR are emphasized to have been both legal and necessary.
The socialist commonwealth is clearly a whole; the component parts ("brothers-in-arms") must consequently strive for greater integration; until such is consummated, the prime or ultimate responsibility as concerns both unification and defence falls to the USSR Armed Forces. (See also following section.)
THE WARSAW PACT

THE POLITICAL COUNCIL

THE PERMANENT COMMITTEE

PACT SECRETARIAT

UNITED COMMAND
Code of Chief:
M.I.I. Tkachukovsky
(USSR)
Alternates:
The Minister of Defence
incl.: Shcherbitsky (Poland)
& Hoffmann (GDR)

Chief of Staff:
G. SM. Lentemko (USSR)

POLAND:
Cmed by: Wa. Slawinski
(2nd Gen Staff Officers)

GDR:
Cmed by: Gen. Peters
(2nd Gen Staff Officers)

GDR:
Cmed by: Lt. Gen. Dimitrov
(2nd Gen Staff Officers)

CSSR:
Cmed by: Gen. Kosme-
(2nd Gen Staff Officers)

COSR:
Cmed by: Gen. Slavnik-
(2nd Gen Staff Officers)

HUNGARY:
Cmed by: Gen. Hufnagel
(2nd Gen Staff Officers)

ROMANIA:
Cmed by: C. Krszec
(2nd Gen Staff Officers)

USSR:

Soviet troops in:

POLAND
Cmed by: Wa. Tkachukovsky
2-3 DIVISIONS
3G. in DEPLOYMENT

GDR
Cmed by: Gen. V.G. Nulikov
22 DIVISIONS
HR. in WUNSODER

CSSR
Cmed by: Gen. Hoffmann
6 DIVISIONS

KEY:
Ma. = Marshal
Ga. = Army General
Gq. = Lt. General
Gm. = Maj. General
Vq. = Vice Admiral

Soviet troops in:

HUNGARY
Cmed by: C. Vlakov
4 DIVISIONS
H. in: Budapest

CSSR
Cmed by: Gp. M. Marjanov
5 DIVISIONS
11 B The Doctrine of Limited Sovereignty.

The need to consider military requirements is equally evident in the so-called Brezhnev doctrine of limited sovereignty. The doctrine was based on the premise that there was in being a Socialist Commonwealth based on joint responsibility.26 Or, as elaborated by Pravda:27 Every socialist state was said to belong to a system of states which formed the Socialist Commonwealth, and it could therefore not pursue policies independent of the whole.

There was nothing really novel about the doctrine itself. It could be traced back at least to the 21 Conditions for Comintern membership (as promulgated at its Second Congress, in 1920). They had explicitly asserted that any member would have to break unequivocally with any dissenting movement or organization, and that it must divert all its energies to the furthering of the organization as a united whole.28

The novelty lay in the accompanying definitions of peaceful counter-revolution.29 According to these definitions the increasing strength of the socialist forces had forced the West to abandon attempts to instigate armed uprisings within the socialist camp. Thus forced to change tactics the West had as a consequence stopped criticizing "communism". Instead she now concentrated on attacking 'bureaucratic dictatorship', and 'conservatives' in the Parties and

26. As defined in Gromyko’s otherwise conciliatory speech to the U.N., following the intervention in Czechoslovakia. Pravda, October 4, 1968. This section is paralleled in the Afghan communist decision-making, in Czechoslovakia.
Governments. The aim was perceived to be a dulling of the people's vigilance, so as to permit a gradual dissemination of disruptive ideas, and the infiltration of traitors into key offices.

This defining of peaceful counter-revolution is novel in that it entails an easing of the conditions in response to which the Socialist Commonwealth majority would consider intervention against an errant member to be necessary and justified. The kernel of the peaceful counter-revolution concept might also be considered to have been inherent in the 21 Conditions, but this had not then been elaborated explicitly.

The two concepts were after 1968 re-emphasized and elaborated on until no one could doubt their relevance to contemporary affairs.

The Parties which remained faithful to Leninist ideals were declared per definition to "avoid actions which could contradict the tasks of the general struggle of all communist parties against imperialism".\(^{30}\) As regards the determining of these tasks, it was pointed out that "the experience of the construction of a socialist society in the Soviet Union ... has been adopted by the communist and workers' parties as the basic model of socialism".\(^{31}\) Other models which had been constructed a priori (i.e., the Czechoslovak Dubcek model), were declared to have "contradicted the experience of the Soviet Union and the whole international communist movement".\(^{32}\)


\(^{31}\) Ibid.

\(^{32}\) Ibid.
Notwithstanding Suslov's 1969 acknowledgement that one could no longer speak of "a leading centre for the communist movement", it was made clear that the USSR still considered her experience to entitle her to priority influence in the directing of the communist movement, — certainly as long as imperialist designs were seen to make united action necessary. It was made clear that the Stalinist concept of intensified class struggle as a nation approached communism retained validity.

The imperative need for unity was elaborated as the basic premise. Anyone who supported a "theory of relying only on their own forces", must be affected by "adventurous, hegemonistic tendencies"; such a theory could only be based on a rejection of "the internationalist principle of the defence of the socialist fatherland".

The intervention in Czechoslovakia was a "confirmation of loyalty to the principles of internationalism (by) the five fraternal countries". One was left in no doubt that similar aid would be extended to defend the "socialist achievements" of any future member considered by the Commonwealth to be unable to secure this alone.

