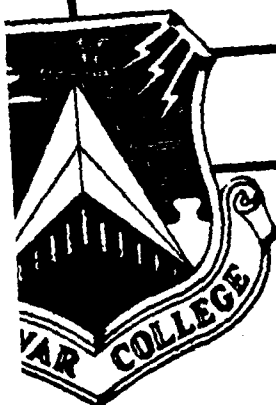


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RESEARCH REPORT

CENTER OF GRAVITY -- SOVIET UNION 1989

LT COL JAROMIR J. BON

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AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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CENTER OF GRAVITY -- SOVIET UNION 1989

by

Jaromir J. Bon
Lieutenant Colonel, USAF

A DEFENSE ANALYTICAL STUDY SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE CURRICULUM
REQUIREMENT

Advisor: Dr. Howard M. Hensel

MAXWELL AIR FORCE BASE, ALABAMA
May 1989

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EXECUTIVE SUMMARY

TITLE: Center of Gravity -- Soviet Union 1989

AUTHOR: Jaromir J. Bon, Lieutenant Colonel, USAF

→ A **center of gravity** is something which is held precious by a nation or a power, something which either flows throughout the entity as a cohesive force or something which is so central to the beliefs and values that it's loss could result in disassociation or collapse of the power. One popular concept of the Soviet Union is that communist party control of the government is a vital interest and thus forms a **center of gravity**. With the appearance of relatively extensive changes in Soviet political culture initiated by President Mikhail Gorbachev, is the new **center of gravity** the same, is it in transition, and if it's changing what are the possible new ^①centers^②? On a strategy basis a significant change could directly impact what, how and when we target areas for cooperation, competition or potential conflict. Additionally, the **center of gravity** as an analytical frame of reference may help us understand how threats to the Soviet **center of gravity** can impact their likely courses of action in force structure and strategy, and produce interactive changing challenges for US strategy. This study will focus on how the changes being made in the Soviet Union today could influence the way we need to plan our future relationship. (AU)

BIOGRAPHICAL SKETCH

Lt Colonel Jerry Bon (BSChE, Rensselaer Polytechnic Institute; MPS, Auburn University at Montgomery) has a varied background in research and development, staff work and missile operations. He has been interested in the United States global adversary for quite some time and has studied the area as a hobby. On his most recent assignment Lt Col Bon served as commander of the 12th Strategic Missile Squadron and as deputy commander of the 341st Combat Support Group. He is a graduate of the Air Command and Staff College where his study, "Arms Control and the President's Strategic Defense Initiative," formed part of the foundation for his further study of Soviet behavior. Lt Colonel Bon is a graduate of the Air War College, class of 1989.

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CHAPTER I

INTRODUCTION

One interpretation of Clausewitz' definition of the **center of gravity** is that foundation of power which the enemy holds dear, which if threatened or defeated can effect a behavioral change with little additional effort on the attacker's part. [21:595] Although the **center of gravity** concept is primarily an operational art construct, most closely associated with armed conflict in a theater of war, my central thesis is that the concept can be extended and expanded to include strategy and conflict across the entire spectrum of societies powers.

Societies, cultures, armies each have a **center of gravity**, a cornerstone on which they are founded and which underpins the structure of the body. A credible and final threat of checkmate on this **center of gravity** may cause a collapse of willpower and lead to victory without further expenditure of effort. It has been argued that the United States **center of gravity** in Vietnam was public opinion at home, and that after enough pounding away at American public opinion, especially in the wake of the massive 1968 Tet offensive by an enemy our leadership claimed to have defeated, the failure to achieve our objectives in Vietnam was a foregone conclusion.

President Gorbachev has introduced **glasnost** and

perestroika into Soviet political culture, and has recently announced changes in industrial priorities - proposing a reorientation of production from military to additional consumer goods.[61] In addition to force reductions associated with the Intermediate Nuclear Force Treaties, he has also announced unilateral withdrawal of troops, tanks and assault units from Eastern Europe, a 500,000 man reduction in the Soviet Armed Forces, along with changes to Army division strength/organization. [53; 62]

One popular view of the Soviet Union's **center of gravity** is that communist party control of the government is vital...With the relatively massive changes in the Soviet political culture initiated by President Gorbachev, is the new **center of gravity** the same as before, is it in transition, and if it's changing what are the possible final outcomes? Based on the Soviet view of the threat to their **center of gravity** what are their likely courses of action in force structure and strategy, and how will possible outcomes challenge the US strategist?

These questions form the rather broad boundaries of this study. I will review **centers of gravity** and how they can be threatened or changed; examine, through the Soviet "correlation of forces" construct, the past, present and future status of their **center of gravity**; postulate some future prospects, or where they, and we, might be going; and,

finally try to come up with some usable conclusions which could make this frame of reference valuable for evaluation of the US/Soviet relationship, be it cooperation, competition or conflict.

It seems that a primary concern for the US, and the US led Western Alliance, is how to best influence the Soviet Union to react in positive and constructive ways to our initiatives, but at a cost which does not leave us open to coercive forces from either within or outside our defensive framework. There may be synergistic effects to global cooperation which can replenish and revitalize us rather than depleting resources which are becoming increasingly scarce. Indeed the effects of bounded competition could also effectively improve the performance of the major competitors.

CHAPTER II

CENTER OF GRAVITY

What is a **center of gravity**? Clausewitz defines the **center of gravity** in purely military terms, putting the concept squarely on the battlefield and involving the collision of military force. In The Art of War he terms the concept, "... the hub of all power and movement, on which everything depends..." and provides the reader with historical examples from the campaigns of his era. [21:595] Again, he reiterates that the enemy force should be the primary target in war, regardless of the analysis. However, he later expands the **center of gravity** to include the "...ultimate substance of enemy strength," implying that while there may be many sources of enemy strength the task of the strategist is still to create a situation where one attack can destroy the one, or the many, sources. [21:617] It's here that he begins to expand his definition to include the concept of political power and alliances as being factors in determining and isolating the **center of gravity**. However, the construct he leaves us with is still one at the operational art level -- the battlefield as the ultimate location which will determine the final outcome of any conflict, a location in keeping with his lack of interest in "...victories without bloodshed." [21:45] If that's all there is, even if it's a great deal, we're stuck ... there is no winning without

armies and societies mobilizing and colliding, there is no alternative to winning by force of arms. And yet, for the superpowers of the world today there is conflict, and it must be contested and resolved in ways that do not threaten the end of humanity or the world. The central question becomes: is there a generalized application of the **center of gravity** that we can use to guide our strategies, even when the battlefield is political, or economic, or psychological?

Fortunately, the US Army has seen fit to bridge the gap with an expanded and yet simplified concept of the **center of gravity**. Field Manual 100-5, Operations, defines the **center of gravity** of an armed force as, "...that characteristic, capability, or locality from which the force derives its freedom of action, physical strength, or will to fight." [25:179] There can be **centers of gravity** at the tactical level, certainly at the operational level, and at the strategic level. This characteristic can rest in the leadership, in the individual soldier, in the alliance; it can be a weapon or a strong point, and it can be the strength-of-will of the people back home.

Can the **center of gravity** change? Yes, over time, depending on the situation. It can change with all those factors which can influence the strength of any measure of force -- be that force military, or economic, or psychosocial.

One can draw an analogy with a chess game where an opponent seems particularly dependent on the use of one or a limited number of pieces. Perhaps capture of one or just a few of those pieces would be a **center of gravity**? But, a good player then modifies his game strategy and continues with the remaining pieces -- forming yet another apparent source of strength. Clausewitz would perhaps remind us at this point that the object of the game, what determines winning, is the capture of the king. The other pieces, then, merely form a perceptive barrier meant to create fog and friction in an adversary, the better to expose the adversary's **center of gravity** to a single attack which will determine the outcome.

Seen in this light the "game" thus becomes one of stripping away multiple layers of deception and defense, of eliminating those plausible but improbable sources of strength -- and pressing home the attack. But wait! Why attack? Is it only to capture or destroy, is it only to win -- what's the objective?! In the final analysis, the political objective will determine whether we want to critically wound or destroy our enemy, or whether we merely want to remind our foe that he too is mortal, and thus influence him to change. Any worthy adversary who understands the rules of the game will recognize the thrust held back, the vital area exposed ... and will make those corrections necessary to

insure continued survival.

One final thought needs to be discussed, that of long-term indirect strategies meant to encourage or create a **center of gravity** in an adversary. Some tactics could include: the purposeful creating of overdependence on a single source for a vital input resource or product; or, by creating stresses and strains in the fabric of a society or economy, identifying the potential fracture points for future targeting. While it sounds easy to do, in reality it's extremely difficult to predict with any accuracy just what underpins the power of even the simplest of societies. As we all become increasingly interdependent, the complexity of this problem makes the necessary predictability nearly impossible. Is there any answer? In any kind of a contest where we have no choice but armed conflict with our adversary Clausewitz tells us, "...defeat and destruction of his fighting force remains the best way to begin." [21:596]

CHAPTER III

SOVIET UNION -- 1989

Discussion of the Soviet Union's **center of gravity** must be made on the basis of an analysis carried out with their tools, and with their goals and objectives in mind. One need hardly remind the reader of the danger of overlaying an ethnocentric template which may not accurately depict the power to be analyzed. Thus it's important to recognize certain things or basic truths (call them assumptions): what is/are the Soviet Union's strategic interests, what's the hierarchy, how do they interact, and how do the Soviet's measure relative power (what frame of reference do they use to objectively gauge strength)?

First, little or no primary data exists to aid in this analysis. The pronouncements of Soviet leaders and their proposed actions notwithstanding, even though they may shed some fractional light, are rarely complete enough to completely illuminate this broad area. There are, however, some watershed announcements, doctrinal documents and recognized western analysts with published material which can help in further understanding. I leave this as a caveat to the reader -- a more direct future insight into the ways in which Soviet interests/objectives are determined and how they measure power could validate, or invalidate, my analysis.

The Soviet System in 1989 is in trouble, regardless of whether or not one sees the events of October 1917 as a revolution, a coup-de-tat or an illegal seizure of power.[15:1] The power of the state is real and it's centered in the Communist Party of the Soviet Union (CPSU). It is also immaterial for purposes of this analysis whether the 70 years of communist rule are seen as an interruption of czarist power, with Mikhail Gorbachev as the inheritor of the Russian empire with it's attendant trappings.[10:8-9] What is real is the current political climate in the Soviet Union, the goals and objectives set by the leadership, and more importantly, how do they calculate power and are there any indicators which might help us to better understand how the political elite intends to use their nation's power.

In his book, Military Objectives in Soviet Foreign Policy, Michael McGwire states that Soviet doctrine determines the objectives of the Soviet Union, and that a descending process then leads us through missions, requirements and weapon systems down to operational behavior which defines how they will respond in a given theater of war. [5:4] McGwire then further states that survival (or health) of the Soviet state is the primary objective, which in turn spawns three supporting objectives: maintain CPSU control, maintain international freedom of action, and avoid a world war. [5:37-8] But what is doctrine -- is it used in

the sense we mean doctrine? Soviet doctrine relies on historical experience, but several authors have pointed out that it's a different animal. Soviet military doctrine is , "...a states officially accepted system of scientific views on the nature of modern wars and the use of the armed forces in them...[it] has two aspects: social-political and military-technical." [33:117] Indeed the key to remember is that military doctrine is the political doctrine of the CPSU, and as such has a high level of political content. How does the social-political and military-technical aspect of doctrine play a part in determining current forces and future trends in military power?

Because the Soviets tend to be very deterministic in their approach to almost everything, they developed laws of war which can be use to calculate the potential outcome of conflict, to evaluate both current situations and to predict the future. [4:8] Eventually these laws of war became embodied in what has come to be known as the correlation of forces. This concept states that the course and outcome of war are dependent on the correlation of four potentials: economic, scientific-technical, moral and military, with the political goals and strength of allied or international ideological movements sometimes added to the equation as a fifth factor. [4:9] How can we translate this as an aid in understanding?

First, economic potential recognizes the strength and influence gained by an ability to produce equipment and wealth or what may be termed force structure, and the potential to quickly replace assets attrited in any longer conflict. This strength can be extended to include an ability to transition from peacetime to wartime production and probably includes the influence, power and wealth inherent in a healthy economy as compared to the relative weakness embodied in a stagnating, weakened operation.

Scientific-technical potential attempts to measure the current state of technology, educational and research efforts, the ability to quickly identify and solve problems, and the ability to implement progress in the economy and military spheres.

The moral potential not only reflects the strength of will of the people, but includes political strength both at home and internationally. It also has to do with the ability to mobilize the people towards a goal, with discipline and an ability to subsist on very little in the way of creature comfort while in pursuit of a goal; a goal determined by the leadership elite.

Military potential measures those forces in being, their equipment, tactics, leadership ... and attempts to answer the all important question of what are the trends for the future?

Finally, the last of the correlation factors is an ideological catchall which has been termed either the "strength of allied international movements" or, "resulting capabilities of a new and more progressive social and economic order." [3:x; 4:9] Soviet attempts at leadership of Third World movements either directly or through surrogates illustrate past attempts to exploit this factor. Other examples include loud calls for environmental concern and nuclear disarmament while not matching international rhetoric with consistent internal actions, and make their aims appear to be merely manipulative exploitation of what appear to be "popular" movements. Just what's meant to be measured in this potential force may have been captured by John Gaddis in his essay, "The Evolution of US Policy Goals Toward the USSR in the Postwar Era", through what he calls the "principle of serendipity", or, "if one can associate one's goals with what's likely to happen in any event, one can then be relatively certain of attaining them." [7:318]

Probably the most important thing to keep in mind is that each of these potentials is interrelated to the other, and that changes in one result in change to all. Putting it in simple mathematical terms, the equation posed by the Soviet strategists is comprised of variables that are dependent on one another, in a not always predictable fashion. Add in the effects of political goals of a conflict and the

strength of associated international movements, again interrelated and dependent on each other, and you can begin to understand the true complexity of this nonlinear construct. Yet, according to more than one analysis this is exactly the type of tool used by Soviet leaders in making decisions in even highly sophisticated situations.

It was on the basis of a calculation of the correlation of forces that Nikita Khrushchev told the west, "We will bury you." This statement did not mean that military attack was imminent -- avoiding world war is a serious higher order objective of the Soviet Union because it threatens the survival of the state (and the CPSU). [26:20] What Khrushchev probably meant was that his crystal ball, the correlation of forces calculation, showed the Soviet Union to be catching up to and potentially surpassing the US in many critical areas. The Soviet Union had launched a Sputnik, they were emplacing a credible nuclear deterrent, their rate of economic growth was greater than any western nations, and the international climate favored decline in western colonial power with apparent potential gain for world communism. These factors argued powerfully for a resulting calculation highly favorable to Soviet strength.

What has happened to change all that? As we now know, a great deal has happened. For example. The US became a technological leader in space and still boasts the only

manned lunar landings. This technology was adapted for military and industrial use and resulted in improved production and efficiency. Second, the west overcame several potential economic crises, emerging financially stronger, more interdependent, and with a diffused power base -- while the Soviet economy stagnated under centralized control, neglect and inefficiency. Third, the international communist gains of the 50s and 60s turned out to be largely illusory adaptations by nationalistic Third World leaders who were willing to use the resources of any power in order to gain and maintain their freedom -- but who were unwilling to buy into an ideology. And finally, in the one area in which the Soviet Union was able to truly build a case for superpower status, in military power, this factor turned out to be as illusory as the backing of emerging nationalists in previous decades. In Gorbachev's own speeches he confirms the Clausewitzian conviction that the utility of military power is exclusively political -- and that when a nation loses political power and influence, even while apparently gaining in military power in absolute terms, it's time to readress the role of the military-technical portion of doctrine. [13:160] Indeed, from all the writings, Soviet and western, it also appears that the short and long term trends in technology favor the US and the west in military potential. Yes, the Soviets could maintain the pace -- but their admitted inef-

ficiencies are such that the burdens of defense are heavier in both absolute and relative terms, and these costs threaten to undermine every other factor in their own correlation of forces calculation. [6:78; 11:18; 13:133]

Therefore it isn't any surprise that President Gorbachev has embarked on what many describe as revolutionary change through **glasnost**, **perestroika** and **democratization**. He has no choice. In fact, some argue that the forces for change had already been foreseen and initiated, and that Mr. Gorbachev is merely the beneficiary of being in the right place at the right time. Perhaps so, but perhaps it's also because he is the first Soviet leader with the vision, courage and the right personal and political tools to not only make these need (survival) driven changes, but also gifted. Gifted with the ability to make the rest of the world believe that what benefits the Soviet Union also benefits the world; that somehow it is concern for the greater benefit of mankind that's making the Soviet Union modify both it's internal and external appearance. Mr. Gorbachev has a superb record of being able to emerge from repeated (agricultural) failure untainted, and an ability to relate to and even charm the toughest of western leaders like Britain's Mrs. Thatcher.[49]

Perhaps the greatest challenge posed by Mr. Gorbachev is that he appears to be changing the nature of

the superpower relationship from the familiar win-lose situation to one where at least the appearance of win-win exists. Rhetorically he argues that based on the Chernobyl experience and scientific prediction, the use of nuclear weapons would put both sides in a lose-lose situation, where even the "winner" would not have gained any benefit. [12:40,42] In terms of this paper, does the analysis of the **center of gravity** depend on how we view the situation and what's in store for the future?

CHAPTER IV

FUTURE PROSPECTS

If a political culture is being changed in such a way as to affect a strategic **center of gravity**, how will this affect the military? It seems that in the Soviet Union today the changes brought about by **glasnost** and **perestroika** are deep enough that they will largely impact all elements of society, regardless of the success of the reforms or the survival of the apparent initiator, Mikhail Gorbachev. Success of the economic restructuring, even while vital, may not come and could be largely independent of the amount of political **glasnost** and **democratization** generated.

Some western analysts seem to be selling an ethnocentric view that only political democracy can achieve the kinds of economic miracles wrought in the Newly Industrialized Countries (NICs) -- but a close examination of the governments of the Four Little Dragons (Korea, Singapore, Taiwan and Hong Kong) fails to reveal evidence of widespread pluralism, or equal representation, or even the absence of corruption. In some sense then, because a Soviet Russian is no more stupid than we are, we need to conclude that they too recognize the potentially conflicting objectives served by **glasnost**, **perestroika** and **democratization**, and that while they're seemingly packaged together it may be at least partially for purposes of mass consumption in the west. It may

well be that the reasons for the pursuit of these potentially conflicting objectives is to redress a significant internal affliction -- and if this can be used to get western aid in the form of rebuilding the infrastructure and capitol investment, so be it.

It was Lenin, in approving the setting up of organs of oppression and the countermeasures to what was perceived to be capitalist meddling in their society, when asked what they should let the west see, who said, "Let them see what they want to see." [1:43] It's been that way ever since -- at times perception carefully orchestrated from within the walls of the Kremlin, but at other times a (mis)perception purposely achieved by the western beholder without any help. Maybe Lenin was a master of human understanding in knowing that truth was in the eye of the beholder, and while there was little he could do to drastically change the final perception, there was certainly something to be gained from putting the right spin on the message.

The bottom line in understanding and reacting properly in any conflict or competitive situation is to understand both the capability and the intent of an adversary, as well as understanding the nature of the situation. Those who would argue that a calculation of strength should be based on capability alone, argue against the very foundations of nuclear deterrence on which the defense of the US has been

built -- that intent is as important as the raw number count, perhaps even more so. In a conventional sense an example of the illusion of count alone as being significant, the extremely high enemy body counts in Vietnam and truck kills on the Ho Chi Minh Trail would have us believing in ghost enemy formations fighting, supplied by equally ectoplasmic trucks, yet we know this wasn't the case. Indeed, the count alone as a measure of capability is less than half the equation; it's vital to understand intent, through both our own eyes and the eyes of any adversary. How do we go about doing this?

Quite simply, we need to understand how the Soviets calculate the correlation of forces, we need to understand their doctrine in the way they mean doctrine, and we clearly need to know what their interests and objectives are, particularly in those areas where we are likely to conflict, or where competition may turn into unmanaged or unmanageable conflict. Seweryn Bialer, in his essay "The Soviet Union and the West: Security and Foreign Policy" proposes, "...regular meetings of top military leaders in order for them to learn about each other's doctrines first hand rather than through the writings of obscure colonels." [7:487] Inasmuch as we've had mixed successes at the political leadership level in achieving understanding through proximity, perhaps these exchanges should be thought of as necessary but not suffi-

cient to gaining our objectives.

Having said all that -- where is the Soviet Union heading according to this analysis? First of all, the Soviets are responding to internal imperatives -- the outside world may be driving, in part, the leadership's frame of reference, but the prime driving factor is the correlation of forces. It's this calculation of the correlation of forces that's motivating the current leaders of the Soviet Union to attempt a modernization of their society simultaneously with an economic restructuring, even though these objectives apparently conflict in several areas. One does not need to be a Soviet scholar to understand the economic stagnation and reduced standard of living, and then to equally understand the social malaise and alienation of the younger generations and the very real threat this represents to the survival of the Soviet Union as a political unit. [34:99-107] At the same time President Gorbachev is making these "radical" moves he has also taken great pains to replace old style hard-liners in the Foreign Ministry with fresh new faces that are able to smooth their way through inexperience -- to squeeze whatever international political capital that can be gained from moves the Soviet Union is going to have to make anyway. [32:6; 43] This action costs them nothing, and can gain significant international political good will if, with our unwitting help, they can

paint the US as the real threat to world peace. For example, if the US refuses the call to moderate, or cut back forces, especially the Navy, then the USSR is no worse off than they would have been if they had not tried. They have repeatedly made the point that force asymmetry exists between the US and USSR at every level, from tactical through strategic. Their calls for addressing all forces in Europe, from the Atlantic to the Urals represent a move to include US naval power in future conventional power balance deliberations. [53] It's naval power which threatens them and which they want to see reduced or eliminated in the Mediterranean Sea, the Indian Ocean, and most certainly in the Pacific. [60] In addition, as pointed out by other analysts, the Soviets (or Russians) have historically not been first in effectively introducing new technologies in warfare. Consequently their aim, in almost all negotiations has been to attempt to constrain the technological direction and scope of change which they see as the greatest threat from the US. [7:251] Even though it was reported that they had removed objections to US development of the Strategic Defense Initiative, later reports clearly indicate their lingering fear of this technology and both it's near-term and long-term impact on the correlation of forces. [19:229]

Does this indicate a change in the Soviet **center of gravity**? Not in the short term. The great fear the Soviets

have that SDI is destabilizing leads me to believe that their strategic nuclear forces, in the near future, are a significant factor which gives them the freedom of action they believe comes along with superpower status. In the long run, President Gorbachev has called for a total elimination of nuclear weapons -- perhaps they have either calculated that other factors in the correlation of forces equation will swing toward the Soviet Union in the ten-twenty year range or, they believe the US will find a way to break out of mutual deterrence through the SDI anyway. Thus by showing a willingness to trade away the power of strategic nuclear weapons they gain political leverage from being the initiators of such a treaty.

Much can be said about the moves made by President Gorbachev in apparently bringing an end to military influence in the Soviet's internal power. [35] A great deal has been made over his retirement of various Marshals and leaders both military and civilian -- one caution would be to review the ages of those retired, a generation from the Great Patriotic War which averages over 70.[58] And, while many in the new military leadership appear to share common interest through service in the Far Eastern TVD, it would be instructive to compare turnover of personnel in that faraway outpost of the Soviet empire and see if not all senior people have had some connection with this theater. In time

there will even be a leadership cadre that has seen service in the battlefield of Afghanistan ... and someone will attempt to correlate this with a new way of Soviet warfare. But the bottom line is that first, foremost, and always, communist party doctrine is military doctrine. It will evolve slowly, if not unambiguously, and does not reflect the personalities of the leaders except in a collective sense. As one author put it, "Watching the Soviets modernize their forces is like watching a glacier move." [3:xv] It is likely to be the same for their doctrine. This factor alone will drive many western analysts insane with impatience -- we need to develop an ability to measure the movement of the glacier and predict it's changes in direction on the basis of very little clear data but with some sense of the historical trends.

Likewise for the **center of gravity** -- the changes we discern will have to be predicted on the basis of very little reliable data, much of it ambiguous regardless of **glasnost**. Here again, historical extrapolation and an ethnically unbiased understanding of Soviet goals and objectives will be extremely valuable.

CHAPTER V

CONCLUSION

In this analytical study I addressed the concept of a **center of gravity** as having potential value as a frame of reference for examining the relationship between the Soviet Union and the world. I examined Soviet interests as I know them, reviewed their conduct for calculating the correlation of forces, and postulated that radical changes being made by the current Soviet leadership are driven by internal needs but that this will not prevent the Soviet Union from turning these changes into political gains when and where it can. Is there a single **center of gravity** in the Soviet Union?

No, I don't believe there is. Whether we like the Soviet (or Russian, or Ukrainian, or Armenian, or Georgian, or Tadzhik, ...) people and detest their political-economic system, or not, is immaterial. Their form of government, now over seventy years since their revolution, must have some form of internal legitimacy or it couldn't be there today. Clausewitz would have blanched at Stalin's purge of the officer corps on the eve of World War II, and he would have been proud of the early German destruction and capture of entire Soviet armies -- but he would also have been as amazed as everyone at the ability of Soviet military power to literally resurrect itself and claim final victory over

the most powerful armed force ever known to modern man. Does this mean the Soviet Union is invincible?

No, of course not. The Soviet Union, like any large state (or empire), has its share of weaknesses as well as strengths, witness their current internal turmoil. A particular strength seems to be the defense -- a characteristic noted by Dupuy and Dupuy in **The Encyclopedia of Military History** on the introduction of Slavs into the north European plain in 530 AD: "Stolid footsoldiers, particularly reliable and effective on the defense." [24:183]

However, there are **centers of gravity**, areas where the USSR is vulnerable and sensitive to these vulnerabilities. The first is the question of economic development, or how to keep from falling back as the rest of the world transitions into the 21st century. Second is the economically interrelated question of the standard of living of the people -- simple statistics on birthrate, life expectancy, housing, drug-alcohol addiction, ... show achievement of Third World and not superpower standards. Third is demographics, again closely intertwined with the economy and the standard of living. Fourth is the question of nationalities, burning issues from the Baltic states, the Ukraine, Armenia and Azerbaijan -- the question here is can the Soviet Union provide the economic and political incentives to keep the Russian empire from crumbling, and can it provide these in-

centives while maintaining effective communist party control?

These are but a few of the many vulnerabilities. Militarily, the Soviet Union is not extremely vulnerable and it will likely become less vulnerable as it (if it) adopts a purely defensive strategy. Especially in a nuclear weapon free world there just isn't any current conventional means for winning the war of Russian distance and pure defensive depth. Only part of the vulnerability the Soviets feel from the Strategic Defense Initiative stems from the threat to their nuclear forces -- a real threat is that space based military weapons would represent the only non-nuclear threat to their central core.

Finally, we need to know where we each have a **center of gravity**, not necessarily to have a better idea of where to attack, but to understand ourselves and our own vulnerabilities better. It will also help us to understand the reaction of an ally or even an adversary when we stand (accidentally or not) on their oxygen hose.

The world, according to some analysts, is in the midst of a Third Industrial Revolution, and the relative power of the United States is decreasing even while it increases in absolute measures. This didn't take place because the US wanted to make colonies and vassals of the rest of the world. The strongest economic competition the US faces

comes from adversaries fought and conquered, and rebuilt not so long ago. Somewhere we were able to find a strategic vision for the world -- we need to recapture this vision if we're to maintain our role as a world leader. The vision we promise just cannot be one of despair and holocaust, and history shows this hasn't been so -- for the promise of the US has been one of peace and prosperity, of hope and human rights, and of freedom from coercion while recognizing that conflict can and will occur, and must be managed and resolved in ways that do not destroy but create.

The emergence of a Soviet leader who appears to genuinely want to change the rules of the game for the US/Soviet interaction should rightly be viewed as a challenge. But this challenge is for us to use the forces and energy of competition (and even of conflict) in ways that maximize winning while framing the interaction in ways that also allow our opponent to win. Careful analysis of the **center of gravity** in each situation may be helpful in achieving this goal, and can potentially form a hedge against the possibility of a conflict where either or both participants can come out losing.

A **center of gravity** is both a strength and a vulnerability -- since it both "...represents the most effective target for a blow... [and] ...the heaviest blow is that struck by the **center of gravity**." [21:485] A clever and

enduring national strategy addresses the potential problem of being overwhelmed, not only by weaknesses or vulnerabilities, but also by overreliance on a single source of national power. It won't be easy to thread policy through the arguments over too much or too little, too big or too small, too complex or too simple ... but our experiences have rewarded adaptability, and provided a system with elasticity and ample room for error. And finally, who ever said it would be easy?

BIBLIOGRAPHY

BOOKS

1. Dziak, John J., Chekisty: A History of the KGB, Lexington MA: D.C. Heath and Co., 1988.
2. Nixon, Richard, 1999: Victory Without War, New York: Simon and Schuster, 1988.
3. Hansen, James H., Correlation of Forces: Four Decades of Soviet Military Development, New York: Praeger, 1987.
4. Baxter, William, Soviet AirLand Battle Tactics, Novato CA: Presidio Press, 1986.
5. McGwire, Michael, Military Objectives in Soviet Foreign Policy, Washington DC: The Brookings Institution, 1987.
6. Bialer, Seweryn and Michael Mandelbaum, The Global Rivals, New York: Alfred A. Knopf, 1988.
7. Bialer, Seweryn and Michael Mandelbaum, Gorbachev's Russia and American Foreign Policy, Boulder/London: Westview Press, 1988.
8. Laird, Robin F. and Dale R. Herspring, The Soviet Union and Strategic Arms, Boulder/London: Westview Press, 1984.
9. Dincer, Elmar, Hero or Coward: Pressures Facing the Soldier in Battle, London: Frank Cass, 1985.
10. Hough, Jerry, Russia and the West: Gorbachev and the Politics of Reform, New York: Simon and Schuster, 1988.
11. Naylor, Thomas H., The Gorbachev Strategy: Opening the

Closed Society, Lexington MA: D.C. Heath and Co., 1988.

12. Gorbachev, Mikhail S., A Time for Peace, New York: Richardson and Steirman, 1985.

13. Gorbachev, Mikhail S., Toward A Better World, New York: Richardson and Steirman, 1987.

14. Brzezinski, Zbigniew, Game Plan: A Geostrategic Framework for the Conduct of the U.S.-Soviet Contest, Boston/New York: The Atlantic Monthly Press, 1986.

15. Luttwak, Edward N., The Grand Strategy of the Soviet Union, New York: St. Martin's Press, 1983.

16. Simpkin, Richard E., Race to the Swift: Thoughts on Twenty-First Century Warfare, London: Brassey's Defence Publishers, 1985.

17. Dziak, John J., Soviet Perceptions of Military Power: The Interaction of Theory and Practice, New York: Crane, Russak and Co., 1981.

18. Butson, Thomas G., Gorbachev: A Biography, New York: Stein and Day, 1985.

19. Editors of TIME Magazine, Mikhail S. Gorbachev: An Intimate Biography, New York: TIME Inc., 1988.

20. Medvedev, Zhores A., Gorbachev, New York/London: W.W. Norton and Co., 1986.

21. von Clausewitz, Carl, On War (ed and trans by Michael Howard and Peter Paret), Princeton NJ: Princeton University Press, 1984.

22. Kennan, George F., Memoirs (1925-1950), New York: Bantam Books, 1969.
23. Sun Tzu, The Art of War (trans by Samuel B. Griffith), London: Oxford University Press, 1971.
24. Dupuy, R. Ernest and Trevor N. Dupuy, The Encyclopedia of Military History, New York: Harper & Row, 1977.

MANUALS/REPORTS

25. FM 100-5, Operations, Headquarters: Department of the Army, May 1986.
26. Donnelly, C.N., "Heirs of Clausewitz; Change and Continuity in the Soviet War Machine", London: Institute for European Defence and Strategic Studies, 1985.
27. Azrael, Jeremy R. "The Soviet Civilian Leadership and the Military High command", RAND R-3521-AF, June 1987.
28. Bingham, Lt Col Price T., "Air Power and the Defeat of a Warsaw Pact Offensive: Taking a Different Approach to Air Interdiction in NATO", M-U 43796-1.
29. Bingham, Lt Col Price T., "Operational Level Warfare and Its Implications for the US Armed Forces", M-U 43796.
30. Becker, Abraham S., "Ogarkov's Complaint and Gorbachev's Dilemma: The Soviet Defense Budget and Party-Military Conflict", RAND R-3541-AF, December 1987.
31. Zamascikov, Sergei, "Gorbachev and the Soviet Military",

RAND R-7410-AF, January 1988.

32. Horelick, Arnold L., "Soviet Foreign Policy Under Gorbachev", RAND OPS-009, November 1986.

PERIODICALS

33. Odom, William E., "Soviet Military Doctrine", **Foreign Affairs**; Winter 1988/89, Vol 67, No 2, p. 114-134.

34. Kaiser, Robert G., "The U.S.S.R. In Decline", **Foreign Affairs**; Winter 1988/89, Vol 67, No 2, p. 97-113.

35. Larrabee, F. Stephen, "Gorbachev and the Soviet Military", **Foreign Affairs**; Summer 1988, Vol 67, No 2, p. 1002-1026.

36. Lambeth, Benjamin and Kevin Lewis, "The Kremlin and SDI", **Foreign Affairs**; Spring 1988, Vol 66, No 4, p. 755-770.

37. Shulman, Marshall D., "The Superpowers: Dance of the Dinosaurs", **Foreign Affairs**; America and the World 1987/88, Vol 66, No 3, p. 494-515.

38. Kennan, George F., "Containment Then and Now", **Foreign Affairs**; Spring 1987, Vol 65, No 4, p. 885-890.

39. Lippmann, Walter, "The Cold War", **Foreign Affairs**; Spring 1987, Vol 65, No 4, p. 869-884.

40. X, "The Sources of Soviet Conduct", **Foreign Affairs**; Spring 1987, Vol 65, No 4, p. 852-868.

41. Rostow, W.W., "On Ending the Cold War", **Foreign Affairs**, Spring 1987, Vol 65, No 4, p. 831-851.
42. Drell, Sidney D. and Thomas H. Johnson, "Managing Strategic Weapons", **Foreign Affairs**, Summer 1988, Vol 66, No 5, p. 1027-1043.
43. **The Current Digest of the Soviet Press**, Vol XL, No 1, 3 February 1988, p. 1-4.
44. Marantz, Paul, "Soviet 'New Thinking' and East-West Relations", **Current History**, October 1988, p. 309-313, 345-347.
45. Goldman, Marshall I., "Perestroika in the Soviet Union", **Current History**, October 1988, p. 313-316, 340-341.
46. Beissinger, Mark R., "Political Reform and Soviet Society", **Current History**, October 1988, p. 317-320, 345.
47. Powell, David E., "Soviet Glasnost: Definitions and Dimensions", **Current History**, October 1988, p. 321-324, 344-345.
48. Hardt, John P. and Jean F. Boone, "The Soviet Union's Trade Policy", **Current History**, October 1988, p. 329-332, 341-343.
49. "Moscow's Vigorous Leader", **TIME**, 9 September 1985, p. 16-21.
50. "An Interview With Gorbachev", **TIME**, 9 September 1985, p. 22-29.
51. Scott, Dr. William F., "Is There Really Any Change in

Gorbachev Theme", **ROA National Security Report**, Vol 7, No 2, February 1989, p. 1-8.

52. Carlucci, Frank C., "Despite Glasnost, USSR Defensive Doctrine Still Emphasizes Offense", **ROA National Security Report**, Vol 6, No 10, October 1988, p. 1-5.

53. "General Staff Official on Impact of Troop Cuts", **FBIS-SOV-248**, 27 December 1988, p. 1-2.

54. "Reorganization in Forces, KGB Planned", **FBIS-SOV-88-248**, 27 December 1988, p. 39-40.

55. "Yazov Meets With Soviet Forces in GDR", **FBIS-SOV-88-248**, 27 December 1988, p. 70-74.

56. "Economists Criticize Wasteful Planning Methods", **FBIS-SOV-88-247**, 23 December 1988, p. 54-56.

57. "Soldiers Eye Prospect of Force Reductions", **FBIS-SOV-88-242**, 16 December 1988, p. 74-75.

58. "Moiseyev Replaces Akhromeyev as Chief of Staff", **FBIS-SOV-88-241**, 15 December 1988, p. 74-75.

59. "USA Institute's Kokoshin on New Defense Doctrine", **FBIS-SOV-88-238**, 12 December 1988, p. 12-14.

60. "Navy Commander Critical of U.S. Pacific Plans", **FBIS-SOV-88-236**, 8 December 1988, p. 7-9.

61. "Defense Sector Can Aid Civilian Sectors", **FBIS-SOV-88-233**, 5 December 1988, p. 122-124.

62. "Karpov Interviewed on Disarmament Initiatives", **FBIS-SOV-89-005**, 9 January 1989, p. 6-7.

63. "Panel Views Armed Forces' Restructuring Program",
FBIS-SOV-88-236, 8 December 1988, p. 78-90.