Soviet conceptions, of the need for unity and for coordinated action, were reflected equally in the economic field: economic considerations complemented those of a political/ideological and military nature.

35. Pravda, 7 March, 1970. Art. by Colonel S. Lukonin (Chinese policies are the object of the quoted passages).
36. Ibid.
37. Ibid.
The integration was, as yet, far from fruition. The 1969 meeting in East Berlin\textsuperscript{38} of the Comecon Council and its Executive Committee (21-23 and 23-27 January) had for example not succeeded in significantly furthering integration endeavors. It had produced only vague references to the co-ordination of 1971-75 plans, and to the need for recommendations regarding production specialization, currency and foreign trade problems; it had stressed the need to strengthen existing links between "interested partners", and had noted that the Engineering Commission was authorized to programme further intra-Comecon (including Yugoslavia) specialization of machinery and like equipment.

But by the time of the 1970 Conference (in Warsaw) it was claimed that considerable progress had been achieved on an agreed programme of integration.\textsuperscript{39} This conference approved a draft project for an international bank, to co-ordinate investments, and to provide credit for ventures under the programme of international socialist division of labour (a programme of production specialization as between the members). And in August, 1971, in Bucharest, it was finally agreed to introduce a "collective currency", based on a "convertible ruble" (further specification, or time-table, was not provided); a far-reaching 15-20 year programme for East European economic integration was approved at the same conference.\textsuperscript{40}

\textsuperscript{38} This meeting was of some import due to the very widespread rumours at the time that the Soviet Union would force rapid integration on her partners.

\textsuperscript{39} It provided for more organized consultations between the various planning commissions responsible for product planning, allocation and distribution.

\textsuperscript{40} NB. "Socialist integration" is defined as "a process of bringing together and gradually merging the national economies of the several countries into a single system". See Pravda, 13 May, 1970; Isvestia, 14 May, 1970.
How far or fast the integration of the respective economies would proceed remained in question (especially in consideration of the lack of enthusiasm by Rumania, regarding the theory and its implications,\textsuperscript{41} and by others, with regard to detail.\textsuperscript{42}) But since the "hegemonistic tendencies" inherent in departing from co-ordination with the whole of the Socialist Commonwealth were accepted as potential justification for fraternal "aid",\textsuperscript{43} it remained probable that closer integration would be pursued and implemented. Some leeway might be conceded to Rumania, but, as concerned the Northern tier countries at least, it was clear that integration was and would remain a priority policy aim.

The priority concern for political and economic entegration, and the putting into effect of measures to this end, supports a 'real-politik' view of Eastern Europe as an integral part of Soviet home area. To put it somewhat differently: the strategic defence of the perimeter was considered as inseparable from the strategic defence of the home area; the two were in a very real sense considered parts of the same whole. The Soviet conception received, or commanded, the adherence of East Europe (excepting possibly the ambiguous Rumania). And its importance in Soviet eyes was clearly such that she would do \textbf{all} in her power to ensure that this adherence be permanent.

\textsuperscript{41} Berghianu, M., in International Affairs, Moscow, September, 1968.
\textsuperscript{42} Ibid. See also e.g. The Times, 16 May, 1970, op.cit.
\textsuperscript{43} Pravda, 7 March, 1970, op.cit. (see above).
SELECTED BIBLIOGRAPHY

Soviet Newspapers and Periodicals:
Aviatsiya i Kosmonavtika
International Affairs (Moscow)
Isvestia
Kommunist
Kommunist Vooruzhiennikh Sil
Krasnaya Zvezda
Mezhdunarodnaya Zhizn
Morskoi Sbornik
Partizaya Zhizn
Politicheskoe Samoobrazovanie
Pravda
Voennno-Istoriyeshkii Zhurnal
Voennaya Mysl
Voennii Vestnik

Soviet Books:
Bagramian, I. Kh., Ivanov, S.P., and others 'Istoria Voin i Voennovo Iskustva', and 'Istoria Voin i Voennovo Iskustva - Albom Skhem', Voenizdat, Moscow, 1970.


'Sbornik Osnovnikh Aktov i Dokumentov Verhomovo Soveta SSSR po Vneshnepoliticheskim Voprosam, 1956-1960 g. g.'


'Voennaya Psikologiya', Voenizdat, Moscow, 1967.


Some Western Newspapers and Periodicals:

Adelphi Papers (ISS)
Aviation Week and Space Technology
Foreign Affairs
Le Monde
The Military Balance (ISS)
The Military Review (Fort Leavenworth)
The Observer
Revue de Defence Nationale (Paris)
Scientific American
Soldat und Technik (Bundeswehr)
Survey (ISS)
The London Times
The New York Times
Bundesinstituts für Ostwissenschaftliche und Internationale Studien publishings.

Hudson Research Inst. publishings
IDA Research Papers
International Conciliation (Carnegie) papers
Rand Corporation papers
US Naval Institute Proceedings

U.S. Senate and House of Representatives Hearings on Military and Foreign Policy postures and options, present and future—especially such as conducted by the Committee on Armed Services, House of Representatives, and the Committee on Armed Services, U.S. Senate;—Also Financial Procurement Debates conducted before same—as released by G.P.O., Washington, D.C.

Annual U.S. Defence Department 'Posture' Statements, released by same, and G.P.O., Washington, D.C.

Some Western Books:


