

THE EVOLUTION OF SOVIET MILITARY AND CIVILIAN
THREAT ASSESSMENT IN THE GORBACHEV ERA:
FRAGMENTATION AND COMPETITION

by

Richard Hyland Phillips

Submitted to the Department of
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ABSTRACT

This thesis analyzes Soviet civilian and military assessments of the military threat facing the USSR, and their evolution in the tumultuous period since Mikhail Gorbachev came to power. The central hypothesis is that, with the advent of Gorbachev's policy and process changes, the past unanimity of an official policy line has fragmented into competing visions of the military threat. The fragmentation of the previous consensus has been a function of the entry of new participants into discussions of national security, and the need to respond to a rapidly evolving civil-military, international, and economic environment.

The analysis uses three independent variables, selected to reflect the differing agendas and perspectives in threat assessment: 1) analyst affiliation; 2) analytic context -- arms control vs. military-technical; and, 3) target audience, divided into four internal categories, three external categories, and Eastern Europe and the WTO.

Threat assessment is analyzed in terms of three dependent variables. The first concerns the nature of the threat facing the USSR, measured on three dimensions: 1) type of war -- nuclear vs. conventional; 2) method of initiation -- intentional/surprise attack vs. inadvertent war; and 3) specific threat scenarios -- FOFA/AirLand battle vs. limited nuclear war. The second variable is the scope of the threat, ranging from global contingencies to multi-theater, single-theater, and regional conflicts (involving either both the US and USSR or only one of the two). The third variable, threat content, is divided into eight factors: 1) command and control, including automation; 2) deployments of weapons systems and forces; 3) force structures; 4) generic technologies; 5) military doctrine and military art (strategy, operational art, tactics); 6) combat readiness and training; 7) sustainability issues; and, 8) specific weapons systems and programs.

The first conclusion is that analysis confirms the central hypothesis. Over time, Soviet threat assessment has become increasingly fragmented. This fragmentation is largely a result of an increasing number of participants in the debate, as civilian officials and especially academics with radically different perspectives join. The military threat image

also fragments, as a single unified image gives way to two very different images. The six images identified break down clearly in terms of the three independent variables.

The common elements of these images are relatively few. There is almost no common ground between military and civilian perspectives. This reflects contradictory world views held by the two sides of the debate. To the extent that they can be pooled into a "Soviet" assessment of the threat, there has been a significant shift from focusing on nuclear threats at the global level to emphasizing conventional threats on a single-theater scale. In the context of the civil-military debate, there is also a shift (excluding the military's internal image) toward stressing fundamental, but more abstract, aspects of military power -- such issues as the way in which military forces are structured and the doctrines and strategies by which they will be employed.

In sum, threat assessment shapes up as one of the major areas where different groups in the Soviet national security debate face off to gain influence. The military's image of the threat is hardline and appears oriented toward retaining sufficient forces and expenditures to meet the high-tech conventional threat emerging in the 1990's and beyond. The issues stressed make high-tech R&D a particular priority. Civilian images (excluding officials' external articulation) of the threat are geared toward the opposite conclusion. There is no real, pressing military threat facing the USSR -- the real threats are economic and technological. Consequently, resources and efforts in all spheres should be shifted to civilian purposes. The debate around this framework has become increasingly polarized, and the struggle to define the threat -- the "measuring stick" for Soviet security policy and capability -- is a zero-sum game. This is exacerbated by the economic crisis, which makes it impossible for the priorities of two sides to be satisfied. The Soviet General Staff and Ministry of Defense are currently caught in a vice, between the twin pressures of the rapidly advancing (and in their view revolutionary) external military threat and the pressures coming from civilian officials and academics to shift defense resources to meet the pressing economic and technological threats.

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1. INTRODUCTION

With the advent of *glasnost*' in the Soviet Union, public debate on fundamental issues of Soviet security policy has exploded. The search for new ideas -- *novoye myshleniye* -- requires reexamination of fundamental tenets of Soviet national security policy. And, this search for new thinking brought *perestroika* in the policy process, allowing the participation of new actors in policy debates. In one sense, all of this is beneficial to researchers in the West -- vastly more information is available. On the other hand, the proliferation of information and actors has complicated the task of researchers attempting to understand Soviet policies and policy debates. There used to be a "Soviet" position -- now there are many positions vying for dominance.

In the past, Soviet policy was promulgated through an official "line". While there was debate around the margins, the line was binding on actors in the policy process, delineating official Soviet perspectives and policies. Little information beyond the official position emerged from the system. This raised serious problems for those looking in from the outside in judging policy debates and conflicts of interest. An entire cottage industry of Sovietology grew up around this situation, devoted to ferreting out tiny clues and nuances in Soviet policy debates and power struggles.

Under the impact of *glasnost*', *novoye myshleniye*, and *perestroika*, the nature of the research problem has changed dramatically. Where in the past there was little "noise" or "signal", today both have increased exponentially. The researcher is forced to separate diverse political, economic, and personal agendas to isolate the positions of numerous actors in the policy process.

This thesis examines a particular slice of the Soviet debate on national security policy -- threat assessment. As in other areas, there is no longer an official line. Instead, an increasingly large number of actors participate in the discussion, each with their own political, military, economic, and even personal agendas. The thesis isolates several coherent assessments of the external military threat, and relates them to the competing agendas and perspectives of various groups in the policy process. In this way, patterns of threat articulation and threat assessment can be isolated and analyzed. This sheds light not only on evolving Soviet threat assessment, but also on interactions among groups in the policy process as they compete to define the threat against which Soviet security is measured.

As in all areas of Soviet policy, the past five years of Gorbachev's rule have brought major changes in Soviet threat assessment. Under the impact of *glasnost*, *perestroika*, and *novoye myshleniye*, internal discussions on the military threat facing the USSR have broadened to include new actors, and to respond to changes in both international and internal dynamics. The net result of these changes is a fragmentation of the previous monolithic threat assessment into numerous competing views of the threat -- articulated to support a variety of agendas and policy priorities.

From a methodological standpoint, threat assessment constitutes a relatively constrained set of issues. The topic is narrow enough to be captured in a finite set of characteristics, yet broad enough to include a wide set of interlocking agendas and issues, as well as the proliferation of actors in Soviet national security policymaking. The issues involved in threat assessment are also intrinsically important. Assessment of national security interests and threats to those interests are a fundamental basis for policy. Isolating

the positions of the various actors in the process can therefore contribute to better understanding of evolving Soviet national security and particularly military policies.

The thesis develops a comprehensive, coherent approach to isolating assessments of the external threat portrayed in the Soviet policymaking elite. It employs a multi-factor time-series research design, and a multi-stage methodology. It combines the structure and rigor of quantitative methods and the depth of qualitative methods. Its essence is to extract from the vast undifferentiated mass of Soviet threat articulation the central themes and characteristics of both military and civilian threat assessments, by sequentially reducing the number of categories of threat articulation and assessment to their common denominators. The project analyzes differences and similarities among groups, and traces their evolution over the tumultuous period since Gorbachev came to power.

1.1 Purpose of the Project

There are five major purposes to the analysis. First, it analyzes the threat assessment debate itself to uncover changes in its framework and structure brought about by Gorbachev's policies. Second, it establishes a coherent framework for analysis and uses a comprehensive approach to establish the fact of threat assessment fragmentation and to isolate different assessments of the military threat. Third, it examines each of the competing assessments, isolating dominant themes and characteristics as they evolve over time. Fourth, the analysis compresses the competing assessments to derive "consensus" military and civilian perspectives on the threat. Finally, to the extent possible, a single "Soviet" view of the external military threat is derived by isolating common elements among assessments. The fact that this is possible only to a limited extent underscores the large

degree of diversity and competition among military and civilian perspectives on the threat. There is simply very little common ground.

The study has several major sections. Chapter 2 sets out the research design and methodology, and explains the variables used in analysis. Chapter 3 summarizes the underlying changes introduced by Gorbachev's policies and examines their evolutionary impact on the framework of the debate. Chapter 4 traces the impact of these changes on Soviet threat assessments. It presents initial results of the analysis, demonstrating the increasing fragmentation of perspective among military and civilian analysts in the Soviet debate. Chapter 4 also explores the "fault lines" that define the structure of the debate over time, in terms of analyst affiliation, the context of the arguments presented, and the target audience towards which threat articulation is directed. Chapters 5-10 are the heart of the analysis. Each is devoted to thorough analysis of one of the six competing assessments of the threat. These chapters are built around analysis of the nature of the military threat facing the Soviet Union, its geographic scope, and the aspects of Western and US military forces and policies presented as the most threatening. Chapter 11 is devoted to a separate analysis of military and civilian views on the degree and immediacy of the threat facing the USSR. Chapter 12 integrates the various competing assessments of the threat into consensus military and civilian visions, and then isolates common elements to derive as much as possible of a "Soviet" threat assessment. Finally, conclusions and implications are presented in Chapter 13.

1.2 Overview

The analysis demonstrates that there is no longer a single "Soviet" threat assessment. The changes introduced by Gorbachev in both national security policy and policymaking have fragmented the past (perhaps artificial) monolithic assessment. Military and civilian analysts and spokesmen groups articulate different assessments of the threat as part of a larger struggle to provide the intellectual underpinnings for Soviet security policy.¹ Groups articulate different, sometimes contradictory, assessments in different contexts, or directed towards different target audiences.² A total of six different assessments are articulated in the Soviet debate on the threat.

The Soviet military portrays two very different assessments of the threat facing the USSR. The first serves both internal and external propaganda functions, and also serves to underpin military positions and arguments on arms control issues. In this context, it focuses initially on concrete, current weapons programs and deployments that can easily be portrayed as militarily threatening to a general audience. Global nuclear threats are stressed strongly in this assessment, especially early in the period. Later, as WTO-NATO conventional arms control became a more pressing issue, the balance of emphasis shifted

¹ This struggle to define the threat has concrete political and economic consequences. The political part of the equation concerns power and influence in national security decisionmaking. Civilians are making some inroads into defense decisionmaking -- a process strongly resisted by the Soviet military establishment. The economic portion of the equation chiefly concerns allocation of scarce resources among competing military and civilian interests. The ability to define the threat bears heavily on resource allocation priorities.

² Articulation of these assessments serves mainly -- but not entirely -- instrumental purposes. While the political and economic ramifications of threat assessment appear to be uppermost in the debate, there does seem to be some degree of sincere disagreement. Essentially, Soviet civilians and military officers are arguing about different visions of reality. The two groups have radically different world views, and hence very different priorities in reacting to the world as they see it.

to reflect this change. Additionally, this assessment shows a clear response to increasing civilian -- especially academic -- incursions into the military policy arena. The issues seized upon by civilian analysts -- force structures and military doctrine and art -- to further their own political and economic goals and arguments are rebutted by military spokesmen through threat articulation. This assessment is highly ideologically charged. It also changes dramatically over time, reflecting the rapidly changing military-political and arms control debates within the Soviet Union.

The second assessment of the threat presented by the Soviet military is for internal Armed Forces, Ministry of Defense, and General Staff consumption. It focuses more on conventional threats, and stresses longer-term aspects based on generic military technologies and command and control. The major focus is on NATO development of the material wherewithal to implement a conventional deep-strike operation with a high chance of success in the early stages of a future conflict. High-technology, high-precision weapons and their supporting systems projected for the future battlefield dominate. This intra-military threat assessment is also more varied than the one for propaganda and arms control, giving greater attention to regional conflicts and more mundane issues such as combat readiness and training and sustainability. This assessment is presented with some degree of urgency, especially as the dominant threats relate to Soviet technological lag and the need for an adequate and timely response.

Civilian assessments of the threat are less unified on the surface. Civilian officials and academics each present two distinct threat assessments. For civilian officials, both assessments are almost entirely in the context of arms control. One assessment is directed

towards external audiences in Western Europe and the United States. Compared to some of the radical "new thinking", this assessment is fairly conservative. It is generally oriented toward influencing Western public opinion and policy elites, to get the best possible "deal" for the USSR in conventional arms control negotiations. In contrast, the threat assessment presented by civilian officials toward internal audiences is more radical and critical. It focuses on stability-instability and offense-defense dynamics at the conventional level, stresses the potential for inadvertent war, and places some of the blame for military confrontation in Europe on the USSR. In this assessment, the economic, scientific, and technological threats to the USSR are perceived as more pressing than military threats. The threat assessment is designed to support reallocation of resources from military to civilian purposes.

Two civilian academic threat assessments are presented in differing contexts, but with common goals. These goals revolve around a quest for greater civilian influence on military policy and the reallocation of military resources to civil goals. Academics direct both of their assessments within the Soviet Union -- one in a military-technical context and one in an arms control context. Both assessments include a large stress (stronger in the arms control context) on the possibility of inadvertent war, requiring changes in force postures and doctrines on both sides. In military-technical contexts, civilian academics discuss similar issues to the internal military threat assessment, and appropriate their arguments. However, the issues and arguments are altered in ways that suit the academics' political and military-economic agendas. The second academic threat assessment, articulated in the context of arms control, is the most "new thinking" of all, and it is here that their radical agendas are most clear. The assessment either undercuts or repudiates outright the idea that there is

any military threat at all. In contrast, economic, scientific, and technological threats are presented in forceful terms. The resource reallocation priorities preferred by civilian academics, especially in R&D, are clear. The Soviet military is said to be an atavistic and inertial brake on achieving real international security. This brake could be released with greater civilian (academic) involvement in military decisionmaking.

Separating the varied agendas represented by these six assessments, the "real" threat assessment of both military and civilians revolves largely around issues of science and technology, but in nearly diametrically opposed directions. Military threat assessment revolves around high-tech conventional weapons and support systems, while civilians see the threat as entirely in the realm of economics, science, and technology. Among other responses, the military calls for increased high-tech military R&D, while civilians call for the reallocation of military resources and talent to the civil economy.

The future direction of Soviet military development depends in part on which of these assessments of the threat are acted upon. Currently, in the context of economic and political crisis and a relatively relaxed international situation, overall Soviet economic priorities follow the civilian assessment. The high-tech response desired by the military and required according to their threat assessment is a luxury the Soviet Union cannot currently afford, and probably could not quickly produce in any event. In the long term, though, it is important to recognize that *either* a worsening of the international situation *or* a drastic improvement in the Soviet economy might result in a change in priorities, and an attempt to overcome the current technological lag. A major fear for the Soviet military is that the

longer this shift takes, the greater will be that lag and the more difficult it will be to overcome.

2. RESEARCH DESIGN & METHODOLOGY

2.1 Research Design

The study employs a multi-factor time-series research design, and a multi-stage methodology. The design is inductive -- it looks for structure and patterns in Soviet threat articulation and assessment. These patterns are based on three independent variables and three dependent variables. The independent variables deal with attributes of threat articulation, selected to reflect differing perspectives and agendas among groups in the Soviet policy elite. The independent variables break down threat assessment into analyzable categories.³ This project takes on the problem of differentiating Soviet military and civilian assessments of the external military threat. These assessments serve a variety of military, political, economic, and even personal agendas. How do these agendas and perspectives affect the assessment of the threat presented?

Unfortunately, it is impossible *a priori* to separate sources serving differing agendas. Therefore, three independent variables were selected to reflect differing agendas and perspectives. First, groups vary in perspective and agenda -- the first independent variable is analyst affiliation. Second, different threats may be stressed in different contexts -- one agenda is pursued in the context of arms control, while a quite different one is pursued in the context of military-technical policy. The second independent variable is therefore the context of the arguments. Finally, differing assessments may be directed toward different audiences to suit different purposes -- the Soviet military, for example, stresses one set of

³ Time is an explicit variable, as a surrogate measure for a wide variety of changes in the internal and international situation affecting Soviet threat assessment and discussion.

threats to influence public opinion, and a very different set for internal planning purposes. The third independent variable is target audience.

The study analyzes threat assessment in terms of three dependent variables, each measured along a number of dimensions. The first dependent variable is **threat nature**. This variable has three dimensions, each categorized as a dichotomous pair: 1) type of war, divided into nuclear vs. conventional; 2) method of war initiation, divided into intentional/surprise attack vs. inadvertent or accidental war; and 3) the specific scenarios stressed -- FOFA/AirLand battle conventional scenarios vs. limited nuclear war scenarios. The second dependent variable is **threat scope**. This variable has five dimensions, analyzed along a continuum from global wars to local wars. The third dependent variable is **threat content**. What forces, systems, or issues are the most pressing? This is categorized in terms of eight discrete dimensions. [The dependent variables are addressed in more detail below.]

2.2 Methodology

The methodology developed for the project is multi-stage. The first stage breaks down a large number of sources into categories of threat articulation (the independent variables). The second stage analyzes the threat assessments presented in each of these categories. The third stage isolates a smaller number of coherent threat assessments from the categories. The fourth stage extracts civilian and military perspectives on the threat from the assessments. Finally, common elements are pooled into a single "Soviet" threat assessment. At each stage, analysis focuses on the structure and patterns of threat articulation and threat assessment over time.

2.2.1 Sources

The data for analysis were compiled through a comprehensive search of Soviet military and civilian literature from 1985 through 1989. This period covers the tumultuous internal and international changes since Gorbachev came to power. The period saw a large increase in civilian input into military decisionmaking. It also covers major rethinking and upheaval in the military. Military upheaval is partly connected to Gorbachev's *novoye myshleniye* and *perestroika*. In addition, much of the military's rethinking is connected to what Soviet military theorists refer to as a "transitional stage", or the third revolution, in military affairs.

The scope of the survey was broad, to capture the increasing participation of civilian analysts and the full range of military perspectives. On the military side, the major service journals (Voyenny vestnik, Vestnik protivovozdushnoy oborony, Morskoy sbornik, and Aviatsiya i kosmonavtika) were surveyed comprehensively. Other important military journals such as Voyenno-istoricheskiy zhurnal and Kommunist vooruzhennykh sil were also surveyed comprehensively. Military threat articulation in the central press (e.g., Krasnaya zvezda, Pravda, Izvestiya) and television and radio media were surveyed using Western compilations.⁴ The focus of the survey was on high-level military officers; however, assessments from lower-level military officers were also included. These often provide more detail (at the cost of a narrower focus), useful for fleshing out the threat assessments

⁴ There is no reason to believe that the sources from these compilations are biased in one way or another. Nonetheless, to minimize this possibility, several different series were used to increase coverage. The JPRS Soviet Union - Military Affairs and International Affairs series were covered, as was the FBIS USSR Daily Report series. Since the range of coverage of these three combined is quite broad, and the sources themselves made in regard to a wide range of issues, there is every reason to believe that the data set is representative as a whole.

presented by high-level officers.

On the civilian side, the survey included systematic coverage of academic journals such as SShA, MEMO, and Mezhdunarodnaya zhizn'. Wider circulation sources (e.g., Moscow News, Literaturnaya gazeta, Ekonomicheskaya gazeta, television) in the central media were again surveyed using Western compilations.

Overall, the literature survey yielded a data base of 643 high-level military and civilian sources over the five-year period. Lower-level military officers accounted for an additional 293 sources. This may not be an exhaustive set of all possible sources, but the sources are representative of the variety of military and civilian perspectives and agendas.⁵

2.2.2 Stage I - Breaking down threat articulation

The first stage of the analysis allocates each of the 643 individual sources into categories of threat articulation. These categories are combinations of affiliation, context, and target audience.

2.2.2a Defining and operationalizing independent variables: First, different groups have different views on the threat facing the USSR. Accordingly, each source is first coded according to **affiliation**. The initial division is military vs. civilian.

Military analysts and spokesmen are further divided into "center", "service", and "defense intellectual". The **center** is comprised of officers affiliated with the Ministry of Defense, the General Staff, the Main Political Administration, USSR Civil Defense, and the Rear Services. This captures a "generalist" perspective. The **services** are comprised of the

⁵ The sheer size of the data base collected indicates the high level of energy devoted to threat assessment and articulation in the Soviet Union.

five branches of the Armed Forces, plus the Warsaw Pact command structure. This captures a "particularist" perspective. **Defense intellectuals** are defined as doctors of military sciences and professors affiliated with the military academies maintained by the Ministry of Defense. This category is included on the hypothesis that analyses by these individuals are potentially more forward-looking than that by officers more caught up in day-to-day management of the Armed Forces.

Civilians are divided into official representatives of the state and party apparatus, and civilian academics affiliated with the USSR Academy of Sciences institutes. Affiliation therefore divides into five discrete categories -- three military and two civilian.

In addition to affiliation, the **context** of analysis may influence the threat portrayed. Different agendas and priorities may be pursued for arms control policies than for military-technical policy. A conspicuous example is former chief of the General Staff Akhromeyev. In arms control contexts, Akhromeyev has recently been stressing naval force issues very strenuously. These issues are largely absent from his threat assessment in military-technical contexts.

Each source is coded as military-technical or arms control. There is nothing mysterious about the coding process. Often the title of the article is enough to determine the context. In other cases the subject matter (e.g., the INF Treaty, or conventional force negotiations) makes the context clear. Sources are coded as "arms control" only if these issues are explicitly addressed. Other sources are coded as "military-technical".

Finally, the assessment of the threat may be tailored for different **target audiences**. This variable is first divided into internal, external, and Eastern European audiences.⁶ External target audiences are further divided into general external audiences, Western European/NATO audiences, and US/North American audiences. Internal audiences are divided into general/public opinion, official audiences, the Soviet Armed Forces, and finally the General Staff and the Ministry of Defense. Overall, target audience is divided into eight categories.

This variable is operationalized by where a source appears. For example, sources in Krasnaya zvezda or the service journals are coded as directed towards the Armed Forces. Soviet television, radio, or general print media are directed toward public opinion broadly. Sources in the party paper Pravda or in Izvestiya, or in such publications as Vestnik Ministerstvo Inostrannykh Del are coded as directed towards official audiences. Only sources explicitly stated to be toward the General Staff or Ministry of Defense are counted in that category.⁷ For external target audiences, the coding rules are self-evident. Sources in Eastern European media are counted as such, and so on.

2.2.2b Categorizing threat articulation: Each source was coded for the three threat articulation (independent) variables - affiliation, context, and target audience. Combining

⁶ Eastern Europe and the Warsaw Pact are included as a separate category because of the difficulty in determining a priori whether these audiences are considered as internal (in the same category as the Soviet public, for example), or whether they are considered as external. The analysis below suggests that the major factors in the assessment portrayed do not in fact support the idea that there is an assessment tailored specifically toward Eastern Europe in this period

⁷ There are very few of these. All are reported in Krasnaya zvezda. Originally, it was hoped that the General Staff journal Voyennaya mysl' would be available for the study to fill out this category. It was not available for the period in question.

these three independent variables gives a total of 80 (5 affiliations x 2 contexts x 8 target audiences) theoretically possible combinations, or categories of threat articulation. Of these 80 categories, however, some are empirically null. 29 contain no sources at all. Three contain sources, but take no explicit positions on the threat assessment variables. Empirically, 48 categories of threat articulation are useful. At this stage, a large undifferentiated mass of threat articulation has been broken down into 48 categories.

2.2.2c Analysis in Stage I: At this stage, analysis focuses on the shape and framework of the debate, as it has evolved under the impact of changes in policy and policymaking introduced by Gorbachev. Analysis examines overall patterns of threat articulation -- the distribution of sources by affiliation, context, and target audience. The fact that certain categories are null is a part of these patterns. Changes in threat articulation patterns over time are also analyzed.

2.2.3 Stage II - Constructing threat assessment profiles

In Stage II, the sources are coded by to their attention or lack of attention to threat assessment variables. In each of the 48 threat articulation categories, the sources are summed to construct a threat assessment profile representing the level of attention given to each assessment value.⁸

2.2.3a Threat assessment variables and definitions: The first variable deals with Soviet assessments of the nature of the threat facing the USSR. Threat nature is measured

⁸ Coding on the dependent variables is purposefully kept straightforward and simple, in order to make sure that the results would be replicated by someone else doing the coding. Each factor is coded dichotomously, as either present or absent. Coding threat content factors depends on what issues are included under each of the eight broad factors. See Table 2.1 for an illustrative list of issues and systems under each of the eight factors.

along three dimensions: 1) type of war -- nuclear vs. conventional threats; 2) methods of war initiation or escalation -- intentional vs. inadvertent; and 3) specific scenarios -- limited nuclear war and conventional FOFA/AirLand battle scenarios are specifically addressed.

The second variable, threat scope, covers a continuum of five dimensions: 1) global war; 2) multi-theater; 3) single-theater; 4) local war, US and Soviet forces; 5) local war, US or Soviet forces.

The third variable, threat content, deals with the concrete issues and systems making up the threat. Eight dimensions are included: 1) command and control, including automation; 2) deployments; 3) force structures; 4) generic technologies with military applications; 5) military doctrine and art (strategy, operational art, tactics); 6) combat readiness and training; 7) sustainability; and, 8) specific weapons programs. Figure 2.1 presents a schematic diagram of threat assessment variables. Table 2.1 is an illustrative listing of specific issues and systems included under each of the eight threat content values.

Figure 2.1
Structure of Threat Assessment

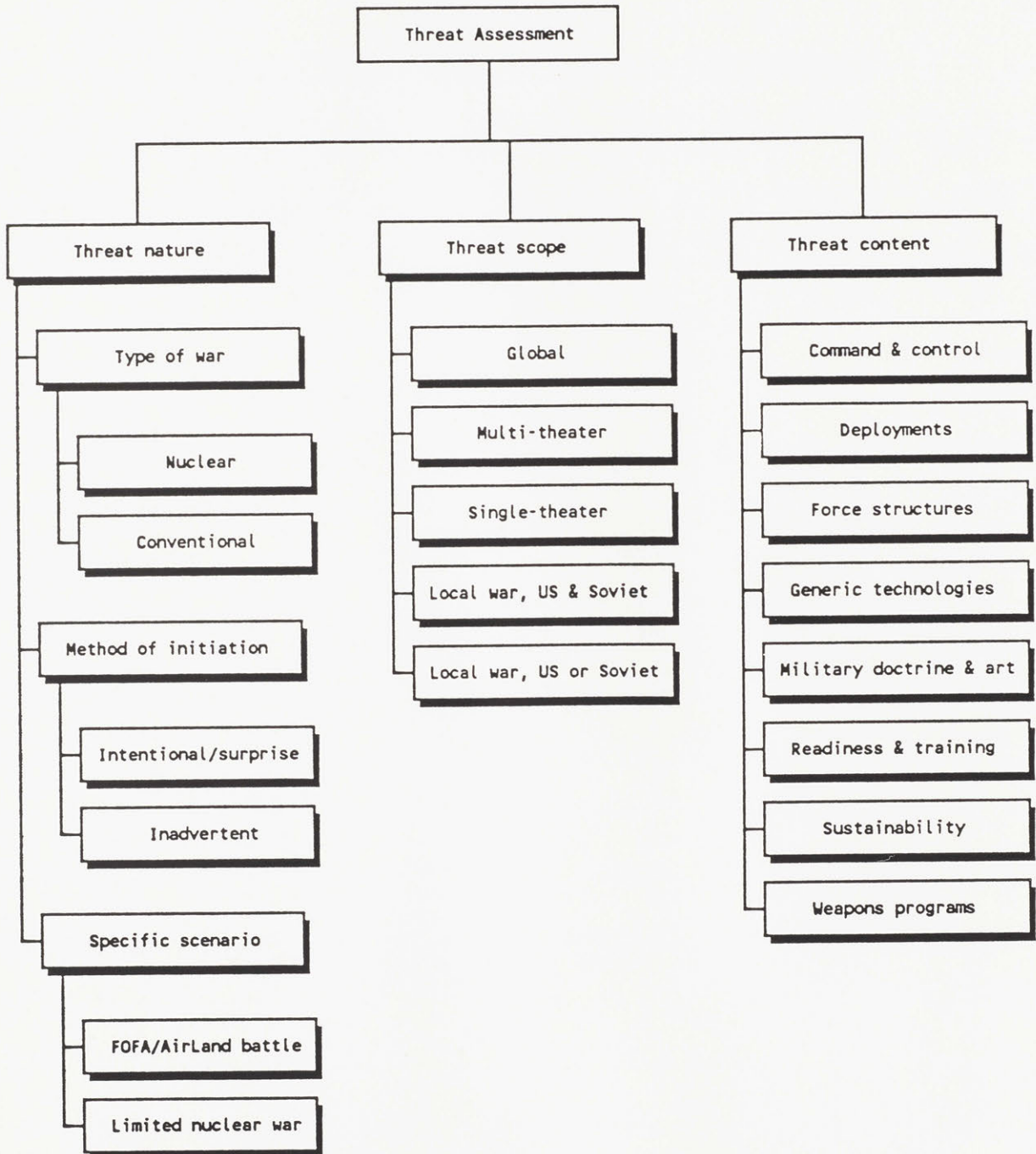


Table 2.1 Threat Content Issues Addressed

Command & control	Deployments	Force structures	Generic technologies	Military doctrine & art	Readiness & training	Sustainability	Weapons programs
E-3A AWACS survivability issues automation/ASU's	INF cruise missiles dual-capable strike aircraft B-52s, tactical role naval strike forces SLBMs SLCMs carrier aircraft Thule radar F-16 redeployments	theater conventional forces naval forces air forces	SDI spinoffs lasers mobile radars C3/ASU's VTO robotics ASAT naval (computers, ASU's, REC, electronics) remote minelaying recoe/intelligence VTO + REC VTO/RUK's scientific-technical progress on broad front "new physical principle" weapons accuracy (ICBMs, Conventional) Stealth tech. 3rd-generation nuclear weapons computers (SC)	Maritime strategy Flexible Response Forward Defense FOFA/AirLand battle no-first-use pledge offense vs. defense surprise attack dispersion vs. concentration IPW	exercises (naval) global exercises (combined-arms) NATO exercises (Autumn Forge) tactical training	US forward bases military-industrial (surge) capacity civil defense reserve forces	strategic nuclear MX Minuteman III Midgetman SLBMs bombers (B-1, B-2) INF - Pershing-2s, GLCMs cruise missiles SDI ASAT conventional modernization nuclear testing Stealth/B-2 tactical nuclear modernization long-term plan, conventional chemical (binary) weapons

This listing is illustrative, not exhaustive.

2.2.3b Threat assessment profiles: For each of the 48 articulation categories, a threat assessment profile is constructed. This is done by summing the sources stressing a threat assessment value for the entire category. The result of this summation is a profile indicating the degree of attention to the 19 threat assessment factors.

2.2.4 Stage III - Isolating threat assessment into clusters

This stage analyzes similarities and differences among the 48 threat assessment profiles, isolating six "clusters" of threat assessment differentiated by analyst affiliation, context, and target audience. Attempting to separate similarities and differences among 48 profiles constructed in terms of 19 threat assessment factors is a highly complex task. Fortunately, there is a statistical technique ideally suited for the task -- cluster analysis.

Briefly, cluster analysis is used to compare the patterns of threat assessment in each of the 48 profiles, using a measure of pattern similarity. Those that are the most similar are joined into "clusters". The profiles are clustered sequentially by their degree of similarity until all of the profiles are finally joined at the last step. At the highest level of discrimination, there are 48 separate clusters -- at the lowest level, all profiles are joined into a single cluster. The analyst's task is to determine at what intermediate level to "cut" the clustering process. Cluster analysis produces a measure of the similarity among cases (the fusion coefficient) and graphic presentation of the results (a dendogram) to make this possible. Appendix A gives a detailed overview of the cluster analysis technique, and the measure and method used in this instance.

Analysis at this stage, through cluster analysis, first demonstrates the fragmentation of the previous monolithic line on the threat. This fragmentation is a result of the impact

of the internal and international changes introduced by Gorbachev. The technique used to explore threat assessment fragmentation is to apply cluster analysis on an annual basis. In each year from 1985 through 1989, a separate threat assessment profile is constructed. These profiles are compared through cluster analysis to determine how many clusters of threat assessment are present in the debate in any given year. Over time, Gorbachev's policies have resulted in an increasingly fragmented debate, as new actors participate, new issues receive attention, and new audiences are targeted.

After establishing the fact of threat assessment fragmentation, cluster analysis is used to analyze the competing threat assessments comprising the debate. This stage initially isolates four distinct threat assessment clusters from the 48 profiles. That is, the 48 threat assessment profiles are allocated into four clusters, each with a high level of threat assessment similarity. Each of these four are subjected to a further cluster analysis to determine whether there are more fine-grained clusters. Two of the four are composed of two distinct sub-clusters. Overall, this stage has succeeded in compressing 48 threat assessment profiles into six coherent clustered assessments of the military threat facing the USSR.

Analysis at this stage focuses first on the composition of the six identified clusters. How are the categories of affiliation, context, and target audience distributed among the clusters? Are the identified clusters consistent with the independent (threat articulation) variables? What are the patterns of threat articulation in each cluster? How have these patterns changed over time?

2.2.5 Stage IV: Analysis of cluster threat assessments

This stage examines each of the six assessments of the threat in detail, using a combination of quantitative and qualitative techniques. Quantitatively, a constrained factor analysis uncovers the structure of threat assessment in each assessment. Factor analysis determines which of the 19 threat assessment factors tend to be associated in threat assessment. A series of regression analyses are also performed to analyze trends in attention to each factor over time. Graphic presentations are used to highlight these time trends and to compare attention among the threat assessment factors.

Qualitative analysis isolates the dominant themes and characteristics of each cluster assessment. Using the structure provided by quantitative techniques, a narrative account of each clusters' threat assessment is provided. Each of the 19 threat factors are examined in detail. In the military case, more detailed threat assessments by lower-level officers are used to supplement the "big picture" provided by high-level commanders.

In addition to the analytic focus outline above, this stage integrates patterns of threat articulation and the central themes and characteristics of threat assessment. The aim is to determine the particular functions served and agendas pursued through threat articulation in each cluster.

2.2.6 Stage 5: Integration - Civilian vs. military threat assessment

This stage separates the wheat from the chaff for both military and civilian threat assessments. Essentially, the analysis attempts to sort out threat assessment that reflects the true perspective of each group from those assessments used for more instrumental purposes. For military and civilian actors in the policy process, very different perspectives on the true threat facing the USSR emerge, with very different implications for future

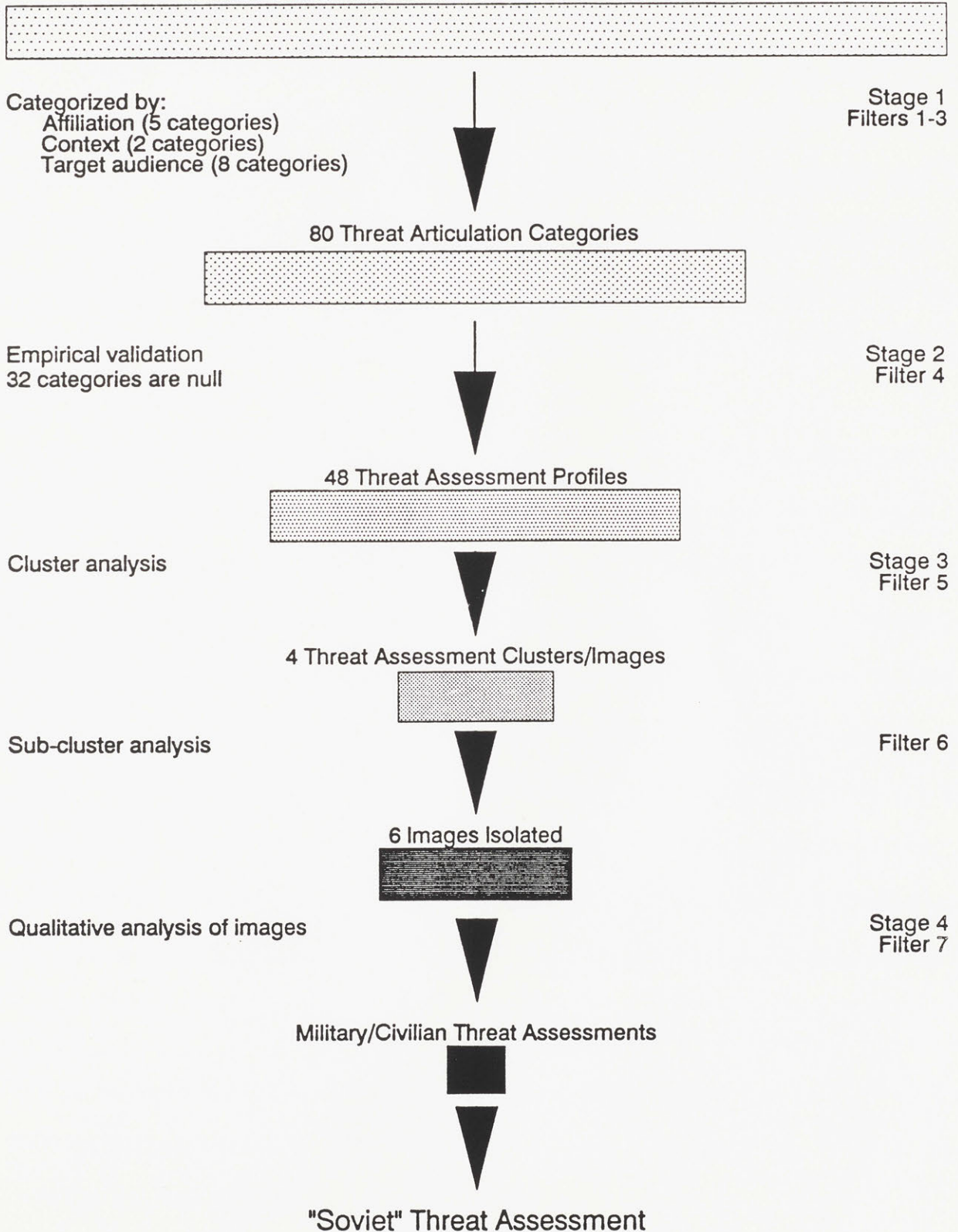
Soviet national security, military, and economic policies. The integration process is partially based on qualitative analysis of the characteristics and themes of the assessments in each cluster, and partially based on a supra-cluster analysis. This compares the six clusters for their similarity or dissimilarity.

Finally, analysis at this stage isolates common elements and trends in the threat assessments. To the extent that there are commonalities, they can be said to contribute to a single "Soviet" threat assessment.

Overall, the methodology can be seen as a sequential set of "filters" applied to Soviet threat assessment sources [see Figure 2.2]. From an undifferentiated mass of 643 sources, the first three filters -- affiliation, context, and target audience -- isolate 80 theoretically possible categories of threat articulation. The fourth filter, empirical validation, further reduces these 80 categories to 48. Threat assessment profiles for each of the 48 categories are constructed. Cluster analysis is the fifth filter, isolating four clusters of coherent threat assessments from the 48 profiles. A sub-cluster analysis as filter six results in an increase to six discrete assessments of the threat. Through qualitative and quantitative techniques comparing the differences and similarities among assessments (filter 7), coherent military and civilian perspectives are extracted. Finally, common elements among the clusters are extracted to isolate a common "Soviet" threat assessment.

Figure 2.2
Schematic Diagram of Research Methodology

Overall Threat Assessment: 643 undifferentiated sources



3. GORBACHEV'S IMPACT ON THE FRAMEWORK OF DEBATE: CHANGING PATTERNS OF THREAT ARTICULATION

At the beginning of Gorbachev's rule, there was no debate on threat assessment. After all, there can be no debate without at least two points of view. In 1985 and into 1986, the Soviet military had the field to itself in defining the military threat facing the USSR. There was an official, monolithic consensus line on the "capitalist" or "imperialist" threat to the Soviet Union. Changes set in motion by Gorbachev's policies of *perestroika*, *glasnost'*, and *novoye myshleniye* have had the effect of fragmenting this perhaps artificial civil-military consensus.⁹

As a result of changes introduced by Gorbachev and their effects in discussions of Soviet national security policy as a whole, the debate on the nature, scope, content, and indeed the very existence of a military threat has heated up dramatically, becoming extremely acrimonious at times. Some civilians have characterized the Soviet military's portrayal of the threat as intentionally fostering a "fortress mentality".¹⁰ In the view of these civilians, this purposeful threat inflation has been intended to, and has succeeded, in advancing the institutional, parochial interests of the Soviet military at the expense of the nation as a whole. Some have put the cost of these military distortions as thirty to forty years of "peaceful construction" of the Soviet Union.¹¹ Others blame the military and its resource consumption, supported by an inflated threat assessment, for the current national

⁹ This fragmentation will be explored in more detail in Chapter 4.

¹⁰ Falin, in Zorin (1988b).

¹¹ Falin, in Zorin (1988b).

economic crisis.¹²

As might be expected, the military has not taken this lying down. They have attempted to refute these allegations, and have gone on the counter-offensive against their critics. Brandishing selected facts and figures, they make the case for the existence of an historic and continuing military threat from the United States and NATO.¹³ Against the purported costs of military programs, they have posed the benefits of "peaceful skies".¹⁴ Against the charges that they have inflated the threat, the military can point to the previous arguments and analyses of the very civilians currently accusing them.¹⁵ This strengthens their sometimes explicit counter-charge that the civilian academics are at best opportunists trying to advance their own careers and influence, and at worst incompetent meddlers whose assertions that there is no threat undermines the defense capability of the Soviet Union. Taken to the extreme (and some military spokesmen are willing to do so), the

¹² Zhurkin, et al. (1987c); Bogomolov, et al. (1988); Zhurkin, in Zorin (1988a); V.P. Karpov, in Bovin (1988b).

¹³ The still-limited degree of military *glasnost*' makes these arguments difficult for civilians to convincingly refute. The use of Western figures is of limited utility, since they are then attacked for using "the enemies'" figures.

¹⁴ Lobov, in Zorin (1988b). This is a direct debate between Gen-Col. Lobov and V. Falin, at the time chief of the APN news service. The differences in outlook, agendas, and priorities between the two are striking. They could serve as something of a template for the overall civil-military debate.

¹⁵ There is certainly some truth to this argument. Some of these civilian academics first made their marks by writing analyses of the inherent aggressiveness of the capitalist West, dominated by the military-industrial complex, and extolling the need for and virtues of Soviet military might to restrain this aggression. When military spokesmen call attention to these works (complete with appropriate quotations), it certainly leaves the impression that these civilians are simply flapping in the breeze of political opportunity. It is difficult for civilians to explain that their previous work was simply ideological claptrap, and what they are saying now is what they really believed all along.

implication is that the motives and agendas pursued by civilian meddlers are downright treasonous.¹⁶

How did the Soviet debate arrive at such an acrimonious juncture? This chapter seeks to explore changes in the framework of the threat assessment debate. Even more important than these hostile exchanges, though, are the underlying perspectives, and the vast differences between groups in the portion of the debate that lies between the two extremes. This chapter examines the evolution of the Soviet debate on the external military threat under Gorbachev. It demonstrates the dynamic impact of *perestroika*, *glasnost*, and the *novoye myshleniye* on internal Soviet debates on threat assessment.

3.1 *Perestroika*, *Glasnost*, and *Novoye Myshleniye* in Threat Assessment Debates

The effects of Gorbachev's policies on the threat assessment debate have been threefold. First, Gorbachev's search for *novoye myshleniye* and pursuit of *glasnost* has led to questioning of some of the fundamental tenets of Soviet national security policy.¹⁷ Second, the pursuit of *novoye myshleniye* has led Gorbachev to search for new sources of thinking, leading to *perestroika* in the national security decisionmaking process. In particular, he and his close advisors sanctioned and actively prodded civilian officials as well

¹⁶ See especially Perepelytsin (1988).

¹⁷ In the context of the external military threat, Gorbachev himself opened the debate explicitly by raising the question of whether capitalism is inherently militaristic. At the time, he did not provide an answer to this question -- since then in both actions and words, he has given a qualified "yes". See M.S. Gorbachev, "Oktyabr' i perestroika: Revolutsiya prodolzhayetsya," *Izvestiya*. November 3, 1987.

as academics to come up with new ideas and enter into a wide-ranging debate.¹⁸ Third, Gorbachev's new thinking has led to a tremendous increase in the importance of arms control. This is true internationally, as the Soviets attempt to get the best "deal" in negotiations with the West. It is also true internally, as civilian and military actors struggle for control of an evolving arms control policy.¹⁹

These changes have led to three corresponding changes in the Soviet threat assessment debate -- one for each of the three independent variables used in this analysis. First and most dramatic, civilian participation in the debate on the threat has shot up rapidly [Figure 3.1]. For the period as a whole, the Soviet military accounts for the large majority of threat articulation. Fully 80% of the sources for the entire period come from high-level military officers. However, this overall pattern should not mask the increasing voice of civilians in threat articulation. Prior to 1987, civilians were not significantly engaged in threat assessment. In that year, civilian threat articulation increased to account for about 12% of the total.²⁰ The increased civilian activity continued and intensified in 1988, rising to account for almost 30% of the total in that year. Most of this surge came from civilian academics, who accounted for 22% of the total in 1988. Thereafter, civilian threat articulation subsided somewhat, as analysts and commentators shifted their attention

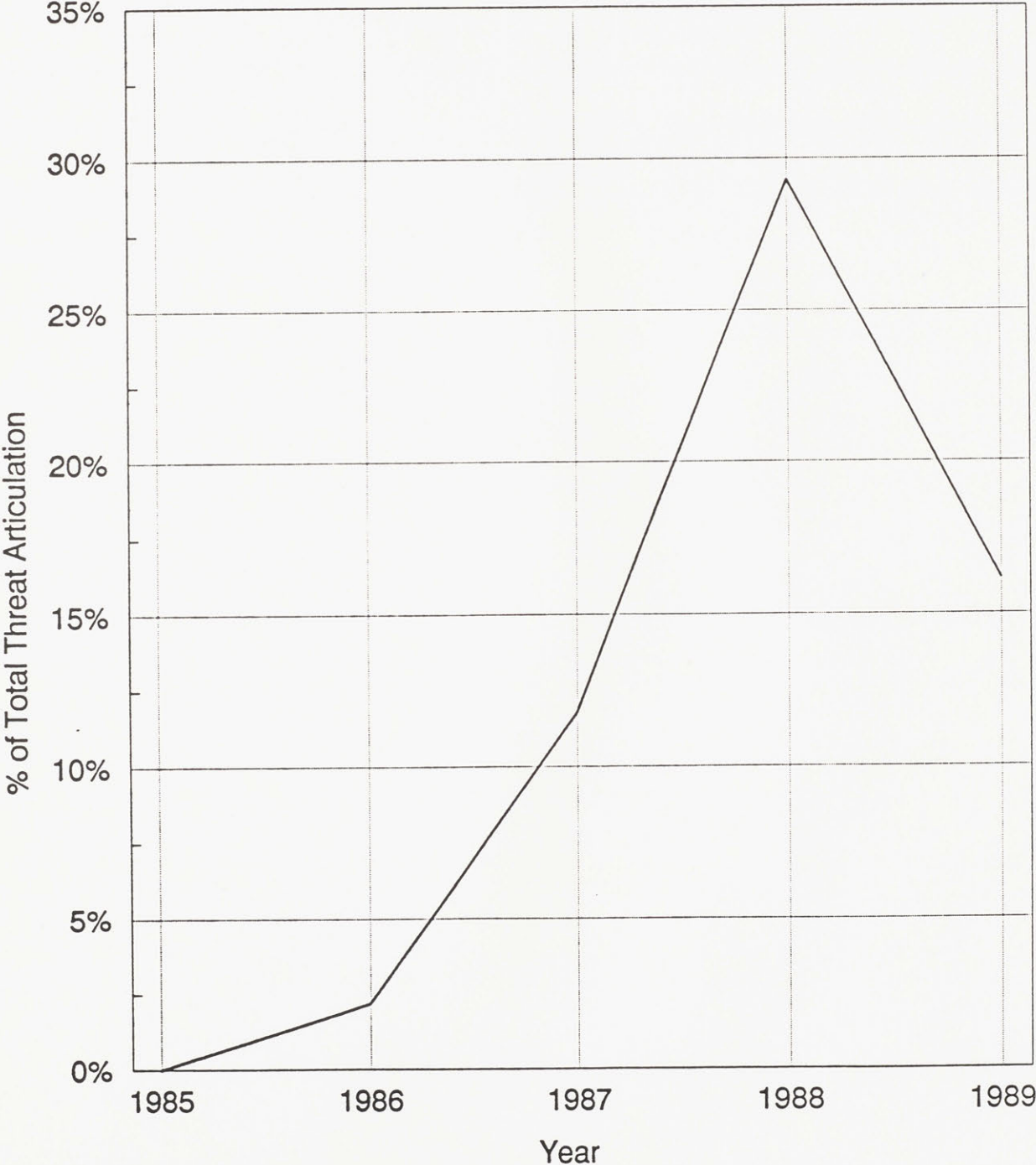
¹⁸ Foreign Minister Eduard Shevardnadze has perhaps taken the most prominent role in this, exhorting both the Ministry of Foreign Affairs and Academy of Sciences to become more involved in policy discussions on national security and defense issues. See E.A. Shevardnadze, "Lecture," Vestnik Ministerstva Inostrannykh Del SSSR. August 15, 1988.

¹⁹ See Richard H. Phillips, "Reasonable Sufficiency and Defensive Defense in Soviet Conventional Military Policy", in William Zimmerman, ed., The Changing Soviet Union and Western Security Policy, (Ann Arbor: University of Michigan Press, 1991).

²⁰ Threat articulation is measured as the number of sources in by a group a given year.

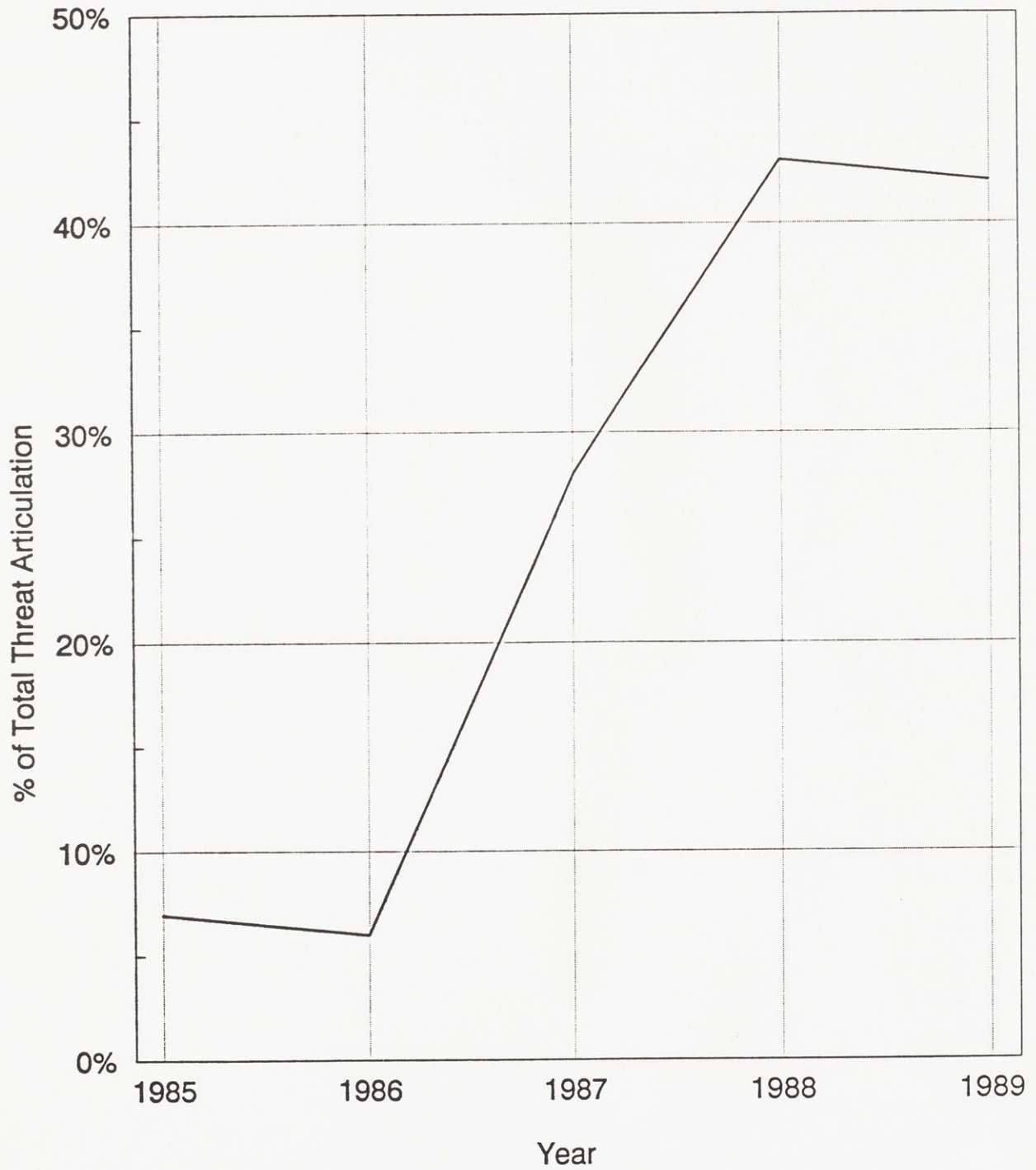
to other issues. This pattern indicates the growing involvement of civilians in matters of defense policy, and particularly the quest by civilian academics to gain influence over definition of one of the fundamental bases for national security policy.

Figure 3.1
Increase in Civilian Threat Articulation



Second, efforts at articulating the threat in the context of arms control issues has increased among both military and civilian participants [Figure 3.2]. In 1985 and 1986, when only the military was involved in articulating the threat, very little attention was devoted to issues of arms control in threat articulation. With increasing civilian participation in the debate, beginning in 1987, and with the increasing importance of international negotiations, threat articulation in an arms control context rose to almost 30% of the total in 1987, and subsequently increased to over 40% in 1988 and 1989. While this is partially attributable directly to civilian participation in the debate, it is also due to increased military attention to arms control.

Figure 3.2
Increase in the Proportion of Sources
in the Context of Arms Control

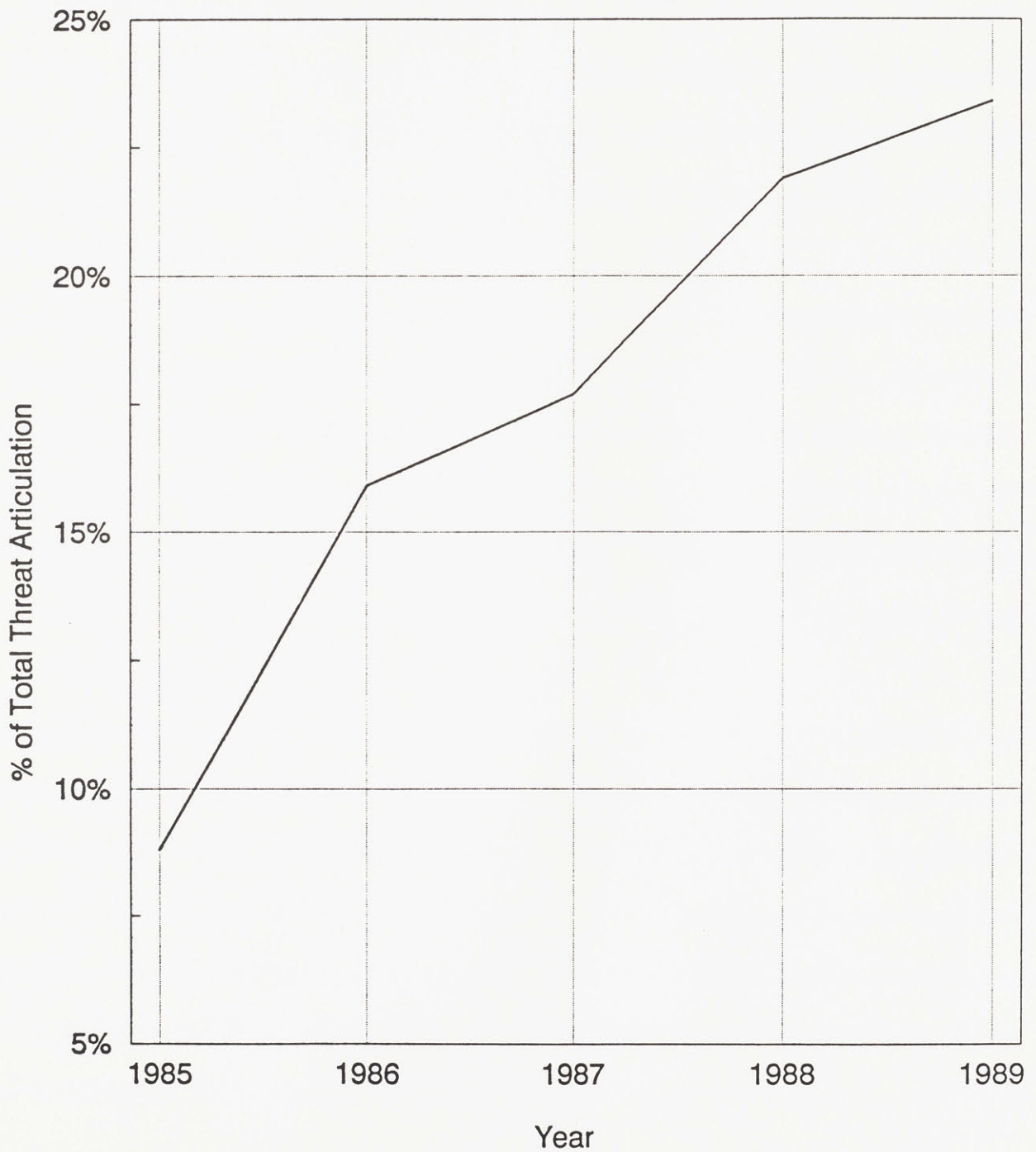


Finally, as arms control have become more pressing in an international context, threat articulation intended to influence Western public and official opinion has also increased [Figure 3.3]. Initially, the overwhelming majority (more than 90%) of threat articulation was directed internally. Over the five years of Gorbachev's reign, the degree of attention directed towards foreign target audiences nearly tripled. A large portion of this surge in externally-directed threat articulation comes from civilian officials attempting to influence Western opinion and policy. However, military spokesmen affiliated with the Ministry of Defense, the General Staff, and the services have also been spreading their assessment of the threat abroad.²¹

With these three major trends in mind, analysis now turns to a more detailed examination of military and civilian threat articulation.

²¹ Neither civilian academics nor "defense intellectuals" have been very active in externally-directed threat articulation. Academics are more interested in internal agendas, while defense intellectuals devote most of their attention specifically within the Ministry of Defense.

Figure 3.3
Increase in Threat Articulation
Directed towards External Target Audiences



3.2 Overall Threat Articulation Patterns

This section describes the distribution of sources among groups in the threat assessment debate. In addition, within groups, the degree of attention in differing contexts and towards different target audiences is summarized. The section also presents trends in threat articulation within groups.

3.2.1 Military threat articulation: For the entire period, analysts and spokesmen from the General Staff and the Ministry of Defense account for the majority of military threat articulation. About 50% of the sources are center, as opposed to 38% service and 12% defense intellectual.

The majority of *center threat articulation* is in military-technical contexts, but a sizable portion (39%) is in arms control contexts. In both military-technical and arms control contexts, internal target audiences predominate. In military-technical contexts, internally-directed articulation is chiefly toward general and Armed Forces audiences. In arms control contexts, official and general audiences are dominant. Center-affiliated officers account for the majority of threat articulation directed towards the Warsaw Pact and Eastern Europe.

Where the center is more evenly split, *service threat articulation* is almost entirely in military-technical contexts (94%). Also, service officers are concentrated more heavily in internal target categories (82%). Within these internal categories, Armed Forces audiences predominate, with an additional large concentration of sources directed at general audiences. In sum, analysts and spokesmen affiliated with specific services tend to focus their attention towards internal public opinion and towards the Soviet Armed Forces. They tend to steer clear of issues surrounding arms control.

While center threat articulation is relatively evenly distributed in context and target, and service articulation is somewhat diverse in target audience, "*defense intellectuals*" threat articulation tends to be narrowly focused in both context and audience. It might be characterized as the most "professional" -- the least engaged in civil-military affairs. All of the sources from "defense intellectuals" are in military-technical contexts, and about 99% of them are directed toward internal targets. Overall, 87% are directed specifically at Armed Forces target audiences.

With these overall distributions in mind, the major intra-military trend paints a picture of a Ministry of Defense and General Staff that is increasingly assertive and vocal *vis-a-vis* the services. Early in the period, service-affiliated officers account for the majority (nearly 70%) of military threat articulation. By 1989, center-affiliated officers accounted for almost 65% -- a near-complete reversal.

Looking in closer detail at the increase in center-affiliated threat articulation, there is a surge in articulation by the General Staff from 1987 through 1989. Where the General Staff accounted for only 15% of military threat articulation in 1986, this increased dramatically in 1987 to over 30%. Ministry of Defense personnel also increased their articulation in this period, though at a lower rate. There is something of a division of labor between the General Staff and Ministry of Defense personnel. As a whole, General Staff personnel focused increasingly on arms control issues, while MoD personnel increased their attention more towards military-technical issues.

Both the General Staff and the MoD were the most vocal toward internal audiences, with the steepest increase coming in sources directed towards official and general audiences.

In contrast, threat articulation targeted toward the Soviet Armed Forces was relatively constant over time. This difference indicates that the surge in center threat articulation was primarily intended to influence the direction of the military-political and arms control debates within the national security elite. This increase in General Staff and MoD voice is then a direct response to incursions by civilian "incompetents" in military affairs, and to increasing pressure on military positions in the (especially conventional) arms control arena.

3.2.2 Civilian threat articulation: As noted above, civilians were not significantly engaged in the debate on threat assessment until 1987. Upon some prodding from Gorbachev and his advisors, they became increasingly active, suggesting alternative perspectives on the threat and eventually openly questioning and attacking military views.

Of civilian sources, 64% are from academic commentators, while 36% are from official Party and state representatives. Of the sources attributed to *official Party and state representatives*, 87% are in arms control contexts -- a distinct break from the military articulation patterns. Civilian officials devote somewhat more attention towards external target audiences than to internal, the former to influence Western opinion and policy, and the latter oriented towards influencing Soviet policy.²²

Unlike officials, *civilian academics* engage in significant threat articulation in military-technical contexts (38% as opposed to 62% in arms control contexts). In another break from the civilian official pattern, the majority of sources in both contexts are directed toward internal audiences (83% in military-technical contexts and 80% in arms control

²² 50% of official sources are directed externally, while 43% are directed internally. 7% of officials' threat articulation is directed towards Eastern Europe and the Warsaw Pact.

contexts). This is graphic representation of the civilian academics' attempts to influence Soviet policy, whereas the official representatives are more involved in attempting to influence Western policy.

3.4 Summary

Early in the period, there was no significant open debate within the Soviet Union on the nature and scale of the external threat. Over time, the diffusion of political participation accompanying Gorbachev's search for new thinking, the open questioning of key tenets of previous security policies, and the expansion in the importance of issues of arms control have contributed to the rise of an increasingly open and acrimonious debate. Between the two extremes in this debate lies a middle area where a fundamental basis for security policy -- threat assessment -- is being reassessed. This reassessment is going on in the context of major changes in the framework and structure of the debate.

In the context of threat assessment, there are three major changes in the structure of the debate over time. First, Gorbachev's search for new ideas and new sources of ideas has led to a dramatic increase in civilian official and academic participation. The increased scope for civilian participation in debates on matters of national security is used by civilians pushing their own interests and agendas, and in seeking to increase their own interest. Civilian increases in influence necessarily comes at the expense of the past military monopoly, causing a predictable reaction. Second, the increased importance of arms control issues, both internationally and internally has led to increased impetus to issues in this context in threat articulation. Finally, the enhanced international role of arms control negotiation occasioned by Gorbachev's *novoye myshleniye* has increased the importance for

Soviet actors of influencing public opinion and policy in the West. This is reflected in increased threat articulation directed towards target audiences outside the USSR, especially in Western Europe.

Over time, the Soviet internal threat assessment debate has increased in magnitude. In connection to discussions of such issues as "reasonable sufficiency" and "defensive" defense, the debate on the threat reached a crest in 1988. Thereafter, while it did not entirely die down, it did subside somewhat as other issues became relatively more pressing.

Within the overall structure of the debate, different groups display varying patterns of articulation, corresponding to the agendas they are pursuing. Within the Soviet military, threat articulation is divided into two clearly defined assessments of the threat. The first is for propaganda and arms control purposes. It shows a clear correlation with increasing civilian participation, increasing attention to arms control, and the attempt to influence Western opinion and policy. The first of these changes shows the strongest connection. The other military threat assessment is relatively divorced from the civil-military debate, consisting exclusively of intra-military threat assessment. Articulation of this assessment actually declines in magnitude somewhat over time, and does not crest in 1988 along with civilian participation.

Within military threat articulation, there are differences in focus and coverage among sub-groups. Military officers affiliated with the center (primarily the General Staff and Ministry of Defense) distribute their attention relatively evenly between military-technical and arms control contexts, and among the various internal and external target audiences. High-level officers affiliated with the Armed Forces services tend to have narrower focus. They tend to steer clear of threat articulation in arms control contexts, focusing their energy

on military-technical threats. They do engage in some articulation towards external target audiences, attempting to influence Western opinion and policy. "Defense intellectuals" have the most narrow focus among military sub-groups. Their threat assessment is purely in the context of military-technical issues, and the overwhelming majority of their attention is directed towards internal Soviet audiences. In fact, nearly all threat articulation from these individuals is specifically targeted towards the Soviet Armed Forces.

The major intra-military trend over time is the resurgence of the General Staff and Ministry of Defense *vis-a-vis* the services. Where service-affiliated officers were dominant early in the period, by the end the General Staff and MoD accounted for the majority of threat articulation. This trend is present in both military assessments -- for propaganda and arms control, and for intra-military assessment. Over time, there is something of a division of labor between the General Staff and the MoD. The General Staff shows increasing attention to issues of arms control, while the Ministry of Defense devotes increasing attention to military-technical issues.

Among civilians, academics are more active in articulating their vision of the threat than are officials. While both groups devote more attention to issues of arms control than to military-technical threats, academics tend to be more evenly split. Officials' threat articulation is almost entirely in an arms control context. Civilian threat articulation in all categories reaches a peak in 1988, and then subsides in 1989.

Between the two sub-groups, there is an interesting difference in the target audiences that dominate. Civilian officials devote the majority of the energy in threat articulation towards external audiences, while civilian academics expend the vast majority of their

energy in internally-directed articulation. This corresponds to the differing agendas pursued by the two groups. Civilian officials in the Ministry of Foreign Affairs naturally devote a large portion of their attention to attempting to influence the West in arms control. Civilian academics, on the other hand, are almost entirely concerned with influencing Soviet policy and opinion, both to pursue their preferred agenda in security policy and to enhance their own influence *vis-a-vis* the military. This academic quest for influence is shown most in their assessment of the threat formulated in the context of arms control (Image 4b). Where articulation of the other three civilian assessments falls off radically in 1989 as attention moves to other concerns, civilian academics in Cluster 4b are more tenacious. They maintain a higher degree of energy in articulating their radical view of the threat, in opposition to military arguments.

As a whole, four of the six assessments of the threat form the civil-military debate on threat assessment. The military's propaganda and arms control threat assessment is closely associated with three civilian images -- both of those articulated by academics, and that articulated internally by civilian officials. The intra-military threat assessment (in Cluster 2a) is largely separate from the open debate (though not its implications), as is that promulgated by civilian officials outside the USSR. This assessment is part of a different, East-West debate.

This chapter has examined the underlying changes in the framework of Soviet debate on the threat, and traced the evolution of the debate's structure over time. Mikhail Gorbachev has introduced major changes in both the framework of Soviet national security decisionmaking and the resulting policy. This extends to assessment of the threat facing the

USSR. The changes set in motion by Gorbachev have had a major effect on Soviet threat assessment.

Chapter 4 examines the major result of these changes on the assessment of the threat -- increasing fragmentation of the once monolithic official assessment of the threat into competing perspectives and visions. Chapter 4 also describes the major "fault lines" in this fractured assessment, summarizing the attributes of the six clusters of assessments articulated in the debate.

4. INITIAL FINDINGS: THREAT ASSESSMENT FRAGMENTATION & COMPETING CLUSTERS

Having characterized the changes in the framework of the debate, this chapter turns to the effects these changes have had on threat assessment. The chapter presents initial findings of the analysis. First, these findings confirm the central hypothesis: over the five year period since Gorbachev came to power in the USSR, the official policy line on the Soviet view of the threat has fragmented into numerous competing visions. Second, the chapter summarizes the attributes of the six assessments of the threat isolated through cluster analysis. It presents the relationships between the independent variables (affiliation, context, and target audience) and the threat assessments presented by different groups.

First, a brief recapitulation of the methodology to this point. The raw data, consisting of 643 individual assessments of the threat, have been classified according to the three independent variables. This resulted in 80 theoretically possible categories of threat articulation. 32 of these categories are eliminated through empirical validation -- they contain no sources. The 48 remaining categories were then coded on the three threat assessment (dependent) variables, resulting in 48 threat assessment "profiles" for comparison. These 48 profiles can then be compared through a sequential cluster analysis to extract six clusters of assessments of the threat.²³

In analyzing the fragmentation of Soviet threat assessment and articulation, the technique is to apply cluster analysis to the threat assessment profiles on an annual basis.

²³ I am indebted to Stephen Meyer for bringing this technique to my attention. See Appendix A for a brief explanation of cluster analysis and the specific measures and methods used in this analysis.

How many threat articulation categories (and therefore profiles) are there in each year? What emerges is the confirmation of the entry of new actors, new issues, and new audiences towards which threat articulation is directed. Based on this, how many clusters of threat assessment can be isolated in any given year?

4.1 Fragmentation of Soviet Threat Assessment

The central hypothesis of this project is that a unified Soviet official line on the external military threat has fragmented under the impact of Gorbachev's policies of *glasnost*, the search for *novoye myshleniye*, and resulting *perestroika* in the policy process. As presented in Chapter 3, these policies have led to three major changes in the structure of the debate. First, there was a drastic increase in civilian participation in threat articulation and assessment. From none at all in 1985, civilian participation increases to about 30% of the total in 1988, the peak year. Most of this increase comes from civilian academics, reacting to Gorbachev's opening of the security debate. Furthermore, over time there is a significant increase in both military and civilian threat articulation in the context of arms control (from about 8% of the total in 1985 to about 45% by 1988). Finally, threat articulation directed towards external target audiences increased from only about 8% of the total in 1985 to almost one-quarter in 1989. If the central hypothesis is correct, these changes in threat articulation should result in significant fragmentation of the once monolithic official line -- over time, one should see numerous competing visions of the threat.

To demonstrate that this is indeed the case, a cluster analysis was performed on the threat assessment "profiles" (constructed yearly for each threat articulation category of

affiliation, context, and target audience) on an annual basis.²⁴ Fragmentation of the official line is reflected in an increasing number of clearly defined clusters over time.

The annual cluster analyses reveal an increase in the number of profile clusters over the five year period [Figure 4.1].²⁵ In 1985, there is a single, relatively unified threat assessment, articulated exclusively by military analysts and spokesmen. 1986 saw the entry of the first civilian-affiliated profiles, as well as some increase in attention to arms control issues on the part of the military. In that year, cluster analysis reveals three separate clusters. The upward trend continues: in 1987, there are four clusters; in 1988, five; and

²⁴ The three changes in the framework of threat articulation are reflected in the annual number of threat articulation categories (profiles) as well. Not all of the 48 empirically verified threat articulation categories are "active" (contain sources) in any given year. From 20 active categories in 1985 (all military), there is an increase over time, to 45 of the total 48 in 1988, the peak year for threat articulation. This number subsequently declines again in 1989 to 25, mirroring a general decline in threat articulation, as other issues apparently are seen as more pressing and take more attention from civilian and military analysts alike. This increase itself reflects a growing scope for discussion of the threat -- a fragmentation of threat articulation in addition to fragmentation of the resulting threat assessments. This fragmentation of threat articulation categories is shown in Figure 4.2, broken down by context and target audience. Increasing attention to arms control categories, and to external target audiences is clear. Figure 4.3 demonstrates the increasing number of civilian-affiliated threat articulation categories, while Figure 4.4 breaks this distribution down by sub-affiliations.

²⁵ The cluster structure is represented in graphical form as a dendrogram. Exactly how many clusters are present depends on the analyst's choice of the degree of similarity or dissimilarity required. At the highest level of similarity possible, each case is essentially a separate cluster; at the lowest set level of similarity, the entire data set is a single cluster. The problem is in choosing the intermediate level at which to "cut" the dendrogram. There are a variety of measures, based on the fusion coefficient, but there is also an element of subjective choice, based on the heuristic tool provided by the dendrogram (as a standardized similarity measure). The discussion in this section presents a range of possible clusters, depending on the cut. For example, in 1985, using a cut at standardized similarity measure just less than 10, there are two rather fuzzy clusters. At levels greater than that, there is a single cluster. The discussion here will use a standardized similarity measure of 15 as the best measure. An additional "cut" at just over 10 is included in Figure 3.1 for comparative purposes.

in 1989, there are six. These clusters of threat assessment profiles correspond to discrete perspectives on the military threat.

Figure 4.1
Annual Cluster Analysis Results
Number of Clusters per Year, by Degree of Similarity

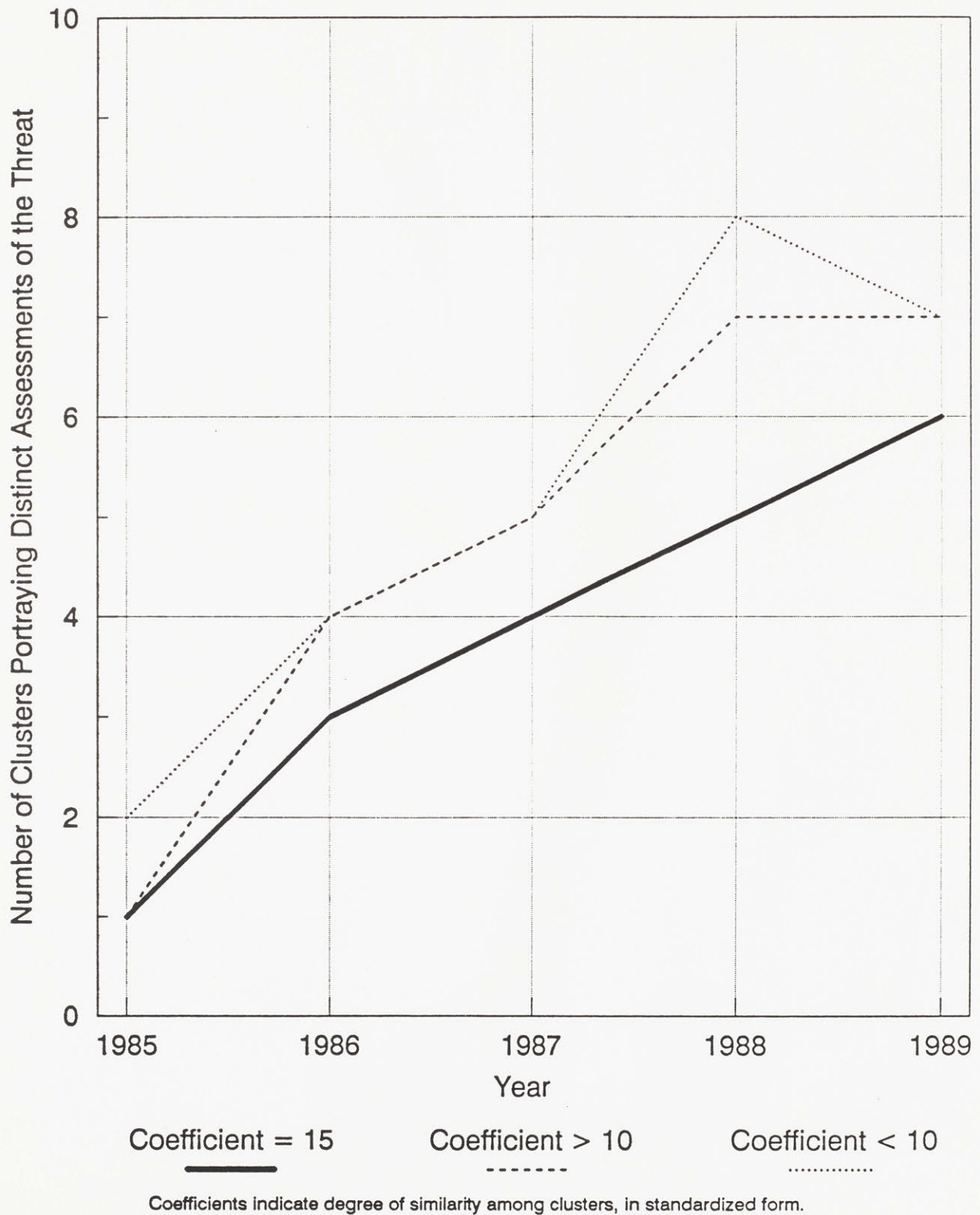
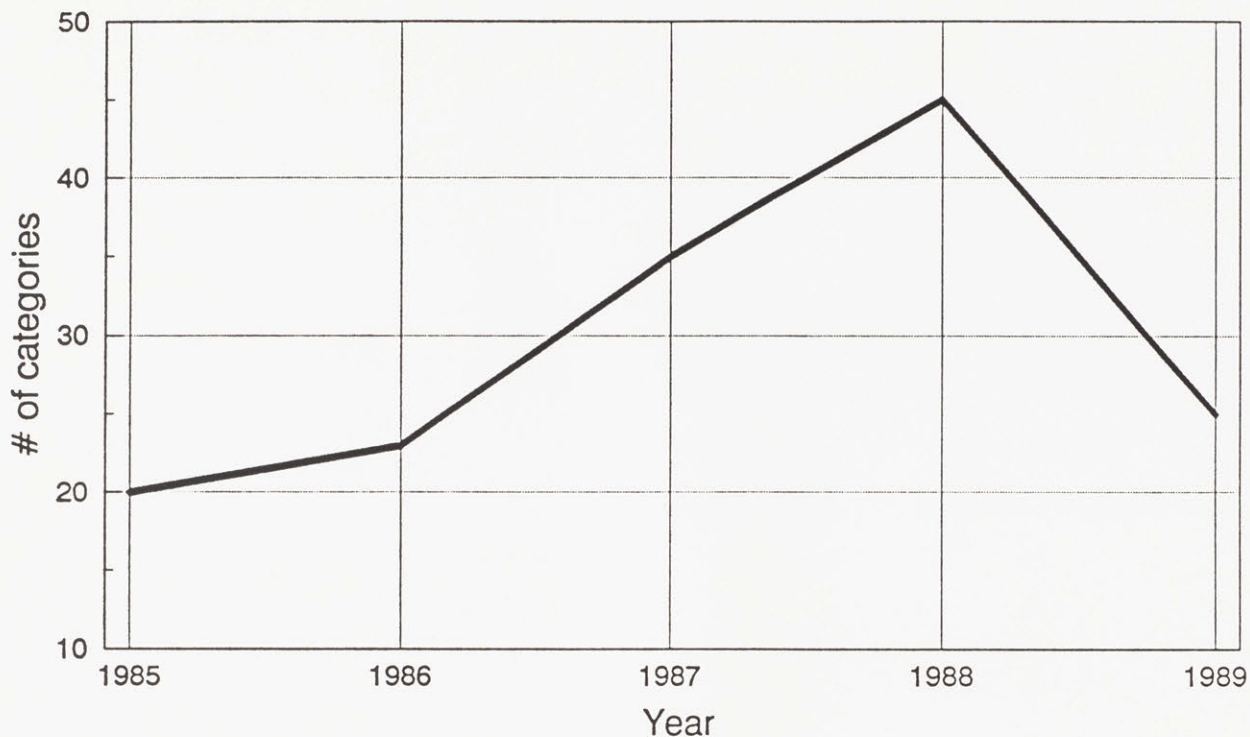
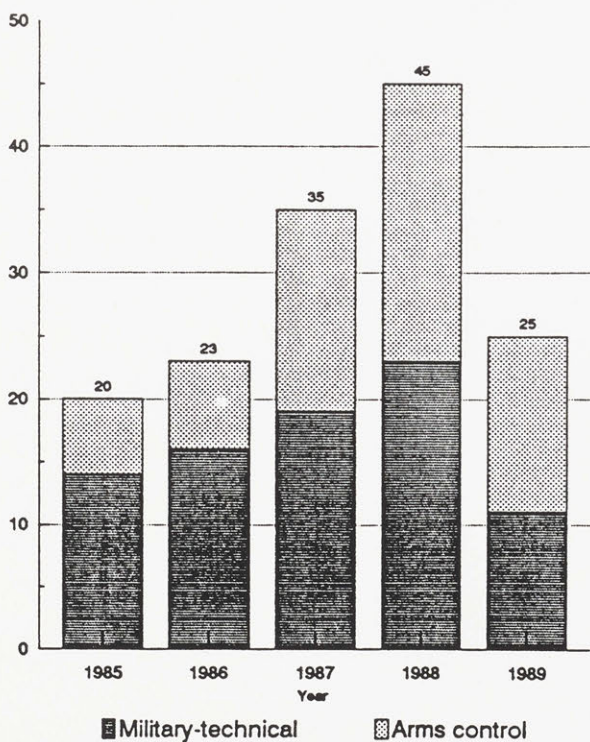


Figure 4.2

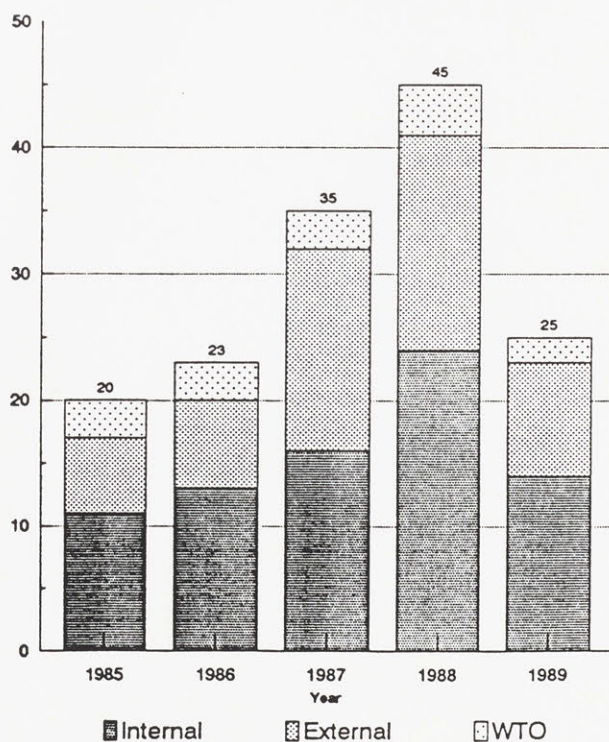
Active Threat Articulation Categories, by Year



Military-technical vs. arms control contexts



Internal, external, & WTO target audiences



Total number of possible categories = 48.

Figure 4.3a
Active Threat Articulation Categories
Military vs. Civilian

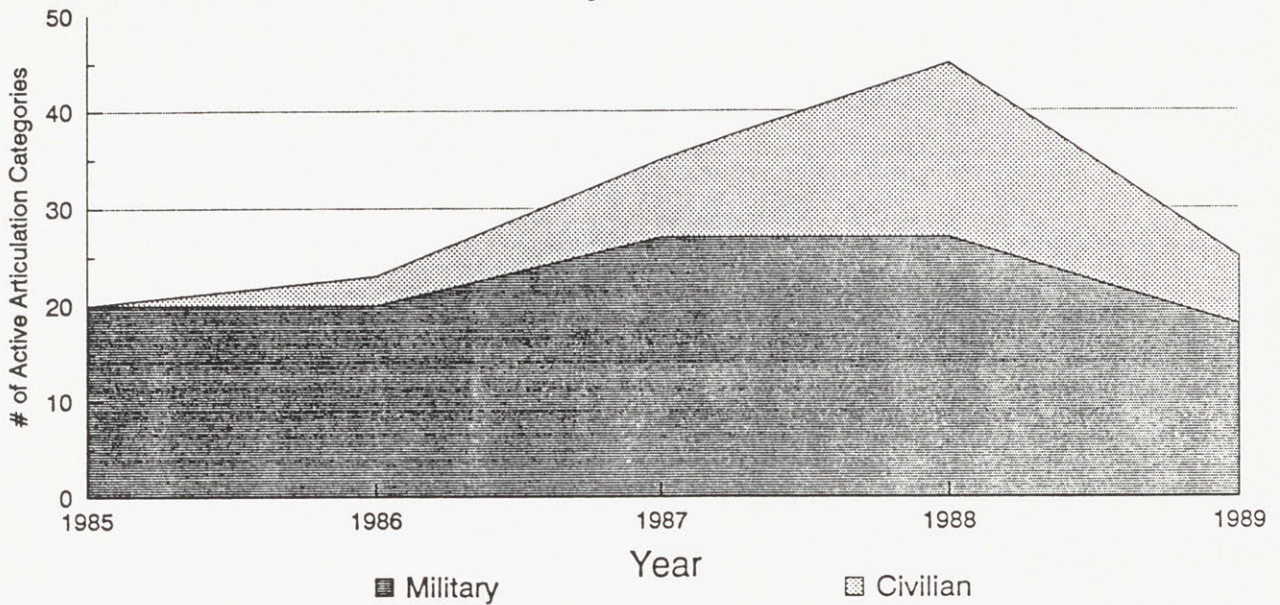
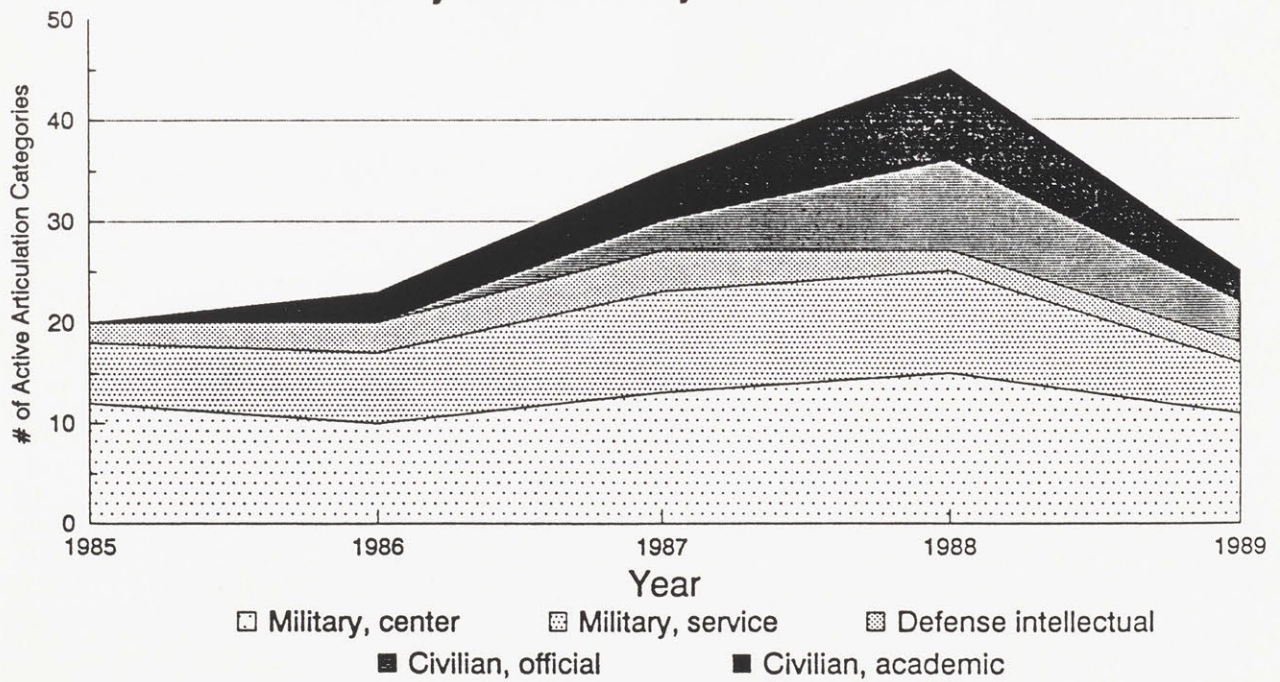


Figure 4.3b
Active Threat Articulation Categories
Military vs. Civilian by sub-affiliations



Note: Total possible categories = 48

The annual cluster analyses graphically reveal the fragmentation of Soviet threat assessment. From a monolithic line in 1985, competing assessments arise until, by 1989, there are fully six clusters. This fragmentation is the result of the changes in the civil-military and international environment introduced by Gorbachev.²⁶ Two of the six are military threat assessments, while four are articulated by civilians (two by civilian officials, and two by academics). The structure and composition of these clusters' assessments are the subject of the next section.

4.2 Cluster Threat Assessment & Composition

Turning to overall analysis, the first cluster analysis of the data revealed four clear clusters of threat assessment profiles. The first two are almost exclusively military in composition, while the third and fourth are almost exclusively civilian. After identifying these four clusters, each was subjected to a sub-cluster analysis to determine whether there were more fine-grained divisions among them. One of the military clusters (the one containing some civilian academic profiles) was found to consist of two clearly defined sub-clusters. This division was exactly along affiliation lines -- the first sub-cluster is exclusively military, the second exclusively civilian academic. Similarly, one of the civilian clusters was found to be composed of two sub-clusters. In this case as well, the division is along

²⁶ It is impossible to establish a cause and effect relationship here. The most that can be said is that there is a strong correlation between the changes introduced by Gorbachev and the fragmentation of the Soviet vision of the threat. However, the only alternative explanation that might explain this correlation is that the entire exercise of threat articulation is part of a massive disinformation effort. While it might have been possible to argue this with a straight face in early 1986, events in the intervening period have shown the fallacy of this line of argument. Whether the changes and turmoil in Soviet security policy were intended or inadvertent, they are certainly real.

affiliation lines -- one sub-cluster consists exclusively of civilian officials, while the other consists exclusively of civilian academics.

Overall, six clearly-defined clusters of profiles were identified, corresponding to six discrete and coherent assessments of the military threat facing the USSR. These six clusters are distributed evenly among three major affiliations -- the Soviet military, civilian officials, and civilian academics each articulate two separate assessments to serve differing agendas. The next section characterizes the six clusters in their relationship to affiliation, context, and target audience.

4.2.1 Military Threat Assessment: Cluster composition

Soviet military threat articulation is represented in two discrete clusters of threat assessment profiles. The major distinction between the two clusters is the target audience to which they are directed, as well as the context in which the assessments appear. The Soviet military articulates one view of the threat (Cluster 2a) internally, almost exclusively for the Armed Forces, General Staff, and Ministry of Defense.²⁷ The context in which this assessment is articulated is purely military-technical. Analysts affiliated with the center and the services are represented, as are "defense intellectuals".²⁸ This threat assessment represents the military talking to itself about purely military-technical aspects. The threat articulation categories included in this cluster are summarized below.

Cluster 2a (N=187)

Center (N=44)

²⁷ More than 97% of the sources in this cluster are directed towards the Soviet Armed Forces in general, the General Staff, and the Ministry of Defense.

²⁸ There are no clear distinctions among these three sub-categories. In the context of the two images, military threat articulation is unified.

Military-technical (N=44)
Internal Armed Forces (N=37)
Internal Ministry of Defense & General Staff (N=5)
External NATO (N=2)

Service (N=87)

Military-technical (N=87)
Internal Armed Forces (N=87)

Defense intellectual (N=56)

Military-technical (N=56)
External general (N=1)
Internal general (N=2)
Internal Armed Forces (N=53)

In contrast, the other military threat assessment (Cluster 1) is directed at all target audiences besides the military, the General Staff, or Ministry of Defense. This cluster contains almost all military threat articulation in the context of arms control. Military-technically oriented assessments in this cluster are directed either towards external (Western European, North American, or general) audiences, towards general or official internal Soviet audiences, or towards a Warsaw Pact/Eastern European audience. Overall, this threat assessment is directed at generalized internal audiences and at external audiences, in both military-technical and arms control contexts.

Threat articulation categories included in Cluster 1 are listed below.

Cluster 1 (N=324)

Center (N=213)

Military-technical (N=113)
External general (N=16)
External US (N=3)
Internal general (N=53)
Internal official (N=21)
Warsaw Pact/Eastern Europe (N=20)

Arms control (N=100)
External general (N=16)
External NATO (N=10)
External US (N=4)
Internal general (N=32)
Internal official (N=14)
Internal Armed Forces (N=7)
Warsaw Pact/Eastern Europe (N=17)

Service (N=105)

Military-technical (N=100)
External general (N=15)
External NATO (N=3)
Internal general (N=62)

- Internal official (N=7)
- Warsaw Pact/Eastern Europe (N=13)
- Arms control (N=5)**
 - External NATO (N=4)
 - Warsaw Pact/Eastern Europe (N=1)
- Defense intellectual (N=5)**
 - Military-technical (N=5)**
 - Internal official (N=5)
- Civilian academic (N=1)**
 - Arms control (N=1)**
 - External US (N=1)

Summarizing, Soviet military threat articulation and assessment is divided clearly between "us" and "them". The "us" is very narrowly defined, essentially including only uniformed military personnel. "Them" in this case refers to everyone else -- the Soviet public, civilian officials and academics, and all foreigners, including their erstwhile allies in the WTO.²⁹ This division of threat articulation leads to an initial conclusion that the first, internally-directed cluster represents the military's true assessment for planning purposes, while the second is intended primarily to serve propaganda and arms control agendas.

4.2.2 Civilian Threat Assessment: Cluster Composition

Each of the two civilian sub-categories (official Party and state representatives, and academics affiliated with the USSR Academy of Sciences institutes) articulate two views of the threat. For civilian academics, the major distinction is context -- they present one threat assessment in a military-technical context, and another in the context of arms control. Civilian officials' threat articulation is also divided. One assessment is presented exclusively in the context of arms control, directed towards external target audiences. The other cluster consists of assessments in both contexts, directed primarily towards internal (Soviet) target audiences.

²⁹ This breakdown in threat articulation is highly suggestive of a high degree of military socialization, a sense of identification with a separate segment of society. It would be interesting to examine whether this socialization is purely internal to the Soviet military, or whether there is an international "brotherhood of arms". Operationally, would the threat assessment portrayed to Western military officers be more similar to what the Soviet military stresses internally, or to the image articulated for external consumption? Presently, there are not enough data to answer this question.

4.2.2a Civilian officials' threta assessment clusters: The first civilian official cluster (Cluster 3) is relatively small, and consists exclusively of sources in an arms control context. They are all directed towards external (Western European and North American) target audiences. This leads to the conclusion that this threat assessment is articulated primarily in an attempt to influence Western opinion and policy in arms control negotiations.

The threat assessment presented in this cluster is not exclusively from civilian officials. In addition to a few civilian academic sources, the cluster also includes some threat articulation by military service-affiliated officers. This relatively small amount of service threat articulation is, like that from the civilian officials, primarily in the context of arms control, and mostly directed towards external target audiences. Consequently, it appears that both civilian officials and representatives of Soviet military services portray nearly identical assessments of the threat in attempting to influence Western arms control opinion and policy.

The categories of threat articulation included in Cluster 3 are listed below.

Cluster 3 (N=20)

Service (N=9)

Military-technical (N=3)

External US (N=3)

Arms control (N=6)

External general (N=3)

Internal official (N=1)

Internal Armed Forces (N=2)

Civilian official (N=8)

Arms control (N=8)

External NATO (N=7)

External US (N=1)

Civilian academic (N=3)

Arms control (N=3)

External NATO (N=1)

Internal Armed Forces (N=2)

The second threat assessment presented by civilian officials (Cluster 4a), by contrast, is directed primarily towards internal target audiences, and therefore apparently more oriented towards influencing Soviet policy and opinion. While both military-technical and arms control contexts are included, the latter are more prevalent. There is no overlap of affiliation in this cluster -- it represents civilian officials exclusively.

Threat articulation categories included in this cluster are listed below.

Sub-cluster 4a (N=33)

Civilian official (N=33)

Military-technical (N=5)

External general (N=2)

Internal general (N=2)

Internal official (N=1)

Arms control (N=28)

External general (N=12)

Internal general (N=13)

Internal official (N=3)

4.2.2b Civilian academics' threat assessment clusters: Soviet academics affiliated with the USSR Academy of Sciences institutes divide their assessments of the threat very clearly in terms of context. One cluster assessment is presented exclusively in the context of arms control, while the other is articulated exclusively in a military-technical context.

The first of these assessments (Cluster 2b), articulated in a military-technical context, is quite similar in character to the military's internal threat assessment, stressing many of the same issues. However, [see Chapter 7], the implications of the academic spin on these issues are contradictory to what the military intends. Cluster 2b is very clearly defined, consisting only of civilian academic threat articulation in a military-technical context. The threat articulation represented by this cluster is almost entirely internally directed.

Cluster 2b (N=30)

Civilian academic (N=30)

Military-technical (N=30)

External general (N=5)

Internal general (N=12)

Internal official (N=6)

Internal Armed Forces (N=7)

The second civilian academic threat assessment cluster (Cluster 4b) is similarly clearly defined. It consists only of academics' arguments in an arms control context. Also like the other academic cluster, it is directed overwhelmingly towards internal (Soviet) target audiences. As noted above in the discussion of threat articulation trends and patterns, academics devote their primary attention to influencing the internal dynamics of Soviet security policy. This contrasts with civilian officials, who direct a considerable portion of their attention externally.

The threat articulation categories included in Cluster 4b are listed below.

Cluster 4b (N=45)

Civilian academic (N=45)

Arms control (N=45)

External general (N=8)

Internal general (N=30)

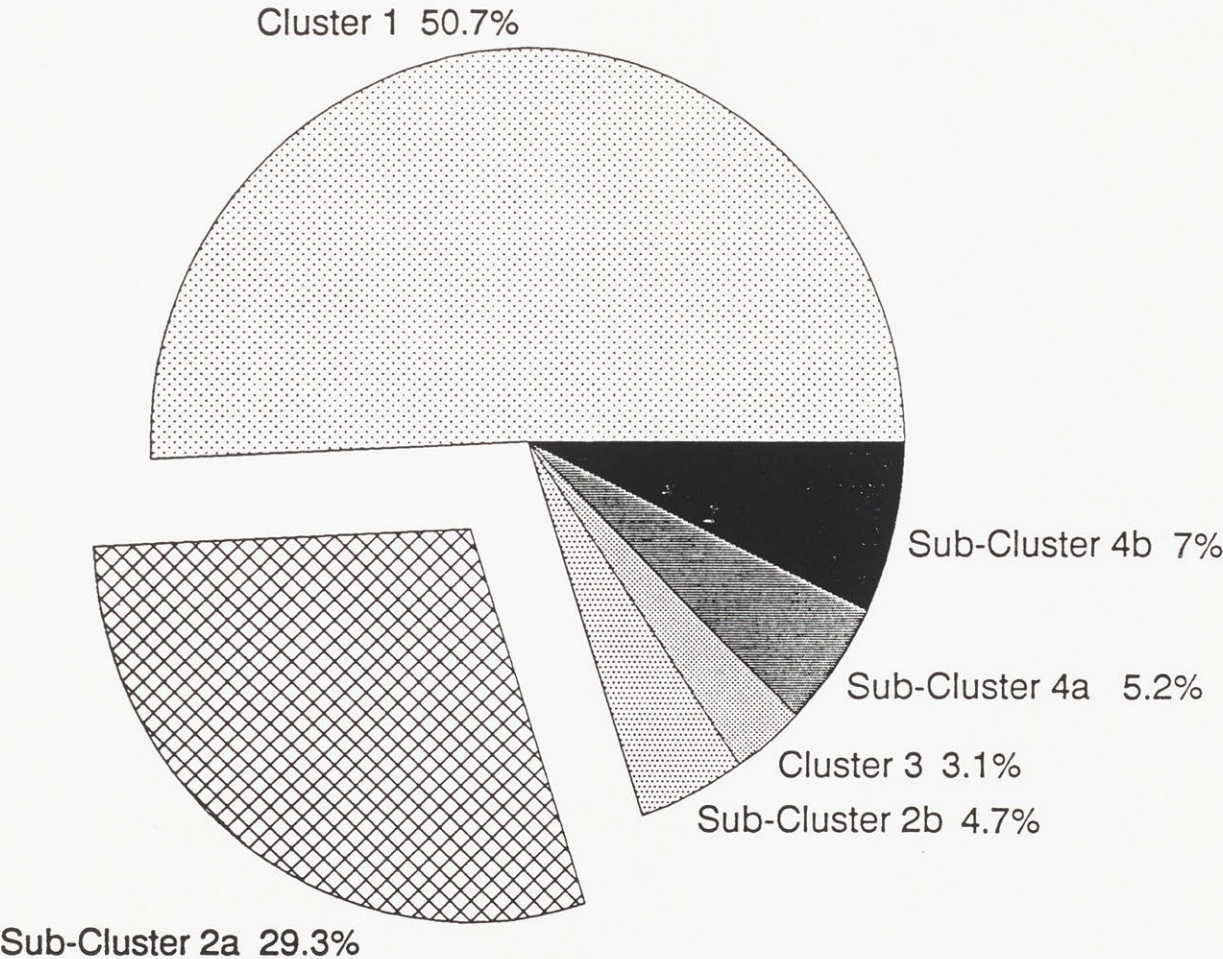
Internal official (N=7)

4.3 Threat Articulation in Conflicting Clusters

Chapter 3 presented the breakdown of Soviet threat articulation in general terms. This section is another look at trends in threat articulation. It describes the evolution of the debate in terms of the six clusters of threat assessment promulgated by different groups in the debate.

Overall, the two military clusters (Clusters 1 and 2a) account for four out of five threat assessment sources [Figure 4.4]. About half of all sources fall in Cluster 1, representing military threat articulation in terms of propaganda and arms control functions. 30% fall in Cluster 2a, representing threat articulation internal to the Soviet Armed Forces, the Ministry of Defense, and the General Staff. The four predominantly civilian clusters together account for the remaining 20% of the sources. This percentage is split relatively evenly among the four civilian clusters.

Figure 4.4
Overall Threat Articulation, by Cluster

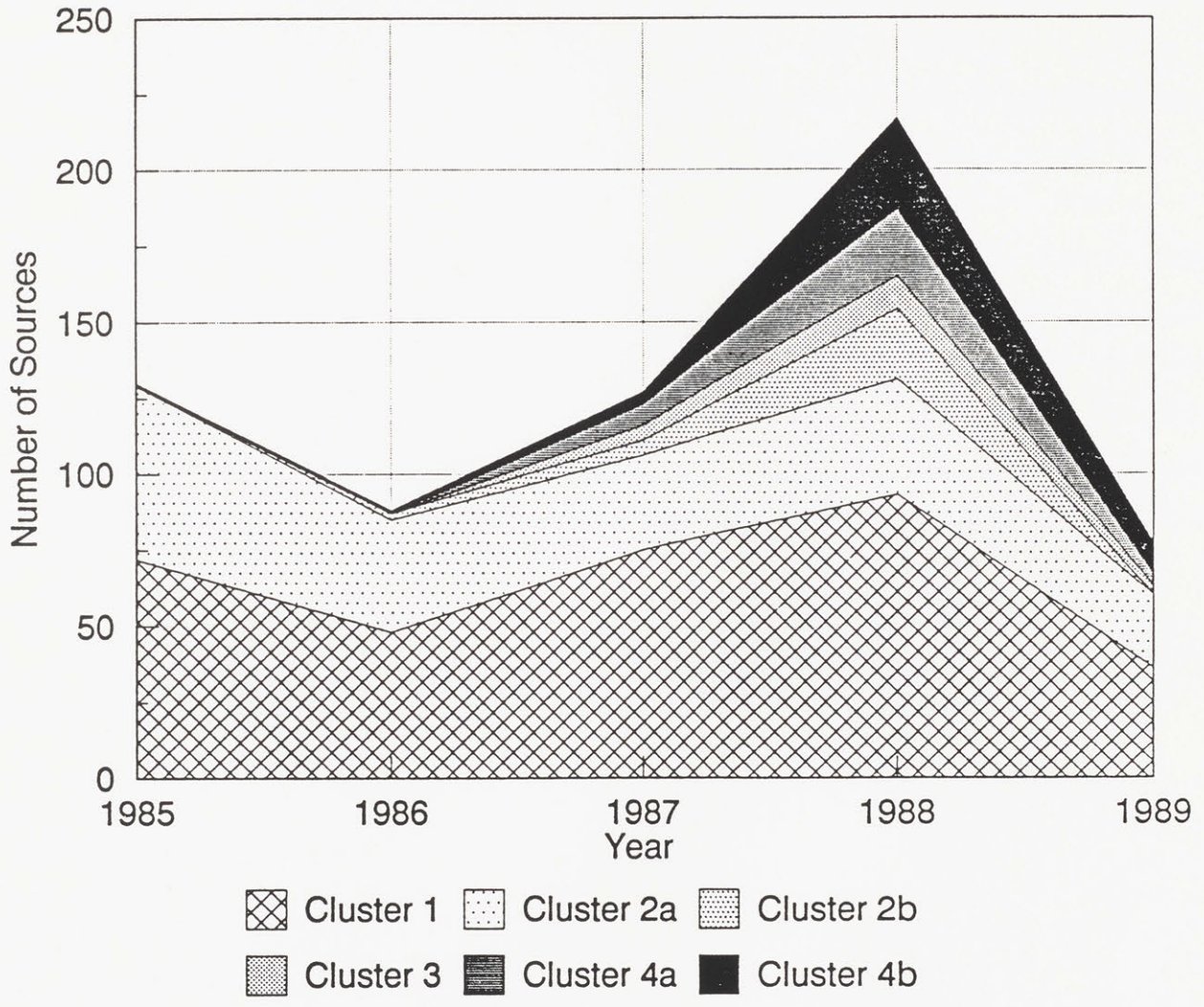


Examining the overall level of threat articulation over time provides some insight into the amount of heat generated by civil-military debates on the threat [Figure 4.5]. The overall degree of effort devoted to threat articulation in these clusters is not constant over time. From January 1985 through the end of 1986, when only military analysts and spokesmen were engaged in threat articulation, there is a decline in the overall level of threat articulation. Through 1987 and 1988, however, the debate heated up substantially, reaching a crescendo in 1988. This peak in threat articulation in 1988 is attributable to increasing civilian participation in the debate (Clusters 2b, 3, 4a, and 4b), and to military reaction (Cluster 1) to the increased civilian participation and to pressure on military arms control positions.³⁰

³⁰ The intra-military threat assessment (Cluster 2a) does not follow this overall trend. While there is a small peak in 1988, it is substantially below the level of threat articulation in 1985, and is part of a general downward trend in articulation of this image.

Figure 4.5

Threat Articulation by Cluster: Time Trends



It is likely that some of this increase in threat articulation on both sides was related to the heat generated by policy debates connected to discussions of "reasonable sufficiency" and "defensive" defense. Paralleling the threat assessment debates, these discussions built to a crest up until Gorbachev's announcement at the United Nations of a major Soviet unilateral troop reduction and withdrawal from Eastern Europe.³¹ However, the debate on threat assessment is part of a much wider debate concerning a fundamental basis for national security (especially resource allocation) decisions. In 1989, the level of effort devoted to threat articulation subsided somewhat, as other, more internally-driven issues became more pressing.³²

Having described the overall distribution of threat articulation and the general trend, analysis now turns to the trends in articulation of each of the six clusters.

4.3.1: Cluster 1 - Military threat articulation for propaganda and arms control: The level of effort devoted to articulating Cluster 1 generally parallels the degree of threat articulation by civilians in the debate after 1986. There is a clear correlation between increased civilian participation and the increase in Cluster 1 threat articulation to a peak in 1988.³³ Similarly, efforts devoted to promulgating this assessment vary directly with the increasing importance of arms control, especially conventional forces negotiations and

³¹ For analysis of these more narrowly focused debates and their evolution over time, see the author's "Reasonable Sufficiency and Defensive Defense in Soviet Conventional Military Policy"... CITE.

³² These issues include a vast array of political, economic, and military problems. For the military, they include the role of the CPSU in the military, the role of the military in internal disturbances, prospective changes in personnel policies, social criticism of military life, and especially issues connected to military prestige and living standards. For civilians, they include the construction of new legislative organs and laws, possible economic collapse, ethnic and regional strife and separatism, etc.. This does not even take into account the collapse of the Soviet empire in Eastern Europe. It is not at all surprising that attention to the external military threat subsides given these concerns. What is amazing is that any attention at all is spared for threat articulation and assessment -- a strong indication of the consequences, especially in resource terms, of the outcome of the continuing debate.

³³ The similarity between military threat articulation in Cluster 1 and civilian threat articulation is reproduced in their respective assessments of the threat. The groups emphasize similar issues, as the military responds to civilian attacks on their point of view.

unilateral Soviet moves in this sphere.

In Cluster 1, threat articulation by service-affiliated officers declines radically compared to those from the center [Figures 4.6a & 4.6b]. In 1985, service threat articulation accounted for almost half of the total for Cluster 1. By 1989, the proportion had declined to about 20%. This decline in service voice is most apparent in the case of the Navy, while the Ground Forces, the VPVO, and the WTO command are the most stable.³⁴ In contrast to the service decline, center-affiliated analysts became more vocal over time. In 1985, center threat articulation in Cluster 1 accounted for about 50%. This increased over time to the point that in 1989, center-affiliated threat articulation accounted for nearly 80% of the total volume in this cluster. This increase is due to an increasing volume of threat articulation in arms control contexts -- enough of an increase to offset a decline in articulation in military-technical contexts [Figure 4.6a]. This indicates the increasing importance of arms control issues, as well as increasing concern over civilian incursions into military affairs. Nearly all of the sources dealing with arms control issues are from the center, while service-affiliated officers tend to steer clear of these issues.³⁵ In terms of the target audience to which threat articulation is directed [Figure 4.6b], the rate of increase through 1988 and then decline in 1989 for center-affiliated officers is spread relatively evenly among internal and external audiences. For service-affiliated officers, the decline through 1988 is relatively evenly spread. In 1989, the degree of threat articulation toward internal audiences declined further, while that toward external audiences and the Warsaw Pact increased slightly.

³⁴ In 1985, the Soviet navy accounted for 14% of overall military threat articulation. By 1989, this had declined to about 3%.

³⁵ With a few notable exceptions. Marshal Kulikov, for example, spoke out against the unilateral conventional force reductions announced at the UN in December 1988. His fate -- he "retired" in early February and was moved to the group of MoD General Inspectors -- probably reflects one reason that service-affiliated officers do not speak out on arms control issues more than they do.

Figure 4.6a
Cluster 1 Threat Articulation
By Affiliation and Context

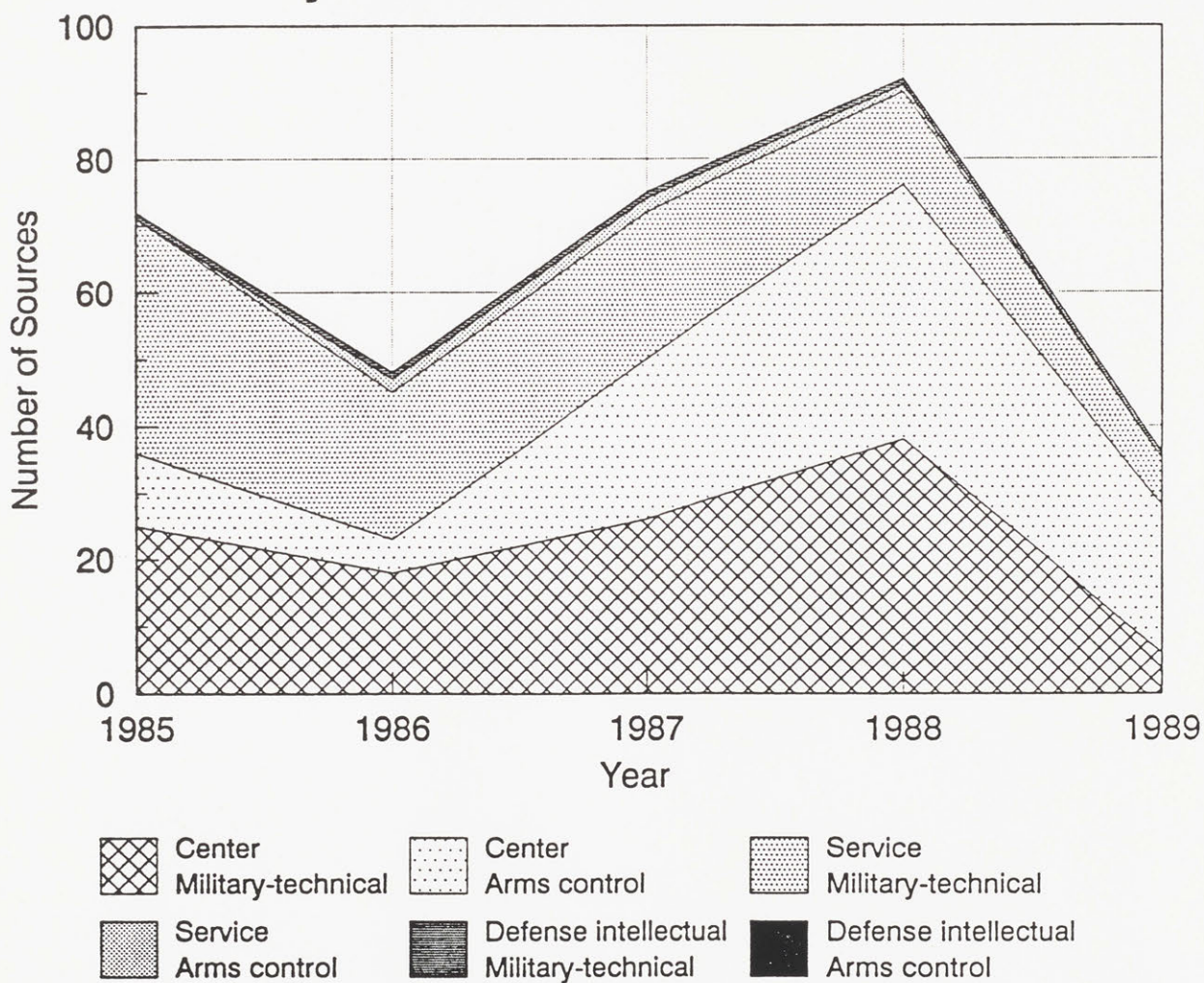
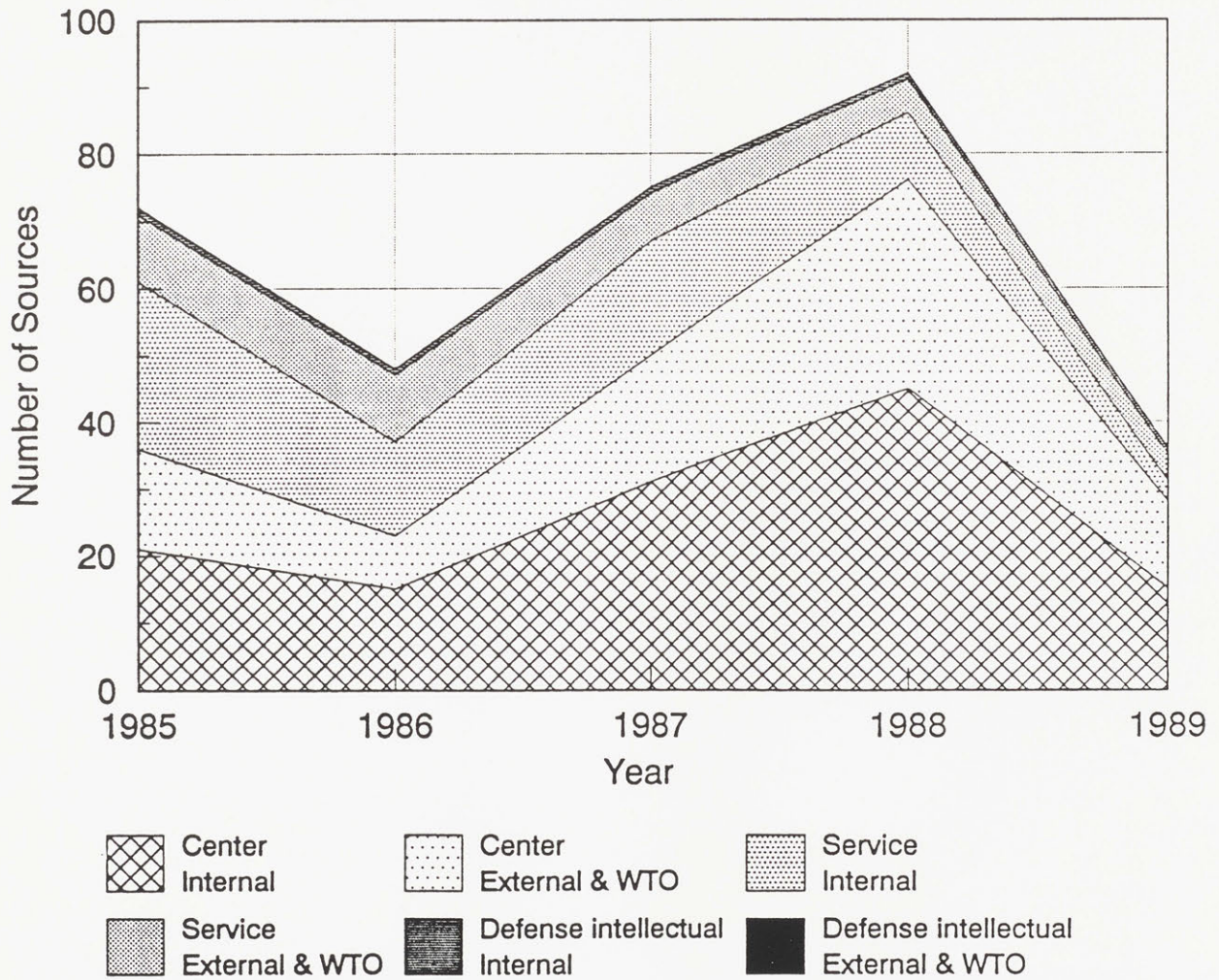


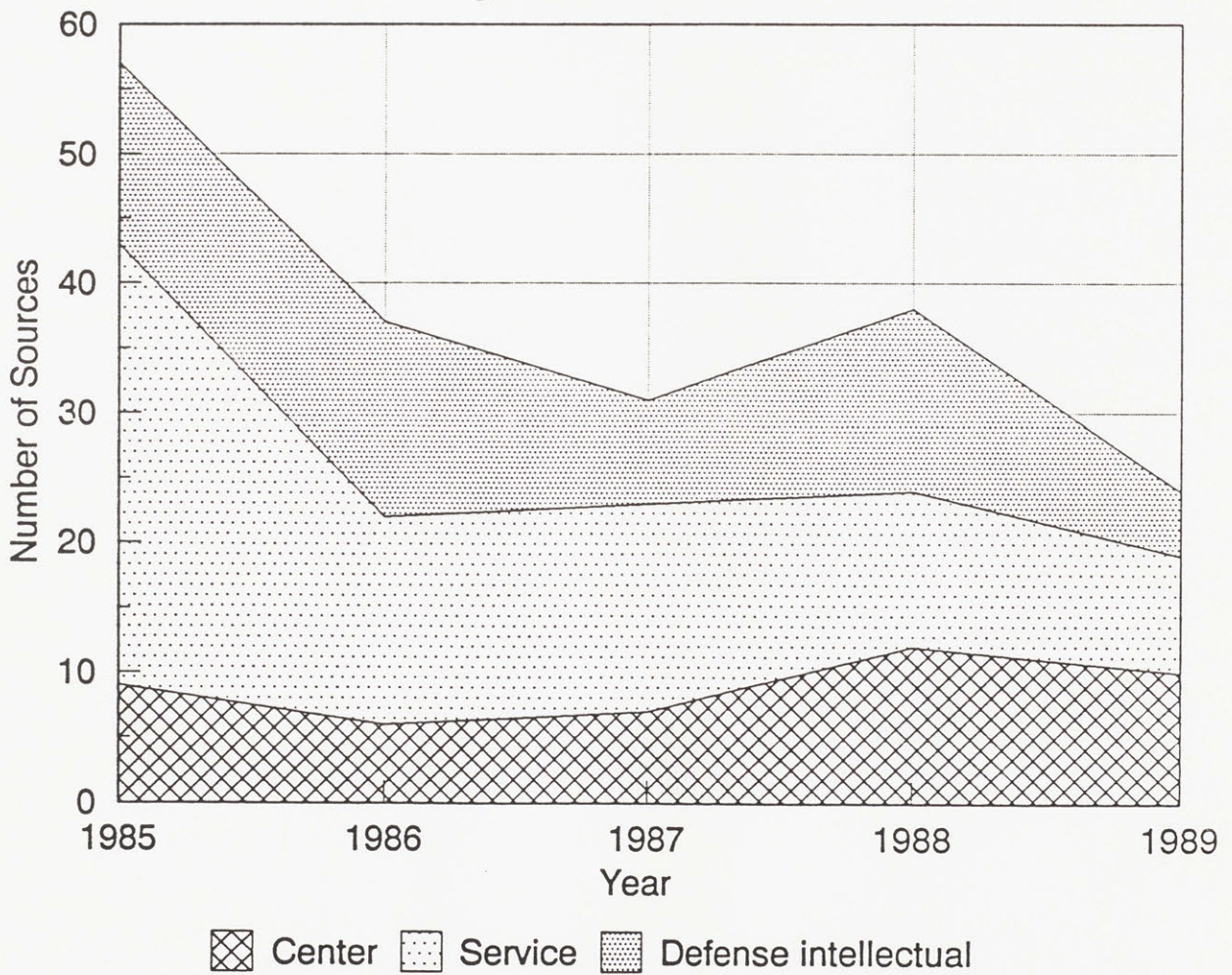
Figure 4.6b
Cluster 1 Threat Articulation
By Affiliation & Target Audience



4.3.2: Cluster 2a - Intra-military threat assessment: As noted above, Cluster 2a does not follow the overall time trend in threat articulation [Figure 4.7]. It is much more stable, and shows no particular correlation with civilian threat articulation. Concerned with purely military-technical issues, it is also largely divorced from the impetus of arms control pressures.³⁶ As a result, threat articulation in Cluster 2a exhibits a relatively gentle decline in attention over time, from a peak in 1985.

³⁶ This is not to say that this image is totally divorced from the consequences of either negotiated or unilateral Soviet moves in arms control. As will be shown below in some detail, this image is partially concerned with reacting to the consequences of arms control - mostly in the form of performing combat missions with smaller and restructured forces. This is very different from the focus of Image 1 in the context of arms control, which attempts to undercut the rationale for force reductions at best, or at the least to moderate their scope and direction.

Figure 4.7
Cluster 2a Threat Articulation
By Affiliation

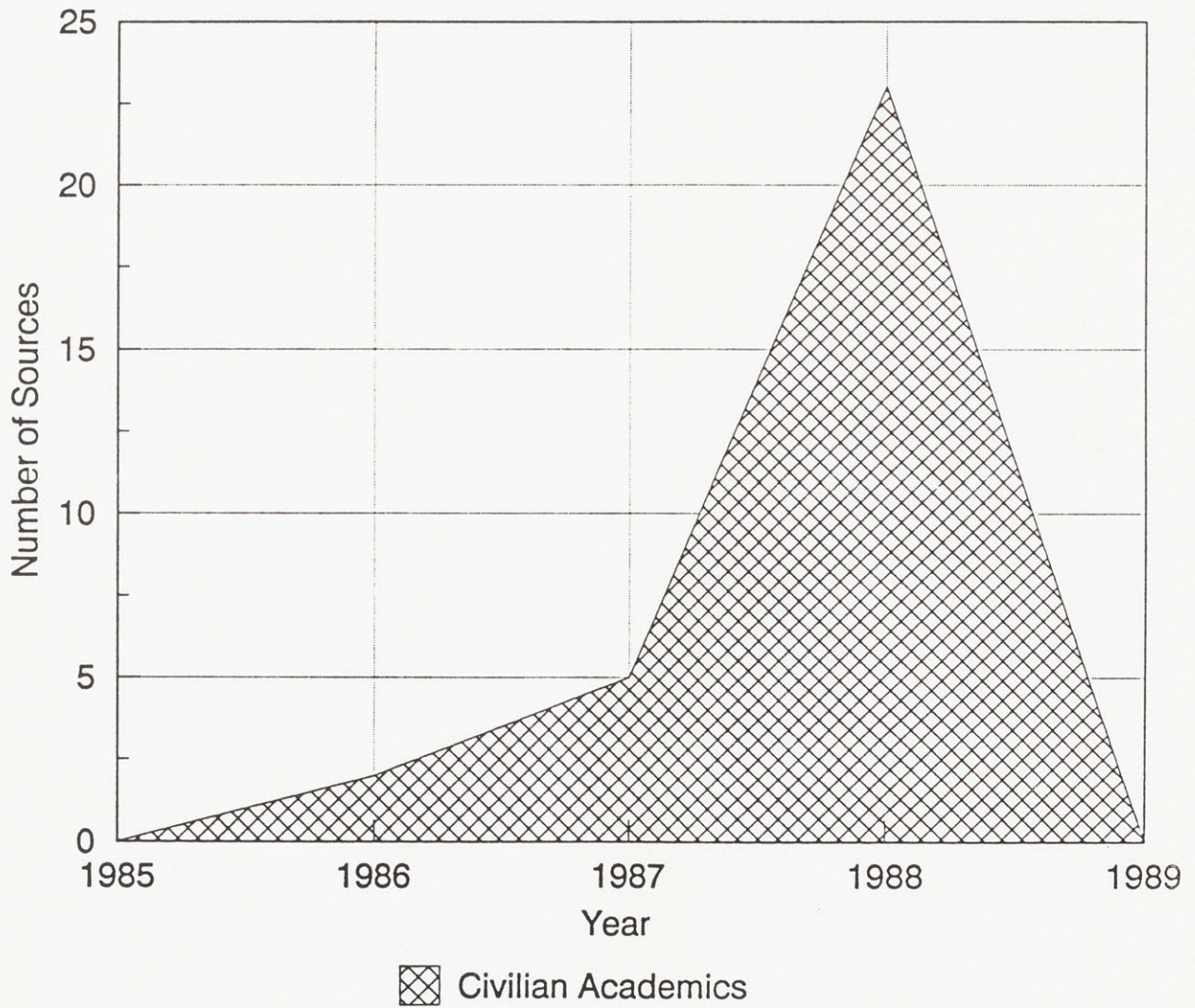


Looking at Cluster 2a in more detail, the most striking aspect of threat articulation is again the decline in service voice. Where in 1985 service-affiliated officers accounted for more than 60% of threat articulation, this declined in 1986 to about 45%, and even further subsequently -- to about 35% in 1989. This service voice decline is matched by an increase in center threat articulation. From only about 15% in 1985, center voice increase relatively smoothly to about 45% by 1989. Defense intellectual threat articulation in Cluster 2a is relatively constant over time, with only a slight decline over time. Both center and defense intellectual voice exhibit a small peak in 1988.³⁷ Overall, by 1989 center voice was dominant in Cluster 2a. This is graphic evidence of a more assertive and vocal General Staff and Ministry of Defense in military-technical contexts, as was the case in arms control issues in Cluster 1.

4.3.3: Cluster 2b - Civilian academic military-technical articulation: Cluster 2b demonstrates clearly the increased articulation on military-technical issues by civilian academics over time [Figure 4.8]. From no sources in 1985, the volume of threat articulation increases very gradually until 1988. In that year there is an enormous surge in articulation. In 1989, there is a precipitous decline again, as the civilian academics turn their attention increasingly to other issues.

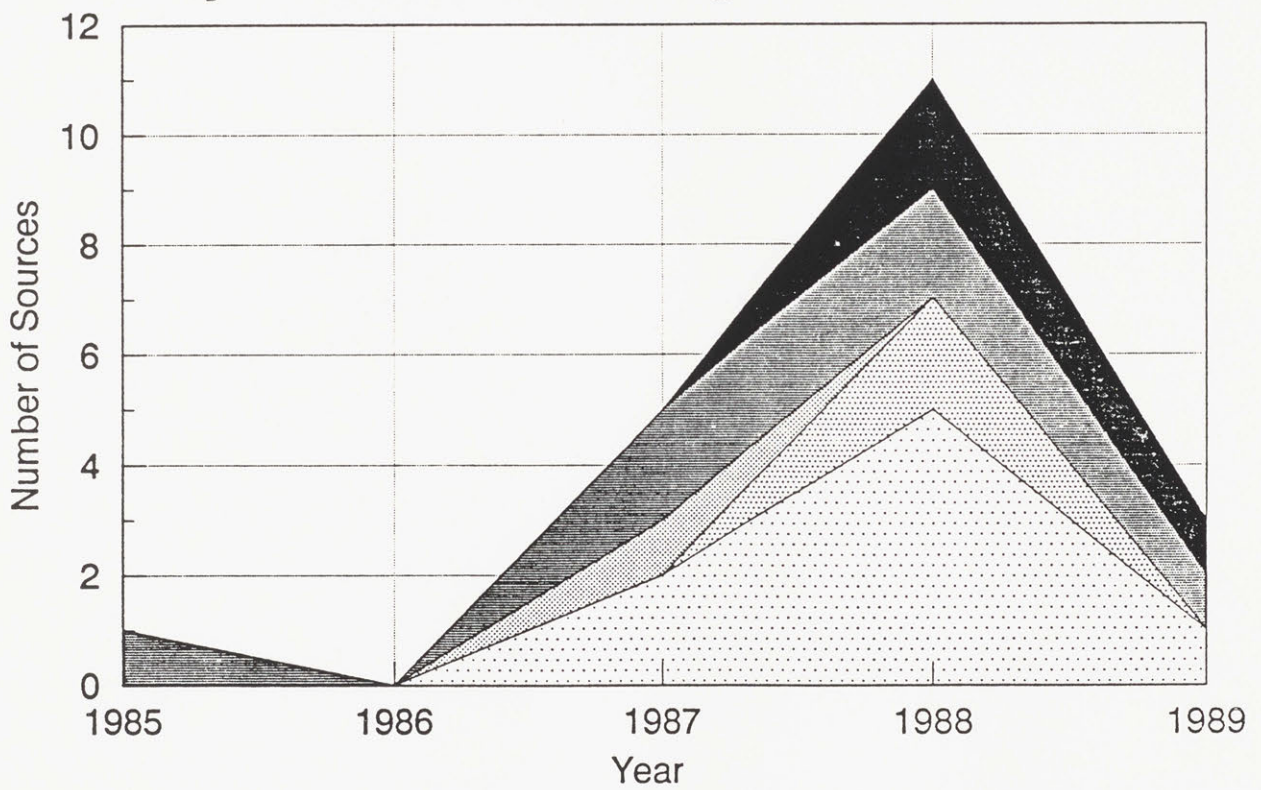
³⁷ This peak is much less pronounced than that exhibited by the other clusters.







Figure 4.8
Cluster 2b Threat Articulation



4.3.4: Cluster 3 - Civilian official external arms control articulation: Cluster 3 [Figure 4.9] likewise shows a large peak in 1988, primarily due to a louder voice from civilian officials toward external audiences, as conventional arms control became a more pressing issue. Arms control sources directed towards general external audiences and NATO/Western Europe show the largest increases over time. A few sources by service-affiliated military officers toward external audiences, and by civilian academics towards internal audiences, add to the 1988 peak. Service-affiliated military threat articulation toward internal audiences is relatively flat and low-level. Civilian officials' threat articulation toward external audiences -- aimed at influencing Western opinion and policy - - accounts for the largest portion in this cluster. As a result, this cluster of threat assessment is largely divorced from the civil-military debates, as is the intra-military threat assessment found in Cluster 2a.

Figure 4.9
Cluster 3 Threat Articulation
By Affiliation and Target Audience

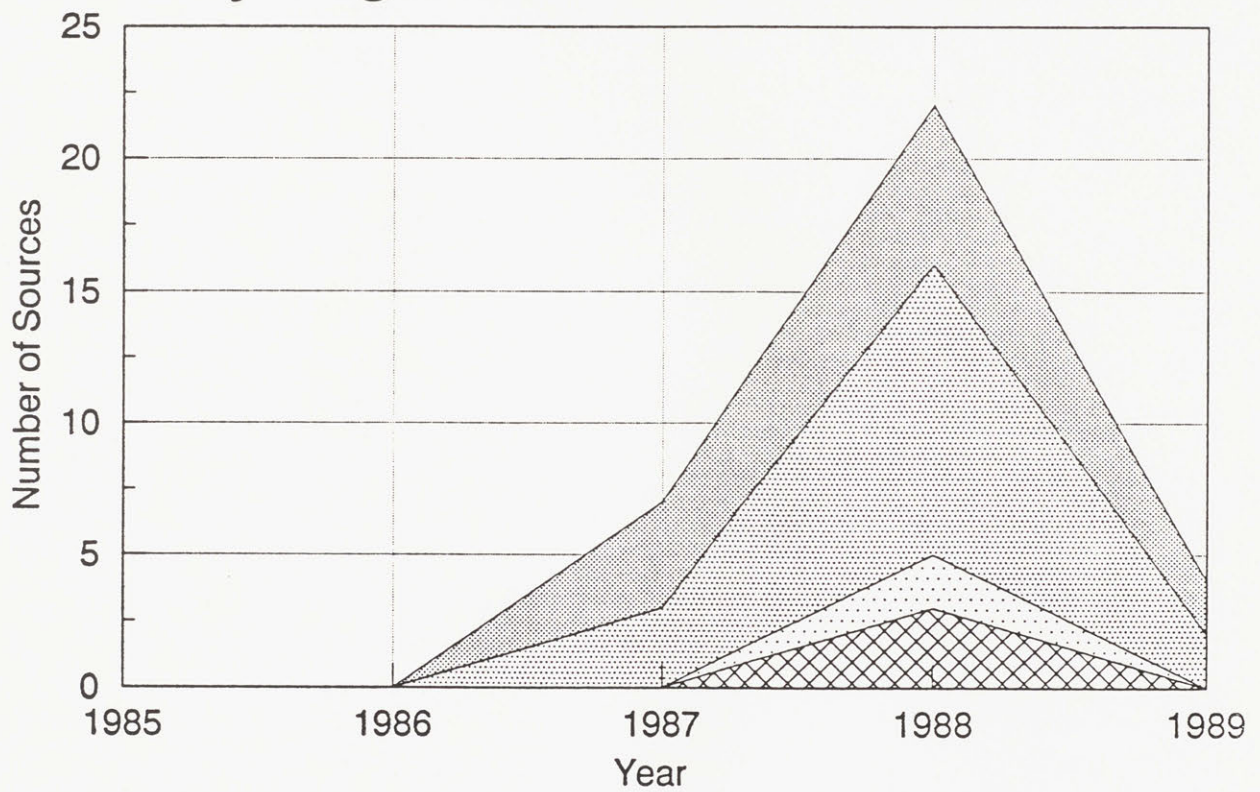






- | | | | | | |
|---|-------------------------------|---|-------------------------------|---|-------------------------------|
|  | Civilian official
Internal |  | Civilian official
External |  | Civilian academic
Internal |
|  | Civilian academic
External |  | Military service
Internal |  | Military service
External |

4.3.5: Cluster 4a - Civilian official internal articulation: In Cluster 4a, comprised of civilian officials, all threat articulation occurs in the period 1987-89 [Figure 4.10]. There is a dramatic surge in threat articulation in this cluster in 1988, with that year accounting for 71% of the total for the entire period.³⁸ The overwhelming majority are in the context of arms control issues (85%) rather than military-technical issues. Overall, a substantial majority of attention is directed toward internal audiences, as opposed to the distribution in Cluster 3.

³⁸ As in the other images, there is an equally dramatic fall off in 1989.

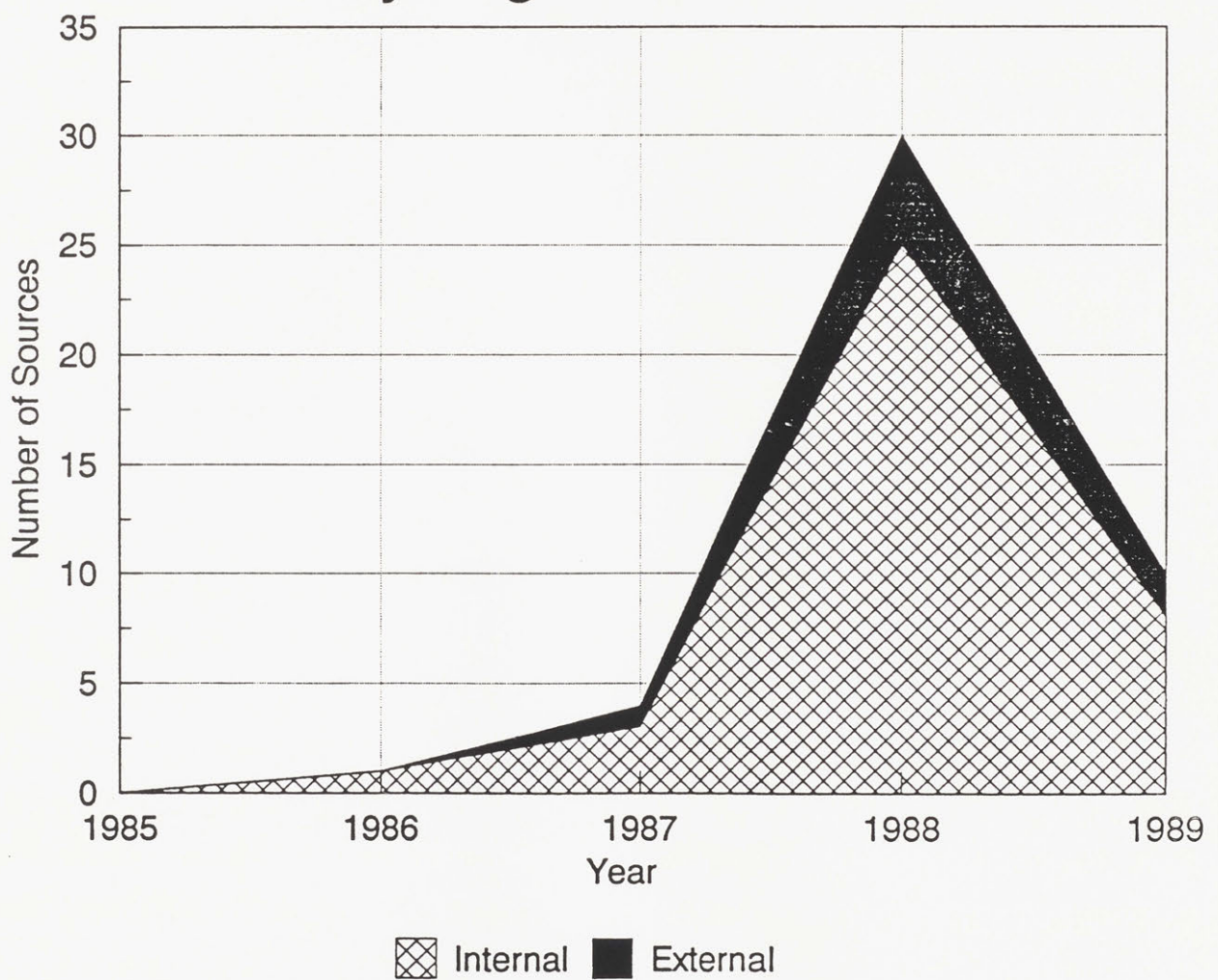
Figure 4.10
Cluster 4a Threat Articulation
By Target Audience and Context



- | | |
|---|---|
|  Military-technical Internal |  Military-technical External |
|  Arms control Internal |  Arms control External |

4.3.6: Cluster 4b - Civilian academic arms control articulation: In the last cluster (4b), comprised of civilian academics, exclusively in an arms control context, 82% of the sources are directed toward internal audiences [Figure 4.11]. Articulation toward both internal and external audiences peak in 1988; however, the surge in internally directed threat articulation is the more marked of the two. Where all six clusters decline from 1988 to 1989, the degree of decline in this cluster is smaller. Where the other civilian clusters decline drastically, ranging from zero to four sources in 1989, Cluster 4b contains ten sources in 1989. In arms control contexts, civilian academics remained engaged in the threat discussion longer than civilian officials.

Figure 4.11
Cluster 4b Threat Articulation
By Target Audience



4.3 Summary

The once monolithic Soviet view of the military threat has fragmented in numerous competing visions. From a single, unified threat assessment in 1985, there has been an accelerating breakup, until it is possible to identify six separate clusters, portraying differing assessments of the threat, in 1989. This fragmentation occurs concurrently with profound changes in Soviet civilian-military relations, reflected in the entry of civilian participants in the debate, and the rapid evolution of the international environment, especially on arms control issues.

For the period as a whole, cluster analysis isolated six clusters of threat assessment profiles, corresponding to six discrete assessments of the military threat facing the USSR. Initially, these six clusters divide neatly in terms of the first independent variable: affiliation. Each of three major groups -- the Soviet military, civilian officials, and civilian academics -- present two threat assessments. Within the military category, the classifications of "center", service, and "defense intellectual" have no major impact on the view of the threat articulated.

For each of the three groups, the pairs of threat assessments are divided cleanly by the other two independent variables, context and target audience. The military articulates one portrait of the threat in a purely military-technical context, almost entirely directed towards intra-military and Ministry of Defense target audiences. The other military assessment is more general, encompassing arms control as well as military-technical contexts, and directed towards generalized internal audiences and external audiences. It appears to serve primarily propaganda and arms control functions.

Civilian officials articulate one threat assessment in an arms control context, intended almost exclusively for external consumption. (This cluster is the least clearly defined of the set.) The other assessment is more oriented towards internal target audiences and encompasses both military-technical and arms control contexts. The major variable affecting officials' threat assessment is target audience.

The major variable affecting civilian academics' threat assessment, by contrast, is context. They articulate one assessment, similar to that articulated internally by the military, in a military-technical context. They articulate a second assessment exclusively in an arms control context. Also in contrast to civilian officials, the dominant target audience

in both of these clusters' assessments is internal. Where officials direct considerable attention externally, academics focus most of their energy towards influencing internal dynamics.

The next six chapters are devoted to analyzing and describing each of the six clusters' assessments of the threat. Each chapter analyzes assessments of the nature of the threat, its scope, and the specific content issues stressed. A narrative account is included, addressing central themes and characteristics of each. Following these six chapters, areas of convergence and divergence among clusters will be isolated to identify "consensus" military and civilian perspectives.

5. CLUSTER 1 - MILITARY THREAT ARTICULATION & ASSESSMENT FOR PROPAGANDA AND ARMS CONTROL

This chapter and the five immediately following examine the six clustered threat assessments articulated in the Soviet debate. Analysis focuses on each cluster's assessments of the nature, scope, and content of the threat. Following a brief overview, analysis moves to quantitative measurement of the degree of attention accorded each variables and its constituent factors, stressing evolution over time. The quantitative portion is constructed around a constrained factor analysis and a series of regression analyses. Results are presented in graphic form. Following presentation of the quantitative characteristics and trends, attention shifts to a qualitative narrative of the assessment and its evolution in the five years of Gorbachev's rule. This section highlights dominant themes and characteristics of the threat portrayed in each cluster, especially as they relate to the evolving civil-military debate. Finally, the chapters place each threat assessment in the context of this debate in terms of the agendas and interests pursued.

5.1 Threat Assessment in Cluster 1: A Thumbnail Sketch

Threat assessment in Cluster 1 is articulated exclusively by high-level military officers. It is perhaps best characterized by what it does **not** include -- it does not include intra-military, military-technical threat assessment. In other words, this cluster's assessment is directed rather indiscriminately towards general and official Soviet audiences and towards all external target audiences. It includes arguments in the context of arms control as well as in military-technical contexts. The Soviet military articulates it to serve dual roles, in

arms control debates and in propaganda functions. While some of the sources are directed externally, the majority of Cluster 1 threat articulation revolves around internal Soviet debates. The assessment presented has a very instrumental nature and purpose. Arguments and threats emphasized change drastically over time, in response to civilian attacks, changes in public mood and opinion, and changes in the East-West arms control agenda. The most direct response is to civilian attacks and criticism.

The instrumental propaganda and arms control nature of this assessment is highlighted by the themes and characteristics that dominate. The assessment is articulated in ominous, visceral terms, calculated to appeal to nationalism, patriotism, and a "fortress mentality" in the USSR. Towards both internal and external audiences, facts and figures are manipulated to inflate the enemy's capabilities and intentions. The aims are to bolster the status and influence of the Soviet military as the protector of the *Rodina*, and to hold the line against any large-scale Soviet force reductions or restructuring.

By 1988, the threat assessment presented by analysts in Cluster 1 viewed conventional war as more likely and threatening than nuclear war. However, this was not the case early in the period. From 1985 through 1987, the assessment overwhelmingly stressed nuclear war. The mode of war initiation is overwhelmingly presented as an intentional surprise attack (by the US and NATO, of course). The possibility of inadvertent war initiation (or escalation) is discounted heavily.³⁹ Corresponding to the increasing stress on conventional war, specific scenarios are weighted on the side of a conventional deep-strike attack, emphasizing the strategy and weapons programs associated with FOFA and

³⁹ Inadvertent war is occasionally mentioned, usually to support an argument in the context of nuclear arms control. This will be addressed in detail below.

AirLand battle. The possibility of NATO and US attempts to prosecute limited nuclear war is not a major threatening factor.

The perceived scope of the threat over the entire period is weighted towards global contingencies; however, there was significant change by the end of the period. By 1989, the single-theater contingency was the most strongly emphasized, followed by multi-theater and then global contingencies. This tracks with the changing balance between perceptions of nuclear vs. conventional threats. Global conventional war is not emphasized. Instead, the perception of a global threat declines with the perception of the nuclear threat. Local war contingencies are not stressed very strongly.⁴⁰

The factors making up threat content change radically over time, mainly from stress of concrete, current threats that go "bang" towards more abstract issues that figure prominently in civilian criticisms. Attention to the threat from specific weapons programs declines spectacularly, and the threat of deployments of forces and systems is also increasingly muted. In contrast to these reductions, there are significant increases in the degree of attention paid to both force structures and military doctrine and art. These increases parallel attention and criticism from civilian analysts in the latter part of the period -- a direct response to civilian and arms control pressures.⁴¹

⁴⁰ Remember that this assessment partially serves internal propaganda purposes. In this context, it is possible that the Soviet military recognizes a "no more Afghanistans" syndrome in public opinion. If this is the case, emphasis on local war threat contingencies would be counterproductive from a propaganda standpoint, even if the military viewed these contingencies as threatening in their internal threat assessment. This issue is addressed in Chapter 6.

⁴¹ Civilian assessments are addressed in detail in Chapters 7 through 10.

Command and control issues are not a high priority in this assessment, for two reasons. First, they are too esoteric for the general audiences to which many of these sources are targeted. Second, C³ issues raise uncomfortable questions about East-West military stability, especially since civilians raise the specter of command and control failure as increasing the probability of inadvertent (especially nuclear) war. Attention to generic technologies as a source of the threat remains relatively stable, near the middle of the pack. Combat readiness and training, while increasing somewhat, remains a low-level issue. Sustainability issues do not contribute significantly to the assessment of the threat.

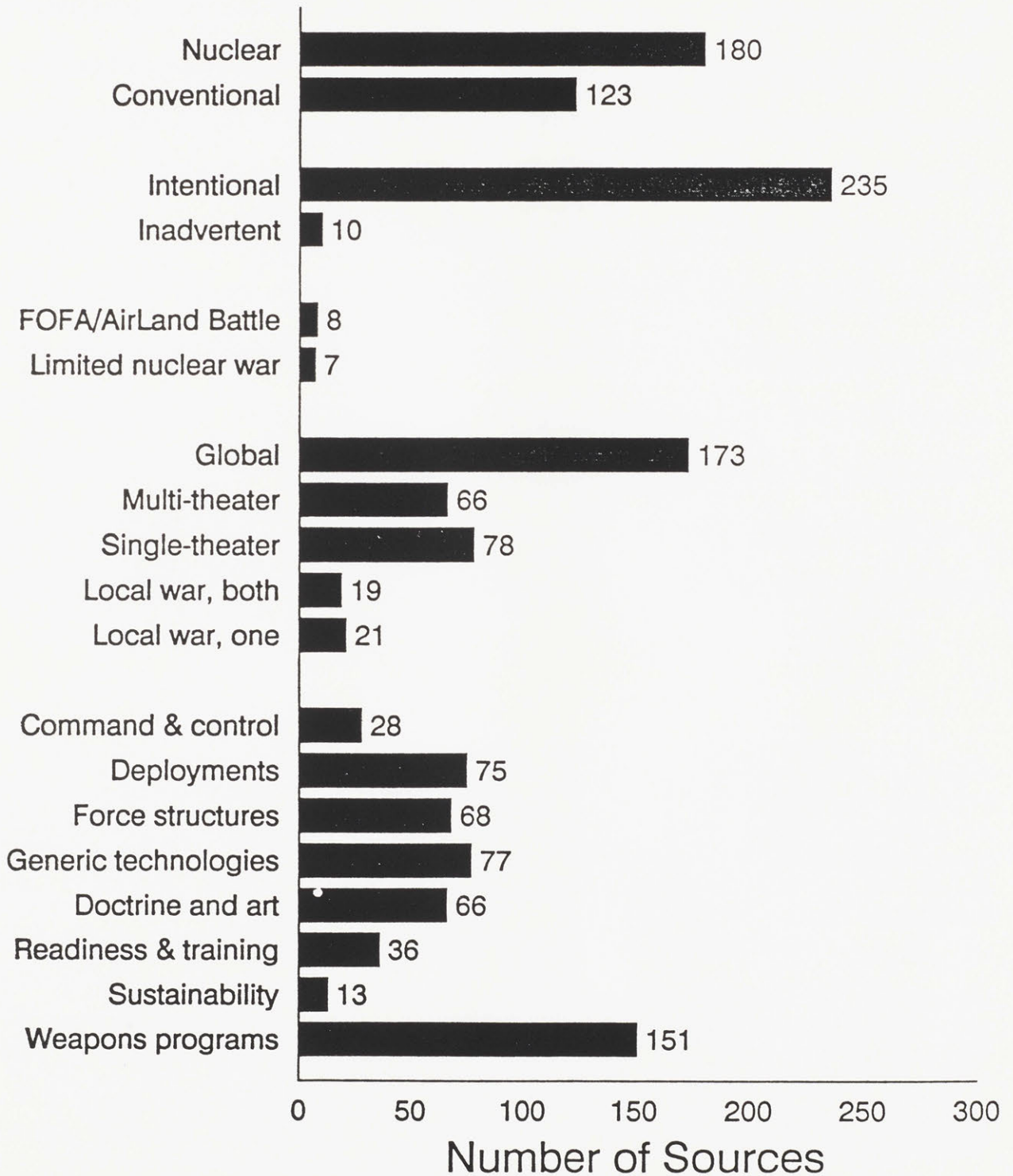
Summarizing, the assessment of the threat articulated in Cluster 1 in 1985 focused overwhelmingly on a NATO/US nuclear surprise attack at the global level.⁴² This threat was presented primarily in terms of concrete weapons systems and deployments. By 1989 the assessment had changed dramatically. The dominant threat was presented as a conventional (still surprise) attack from the West, at the European single-theater level. The FOFA/AirLand battle scenario was strenuously hyped to refute civilian arguments for "defensive" defense and to support the military's idea of what is "reasonably sufficient". From the concrete aspects stressed in 1985, the focus had changed to more abstract issues of force structures and military doctrine and art. Not coincidentally, these are the very issues civilians have seized on in their threat assessments and criticism of the military.

⁴² Specific scenarios, either conventional or nuclear, were not stressed, since they did not fit into the very general (but ominous) picture presented. Propaganda was the main function, and apparently was not seen as requiring nuanced or detailed arguments.

With this summary in mind, attention now turns to a more detailed examination of the assessment presented in Cluster 1.⁴³

⁴³ Figure 5.1 presents a summary of the cluster, constructed by summarizing each of the profiles comprising Cluster 1. The shaded area on the graph -- scaled on the right-hand y-axis -- denotes the relative standardized rank of each factor, within variables (i.e., each threat nature dichotomy is ranked 1 or 2 internally, scope contingencies are ranked 1-5, and content factors are ranked 1-8). The highest rankings in each case indicate the greater degree of emphasis. The line (scaled on the left-hand y-axis) indicates the raw data: the number of sources stressing a given variable, contingency, or factor. Each of the six assessments are graphed in an identical manner in subsequent chapters.

Figure 5.1
Threat Assessment in Cluster 1
1985-1989, Cumulative



5.2 The Structure of Cluster 1 Threat Assessment⁴⁴

In Cluster 1, there are several groups of threat factors and contingencies that are closely inter-associated. These groups of factors comprise the structure of the threat assessment portrayed in Cluster 1.

First, sources stressing a nuclear threat tend to emphasize global scope contingencies. Intentional war initiation is also closely associated with these variables. Of the eight threat content factors, weapons programs and deployments are frequently stressed along with these three variables. In the first two years of Gorbachev's rule, this nexus of threat factors constituted about three-fourths of the total in Cluster 1. By the last two years, in contrast, the share of threat articulation bound up in this group of factors had declined by almost half.⁴⁵

Second, those sources stressing conventional threats are focused at the single-theater scope contingency, and the threat content factor most closely associated are force structures.⁴⁶ Third, multi-theater contingencies tend to be closely associated with both of

⁴⁴ This section is based on an abbreviated factor analysis. Usually, factor analysis is not performed on dichotomous variables; however, provided the aims of the technique are limited, this is a statistically valid usage. Specifically, factor analysis performed on dichotomous variables can be used simply to uncover the structure of relationships among them. That is the explicit purpose here -- to determine which variables are closely associated in the cluster's assessment. This establishes the structure of threat assessment in each cluster. See Appendix A for further description of the technique.

⁴⁵ To about 38%. This value is computed purely for comparison with the other groups of factors, by comparing the share of total threat articulation of the factors included in this nexus, compared to those in other groups of factors.

⁴⁶ In the first two years, this nexus accounted for about 10% of threat assessment in Cluster 1. Attention increased rapidly -- in the last two years, about one-third of Cluster 1 was bound up in this group of variables.

the local war contingencies.⁴⁷ This is suggestive of something of a one-and-a-half war contingency. Fourth, and paralleling the focus of civilian commentators, military analysts in Cluster 1 tend to stress inadvertent war initiation together with command and control issues.⁴⁸ Fifth, limited nuclear war is closely associated with military doctrine and art, primarily in terms of NATO's refusal to adhere to a nuclear no-first-use pledge.⁴⁹ Finally, the FOFA/AirLand battle scenario tends to be associated with emphasis of generic technologies and combat readiness and training.^{50, 51} Obviously, this nexus of factors is focused on the conventional side of the nuclear-conventional distinction.

In sum, the structure of threat assessment in Cluster 1 changed drastically over time. The changes in structure, of course, parallel those highlighted in analyses of the variables and factors separately. The general trend is from an emphasis of a global nuclear surprise attack stressing current weapons programs and deployments, to a conventional war threat at a single-theater level, stressing force structures in a rather abstract way. If the group of generic technologies and combat readiness and training associated with the FOFA/AirLand

⁴⁷ Attention to this group of contingencies is relatively flat at about 7% of the assessment overall.

⁴⁸ The association is relatively strong, but the level of attention is consistently low, at less than 3% of the assessment. This association is not found in Cluster 2a, the other military cluster.

⁴⁹ From about 3% in the first two years, this nexus accounts for about 7% in the last two years.

⁵⁰ Attention to this nexus increases somewhat over the period, from about 6% in the first two years to 11% in the last two. Attention to this nexus in Cluster 1 is substantially lower to a similar group of factors in Cluster 2a (intra-military threat assessment).

⁵¹ Sustainability is a "stand alone" variable, in that it tends to be the primary or sole focus of the sources in which it is stressed.

battle scenario is added, the conventional side of the equation is clearly dominant by the end of the 1980's.

5.3 Quantitative Trend Analysis

5.3.1 Threat nature⁵²

5.3.1a Nuclear vs. conventional: Initially, threat assessment in Cluster 1 was heavily weighted on the side of a nuclear threat. 80% of the sources stressed this over a conventional threat (27% stressed the latter). Over the five-year period, though, there was a steep decline in the level of attention to nuclear threats, and a corresponding increase in the level of attention to the threat of conventional war.⁵³ By 1989, the relationship was almost completely reversed, with only 8% stressing a nuclear threat and 58% stressing a conventional threat [Figure 5.2]. This is an extremely significant change over time. It is partly attributable to increasing emphasis on conventional forces outside the context of threat assessment *per se*, both internally as a potential source of resource reallocation, and in arms control negotiations.⁵⁴

⁵² See Figure 5.2.

⁵³ Over the entire period, attention to nuclear threat declined at a rate of 19% per year, while attention to conventional threats increased at a rate of 8% per year.

⁵⁴ While the increasing attention to conventional threats in this military threat assessment is heavily motivated by arms control and resource allocation considerations, it also appears to reflect a real change in overall priorities. Increasing attention to conventional threats and force issues is reflected in the other military and civilian images as well.

5.3.1b Intentional vs. inadvertent war initiation: As one would expect, these military sources consistently place the military threat in terms of an intentional -- usually a surprise - - attack by the United States and NATO. While there is a decline over time in the relative stress on intentional war in these sources, it is not matched by a corresponding rise in the stress in inadvertent war.⁵⁵ The sources are simply becoming less specific. This appears to be more the result of a toning down of rhetoric in response to Gorbachev's foreign policy than of any real change in military perceptions.

5.3.1c Specific scenarios -- FOFA/AirLand battle vs. limited nuclear war: Specific scenarios are not stressed as frequently as are the other two categories. However, the conventional deep strike scenario is stressed much more than a limited nuclear war scenario. Where the limited nuclear scenario is relatively flat at a very low level throughout the period, conventional deep strike scenarios increase in stress rapidly, with a surge in 1989, when 20% of the sources stress the FOFA/AirLand battle scenario.⁵⁶

⁵⁵ Intentional war emphasis declines at a rate of about 8% per year; attention to the possibility of inadvertent war is flat, averaging only about 3% of the sources overall.

⁵⁶ Limited nuclear war increases only at a rate of 0.32% per year -- essentially no change. FOFA/AirLand battle scenarios increase at a rate of 3.88% per year, twelve times as fast.

Figure 5.2
 Cluster 1: Threat Nature Variables, 1985-1989
 Percent of Annual Cluster Total

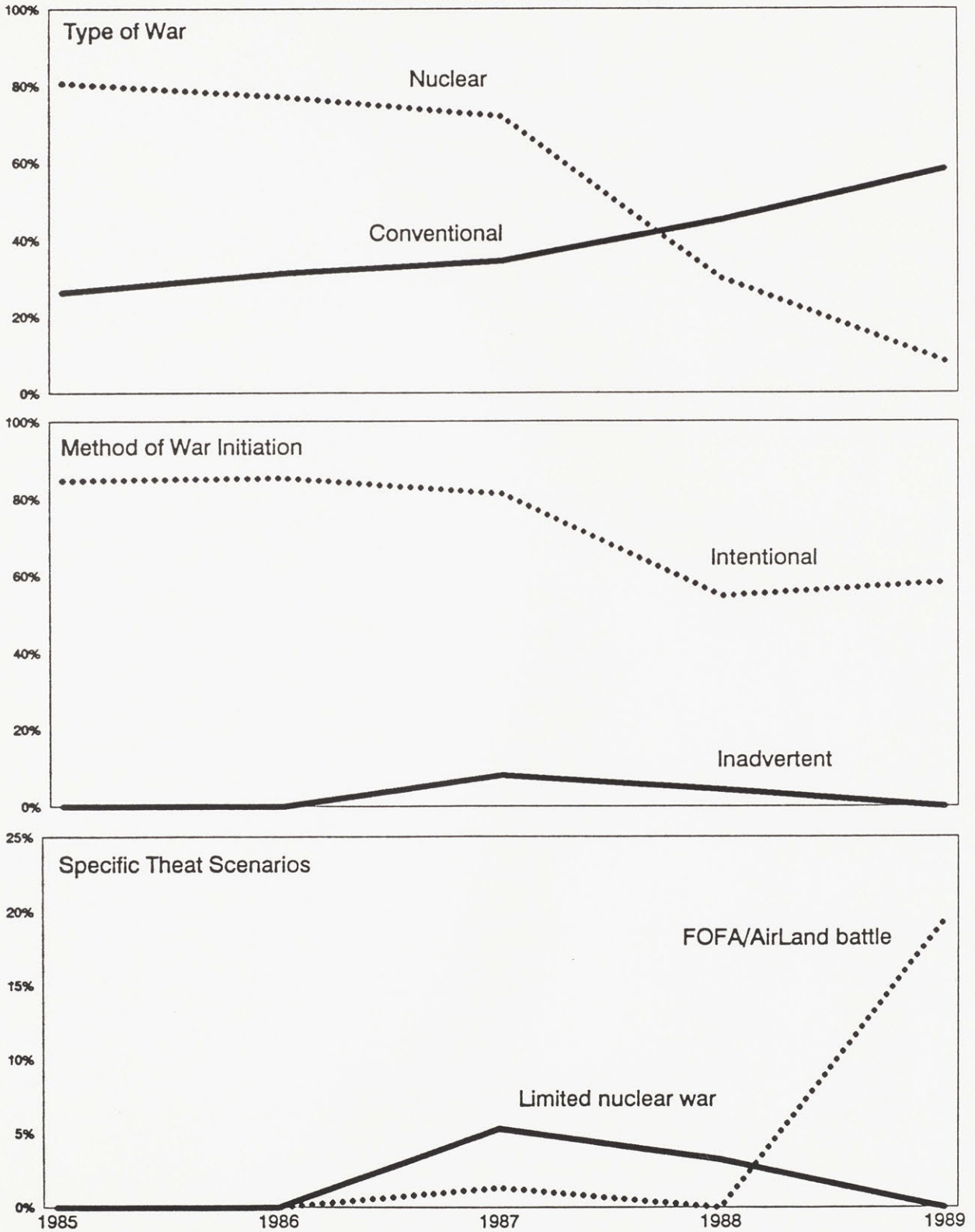
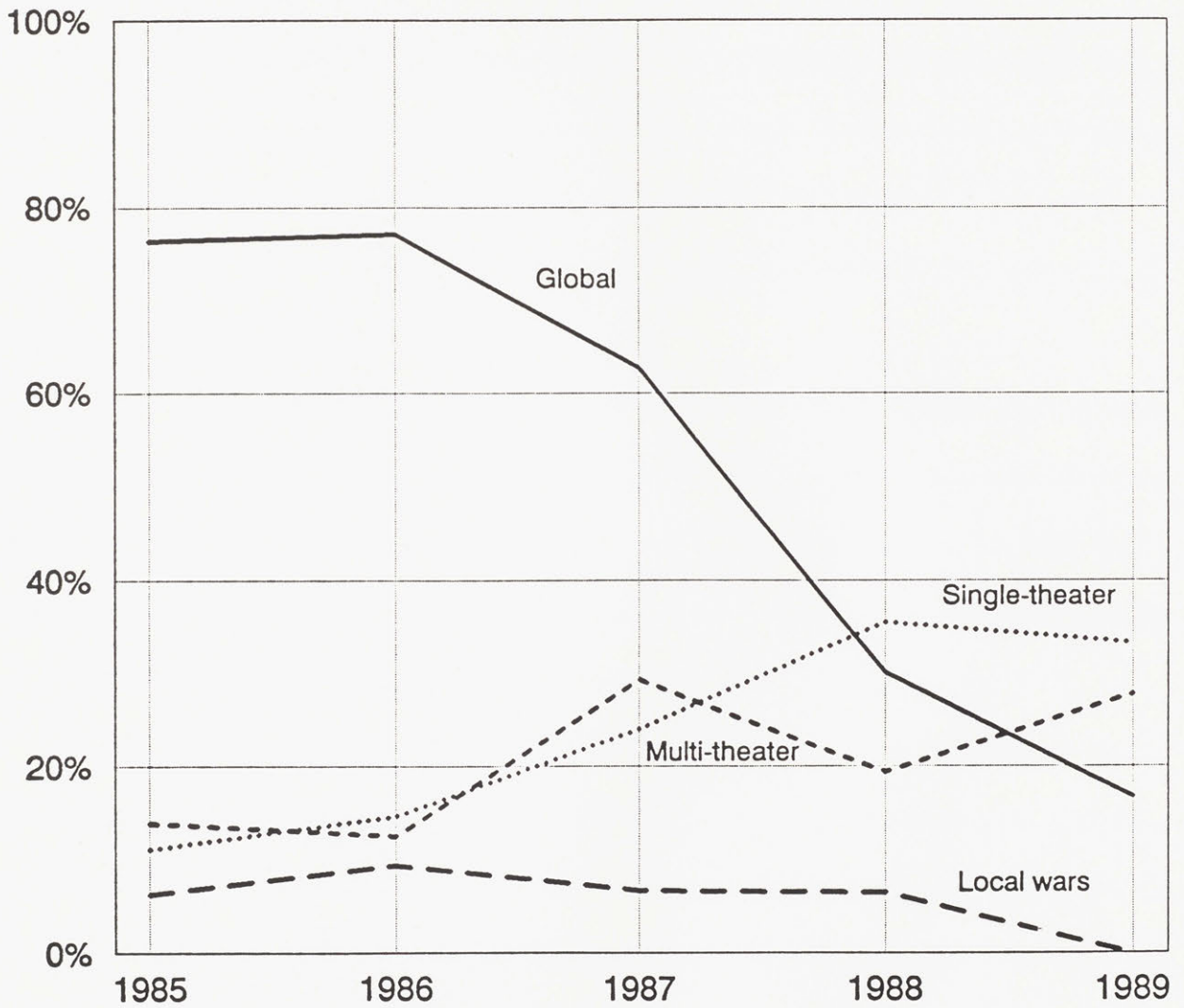


Figure 5.3
Cluster 1: Threat Scope Contingencies
Percent of Annual Cluster Total



The two local war contingencies are collapsed

5.3.2 Threat scope

Initially, and corresponding to the early stress on nuclear threats, the overwhelming majority (77%) of sources in Cluster 1 focused on threats on a global scale. Paralleling the shift away from a nuclear stress, there is a drastic decline in the level of attention given to global threats, falling from more than three-quarters in 1985 and 1986 to only 17% by 1989 [Figure 5.3].

Both of the two local war contingencies (those involving both US and Soviet forces, and those involving the forces of only one superpower), started at a low level and declined over the period. Only about 6% of sources in this assessment address the threat of regional conflict. Of the two contingencies, local wars involving one but not both superpowers are stressed marginally more for the period as a whole.

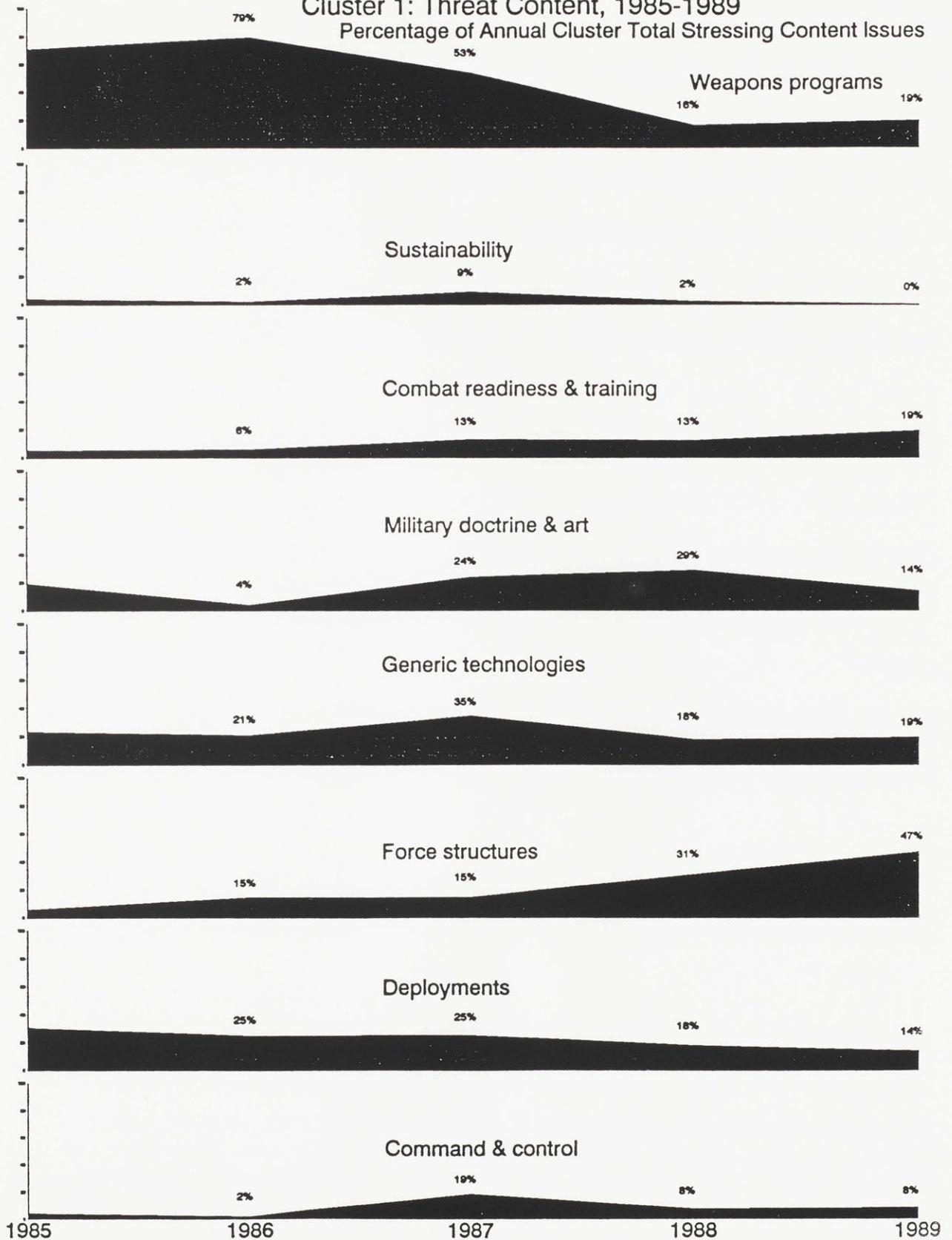
In contrast, attention to both multi-theater and single-theater threat contingencies increased over the period. While both were increasing, though, the single-theater stress increased almost twice as rapidly as did multi-theater.⁵⁷ As a result, where in 1985 multi-theater conflicts ranked above single-theater, by 1989 the order had been reversed, and the single-theater contingency was stressed highest overall.

Overall, the period 1985-89 saw a radical change in the scope of the threat stressed in this military threat assessment. In 1985, the rank order corresponded exactly to the scope of the conflict -- global contingencies received the most attention, followed by multi-theater and single-theater, then local wars involving both sides and finally those involving only one. By 1989, the single-theater contingency was ranked first, followed by multi-

⁵⁷ Emphasis of multi-theater contingencies increased at a rate of just over 3% per year, while attention to single-theater contingencies rose by 6.5% per year.

theater, global, and finally the two local war contingencies. This change conforms with the change in relative stress given to nuclear vs. conventional threats and forces, noted above.

Figure 5.4
 Cluster 1: Threat Content, 1985-1989
 Percentage of Annual Cluster Total Stressing Content Issues



5.3.3 Threat content

5.3.3a Command and control: For sources in this cluster, command and control issues are not a large priority in threat assessment. Indeed, these issues receive less attention in Cluster 1 than in any other.⁵⁸ In terms of attention relative to the other threat content variables, command and control for the entire period ranks seventh (second from the bottom), just above sustainability. There is a slight increase in attention over the period [Figure 5.4].⁵⁹

5.3.3b Deployments: There is a substantial decline in the stress placed on force deployments over the period, from approximately 30% in 1985 to only 14% in 1989.⁶⁰ Where force deployments ranked second in 1985, by 1989 they had dropped to sixth, just above command and control and sustainability. However, this cluster is one of only two that discuss force deployments at all -- the other being Cluster 2a, the other purely military cluster. Civilian threat assessment clusters do not give any attention to these issues.

5.3.3c Force structures: Discussion of force structures as a threat factor increased significantly over the period.⁶¹ Where in 1985 there was almost no attention to this category, by 1989 nearly half of the sources stress these issues. By 1989, force structures

⁵⁸ With the exception of Cluster 3, where command and control issues are not mentioned at all.

⁵⁹ Rising at only about 1.5% per year.

⁶⁰ This decline was at a rate of 4% per year -- the sharpest decline in content factors except for attention to weapons programs.

⁶¹ The rate of increase over time, about 10% per year, in this category of threat content is the highest of any of the eight threat content categories. Further more, the rate of increase in emphasis of force structures in Cluster 1 is higher than that for any of the other five clusters.

were stressed more than any other issue.⁶² The increasing attention to force structures in this cluster is due to two factors. First, this category is one that civilian commentators seized on early in the period in their quest to influence Soviet military policy, especially in the arms control arena. Second, conventional arms control became a more pressing topic in itself, as negotiations on conventional force reductions in Europe heated up, and the Soviet political leadership took significant unilateral actions in this sphere. The increasing military attention to force structures, represented in Cluster 1, is a reaction to both changes in the arms control sphere and to incursions by civilian officials and academics into what was once the private domain of the uniformed military.

5.3.3d Generic technologies: Attention to generic technologies with military applications was emphasized highly throughout the period, ranking either second or third throughout.⁶³ While there was a slight decline in relative attention over time, this did not significantly affect the overall stress. The distribution of emphasis over time is relatively flat, with a small peak in 1987.

5.3.3e Military doctrine and art: Attention to military doctrine and art is the most volatile over time. Overall, there is a slight increase in attention over the period.⁶⁴ However, considering the trend lines for all eight content variables over time, attention to military doctrine and art ends up tied for second position, ranked just below force structures as a source of military threat. This is due to unusually high attention to these issues in 1987

⁶² This is in stark contrast to the attention to force structures by sources in Cluster 2a, where there was an overall decline from an already low level of attention.

⁶³ The degree of attention to generic technologies is even higher in the intra-military threat assessment articulated in Cluster 2a.

⁶⁴ Slope = 1.38.

and 1988. It is no coincidence that these two years are also those in which civilian analysts devote considerable attention to issues of military doctrine and art. As in the case of force structures, the high attention later in the period appears to be largely due to military reaction to civilian discussion of military topics, as well as increased attention to (especially conventional) arms control.

5.3.3f Combat readiness and training: This issue is discussed and stressed almost exclusively by military analysts.⁶⁵ Sources in Cluster 1 stress readiness and training roughly half as much as do those in Cluster 2a. However, there was a significant increase in attention to these issues over the period in Cluster 1. From only about 6% in 1985, the degree of attention rises to almost 20% by 1989.⁶⁶ This appears to be due less to any increased readiness or training on the part of Soviet adversaries, than to an increased perception of the inadequacies of their own training and readiness. However, there was increasing threat articulation devoted to NATO exercises, especially the Autumn Forge series.

5.3.3g Sustainability: Issues of sustainability (primarily availability of reserves, military-industrial capacity, and issues such as civil defense) are the least stressed of the eight categories throughout the period. Also, like the issue of combat readiness and training, sustainability is not mentioned at all by civilian analysts. For Cluster 1, attention to sustainability issues began in 1985 at a low level (only about 4% of sources stressing this category), and then generally declined from there, though with a small peak in 1987. The

⁶⁵ Civilian sources account for only 6% of the references to combat readiness and training.

⁶⁶ The rise was relatively smooth, with no noticeable peaks or valleys. The annual rate of increase (slope) was equal to 3.42.

most likely explanation for the low level of attention in this cluster is that sustainability issues are not well suited to influence general target audiences in a propaganda sense.

5.3.3h Weapons programs: For the first two years, weapons programs were overwhelmingly dominant as a factor in the threat content. In 1985, sources in the cluster stressed specific weapons programs more highly than any other category (71% of the sources). This increased somewhat in 1986 -- thereafter there was a spectacular decline in attention. From four-fifths stressing this category in 1986, the proportion fell to less than one-fifth by 1988 and 1989. This was not due to any real change in the status of US or NATO weapons programs.⁶⁷ Rather, it appears that the military had come to see that these issues had ceased to "sell" well in a propaganda sense.

An additional factor in this decline is a change in Soviet military discussions of the Strategic Defense Initiative (SDI). Early in the period, SDI was discussed as a threatening weapons program which was likely to eventually come to fruition. In the second half of the period, though, the tenor of Soviet discussion changed. SDI came to be seen more as a collection of generic technologies under a common umbrella, more threatening as a source of spinoffs in other military arenas than as a deployable weapons system. Despite the spectacular decline in attention by Cluster 1, attention to specific weapons programs throughout the period is higher in this cluster than in any other, either due to similar declines in attention by other groups, or because they did not stress this category at all.

5.4 Themes in Threat Articulation

⁶⁷ Though there were small real declines in US and NATO defense spending, and some programs were either stretched out or canceled altogether, there was no radical shift in Western programs through the period.

Several broad themes run through Cluster 1, reflecting the primary functions of propaganda and arms control influence. First, military commanders portray the threat facing the Soviet Union in the most visceral terms. A picture is painted of a malign imperialist bloc intent on achieving military superiority, with a far-flung network of forward military bases, encircling the *Rodina* like the tentacles of an octopus. These militarist imperialist forces are poised at any moment to launch a surprise attack (raising the specter of June 22, 1941), leading to thermonuclear incineration.

Some parts of this picture became less prevalent over time. As noted, the emphasis of nuclear threats declined over time, to be replaced with the threat of a conventional offensive against the USSR. In rhetorical terms, the language of surprise attack was downplayed somewhat over time. However, the other elements of the ominous characterization of the threat remained in place, even after several years of *glasnost*' and *novoye myshleniye*.

This characterization of the threat includes some sub-themes. The *Rodina* is a constant theme, evoking Soviet (or Russian) patriotism, and simultaneously calling to mind memories of June 22, 1941 and Operation Barbarossa. One particularly vociferous rendition of this theme explicitly compares United States pursuit of its "vital interests" to Nazi pursuit of *lebensraum*.⁶⁸ Similarly, when talking to a Warsaw Pact audience, the image of socialist unity and internationalism is frequently evoked, and the militarist "revanchism" of the FRG is often introduced in ominous tones. Japanese "militarism" is sometimes thrown in for good measure, thereby completing the WWII Axis major players.

⁶⁸ "Living space", pursued at Eastern European and Soviet expense. Akhromeyev (1985b).

A second sub-theme concerns the fundamental nature of "imperialism" in classic Marxist-Leninist terms. This theme is caught up in attempts to portray the West as inherently embodying aggressive *intentions*. This military cluster abounds with references to militaristic tendencies and the role of capital and the military-industrial complex with a vested interest in causing instability and war.⁶⁹ These are stated to be the fundamental factors underlying the arms race. The arms race itself is presented first in terms of a US and NATO pursuit of military superiority, primarily at the strategic nuclear level, and later as part of a general strategy of embroiling the Soviet Union in military-economic competition leading to economic exhaustion.⁷⁰

Another common theme dealing with Western intentions is the tendency to infer Western intentions from capabilities -- future, inflated capabilities at that. The outstanding example here is attention to SDI. SDI is almost invariably coupled to strategic nuclear weapons programs, with the clear and usually explicit implication that the US is trying to develop a first strike capability, together with the defenses to make it immune to

⁶⁹ Chervov (1988e). While it is in Cluster 2a, Serebryannikov (1985) is a classic in this genre.

⁷⁰ Akhromeyev (1985b), Kulikov (1985c, 1987a, & 1988b). As can be seen, this is a common theme for Marshal Kulikov (not the "newest thinker" in the military). Two sources are outstanding for their rhetoric. Lushev (1987b) describes a "maniacal passion" among US elites to achieve strategic superiority "at any price". He further states that "A frenzied arms race and the acceleration of militarist preparations are the cornerstones of US strategy." Minister of Defense D. Yazov (1988g), in a Victory Day article, takes an extremely hard line, stressing the "militarism" of "influential reactionary circles" in the West. "Their ideology and policy and their activity are characterized by bellicosity and even adventurism, and are the source of the military threat spearheaded against the USSR and its allies." Yazov has been cited by some Western analysts as firmly committed to Gorbachev's new thinking. See Jack Snyder, "The Gorbachev Revolution: A Waning of Soviet Expansionism?" *International Security*, Vol. 12, No. 3 (Winter 1987/88), pp. 93-131.

retaliation.⁷¹ The most specific allegation of this type ties development and eventual deployment of SDI to development of third-generation nuclear warheads, specifically enhanced-EMP (electromagnetic pulse) warheads. The two of these together are said to yield the capability of a decapitating first strike against Soviet C³, while the US remains invulnerable to retaliation. The two developments in conjunction are explicitly taken to be evidence of malign, aggressive *intentions*, and not simply future, potential capability.⁷²

This leads directly to another common characteristic. The military has a tendency to manipulate or selectively present the facts in order to draw a very threatening picture. In terms of propaganda, Soviet military threat articulation adheres to the idea that the best propaganda contains at least a kernel of truth. Given either a Marxist-Leninist perspective or a shortage of information to refute the portrait given in this military threat articulation, and the facts and figures supporting it, all of these themes are at least plausible. Perhaps the best example of this tendency is discussion of the US re-deployment of aircraft (F-16's) from Spain to Italy in early 1988. This movement is placed in a nefarious context by chief of the General Staff Akhromeyev by stating that the goal was to move them 1000 km further east, closer to the USSR.⁷³ Akhromeyev fails to mention that the reason the aircraft were re-deployed was that the US basing agreement with Spain was not renewed. Another variant of this manipulative tendency is presentation of virtually all US postwar military

⁷¹ Sokolov (1985a), Maksimov (1985 a & 1985b), Chervov (1986b).

⁷² Chervov (1985c), Akhromeyev (1986b), Shabanov (1986c), Surikov (1987), Koldunov (1987b), and Chervov (1988e).

⁷³ Akhromeyev (1988c & 1989b). See also Pustov (1988).

developments, with no mention of Soviet actions.⁷⁴ This, of course, makes it appear that the USSR was completely passive and shifts all blame for current confrontation onto the West. A final variant is manipulating the timing of events, especially of deployments. For example, Soviet SS-20 deployment was stated to have been a "response" to NATO deployment of Pershing-2's and GLCM's. Similarly, the Soviet armor buildup through the 1970's is stated to have been a forced response to counter-balance NATO tactical nuclear forces.⁷⁵ In each of these cases, the timing of the deployments in question are reversed.

Finally, and primarily in the arms control arena, these sources display a tendency to compare Soviet-WTO forces to US-NATO forces, while manipulating or selectively portraying the balance to their own advantage. This has the purpose of heightening the military threat, thereby reducing the need for substantial movement in arms control on the Soviet side. The best example of this is the "data issue" in conventional force reduction negotiations. Early in the period, the issues revolved around what should be counted and in what categories, the Soviet data showing NATO to be threatening, and vice versa.⁷⁶ Later, as some agreement was reached on the data, the issue shifted, as Soviet officers compared, for example, the Soviet advantage in ground (armor) forces to NATO superiority in naval forces, or air forces (though some data manipulation was required to give NATO an overall advantage in air forces).⁷⁷ More narrowly, faced with US allegations that the Krasnoyarsk radar was a violation of the ABM Treaty, besides sheer denial, some Soviet

⁷⁴ Lebedev (1985) is a representative example.

⁷⁵ Lobov (1988e).

⁷⁶ Chervov (1987i), Akhromeyev (1988c), Lobov (1988f).

⁷⁷ Akhromeyev (1988c, 1988f & 1988g), Tatarnikov (1988), Yazov (1989c).

military officers responded by pointing out the "threat" posed by a US radar under construction in Thule, Greenland, which they alleged was in violation of the Treaty.

These themes clearly demonstrate the functions served by threat articulation in Cluster 1. All the common threads running through these sources concern either propaganda, arms control, or both. It is interesting that the threat portrayal used by the military for these two functions is substantially the same, while threat assessment for internal military consumption is very different.

5.5 Characteristics of Threat Articulation and Assessment

This section presents the threat articulation discussion over time, focusing on the groups of factors and contingencies described above. The first deals with nuclear threats and related variables.

5.5.1 Nuclear threats: As stated, nuclear threats are associated in the cluster with global conflict, intentional war initiation, and with weapons programs and deployments. In the early part of the period, this nexus accounted for the majority of threat articulation. Virtually every nuclear weapons program or deployment by the US and NATO received attention, usually rather indiscriminately. The most common combination is strategic nuclear force developments together with SDI.⁷⁸ ICBM's (Minuteman III, Midgetman, MX), SLBM's (Trident-2), and bombers (B-1B, B-2) are generally all mentioned together,

⁷⁸ For example, Sokolov (1985b), Lebedev (1985), Kurkotkin (1986b), Akhromeyev (1985g), Yefimov (1985a & 1985b), Kulikov (1985f), Maksimov (1985b).

with no apparent weight. Advances in accuracy are cited as the most dangerous development for ICBM's.⁷⁹ The most detailed presentation of the developments in the strategic nuclear threat came from MSU V. Petrov, in the context of US "anti-ABM" programs.⁸⁰ Petrov stressed development of high-speed extremely-low altitude cruise missiles, and depressed trajectory and reduced boost-phase profiles for ballistic missiles. The proliferation of dummy warheads and development of maneuvering reentry vehicles (MARV's) were also included in Petrov's presentation of a unified US strategic modernization program. Petrov contrasted the offensive, aggressive thrust of these programs with the stated defensive purpose of SDI -- his contribution to the aggressive and perfidious portrait painted of imperialism.

In late 1986, Army General Maksimov (CinC of the Strategic Rocket Forces) stressed deployment of the 131st B-52 armed with ALCM's. Besides the military-technical threat represented by ALCM's, Maksimov took this as further evidence of aggressive intent, since the deployment crossed the (unratified) SALT II limitation.⁸¹ Early in 1987, Gen-Col. Chervov of the General Staff provided a slightly different formulation of the strategic nuclear threat, focusing on Stealth technologies. The combination of Stealth applications, to both penetrating bombers and cruise missiles, together with forward-deployed nuclear systems in Europe, according to Chervov, was intended to achieve a decapitating first-strike

⁷⁹ Sokolov (1985b).

⁸⁰ Petrov (1985b). This is rather strange argument, since it implies that the Soviet Union is working on ABM systems, mirroring SDI. This is something that Soviet military spokesmen have gone to some pains to deny. This might explain why the argument does not re-appear later.

⁸¹ Maksimov (1986c).

capability.⁸² The discussion of strategic nuclear threats continued through the period, though with declining stress. The general character of threat articulation did not change substantially, though new programs and deployments were added to the list. The B-2 program figured prominently, but almost anything that could possibly constitute a threat was drawn in.⁸³ Army General Tretyak (CinC VPVO) even added the space shuttle to the list of potential strategic nuclear delivery vehicles.⁸⁴

Also in the category of strategic nuclear threats is Soviet attention to US development of third-generation nuclear weapons. While this actually constitutes a broad category of programs, Soviet threat articulation tends to focus on development of enhanced-electromagnetic pulse (EMP) warheads as anti-C³ weapons.^{85,86} In 1986, this threat was advanced primarily as an implicit military argument against continuation of Gorbachev's unilateral nuclear test moratorium.⁸⁷ Later, the enhanced-EMP warhead threat was coupled to SDI in an anti-C³ role, and to Soviet military arguments for continued nuclear testing.⁸⁸

⁸² Chervov (1987b).

⁸³ Sokolov (1985b); Chervov, in Zorin (1985); Lebedev (1985); Chervov (1986a); Kulikov (1987a); Tretyak (1987a); Varennikov (1987); Akhromeyev (1989a).

⁸⁴ Tretyak (1987a).

⁸⁵ For analysis of recent Soviet attention to technical aspects of EMP hardening, see Richard H. Phillips, "Continuing Soviet Military Attention to EMP," Soviet Defense Notes, Vol. 1, No. 6. pp. 6-8.

⁸⁶ Shabanov (1986c).

⁸⁷ Chervov (1985c); Shabanov (1986c); Chervov (1987a); Maksimov (1985a & 1985b).

⁸⁸ Koldunov (1987b); Chervov (1988e). Minister of Defense D.T. Yazov, in his "confirmation hearings" before the Supreme Soviet in 1989, stressed a US lead in EMP weapons as one of the main reasons that the USSR must continue nuclear testing.

US refusal to join the Soviet nuclear test moratorium is also construed as evidence of aggressive intentions, and is linked specifically to component testing for SDI (energy sources for lasers and directed-energy weapons).⁸⁹

Forward-deployed nuclear systems in Europe (Pershing-2, ground-launched cruise missiles) are often classed together with strategic nuclear systems. Intermediate-range nuclear forces (INF), though, were stressed as being particularly threatening, due to their now-familiar characteristics of short flight-time (short warning time), high accuracy, and difficulty of detection.⁹⁰ Attention to the threat from INF continued throughout the period, even after signing of the INF Treaty. The major difference after that point was a shift to discussion of NATO alleged "compensation" for treaty-mandated drawdowns.⁹¹

Other operational-tactical level nuclear deployments and programs stressed in threat articulation include the threat from US dual-capable carrier-based aircraft. Gen-Maj. Lebedev listed cruise missiles in all basing modes, tactical aviation from the US 6th and 2nd Fleets, as well as NATO nuclear-capable artillery, Lance, and the French and British independent nuclear forces.⁹² Sea-launched cruise missiles receive a relatively high degree of attention, largely in the nuclear context, though Deputy Minister of Defense Shabanov refers to them in the conventional context as "non-nuclear strategic weapons."⁹³

⁸⁹ Chervov (1985c); Akhromeyev (1986b); Shabanov (1986c).

⁹⁰ As a representative sample, see: Sokolov (1985a); Shestopalov (1985); Akhromeyev (1985g); Yefimov (1985a); Kulikov (1985f).

⁹¹ On NATO "compensation", see Lebedev (1988a); Chervov (1988a); Akhromeyev (1988c); Yefimov (1988c); Mukhin (1988).

⁹² Lebedev (1987b).

⁹³ Shabanov (1988b).

Akhromeyev stressed NATO upgrades of nuclear-capable artillery, the proposed follow-on for Lance, and redeployment of both F-111's from the US to Europe and F-16's from Spain to Italy.⁹⁴ US nuclear-capable aircraft based at Misawa, Japan are singled out.⁹⁵ Chemical weapons programs and stockpiles are a consistent but low-level concern.⁹⁶

There are different emphases among the five services, breaking down about as one would expect given their respective missions. However, early in the period, there is a preponderance of naval threat articulation, primarily from CinC Gorshkov and his immediate coterie. The main theme in this threat articulation is simply the aggressive essence of the US Navy, bolstered by emphasis of SLBM's and SLCM's.

As noted above, early in the period SDI was discussed primarily in the frame of reference of an actual weapons program that would eventually be deployed.⁹⁷ While some analysts focused on the defensive role of SDI (i.e., in an ABM role), others stressed that it was actually being used as a cover for deployment of "space-strike" weapons capable of hitting hardened targets on the ground, from a range of 4000 km.⁹⁸ Later in the period,

⁹⁴ Akhromeyev (1988c).

⁹⁵ Chervov (1987h).

⁹⁶ Chervov (1985d), Yefimov (1986c), Surikov (1987), Sokolov (1987a), Varennikov (1987), Akhromeyev (1988b & 1988c).

⁹⁷ As a representative sample, see Sokolov (1985a & 1985b), Akhromeyev (1985b, 1986c), Yefimov (1985a), Kulikov (1985e), Maksimov (1985a, 1985b, 1985c), Koldunov (1986a), Ivanovskiy (1988a), Volkogonov (1985), Yasyukov (1986b), Surikov (1987), Mukhin (1988).

⁹⁸ Chervov (1986b). Given the technical problems embodied in such an endeavor, this must be classed with the theme of manipulation of the threat. There is a very small kernel of truth, in that some kill mechanisms associated with SDI might have such a range, in space.

discussion of SDI changed in focus. It was said, first, to be part of a strategy of economic exhaustion, and second, to be an umbrella under which development of generic military technologies is occurring.^{99,100} It has come to be seen as threatening less as a "space shield" than as a source of high-tech spinoffs at all levels of military conflict.

At the strategic level, these spinoff technologies are subsumed under the rubric of weapons based on "new physical principles" -- primarily directed-energy systems and lasers. These are presented most commonly as a threat to Soviet C³I and early warning systems.¹⁰¹ At the conventional level, spinoffs from SDI are presented mainly in terms of improvements in C³ and battle management, as well as in target acquisition and reconnaissance capabilities.¹⁰² Conventional spinoffs from SDI are emphasized more heavily in Cluster 2a than in the propaganda and arms control threat articulation of Cluster 1.

Finally in the nexus of threat factors at the nuclear level, there is a consistent stress that escalation from limited nuclear use would be inevitable, and global.¹⁰³ The thrust of the argument is against US concepts of limited nuclear war. Soviet military leaders take

⁹⁹ The economic aspects of SDI are also the main focus of an article by Gen-Col. Lobov, but with a rather bizarre twist. Lobov places SDI firmly in the context of a powerful US military-industrial complex. However, the main goal is not so much Soviet economic exhaustion, though that figures in his analysis. The real goal, according to Lobov, is for US transnational corporations to gain access to technology from Japan and Western Europe. Referred to as "an original analysis of SDI", Lobov's interpretation certainly lives up to its billing. See Lobov (1987a).

¹⁰⁰ Probably the first example of this change in discussion of SDI is Varennikov (1987).

¹⁰¹ See Akhromeyev (1986c), Maksimov (1986d), Varennikov (1987), Akhromeyev (1988b), Surikov (1987).

¹⁰² Especially Ivanovskiy (1987b & 1988a).

¹⁰³ For example, Akhromeyev (1985b & 1985d).

great pains to make clear that the US would not be immune to retaliation, even if US nuclear strikes were limited either geographically or in scale. This emphasis is also stronger in the military-technical analysis of Cluster 2a.

5.5.2 Conventional threats: At the conventional level, there are two related nexuses of threat factors. The first simply combines a single-theater focus with force structures. It breaks down to two general themes, one connected to conventional arms control, and the other linking conventional threats to US forward military bases and infrastructure.

In terms of conventional arms control, these sources are directed at two "threats" to the military position. The first is US and NATO, and the second (later in the period) is the civilian "meddlers" and "incompetents" in the USSR. The threat articulation strategy in both cases is similar, consisting of simple listing of the conventional threats facing the USSR and Warsaw Pact. However, the sources directed towards meeting the Western arms control "threat" are conducted primarily in terms of disagreements and manipulation of the NATO-WTO balance of forces.¹⁰⁴ Later, as conventional arms control negotiations moved forward and some agreement had been reached on the ground forces data issue, the threat articulation focus shifted to naval and air forces, as part of a strategy to bring these forces onto the arms control agenda.¹⁰⁵ Marshal Akhromeyev was and is especially involved in these issues, both before and after his retirement as chief of the General Staff.¹⁰⁶

Specific aspects of the conventional threat emphasized include the 1980's NATO

¹⁰⁴ Shabanov (1986d), Chervov (1987d), Gareyev (1987), Lobov (1988f).

¹⁰⁵ Chervov (1987i); Tatarnikov (1988); Lebedev (1988d).

¹⁰⁶ Akhromeyev (1988c, 1988f, 1988g, 1989c, & 1989d).

modernization effort, stressing manpower, deployment of the M-1 Abrams main battle tank, as well as POMCUS upgrades.¹⁰⁷

As at the nuclear level, the most vociferous service in articulating the conventional threat, especially early in the period, was the Navy. In addition to those sources from General Staff and Ministry of Defense officers noted above, VMF commanders stress the Maritime strategy's implementation through a wide-ranging US naval buildup. Ship building programs, conventionally-armed SLCM's, and upgrades in the naval air fleet (both Marine Harriers and Navy F-14 Tomcats) are singled out.¹⁰⁸ The worldwide USN base infrastructure is of course stressed in the context of an all-azimuth threat.¹⁰⁹ Similarly, the Rapid Deployment Force (RDF) is stressed by naval commanders.¹¹⁰ Overall, the high level of threat articulation by naval commanders at this stage appears to be part of a budgetary argument in favor of increased naval forces, whereas the threat articulation on naval force issues by center-affiliated officers is an attempt to include naval forces in arms control to reduce the US-NATO advantage.

On the second theme of conventional threat articulation, besides direct replies to civilian "incompetents", the military leadership also articulated the threat in the same terms

¹⁰⁷ Chervov (1987d).

¹⁰⁸ For example, Gorshkov (1985d), Chernavin (1985b).

¹⁰⁹ Medvedev (1985b).

¹¹⁰ Gorshkov (1985d) stresses deployment by 1987 of 13 depot-ships for the RDF, capable of accrying eqiopment for 3 Marine Expeditionary Brigades. Marine amphibious forces are also stressed by Gen-Maj. V. Kuklev of the General Staff as threatening in terms of seizing and holding territory. Kuklev (1989).

as the civilian academics as a way of refuting their arguments.¹¹¹ The main focus in these sources were the stability-instability dynamics in the central European theater. Where the civilians put the blame for instability in the conventional balance on both NATO and Warsaw Pact forces, the military tried to shift any blame entirely on NATO shoulders.¹¹²

5.5.3 Threats associated with FOFA/AirLand battle: The third nexus of threat factors deals with NATO-US strategies and forces for FOFA/AirLand battle, coupled to generic technologies and combat readiness and training. This nexus of threats is stressed much more heavily in Cluster 2a than in Cluster 1. In addition, threat articulation of these factors in Cluster 1 is more general. Therefore, this section will merely sketch the broad outlines, while more detailed analysis will be presented below.

First, there is a common theme of a greater impact of a broad-front acceleration of the scientific-technical revolution, primarily at the conventional level. This is demonstrated by an increasingly rapid generational turnover in weapons systems. The military leadership stresses that is leading towards a radical qualitative *skachok* (leap) in military affairs.¹¹³ Advances in all of the elements of engagement are occurring, from reconnaissance and target acquisition to C³, battle management and data processing to munitions' destructive

¹¹¹ Civilian academics use the same tactic -- usurping military arguments and altering them in ways that suit their own agendas and interests. See Chapter 7.

¹¹² See especially Yazov (1988b), Kuklev (1989).

¹¹³ Yepishev (1985a), Lushev (1987a, 1989a), Varennikov (1987), Shabanov (1987a), Yazov (1988d), Yefimov (1985f), Ivanovskiy (1987b & 1988a), Mukhin (1988).

power and accuracy.¹¹⁴ The combined impact of these advances is to increase the effectiveness of conventional weapons systems to the point that they rival tactical nuclear weapons *in battlefield effectiveness*.¹¹⁵ The generic term applied by the Soviets to denote systems embodying these characteristics is "high-accuracy weapons" (*vysokotochnaya oruzhiya* [VTO]).¹¹⁶ Reconnaissance-strike complexes (RUK's) and reconnaissance-fire complexes (ROK's) are a sub-class of VTO, where the overall technical attributes of the system allow a single-shot kill probability (SSKP) of perhaps 0.6 to 0.9 or higher, *in real time*.¹¹⁷ Examples of RUK's stressed by the Soviets include Assault Breaker, the Precision Location Strike System (PLSS), JSTARS, and the like, while the prime example of an ROK is the Copperhead artillery system. Added to the VTO threat and enhancing it is increasing

¹¹⁴ Especially Vorobyev (1987a & 1987b), Shabanov (1987a), Yazov (1988d), Akhromeyev (1988h), Navoytsev (1987). For a useful overview and analysis, see Phillip A Petersen & Notra Trulock III, "A 'New' Soviet Military Doctrine: Origins and Implications," *Strategic Review*, Summer 1988, pp. 9-24.

¹¹⁵ That is, missions that previously could be accomplished only through the use of nuclear warheads can now or will soon be achievable using conventional systems. There is a blurring of the line between conventional and nuclear in terms of effectiveness. Shabanov (1988b) extends this concern to the cruise missile threat as a form of **non-nuclear strategic weapon**. This fairly nuanced military analysis does not imply that the Soviets do not recognize the differences between nuclear and conventional weapons use. This is in contrast to some Soviet civilian academics who have seized upon and twisted the argument to argue that due to these systems, conventional warfare in Europe would be as destructive as nuclear war. This fits the civilian agenda -- it does not fit the facts.

¹¹⁶ Sources stressing VTO include Akhromeyev (1985e), Vorobyev (1987a & 1987b), Yazov (1988d), Yazov (1989a), Kulikov (1986a & 1987a), Yasyukov (1986b). Stressing VTO in anti-armor roles, see especially Gordiyenko (1987).

¹¹⁷ The distinction between RUK's and ROK's is primarily one of range, as RUK's are classified as operational-strategic and ROK's are classified as operational-tactical. This also implies a distinction about which level of the force structure such systems are deployed and controlled. For a general discussion of VTO, RUK's and ROK's, see Reznichenko, *Taktika* (1987). The tactical-technical characteristics and impact on the conventional military threat will be addressed more detail below.

Western attention to electronic warfare (the Soviet term is radioelectronic combat [REC]).¹¹⁸ The two of these in conjunction pose a particular threat to Soviet troop control systems through either destructive strikes or electronic interference and degradation.

In addition to the component elements of RUK's/ROK's, the Soviet military stresses a number of other programs or generic technologies in the context of FOFA/AirLand battle. In terms of munitions, cluster bombs and fuel-air explosives are stressed, while delivery vehicles stressed include multiple rocket-launch systems (MRLS), as well as helicopters and strike aircraft.¹¹⁹ Tactical aviation, as might be expected, is given a prominent separate role in analysis of the threat posed by AirLand battle. Another prominent generic technology associated with this nexus of threat factors is the development of remote-mining systems -- "mine warfare".¹²⁰

This nexus of threat factors is increasingly stressed over time, and by 1989, the Soviets had something concrete to pin it to. Minister of Defense Yazov stresses NATO's long-term conventional modernization plan, which, through enhanced C³I, weapons systems, and REC is projected to increase NATO "combat potential" by 40% over the next several years.¹²¹ This entire nexus of FOFA/AirLand battle and associated technologies is linked to the issue of NATO combat readiness. These technical and strategic developments are

¹¹⁸ Stressing the conjunction of VTO and REC, see especially Vorobyev (1987a & 1987b), Reshetnikov (1985), Yazov (1989a).

¹¹⁹ Vorobyev (1987b), Yazov (1989a), Reshetnikov (1985), Yefimov (1985f), Koldunov (1987a).

¹²⁰ Vorobyev (1987b).

¹²¹ Yazov (1989a). See also Chernyshev (1988b).

said to increase the probability and effectiveness of surprise attack.¹²² These issues are increasingly linked to issues of the initial period of war in this way.¹²³ In this same framework of combat readiness and training, Soviet threat articulation in Cluster 1 stresses the increasing intensity, scope, and scale of NATO exercises and maneuvers, particularly Autumn Forge-89.¹²⁴ The argument is that these exercises are getting harder to distinguish from actual preparations for war.¹²⁵

At this general level of threat articulation, the entire complex of issues associated with FOFA/AirLand battle is rarely brought together in a comprehensive analysis. Instead, "code words" appear to be the norm, and the various component arguments are advanced to further either propaganda or arms control agendas.¹²⁶ In contrast to Marshal Akhromeyev's statement about FOFA that "it is not the doctrine itself that concerns us -- it is the practice", many Soviet military commentators use the very fact of the strategy as evidence of NATO' aggressive intentions. The depth envisioned for strikes is especially

¹²² Especially Vorobyev (1987a).

¹²³ Gareyev (1988b), Akhromeyev (1988h).

¹²⁴ Akhromeyev (1989f), Moiseyev (1989g).

¹²⁵ There is a clear arms control focus to these arguments. The stress on the Autumn Forge series is not nearly as marked in previous years, and the arguments made in 1989 required some data manipulation. As pointed out by a Soviet civilian analyst, Autumn Forge-89 was actually smaller in scale than its predecessors, especially in terms of American participation through REFORGER.

¹²⁶ There are exceptions. For example, two very detailed articles by Gen-Maj. Vorobyev of the Voroshilov General Staff Academy are included in this cluster, from Soviet Military Review. There is circumstantial evidence that suggests that these articles are somewhat cleaned up versions of articles from the restricted General Staff journal, Voyennaya mysl'.

seized upon.¹²⁷

Overall, the nexus of threat factors associated with FOFA/AirLand battle is similar to that found in Cluster 2a. The major differences are that the level of attention is lower, and the issues are discussed in a more fragmented and general way.

5.5.4 Other threat factors: There are several threat variables not included in the three nexuses presented above. First, the combination of inadvertent war and command and control issues is a relatively small concern. The issues come together primarily in terms of arms control arguments. For example, in stressing the threatening nature of SDI, the potential for inadvertent war due to computer malfunctions is sometimes mentioned.¹²⁸ In discussions of ASAT systems, some attention is given to the potential misunderstanding that could accompany a technical malfunction in a satellite.¹²⁹

Limited nuclear war together with military doctrine and art form another closely associated pair of variables, albeit at a low level of attention. The connection is straightforward -- the doctrine of limited nuclear war is stated to be particularly threatening in that it might lead the US aggressor to think that nuclear war could be limited to European territory.¹³⁰ The usual response, as noted above, is to stress the inevitability of escalation to general nuclear war.¹³¹

¹²⁷ For Akhromeyev's statement, see Akhromeyev (1989i).

¹²⁸ Lebedev (1987a).

¹²⁹ Akhromeyev (1985e).

¹³⁰ Lizichev (1987), Kuklev (1988a).

¹³¹ Akhromeyev (1985d), Kulikov (1987a).

Finally, sustainability tends to stand alone in Cluster 1, and these issues are a very low-level factor in threat assessment. Those that stress sustainability issues the most are officers affiliated either with the Rear Services (*Tyl'*), or else with USSR Civil Defense -- a clear link with organizational missions.¹³² There is one notable exception to this, though. Gen-Col. Gareyev, in several sources, stresses sustainability issues in the form of reserve forces, stating that NATO exceeds the Warsaw Pact by 50%, as well as in military-industrial capacity.¹³³

5.6 Agendas and Interests Served by Threat Articulation and Assessment

Overall, the threat assessment presented by military analysts in Cluster 1 appears to be directed primarily at influencing the development of military policy, including arms control policy, through both internally-directed and externally-directed propaganda. Internally, there is a direct relationship between the issues stressed by civilian analysts in threat assessment and those of military analysts in this cluster, suggesting a military-civilian struggle over the direction of Soviet military policy. Externally, almost all military sources directed towards external target audiences are represented in this cluster, as are all those sources from arms control forums. On balance, due to both the composition of the cluster and the issues stressed, the threat assessment presented in this cluster serves both internal

¹³² Golushko (1985), Altunin (1986), Kurkotkin (1987), Novikov (1988), Govorov (1988b). Other military officers addressing sustainability issues are concentrated in the VMF, where these issues are raised in connection to the US global base infrastructure in the context of protracted fleet operations. See Gorshkov (1985d), Medvedev (1985).

¹³³ This statement comparing NATO-WTO reserve forces is a case of selective presentation of the data, especially as Gareyev's argument is built around "ready" reserves. The data available do not support Gareyev's assertion of a 50% NATO advantage, and he does not explain what is counted to arrive at this figure. Gareyev (1987).

and external propaganda and arms control functions.

Alternatively, it could be said that this cluster represents not the military response to an external military threat, but the military response to the threat represented by the civilian leadership's "new thinking" and to civilian academics' intrusions into the military domain. That is, the assessment articulated by military officers in Cluster 1 represents the military's attempt to hold the line, or at least moderate the impact, of unilateral and negotiated arms reductions. This cluster is also the military half of the civil-military debate -- the forum where the Soviet military takes on and attempts to refute civilian attacks and arguments in a "hearts and minds" campaign for Soviet public and official perceptions.

The next chapter examines what the Soviet military stresses in its internal military-technical threat assessment. How does the propaganda and arms control threat assessment of Cluster 1 compare to what the Soviet military discusses internally?

6. CLUSTER 2a - INTERNAL MILITARY THREAT ASSESSMENT

6.1 Threat Assessment in Cluster 2a: A Thumbnail Sketch

Cluster 2a is purely intra-military in its scope -- it represents the view of the threat articulated within the Ministry of Defense, the General Staff, and the Armed Forces services.¹³⁴ It is also purely military-technical in context -- arms control issues are sometimes addressed, but purely in terms of their military-technical implications. As such, it is much less caught up in civil-military debates, internally-directed propaganda, and in the external propaganda aspects of international arms control. Instead, the focus is on changes in military science and military technologies, and their impact on Soviet military performance and missions. Since these issues are less involved in civil-military or arms control debates, threat assessment in this cluster is more stable than the propaganda/arms control threat articulation in Cluster 1. Assessment does change over time; however, the changes are the result of long-term trends in military technology and operations.

Probably the best way to characterize the threat portrayed in Cluster 2a is "professional". The assessment deals with a wider array of more arcane military-technical issues than Cluster 1. This is true especially for the threat scope contingencies and content factors. It also focuses on responses and solutions to problems posed by the evolving threat, where the military's propaganda-oriented cluster merely inflated them for instrumental purposes.

¹³⁴ Either the Armed Forces generally, or the Ministry of Defense and General Staff. Only 2.7% are directed at other target audiences.

As a whole, threat assessment in Cluster 2a stresses conventional conflict over nuclear conflict, and the gap between the two widens over time. As was true of the other military cluster, intentional war is overwhelmingly stressed over inadvertent war, though analysts tend to become less explicit on this point over time, toning down the rhetoric alleging Western plans for a surprise attack. In terms of specific scenarios, a conventional deep-strike scenario built around FOFA and AirLand battle is stressed more than three times as frequently as is limited nuclear war, which receives only sporadic and declining attention.

The threat scope in general is articulated less explicitly over time; however, of the five categories, only the single-theater contingency registers an increase in attention over the period. The declining attention to multi-theater contingencies is unique to this cluster of analysts. Additionally, local wars tend to be emphasized more heavily in this cluster than in others.

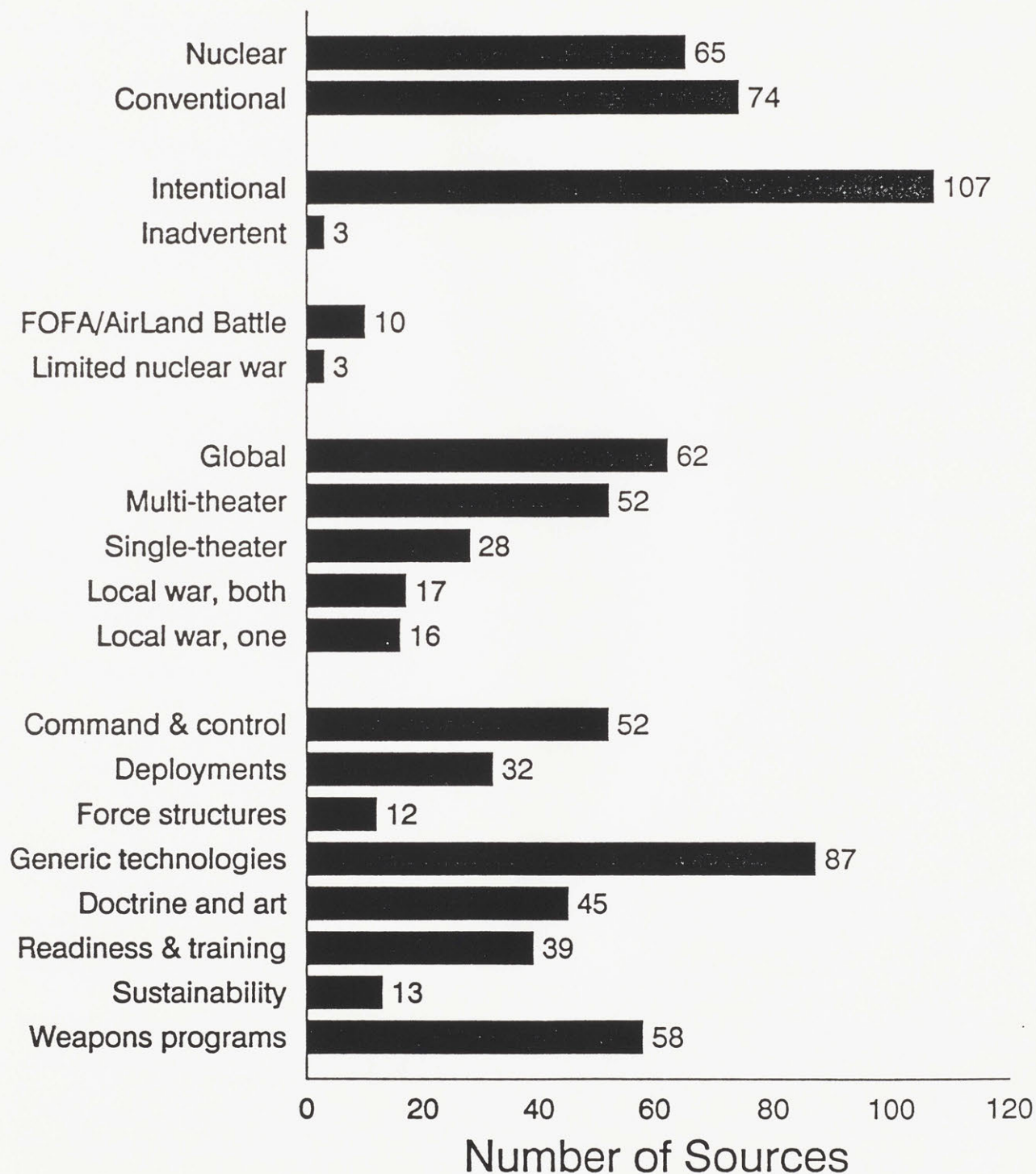
The fact that in terms of both the nature of the threat and the scope of the threat the analysts in this cluster become less explicit over time suggests an increasing level of uncertainty in the threat assessment process. As a result of changes both internally and in the international security environment, many of the postulates of Soviet military planning in recent years have come into question or even been discarded altogether. As a consequence, military analysts assessing the threat facing the Soviet Union have apparently become less certain. This is reflected in the declining stress over whole groups of contingencies in the threat assessment presented here. In contrast, the actual content of the threat does not appear to exhibit this same degree of uncertainty. Soviet military planners may be less sure of the contingency to prepare for in terms of nature and scope,

but they have reached more consistent projections of the threat they will face.

The content of the threat emphasized consists primarily (and increasingly) of issues that are more oriented toward longer-term planning and threat assessment than short-term. For example, where Cluster 1 initially emphasized concrete deployments and weapons programs -- both short-term factors and both heavily slanted toward things that go "bang" - - threat assessment in this cluster tends to stress issues of command and control and generic technologies, both of which are more future-oriented. In addition, where Cluster 1 stresses issues that are related either to civilian incursions into military affairs or to arms control - - notably force structures and some aspects of military doctrine -- these issues are almost completely absent from threat assessment in Cluster 2a. Discussion of military doctrine and art in Cluster 2a, while on a somewhat similar scale to that in Cluster 1, has an entirely different character. In addition, the more military-technical issues of combat readiness and training and sustainability are discussed more here than in any other cluster. They are not discussed much in Cluster 1 because they do not "sell" well to general audiences.

Figure 6.1

**Threat Assessment in Sub-cluster 2a
1985-1989, Cumulative**



6.2 The Structure of Cluster 2a Intra-military Threat Assessment

In this intra-military threat assessment, there are four sets of threat factors and contingencies that are closely inter-associated.

First, as was the case in Cluster 1, sources stressing nuclear threats tend also to stress intentional or surprise attack on a global scale. The threat content factor most closely associated with this nexus again was weapons programs.¹³⁵ In contrast to Cluster 1, though, deployments are not strongly associated with these other variables. Instead, for analysts in Cluster 2a, deployments are stressed with force structures (force structures being treated somewhat differently than in Cluster 1). This second set of factors represents a small slice of the assessment.¹³⁶ The third, highly significant nexus of issues deals with a changing conventional threat. In sources stressing conventional threats, there is an association with the FOFA/AirLand battle scenario, and not surprisingly, a strong tendency to stress generic technologies and command and control issues as well.¹³⁷ The set of factors accounted for a large percentage of the Cluster 2a threat assessment initially (about one-third), and this proportion increased over time.¹³⁸ By 1988-89, this nexus of threat factors was dominant in the military's internal threat assessment.

¹³⁵ This nexus of factors accounted for almost half of the cluster's assessment articulated during the first two years. By the last two years, this had declined to only 35%.

¹³⁶ 8% in the first two years, declining to 5% in the last two.

¹³⁷ Remember that for Cluster 1, command and control was associated with inadvertent war, and conventional threats stressed in the context of force structures.

¹³⁸ To just under 40% of the cluster's assessment as a whole, compared to 35% for the nexus of factors associated with nuclear war.

Finally, where Cluster 1 analysts and commentators stress inadvertent war together with command and control (in response to civilian criticism), Cluster 2a analysts stress inadvertent war with limited nuclear war scenarios, more in the context of inadvertent but inevitable escalation than war initiation. The focus of this association is to undercut Western ideas of limited war, by stressing that escalation would be inevitable even if Western leaders did not desire it. While this is a strong association, it accounts for a miniscule portion of the threat assessment in Cluster 2a.^{139,140}

6.3 Quantitative Trend Analysis

6.3.1 Threat nature¹⁴¹

6.3.1a Nuclear vs. conventional: In contrast to the picture presented in Cluster 1, the analysts in Cluster 2a present a more balanced picture in this category. Initially, the analysts were split approximately 50:50, with a slight predominance of the nuclear threat. Over time, both categories decline -- the sources become less explicit as a whole about this issue. However, attention to nuclear threats declines almost twice as fast as does that to conventional forces. As a result, by 1989, conventional threats are stressed five times as much as nuclear.

¹³⁹ Only about 1% overall.

¹⁴⁰ In Cluster 2a, three threat content factors -- military doctrine and art, combat readiness and training, and sustainability -- are "stand alone" variables (i.e., not closely associated with other variables).

¹⁴¹ Figure 6.2.

This decline in explicit stress of conventional threats runs against the grain of the trends for all of the other five clusters.¹⁴² The result is that where in 1985, Cluster 2a stressed conventional forces more than twice as much as the next highest cluster, by 1989 the explicit stress on conventional forces was the lowest of the six. However, as noted, this decline was not matched by an increase in nuclear stress -- the sources merely became less explicit. Furthermore, attention to other variables associated with conventional war increased over time, and the specific content issues stressed appear to be keyed more to conventional than nuclear threats. Overall, conventional threats are stressed more heavily than nuclear.

6.3.1b Intentional vs. inadvertent war initiation: As was the case in Cluster 1, there is a decline in the stress of intentional war, but no corresponding rise in attention to inadvertent war. Again, this signals merely decreasing explicit attention, not a shift from intentional to inadvertent war as the most likely threat. Surprise attack continues to be emphasized, but the rhetoric becomes rather less vociferous over time.

6.3.1c Specific scenarios - FOFA/AirLand battle vs. limited nuclear war: Both specific scenarios receive a relatively low level of attention throughout the period, and both remain relatively flat. However, the conventional deep strike scenario is consistently higher than limited nuclear war. In addition, FOFA/AirLand battle scenarios are emphasized more strongly in this cluster than in any other cluster's threat assessment.¹⁴³

¹⁴² All of which increase in conventional stress over time.

¹⁴³ Except in 1989, when this scenario was more strongly emphasized in Cluster 1.

Figure 6.2

Cluster 2a: Threat Nature Variables, 1985-1989
Percent of Annual Cluster Total

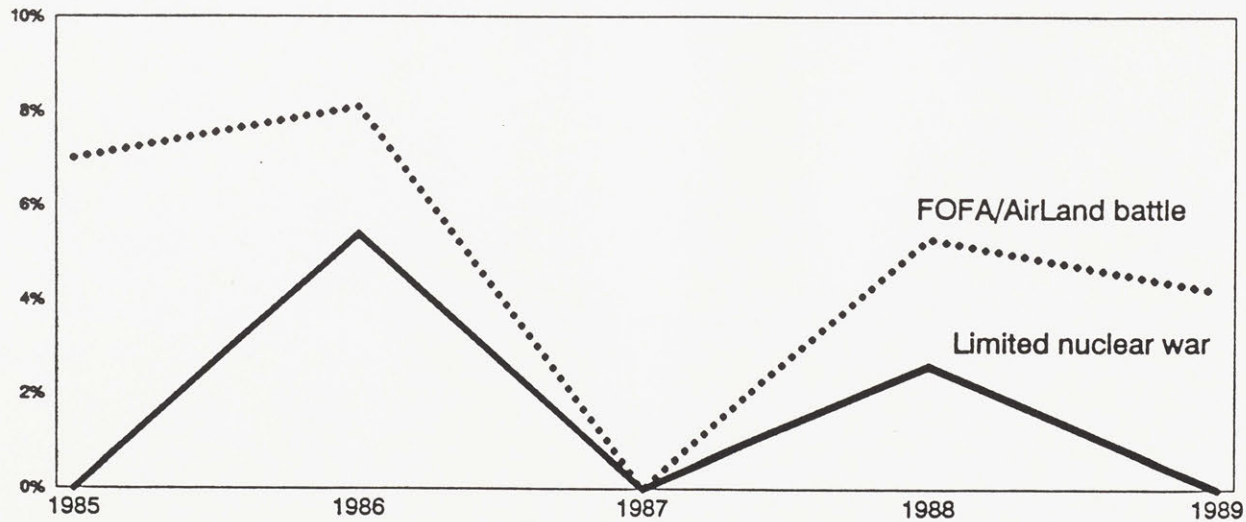
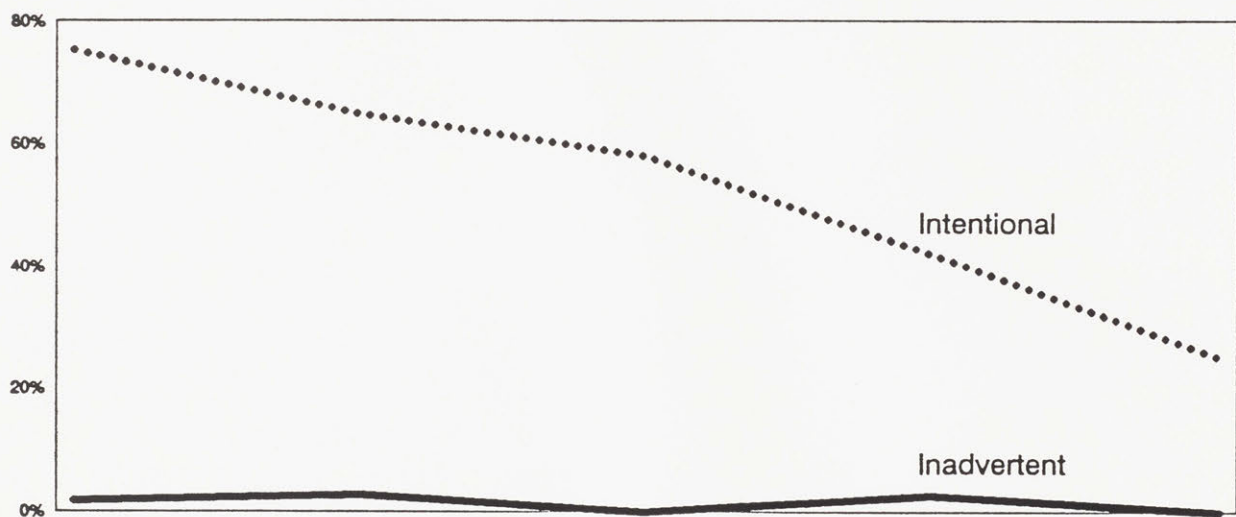
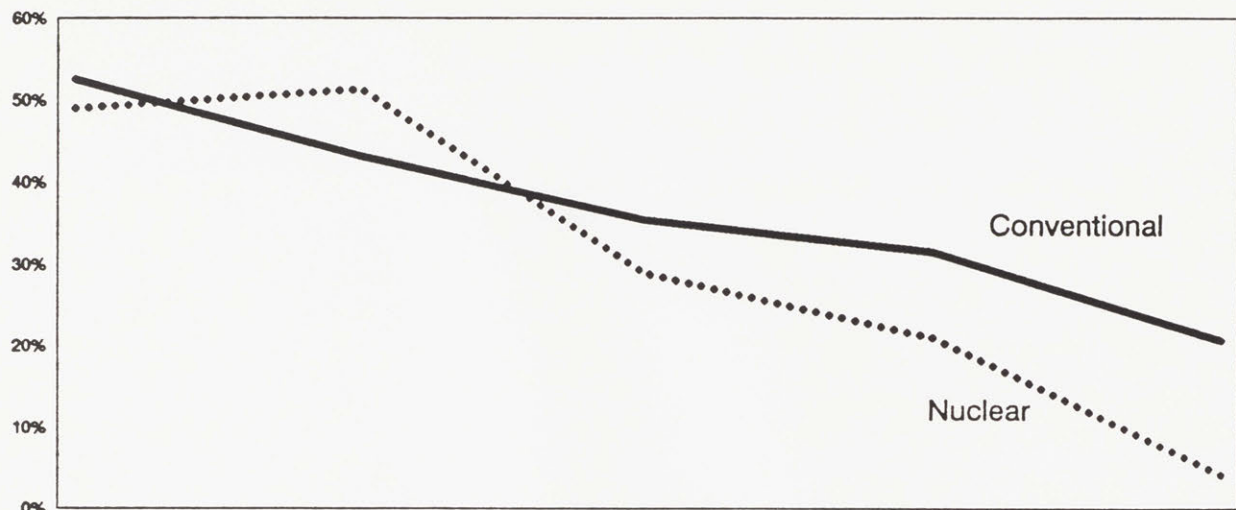
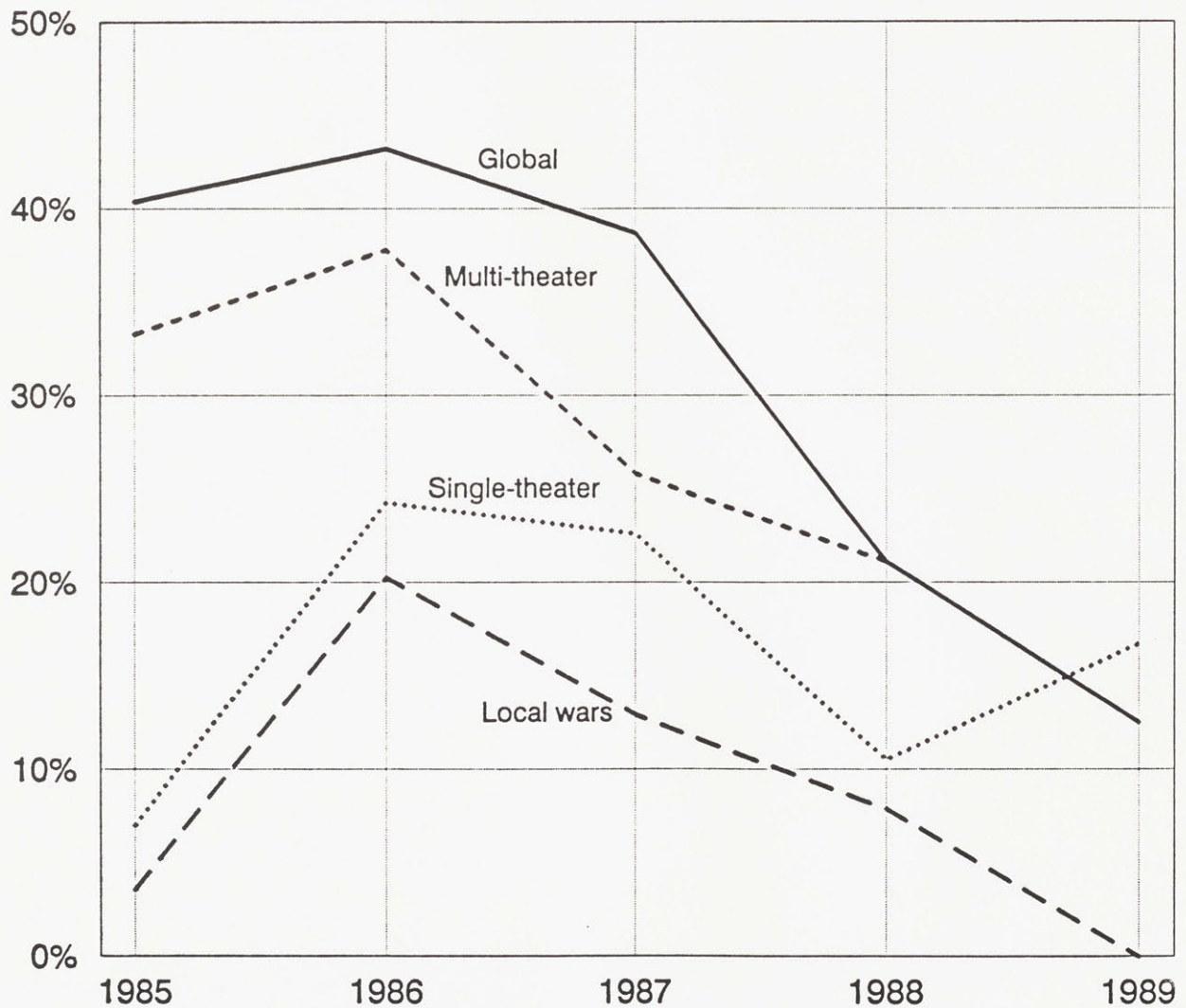


Figure 6.3
Cluster 2a: Threat Scope Contingences
Percent of Annual Cluster Total



The two local war contingences are collapsed

6.3.2 Threat scope

Over the five year period of study, four of five scope contingencies declined in attention. Emphasis of global and multi-theater contingencies, as well as both local war contingencies, went down over time.¹⁴⁴ Only the single-theater contingency received increasing attention.¹⁴⁵ The result is that, while global conflict was the most threatening in 1985 through 1987, and tied for first place in 1988, by 1989 the contingency commanding the most attention was a single-theater conflict in the Central European theater.

Comparing the pattern of attention in Cluster 2a to the others, it is worth stating that the decline in attention to multi-theater contingencies is unique to this cluster -- all others show increased attention. Additionally, where attention to this contingency was initially (in 1985) the highest of any cluster (at 33%), by 1989 it ranked near the bottom. Attention to the single-theater contingency by Cluster 2a analysts is also much less volatile over time than that of the other five clusters.¹⁴⁶ Overall, analysts in Cluster 2a also tend to emphasize local wars more heavily than do analysts represented in other clusters. This does not appear to be keyed to any particular region. Rather, it simply indicates the breadth of coverage of professional military-technical threat assessment.

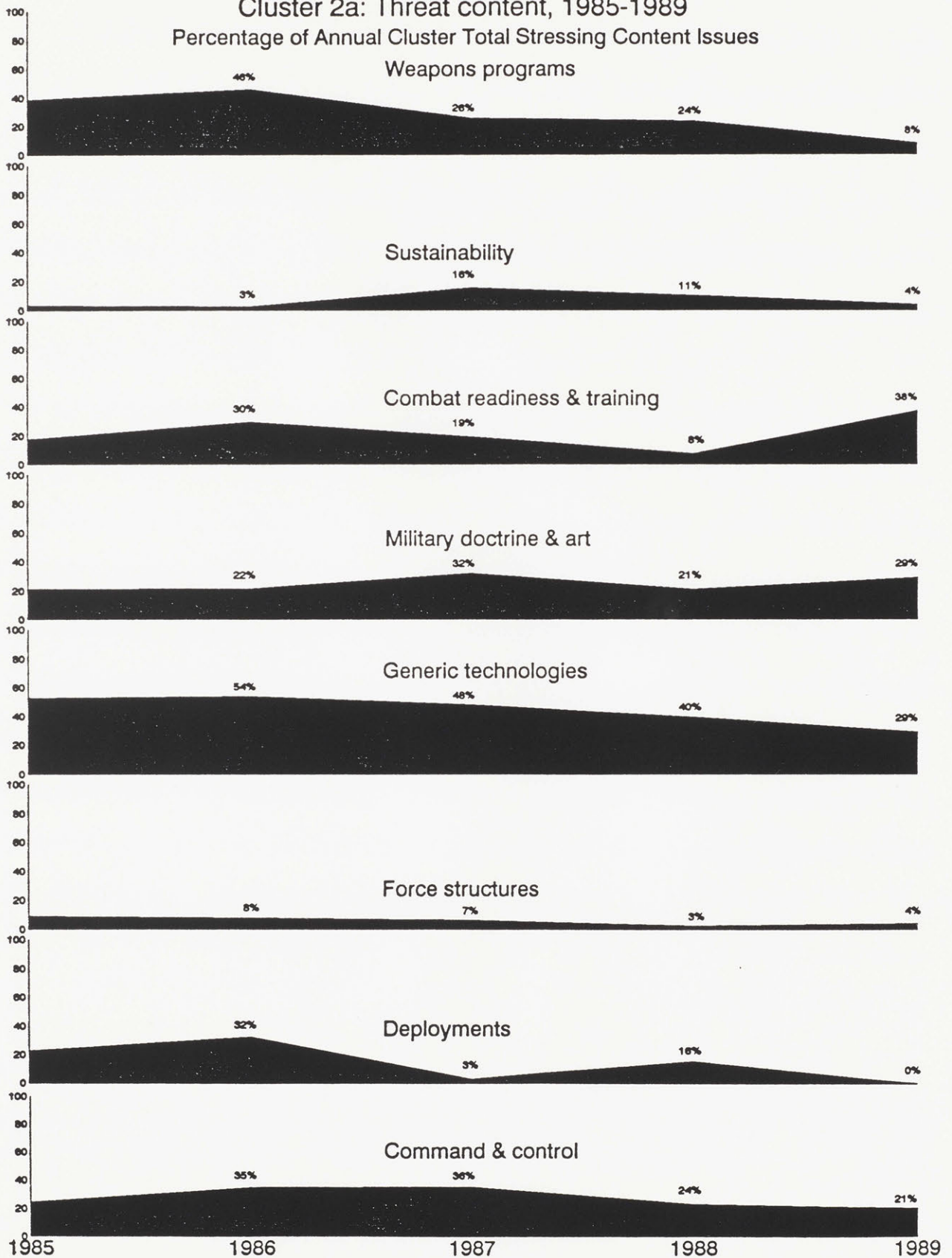
¹⁴⁴ Attention to global threat contingencies declined the fastest, at almost 8% per year. Multi-theater contingencies fell at a rate of about 6% per year.

¹⁴⁵ The increase in attention to single-theater contingencies is marginal at about 0.6% per year.

¹⁴⁶ At a slope of 0.56, Cluster 2a increases about three times less rapidly than the nearest neighbor, Cluster 2b, and almost 12 times less rapidly than the military analysts in Cluster 1.

Figure 6.4

Cluster 2a: Threat content, 1985-1989
 Percentage of Annual Cluster Total Stressing Content Issues



6.3.3 Threat content

6.3.3a Command and control: Issues of command and control as a threat factor are consistently ranked near the top by analysts in this cluster, and the degree of emphasis is relatively constant over time. Overall, this category is stressed by roughly 30% of the sources. This is substantially higher than the level of attention accorded to command and control by military analysts in Cluster 1, and is overall just below the level of attention given by civilians in Clusters 4a and 4b. These civilian analysts, though, consider command and control issues to be threatening for very different reasons.¹⁴⁷

6.3.3b Deployments: Overall, specific weapons systems and force deployments are not emphasized very strongly in this cluster. Initially, about one-fifth of the analysts stressed this category (making it fourth-ranked relative to other factors); however, there was a substantial decline in attention over time, to the point that by 1989 there were no references to deployments at all (making it rank last among threat content factors).¹⁴⁸ As noted in the discussion of Cluster 1, only military analysts (i.e., Clusters 1 and 2a) discuss deployments at all. Compared to the threat assessment of Cluster 1, then, analysis in Cluster 2a accorded deployments a lower priority initially, and the level of attention then declined at a steeper rate. In short, deployments have been a low and declining priority in the threat assessment presented in Cluster 2a.

¹⁴⁷ This will be examined in more detail below. In brief, though, civilian analysts stress command and control issues in connection to potential breakdowns or inadequacies contributing to the danger of inadvertent war or inadvertent escalation.

¹⁴⁸ At a rate of 6% per year, this fall in attention to deployments is exceeded only by attention to weapons programs, which fell at a rate of about 8% per year.

6.3.3c Force structures: In marked contrast to the threat assessments of other clusters, Cluster 2a analysts discuss threatening aspects of force structure *per se* less than any other threat content category. In addition, only in Cluster 2a is there a fall in the degree of attention given to force structures.¹⁴⁹ Over the entire period, this category is either last or second to last in relative rank, with an overall average of only 6% of the sources mentioning it as a contributor to the military threat. This is indicative of the degree to which this cluster is separate from the direct civil-military debate.

6.3.3d Generic technologies: While there is a fall in attention to issues associated with generic technologies, this category receives the highest relative ranking virtually throughout the period. The sole exception is in 1989, when growing attention to combat readiness and training exceeds that given to generic technologies, and attention to military doctrine and art is accorded comparable attention. As a whole, though, attention to generic technologies is very high throughout, averaging almost one-half of all sources in this cluster. Most of the attention devoted to generic technologies deals with applications in conventional warfare.

6.3.3e Military doctrine and art: The level of attention to issues associated with military doctrine and art is right at the middle of the pack relative to other threat content issues. The relative stress accorded military doctrine and art ranges from second to sixth; however, this is primarily due to changes in the level of attention to other categories. Attention to doctrine and military art in this cluster exhibits a gentle increase over time,

¹⁴⁹ With the exception of Cluster 3. This cluster exhibits an overall decline only because 100% of the sources in 1985 stress force structures. Excluding 1985, regression of attention to force structures over time by Cluster 3 exhibits a hefty increase.

generally falling around one-fourth of sources stressing the category.¹⁵⁰

6.3.3f Combat readiness and training: Throughout the period, Cluster 2a exhibits the highest attention to issues of combat readiness and training compared to the other clusters. In addition, while the rate of increase was not as steep as for Cluster 1, there was a general increase over time, followed by a large jump in attention in 1989, when almost 40% of sources stressed this factor as a contributor to the threat. In relation to other factors, combat readiness and training is in the bottom half of the eight factors through the period, with the exception of 1989, when it ranked first.

Discussion of combat readiness and training as a contributor to the threat is primarily in two categories. First, there are discussions of US and NATO advantages in terms of "ready divisions", alert status, and level of training.¹⁵¹ Second, due to other changes in the threat, there is increasing attention to the inadequacies of the Soviets own training and combat readiness.¹⁵² These discussions are primarily centered around issues of tactical training, but they also enter the discussions of the initial period of war.¹⁵³ The first category in these discussions accounts for the comparatively high level of overall attention, while the second primarily accounts for the large jump in attention in 1989.

6.3.3g Sustainability: As noted in the discussion of Cluster 1, only the two military

¹⁵⁰ In relation to the emphasis given by other clusters, this is the highest level of attention overall, though some civilian clusters exceed Cluster 2a in 1987 or 1988. Looking at the overall trend lines, attention to military doctrine and art in Cluster 2a is exceeded only in 1989, by civilian analysts in Cluster 2b.

¹⁵¹ Drozhzhin (1985), Skorodenko (1986), Minayev (1986), Gribkov (1987).

¹⁵² Borsuk (1989), Khazikov (1989), Khvatov (1989), Lobov (1989), Ranevskiy (1989), Vorobyev (1989a).

¹⁵³ Lukava (1986), Akhromeyev (1988e), Vorobyev (1989a & 1989b).

clusters discuss sustainability at all, and both consider the issue a relatively low priority.¹⁵⁴ However, there are some interesting differences. First, sustainability issues receive more attention in Cluster 2a than in Cluster 1 throughout the period. Second, where there was a decline in the degree of attention to these issues in Cluster 1, Cluster 2a exhibits an increase in attention, peaking in 1987 and then falling somewhat. Compared to other factors, as noted, sustainability is a low priority, vying with force structures for the lowest rank. Where sustainability was ranked last initially, though, an overall increase in attention combined with a declining attention to force structures reversed this order, and by 1989 force structures were ranked last. The fact that attention to these issues was consistently low suggests that Soviet perception of the likelihood of a protracted war is rather low, or else that they are relatively sanguine about their sustainability *vis-a-vis* NATO and the US.¹⁵⁵

6.3.3h Weapons programs: Attention to weapons programs in Cluster 2a initially was relatively high. At about 40% of the sources, this category was ranked second (below generic technologies). As was the case in Cluster 1, though not as spectacular, attention declined over time, to the extent that by 1989 less than 10% of sources address specific weapons programs.¹⁵⁶ Compared to the level of attention devoted to weapons programs by

¹⁵⁴ As an average for the entire period, only 7% of sources in Cluster 2a stress sustainability, giving it a rank of seventh, just above force structures.

¹⁵⁵ Considering the military's discussions of the threat from FOFA/AirLand battle, especially in the "initial period of war", the former seems the most likely alternative. The Soviet military does not perceive the probability of protracted war as large.

¹⁵⁶ Attention to weapons programs generally declined at a rate of 8% per year, compared to a decline of almost 17% per year in Cluster 1.

civilian analysts, however, this is still relatively high.¹⁵⁷

6.4 Themes in Threat Articulation

While some of the agitation and propaganda themes characterizing Cluster 1 threat articulation are present here as well, they are much less prevalent.¹⁵⁸ Sources emphasizing these propaganda themes tend to be concentrated in articles explicitly meant for internal propaganda, as in Kommunist vooruzhennykh sil or Agitator armii i flota.¹⁵⁹ They also tend to concentrate in articles stressing the nuclear threat, which account for a smaller and declining proportion over time.¹⁶⁰ Particular analysts can also be isolated that account for the major portion of these themes.¹⁶¹ Over time, then, these themes become less prevalent than early in the period. Threat assessment relative to conventional military issues -- the major area of threat assessment stressed -- tends to be relatively free of ideological cant and ominous warnings and analogies.

The arms control agenda prominent in Cluster 1 is also almost wholly absent from Cluster 2a. Arms control issues enter into discussion in two ways, very different from that

¹⁵⁷ All of the civilian clusters rank weapons programs below the two military clusters.

¹⁵⁸ The theme stressing the *Rodina* and that stressing surprise attack can be found, as can some examples of the ideological formulation of the threat. Articles for Victory Day often carry these themes.

¹⁵⁹ Shapalin (1985), Skorodenko (1988), Serebryannikov (1988).

¹⁶⁰ See, for example, Akhromeyev (1985a), Monin (1985), Serebryannikov (1985), Volkogonov (1987), and Skorodenko (1988). Skorodenko states that the danger of nuclear war still hangs over mankind like the "sword of Damocles."

¹⁶¹ In addition to those cited above, Marshal V. Kulikov often takes very hardline and ideological lines of argument. Kulikov (1985a, 1988a), in addition to sources in Cluster 1.

in Cluster 1. First, there are articles that explain to the troops why, for instance, the INF Treaty was a good agreement, or why the December 1988 unilateral force reductions are acceptable -- despite that fact that the military leadership opposed such reductions every step of the way.¹⁶² The second way in which arms control issues enter into Cluster 2a threat assessment is concentrated in 1988 and 1989, where the focus is on the need to perform the same missions with reduced forces. The military leadership has taken this as an argument to what they have been seeking all along -- more and better high-technology equipment and increased R&D allocation. The reality of smaller forces in the future is also used to call for increased combat readiness and increasing attention to military science.¹⁶³ If the Soviet military is to be "leaner", the high command also wants it to be "meaner".¹⁶⁴

Another difference from Cluster 1 threat articulation is that the threat is not portrayed so much as the result of "maniacal" pursuit of military superiority "at any cost" by the West. Rather, the evolving military threat is portrayed more in terms of a natural development in military affairs. Similarly, where in Cluster 1, the Marxist-Leninist framework was applied to assert the West's malign intentions, analysts in Cluster 2a use dialectics as an analytic tool, generally free of more ideological formulations.

Along the same lines, analysts in Cluster 2a concentrate more on the implications

¹⁶² On the INF Treaty, see for example Vovk (1988). On the unilateral conventional force reductions, see for example Lebedev (1988b). The title of this article -- "Reduction of the Army and Defense Capability" -- pretty well sums up the military opinion of the unilateral reductions, perhaps unintentionally. For analysis of the civil-military decisionmaking process and debates leading up to the December 1988 announcement and its implementation, see Phillips, in Zimmerman, *op. cit.*

¹⁶³ See especially Moiseyev (1989a & 1989c).

¹⁶⁴ In the short term, at least, this appears highly unlikely due to economic realities in the USSR. In the longer term, the picture is less clear.

and ways of meeting the evolving military threat. In Cluster 1 threat articulation, solutions were either lacking (since that's not the point of propaganda) or implicit (along the lines of "give us more resources" or "don't throw it all away in arms control"). In Cluster 2a, analysts are often explicit, identifying crucial areas for improvement or increased emphasis. Technical progress in C³/troop control through increased automation and enhancing combat readiness and training are singled out as key areas. Improved military science and forecasting are also prevalent as solutions on the "software" side.

6.5 Themes in Threat Assessment

At the most general level, threat assessment in Cluster 2a reflects the idea that the current stage in the development of military affairs represents a radical break from the past. This the rhetoric of the "new revolution in military affairs", and of the "transitional phase" stressed by Ogarkov and Gareyev in the early and mid-1980's. By 1988, Soviet analysts were stressing that due to developments in military technology, there has been a radical break with past experience, and that modern battle has no historical analogue.¹⁶⁵ This theme is caught up with the growing recognition that success on the future battlefield will depend on synergistic application of advances on a broad front of science and technology. In the past, crash programs concentrated on specific areas were effective. Now, however, weapons systems require progress in a whole range of functions, from reconnaissance and target acquisition to munitions effectiveness.¹⁶⁶ The importance of information processing and communication is paramount in this view, and "orders of magnitude" improvement are

¹⁶⁵ Neupokoyev (1988a).

¹⁶⁶ For example, Kiselev (1988).

required to meet the threat.¹⁶⁷ The keys to success identified by Soviet analysts tend to be concentrated in the application of electronics and computer technologies. Therefore, there is growing concern that the numerous areas in which the Soviet Union lags can dovetail, giving the West the much-sought but elusive "military superiority".

This leads directly to a second theme in threat assessment. The analysis in Cluster 2a is pervaded by the issue of *time* -- in C³ and troop control on the battlefield,¹⁶⁸ in combat readiness, warning time, and surprise in the initial period of war,¹⁶⁹ in the "astonishing" progress in NATO and US developments, and in the urgency of the Soviet response. Time urgency is particularly noticeable in Moiseyev's statements since he became chief of the General Staff. He refers to the next two years (through 1991) as particularly urgent for the General Staff, in the context of "the **expedited** introduction of the **latest** technologies for the **swiftest** equipping of its [NATO's] forces with such weapons systems...."¹⁷⁰ Moiseyev

¹⁶⁷ Especially Shabanov (1987a), Vorobyev (1987b).

¹⁶⁸ The time factor on the battlefield is stressed particularly by Shabanov (1986b), Grinkevich (1986), Ivanovskiy (1985c, 1987a), Postnikov (1988). Time urgency is also stressed strongly in the naval context. See Smirnov (1985), editorial (1985b), Gorshkov (1985a), Chernavin (1987a). Changes in military technology (VTO, REC, C³, and target acquisition) reduce reaction time, leading to a situation where whichever side is able to detect and fire first is likely to prevail. There is an apparent "Wild West shootout" mentality at work. I will return to this very important theme below.

¹⁶⁹ On the time issue in the initial period of war, see especially Akhromeyev (1988e), Vorobyev (1989a & 1989b), Moiseyev (1989c), as well as Khor'kov (1986, 1987a & b, 1988a & b). For a more detailed analysis of Soviet thought on the initial period of war, see Richard H. Phillips, "Soviet Military Debate on the Initial Period of War: Characteristics and Implications," MIT Center for International Studies, Soviet Security Studies Working Group Research Report No. 89-1.

¹⁷⁰ Moiseyev (1989a), emphasis added. This is Moiseyev's "state of the Staff" address, to the General Staff party aktiv in February 1989. Gen-Maj. Vorobyev adds concern about "the **astounding** progress of the firepower of high-accuracy weapons in the NATO member-states armies...." Vorobyev (1987b), emphasis added.

also stressed the time issue in the sense of a General Staff that is lagging behind the curve in the development of military science, especially of forecasting the military threat. He stressed the need for a refocusing of General Staff activities to a more long-term framework. Moiseyev, among others, has also stressed the need for changes in Soviet weapons acquisition to meet the dynamic threat, in particular an acceleration of the NIR/OKR process to meet the increasingly rapid Western generational turnover in weapons and support systems.¹⁷¹

6.6 Characteristics of Threat Assessment

6.6.1 Nuclear threats: Threats at the nuclear level are discussed in much the same terms as in Cluster 1, though with less frequency and more detail.¹⁷² Strategic nuclear forces are commonly paired with SDI, as part of a first-strike strategy.¹⁷³ INF and cruise missiles form the third leg of this threat triad, and are assessed as particularly threatening in two senses. First, due to the combination of short flight time, high accuracy, and difficulty of detection, they are reckoned to be especially threatening to Soviet command and control centers and assets -- the nuclear decapitation scenario.¹⁷⁴ Second, and primarily

¹⁷¹ Moiseyev (1989c), expanding on concerns raised earlier. See Skorikov (1986), Shabanov (1986b), Salmanov (1986), Konoplya (1987b), Neupokoyev (1988a & 1988b).

¹⁷² For the more detailed analysis of threats at the nuclear level, see Men'shakov (1985), Fedorov (1985), Gudzyuk (1985), Shikin (1985), Polynin (1985), Bobylev (1986), Shundeyev (1986), Simonov (1986), Chub (1986), Sil'chenko (1986), Stefanovskiy (1987), Gontar (1987a), Simonov (1988), Nazarenko (1988).

¹⁷³ Shapalin (1985), Shabanov (1985b), Tolubko (1985e), Skorodenko (1985), Yasyukov (1986a), Shabanov (1986b), Akhromeyev (1987b).

¹⁷⁴ Sorokin (1985c), Shapalin (1985), Shabanov (1986b), Yazov (1988h), Tolubko (1985e), Skorodenko (1986).

in conjunction with SDI, they are said to form part of a strategy to achieve the capability to prosecute limited nuclear war in the European theater, leaving the territorial US unscathed.¹⁷⁵

The application of Stealth technologies to strategic nuclear forces is judged threatening first in relation to a reduction in warning time and air defense effectiveness.¹⁷⁶ However, the primary threat from Stealth, and especially the B-2, stressed by these high-level military sources is more in the military-economic realm. Gen-Maj. Yu. Lyubimov addresses this aspect most comprehensively.¹⁷⁷ Placing Stealth technologies in the "competitive strategies" context, he stresses Stealth applications as aimed at forcing the USSR to engage in a costly qualitative arms race, leading to enormous and expanding resource allocations to counter the threat posed by "the latest technologies". According to Lyubimov, the aim is one of economic exhaustion of the USSR, leaving the way clear for US military superiority. The way out of this impasse, though, is to undertake countermeasures to Stealth that do not involve increasing cost and sophistication of the Soviet air defense system. Unfortunately (for Lyubimov's analysis and the Soviet response), the only examples of B-2 countermeasures offered involve just that. The first countermeasure offered is expansion of the PVO network through the introduction of multi-wave radar to defeat Stealth. The second is increasing the level of automation in PVO information processing and transfer, to allow target acquisition and engagement of the B-

¹⁷⁵ Especially Volkogonov (1986a), Bezotuzov (1987), Lukava (1986a), Serebryannikov (1988).

¹⁷⁶ Sokolov (1985b), Koldunov (1986b), Tretyak (1989).

¹⁷⁷ Lyubimov (1989).

2 even with the shorter detection range implied by Stealth applications. Both of these responses are not only costly, they are disproportionately resource-intensive in high-technology electronics crucial to other military systems, as well as to the civil economy.¹⁷⁸

Issues surrounding ABM and SDI are stressed in Cluster 2a more in terms of an umbrella under which research and development on generic technologies applicable to other levels of military affairs is going on than as a "space shield". The stress on SDI as a program that will eventually be deployed is found primarily early in the period.¹⁷⁹ Shabanov links future deployment of SDI and ASAT to inadvertent war, as mechanical breakdown of a satellite might erroneously be attributed to the other side's ASAT systems.¹⁸⁰ The dominant theme, though, especially later in the period, is on potential spinoffs and exotic technologies from SDI. Laser and directed-energy weapons, potentially deployable at the battlefield level, and electromagnetic rail guns are among the more frequently encountered exotic weapons under the SDI umbrella.¹⁸¹ Other, less exotic generic technologies are stressed more heavily, though. Navigational components of SDI as an aid to targeting accuracy are stressed, as are enhanced satellite imaging and detection in a counter-SSBN ASW role. Even if SDI is not deployed, the R&D in computers, information-acquisition and processing, and in software are said to significantly enhance future battlefield automation and robotics. These developments might allow development or improvement

¹⁷⁸ See also Lukava (1986a).

¹⁷⁹ For example, Akhromeyev (1985a), Sorokin (1985c), Sokolov (1985c), Tolubko (1985e), Shabanov (1986b).

¹⁸⁰ Shabanov (1985b).

¹⁸¹ Shabanov (1985b), Yasyukov (1986a). Other exotic systems include microwave and directed-EMP weapons. See Phillips, *op cit.*

of unmanned aircraft, tanks, and self-propelled guns, either acting semi-autonomously or through remote control. Further SDI research and development might lead to development of "qualitatively new observation, reconnaissance, aiming, control, and communication systems".¹⁸²

Another characteristic of nuclear threat assessment in Cluster 2a is a concern with US and NATO combat readiness in relation to surprise attack capabilities. This is one manifestation of the preoccupation with time as a theme in threat assessment, and is caught up in discussion of the initial period of war.¹⁸³ The essence of the argument is that advances in US and NATO command and control, coupled to a high level of combat readiness, makes a "bolt-from-the-blue" attack scenario possible. Whereas in the past military technology on the attacking side required mobilization time allowing the defender to detect warning signs and either prepare or preempt, this is no longer the case. In the past, then, there was a "threatening period" that could be detected and used to limit or eliminate the effectiveness of surprise. Modern technology, though, reduces the threatening period or eliminates it altogether.¹⁸⁴ While this is apparent in sources discussing the nuclear threat, changes in conventional weapons systems have made it relevant at the conventional level as well. In fact, the discussions of the initial period of war in the mid- and late-1980's

¹⁸² Stefanovskiy (1987), Kiselev (1988), Chernyshev (1988b).

¹⁸³ Richard H. Phillips, "Soviet Military Debate on the Initial Period of War: Characteristics and Implications," MIT Center for International Studies, Soviet Security Studies Working Group Research Report No. 89-1.

¹⁸⁴ Shapalin (1985), Bezotuzov (1987).

concentrate more on the impact of changing conventional technologies.¹⁸⁵ This will be examined in more detail below.

Finally at the nuclear level, there are several sources that stress relative sustainability. Predictably, these sources are predominantly from Civil Defense and *Tyl'* officers.¹⁸⁶ A protracted nuclear war is not stressed as a likely threat scenario, nor is a protracted conventional war.¹⁸⁷

6.6.2 Conventional high-tech threats: Threat assessment at the conventional level in Cluster 2a concentrates heavily on the application of generic technologies to weapons and support systems, primarily in the context of a deep-strike scenario built around FOFA and AirLand battle strategies. The primary advances revolve around development, capabilities, and implications of VTO in all arenas of combat.¹⁸⁸ The highest levels of the military leadership generally provide only the broad outlines of these threats. Therefore, this section will utilize the more detailed low-level sources to put flesh on the skeleton.

6.6.2a: High-level outline of VTO threats: In general, there is a common theme of a greater impact of a broad-front acceleration of the scientific-technical revolution. This

¹⁸⁵ Akhromeyev (1988e), Vorobyev (1989a), Moiseyev (1989c), Vorobyev (1989b), and Khor'kov (1986, 1987a & b, 1988a & b).

¹⁸⁶ Bezotuzov (1987), Govorov (1988a), Kozhbakhteyev (1989).

¹⁸⁷ Only a few low-level sources address the protracted conventional war contingency, and those early in the period. See Alekseyev (1986), V. Kuznetsov (1986).

¹⁸⁸ The generic term applied by the Soviets to denote systems embodying these characteristics is "high-accuracy weapons" (*vysokotochnaya oruzhiya* [VTO]). As stated above, VTO in the context of this analysis is not narrowly construed, as "PGM" is in the West. VTO here includes the entire complex of functions from target acquisition to munitions effectiveness.

is demonstrated by an increasingly rapid generational turnover in weapons systems. The military leadership stresses that this is leading towards a radical qualitative "leap" (*skachok*) in military affairs.¹⁸⁹ Advances in all of the elements of engagement are occurring, from reconnaissance and target acquisition to C³, battle management and data processing to munitions' destructive power and accuracy. The combined impact of these advances is to increase the effectiveness of conventional weapons systems to the point that they rival tactical nuclear weapons *in battlefield effectiveness*.¹⁹⁰ Reconnaissance-strike complexes (RUK's) and reconnaissance-fire complexes (ROK's) are a sub-class of VTO, where the overall technical attributes of the system allow a single-shot kill probability (SSKP) of perhaps 0.6 to 0.9 or higher, *in real time*.¹⁹¹ Examples of RUK's stressed by the Soviets include Assault Breaker, PLSS, JSTARS, and the like, while a prime example of an ROK is the Copperhead artillery system. In some cases a single weapons system is said to be capable of carrying out all functions organically. In others, the emphasis is on an integrated

¹⁸⁹ Akhromeyev (1986d), Shabanov (1986b), Salmanov (1986), Skorikov (1986), Batekhin (1987), Neupokoyev (1988a), Mukhin (1988), Lobov (1989a), Chervov (1989), Moiseyev (1989a & 1989c).

¹⁹⁰ That is, missions that previously could be accomplished only through the use of nuclear warheads can now or will soon be achievable using conventional systems. There is a blurring of the line between conventional and nuclear in terms of effectiveness. This fairly nuanced military analysis does not imply that the Soviets do not recognize the differences between nuclear and conventional weapons use. This is in contrast to some Soviet civilian academics who have seized upon and twisted the argument to argue that due to these systems, conventional warfare in Europe would be as destructive as nuclear war. This fits the civilian agenda -- it does not fit the facts.

¹⁹¹ The distinction between RUK's and ROK's is primarily one of range, as RUK's are classified as operational-strategic and ROK's are classified as operational-tactical. This also implies a distinction about which level of the force structure such systems are deployed and controlled. For a general discussion of VTO, RUK's and ROK's, see Reznichenko, *Taktika* (1987). See also, Belov (1985), Drozhzhin (1985), Malikov (1988).

network of systems that combine to form a VTO system. RUK's are the main example of this. In addition to the specific systems and VTO components, there has recently been more stress on US and NATO efforts to link these systems throughout the battlefield into an integral and automated system essentially turning the whole spatial battlefield into one RUK.¹⁹² Added to the VTO threat and enhancing it is increasing Western attention to REC.¹⁹³ The two of these in conjunction pose a particular threat to Soviet troop control systems through either destructive strikes or electronic interference and degradation.

In addition to the component elements of RUK's/ROK's, the Soviet military stresses a number of other programs or generic technologies in the context of FOFA/AirLand battle. In terms of munitions, cluster bombs and fuel-air explosives are stressed, while delivery vehicles stressed include all manner of missiles, shells, mines, and torpedoes.¹⁹⁴ Tactical aviation, as might be expected, is given a prominent separate role in analysis of the threat posed by AirLand battle. Another prominent generic technology associated with this nexus of threat factors is the development of air- and artillery-scatterable remote-mining systems -- "mine warfare".¹⁹⁵

¹⁹² Drozhzhin (1985), Gorshkov (1985a), Govorov (1986), Chernavin (1987a), Grinkevich (1986).

¹⁹³ Stressing the conjunctin of VTO and REC, see especially Editorial (1985b), Koldunov (1985b), Gorshkov (1985a), Yefimov (1985e), Chernavin (1987a), Kuznetsov, G. (1987), Batekhin (1987), Postnikov (1988), Neupokoyev (1988a), Yefimov (1987a), Maksimov (1988a), Zhdanovich (1988), Dzhumayev (1988), Kornev (1988).

¹⁹⁴ Shabanov (1986b).

¹⁹⁵ Shabanov (1986b), Aganov (1985), Ivanovskiy (1987a), Kuznetsov, V. (1987), Konoplya (1987b), Ionin (1988), Kornev (1988).

6.6.2b VTO in low-level threat assessment: In the more detailed low-level threat analysis, there are four broad categories of generic technologies associated with VTO, corresponding to functions in VTO engagements. The first element is intelligence, reconnaissance, and target acquisition systems. Second, there is a broad category that can be referred to as battle management. This category includes C³/troop control, automated control and communications systems, computer-aided decisionmaking systems, and data processing. These elements have the task of resolving, prioritizing, and allocating targets among delivery vehicles. Types of delivery vehicles constitute the third category. Finally, there are the munitions carried to the target. In addition to these four categories, REC is frequently discussed as an integral part of the high-tech conventional threat.

Analysis of Western **intelligence, reconnaissance, and target acquisition** capabilities, as might be expected, is focused at the level of the theater of operations, i.e. central Europe. However, global intelligence systems receive considerable attention in this theater context. Satellite intelligence and reconnaissance assets, for example, are discussed in terms of providing data for theater-level operations, as are strategic-level aerial assets such as the SR-71.¹⁹⁶ All intelligence, reconnaissance and target acquisition assets are integrated into a tightly-knit, fast-reacting system capable of providing the required targeting information to the delivery vehicles available. Systems integration and "data fusion" are seen as increasingly effective through digital data links and information distribution systems such as the Joint Tactical Information Distribution System (JTIDS).¹⁹⁷ While the increasing

¹⁹⁶ Kuz'michev (1985), Aristov & Rodionov (1985), Fomin (1987).

¹⁹⁷ Especially Klimovich (1985).

effectiveness of these assets is seen as an important factor in threat assessment, these same elements are also seen as the VTO elements most vulnerable to countermeasures.¹⁹⁸ In Soviet eyes, such countermeasures include radioelectronic countermeasures [*radioelektronnaya protivodeystviya* (REP)] such as active and passive jamming, chaff, infrared traps and the like, radioelectronic protection [*radioelektronnaya zashchita* (REZ)] measures such as communications security, *maskirovka*, and disinformation.¹⁹⁹ In addition, countermeasures include fire suppression (actual physical destruction) of vulnerable elements.²⁰⁰

Intelligence and reconnaissance capabilities analyzed span the entire spectrum, from electro-optical to radar to thermal and lasers, based on all types of platforms. Those associated with RUK's such as Assault Breaker (Pave Mover radar), PLSS (TR-1 reconnaissance aircraft), and ATACMS (JSTARS) receive prominent attention.²⁰¹ Other

¹⁹⁸ One system that has received some attention in strategic nuclear threat assessment - the use of digitally-stored maps -- has not been mentioned in the conventional context. However, the use of accurate digital mapping could usefully offset intelligence/reconnaissance assets' vulnerability. Indeed, systems such as nuclear-tipped cruise missiles equipped with such a system are assessed to have a high degree of accuracy. See Simonov (1988). Such systems would be even more effective on Stealth platforms, since they reduce the need for active emissions.

¹⁹⁹ One example of REP is found in Lavrenyuk (1986), in describing a training exercise. The unit commander was simply told to make provisions for protection from enemy VTO and RUK's. The countermeasure he adopted was to set burning tires off to one side of his command post to draw off missiles with IR homing heads. The judge of the exercise pronounced this satisfactory. This, incidentally, was touted as an example of "tactical initiative".

²⁰⁰ Especially Aristov & Rodionov (1985), Klimovich (1985), Alekseyev (1985), Belokuzov (1987), V. Alekseyev (1987), Dzhumayev (1988).

²⁰¹ Sergeev (1985 & 1986), Nazarenko (1987), V. Alekseyev (1988). Threat assessment of US RUK's is like hitting a moving target. PLSS and Assault Breaker were both canceled, and replaced by newer programs.

intelligence/reconnaissance platforms include AWACS, helicopters (e.g., the OH-58C), SOTAS, Firefinder, as well as various aerial platforms.²⁰² There has been consistent attention on the use of unmanned aerial vehicles (UAVs) in this role.²⁰³ In the naval context, aerial and space-based platforms are stressed most heavily.²⁰⁴ In the ground forces context, the primary emphasis is on reconnaissance and intelligence assets capable of detecting armored forces.²⁰⁵ The near-term stress is on self-contained tactical systems such as Copperhead artillery batteries and the Hellfire system mounted on the AH-64A Apache attack helicopter, while in the longer term, operational-level RUK's such as JTACMS are emphasized.

Analysis of Western advances in C³/battle management stress three general aspects. First, analyses stress the degree of systems integration and automation.²⁰⁶ Second, they stress the time factor for processing and transmitting target data, and the effective allocation

²⁰² The SR-71, U-2, TR-1 are all mentioned frequently. In addition, a ground forces recon system carried on the RC-12K aircraft receives attention, as do a variety of reconnaissance/target acquisition elements organic to strike assets, such as the upgraded AN APG-63 radar on USAF tactical aircraft. Krasnov & Silin (1985), Sergeyev (1986), Mazin (1986), Nazarenko (1986), Fomin (1987), and V. Alekseyev (1988). Even the National Aerospace Plane (NASP) is mentioned in a strategic intelligence/reconnaissance role. Nazarenko (1988).

²⁰³ Aristov & Rodionov (1985), Nazarenko (1986), Fomin (1987), V. Alekseyev (1988).

²⁰⁴ Aristov & Rodionov (1985), Kuz'michev (1985).

²⁰⁵ Especially Molostov (1986), V. Alekseyev (1988), V. Ivanovskiy (1989).

²⁰⁶ Sergeyev (1985 & 1986), Aristov & Rodionov (1985), Fedchenko & Kolganov (1986), Mazin (1986), Chub (1986), Konoplya & Shul'gin (1987), Karbovskiy (1987).

of targets -- the length of the "decision cycle".²⁰⁷ In Soviet eyes, both of these are facilitated by taking the man out of the loop to the extent feasible, replacing him with increasingly sophisticated computers. Finally, Soviet analyses stress the diffusion of sophisticated command and control systems from the more exotic systems (missiles, aircraft and the like) to more mundane systems such as artillery and logistics. For example, the Sigma ASU is projected to integrate and automate control of maneuvering troops, field artillery, ground forces' air defense, intelligence and REC, as well as logistics and support functions.²⁰⁸

A primary model for C³/battle management threat analyses comes from assessment of Assault Breaker. Using a highly-automated C³ system processing information from the Pave Mover battlefield radar, Assault Breaker was stated to be capable of tracking, targeting, and allocating delivery vehicles against 15-20 groups targets (e.g., tank companies) in a one hour time period -- near real time. Increased data fusion is stated to be able to reduce this time frame even further. Longer-term threats in this area are put in the context of the "Strategic Computer Initiative", projected to put artificial intelligence (AI) and expert system on the battlefield by 1996.²⁰⁹ In an overly pessimistic (for the Soviets) assessment, the program is projected to yield a supercomputer-controlled system for C³/battle

²⁰⁷ Mazin (1986), Chub (1986), Konoplya & Shul'gin (1987), Karbovskiy (1987), V. Alekseyev (1988). On the decision cycle and theory of troop control see Altukhov, Osnovy teorii upravleniya voyskami, (Moscow: Voenizdat, 1984).

²⁰⁸ Especially Fedchenko & Kolganov (1986). On automation of engineering and rear services, see Kornev & Fefelov (1988), which discusses the Automated Barrier Planning System (ABPS), the Automated Combat Engineer Operations and Planning System (ACEOPS), as well as the Sigma ASU, projected to integrate and automate control of maneuvering troops, field artillery, ground forces' air defense, intelligence and REC, as well as logistics and support functions. ABPS and ACEOPS are projected to be integrated into Sigma in the future.

²⁰⁹ Karbovskiy (1987).

management of an entire theater of military operations by 1990, upgraded by 1995 to include AI/expert systems support. The system will supposedly be capable of planning operations in detail, make decisions, and prepare continually updated alternative scenarios covering 96 hours. While this is hyperbole (at least in terms of the timeline), it demonstrates the Soviet view of the future of battle management.

The category of **delivery vehicles** receives the largest degree of attention in low-level threat assessment. Discussion of Western advances in delivery systems for VTO centers around the various missions to be performed. The mission most emphasized is anti-armor, though anti-C³ receives nearly as much attention.²¹⁰ Other missions stressed include suppression of enemy air defenses (SEAD), strikes against reserve forces, and strikes against naval platforms. A number of analysts address the threat from RUKs as a subset of VTO specifically.²¹¹ Compared to traditional conventional strikes, RUKs are said to yield an 8-10 times increase in SSPK along with a 10-15 times reduction in the time of engagement.²¹² Soviet projections of future development of RUKs include further integration of functions into a single platform, as well as a higher degree of automation and autonomous action on a theater-wide level.²¹³

²¹⁰ If the use of REC in an anti-C³ role is included, this mission probably receives the most emphasis.

²¹¹ Sergeyev (1985), Aristov & Rodionov (1985), Klimovich (1985), V. Alekseyev (1986), V. Kuznetsov (1986), Kolesnikov (1986), Chernyshev (1988b).

²¹² Aristov & Rodionov (1985).

²¹³ Sergeyev (1985) gives the example of integration of all reconnaissance/target acquisition, C³, and strike assets aboard a single aircraft, for example a B-52. Klimovich (1985) stresses automation.

Aerial platforms assessed as threatening accord about equal weight to fixed-wing and helicopters, and emphasize coordination between the two.²¹⁴ UAVs also receive emphasis as VTO delivery vehicles.²¹⁵ UAV importance is said to increase with rising PVO effectiveness, since they are cheaper than manned aircraft and more difficult targets, even without Stealth applications.²¹⁶ The Tacit Rainbow system is stressed as an example of the wave of the future.²¹⁷

Ground-based systems are divided into armor-based tactical systems, artillery, those based on MRLS systems, and various surface-to-surface missiles. Current armor systems include the M-1 Abrams and the M-2 Bradley.²¹⁸ Future development (aided by automation

²¹⁴ Among aircraft, the F-15, F-16, B-52s in tactical roles, Tornados, A-10s, and F-111s are all stressed, armed with a variety of guided missiles and bombs. Anti-radiation missiles (ARMs) and television-guided Maverick missiles are singled out, the latter primarily in an anti-tank role. The anti-tank mission is emphasized more heavily in assessment of attack helicopter threats, stressing the Hellfire (Improved Hellfire) on the Apache (AH-64A) and the projected LHX. Hellfire and Improved Hellfire are assessed as "third-generation" anti-tank systems, with an SSPK of 0.7-0.9 and an armor-penetrating capability of 900mm, and with greater automation. See Sergeyev (1985), unattributed (1985a), Krasnov & Silin (1985), Proskurin (1985), Sergeyev (1986), Mazin (1986), Nazarenko (1986 & 1988), Fomin (1986), Molostov (1986), Alekseyev (1988), Plotnikov (1989). Plotnikov gives particular emphasis to coordinated strikes by attack helicopters and tactical aircraft such as the A-10.

²¹⁵ Petrov & Manachinskiy (1986), Klimovich (1986), V. Alekseyev (1988), Klimovich (1989).

²¹⁶ Klimovich (1989) especially stressed the cost tradeoffs between manned aircraft and UAV's in the face of likely attrition. Klimovich likewise stresses UAV maneuverability and their low radar cross section (RCS) supplemented by radar-absorbing materials and Stealthy construction. He notes the use of YQM-94A and AQM-34 equipped with Shrike ARMs or Maverick TV-guided missiles. The BQM-34C and a projected multi-role mini-UAV are also mentioned.

²¹⁷ V. Alekseyev (1988).

²¹⁸ Especially Mazin (1986), discussing the force structure changes of the "Division-86" concept.

and software R&D research from SDI) is projected to be in the form of autonomous or remotely-controlled tanks and self-propelled artillery.²¹⁹ The most frequently cited artillery system is the Copperhead system, characterized as a ROK, though other systems are also addressed.²²⁰ Multiple rocket launch systems (MRLS), such as the West German LARS and LARS-2, and the US Army MRLS are stressed heavily.²²¹ Systems based on MRLS (the Soviets refer to these generically as "reactive systems of barrage fire" [RSZO]) receive a heavy emphasis, especially since they are projected to be the delivery system for future RUKs (JTACMS-ATACMS).²²² RSZO are threatening in terms of an extremely large shock force in a very short time period against area targets, in terms of high mobility, and low vulnerability to enemy counterbattery fire.²²³ Combining these attributes with smart anti-armor submunitions enhances their effectiveness and the threat, making them effective against hardened point targets or forces on the move as well.²²⁴

Missiles as VTO delivery vehicles are perhaps the most threatening systems, due to

²¹⁹ Especially Kozlov & Liz'ko (1986). The SDI-tie in is from Chernyshev (1988). Karbovskiy (1987) goes so far as to project the development of "autonomous means of transport" for launching nuclear weapons -- "an offensive weapon of the automated battlefield". See also, Richard H. Phillips, "Stealthier Tanks? New Trends in Armor Survivability", *Soviet Defense Notes*, October 1989, Vol. 1, No. 5.

²²⁰ For example, the new 81mm M252 and self-propelled 40mm artillery deployments. See especially Mazin (1986). V. Aleseyev (1988) stresses the development of high-precision submunitions for large-caliber artillery.

²²¹ The Soviets have a large store of experience with such systems, such as the famous Katyushka rocket barrage system used to great effect in WWII.

²²² Proskurin (1985), Dolgov (1986), V. Alekseyev (1988), and Filippov (1989).

²²³ Especially Filippov (1989).

²²⁴ The SADARM submunition is most commonly cited. See especially Molostov (1986).

the difficulty in protection against them, their extremely fast reaction times, and their accuracy. Conventionally-armed cruise missiles and Pershing-2s were emphasized heavily, especially in the early part of the period.²²⁵ In addition, Assault Breaker was slated to have a delivery systems based on a modified Patriot SAM.²²⁶ Various types of air-to-surface missiles are also stressed.²²⁷

In terms of naval delivery vehicles, the most threatening are conventionally-armed cruise missiles (Tomahawk) and strike aircraft staged from carriers as the delivery vehicles for naval RUKs.²²⁸

In terms of **munitions and submunitions**, Soviet analysts stress, first, the increased destructive power of modern conventional munitions. Both unguided munitions for barrage of area targets and "smart" munitions and submunitions are addressed.²²⁹ Though the emphasis in analysis of VTO is on guided munitions, even "dumb" munitions are increasingly effective, especially when married to a high-accuracy delivery system. Some munitions are seen as so effective that they merit the characterization "conventional

²²⁵ Sergeyev (1985), Klimovich (1985), Proskurin (1985), Sergeyev (1986), Nazarenko (1986), Fomin (1986).

²²⁶ Sergeyev (1985), Klimovich (1985), Molostov (1986).

²²⁷ The WASP missile is most frequently cited. Others include the Shrike, Standard ARM, HARM, and Maverick. Klimovich (1985), Nazarenko (1986), Fomin (1986), Molostov (1986), Klimovich (1989). In addition, the use of stage-truncated ICBMs carrying up to 20 tons against a target such as an airfield is even mentioned. V. Kuznetsov (1986).

²²⁸ Aristov (1985), Kuz'michev (1985).

²²⁹ Smart munitions addressed include Copperhead artillery rounds, SADARM, and various air-to-surface missiles. See especially Sergeyev (1986), Molostov (1986), Nebabin & Kuznetsov (1989).

weapons of mass destruction".²³⁰ For example, area systems are now said to be able to cover an area of 30,000 m² in a single barrage. The major stress in analysis of conventional munitions is their effectiveness in ground combat, and particularly against mobile armored targets, though effectiveness against hardened point targets (field fortifications, troop control centers) is also stressed.

The greatest attention goes to cluster bombs, especially those equipped with smart submunitions, and to increasingly effective submunitions for large-caliber artillery.²³¹ High-explosive (HE) fragmentation and incendiary munitions are also stressed in terms of increased yield and area of destruction. A large degree of attention is devoted to fuel-air explosives (FAE), which are said to surpass traditional conventional munitions in yield by 3-4 times. This is projected to increase to 10:1 in the future.²³² FAE are also considered particularly threatening due to the fact that they conform to topographic shape or field defensive fortifications -- protection against them requires new engineering equipment and tactics. Because of these characteristics, they are potentially useful against hardened C³ nodes and other critical point targets.²³³ FAE are also addressed in a variety of other roles. They are classed by some as "area denial munitions", are stressed in terms of "isolating the

²³⁰ Unattributed (1987).

²³¹ SADARM, for example. See Sergeyeve (1985 & 1986), Krasnov & Silin (1985), Molostov (1986), V. Alekseyev (1988).

²³² V. Kuznetsov (1986). Chernyshev (1988) places this in the context of a postwar increase in conventional munitions destructive power of 1-2 orders of magnitude.

²³³ There appears to be some confusion as to whether traditional methods of engineering fortification are effective against FAE. V. Kuznetsov (1986) and Oselin (1986) state that they are not, while an article in *Voyennye znaniya* states that they do offer at least some protection. Unattributed (1987).

battlefield" in the FOFA context, in an air defense role, and even in ASW.²³⁴ Finally, they are projected to be use in mineclearing operations.

This last mission brings out a subset of discussions of munitions -- "mine warfare". Soviet analysts have been paying increasing attention to the use of mines, as systems for remote-minelaying have been introduced and smart mines developed. Minefields can now be sown in a very short time and at long range, since they are both air- and artillery-scatterable.²³⁵ Furthermore, smart mines are now equipped with semi-active laser, passive IR, or active radar homing heads and nonmagnetic contact, IR, radar, seismic, or traditional contact triggers. The two remote-mining systems mentioned most frequently are the West German Bussard and the MW-1 deployed with Tornados or other tactical aircraft. These systems are computer controlled, allowing for a variety of patterns adapted to specific targets.²³⁶ Soviet threat assessments of FOFA and AirLand battle include "mine warfare" as a particular problem in terms of isolating the battlefield and delaying the arrival of second echelon forces.²³⁷

The threat from **radioelectronic combat** (REC) is relatively straightforward. US and NATO use of offensive electronic warfare targeted against the Soviet troop control system

²³⁴ V. Kuznetsov (1986), Oselin (1986), Chernyshev (1988).

²³⁵ Generalov (1986), Sergeyev (1986), Konoplya (1987), Ibragimov (1988), Nikul'shin (1989).

²³⁶ Ibragimov (1988), Nikul'shin (1989).

²³⁷ For example, Chernyshev (1988) and V. Alekseyev (1988).

is addressed most heavily.²³⁸ Offensive REC, especially coupled to fire suppression, leads to reduced effectiveness and to disorganization of troop control, to reduced weapons and fire effectiveness, and to degraded troop and forces coordination.²³⁹ The major point to be made about Soviet assessment of REC is that it is increasingly seen as a nearly independent types of combat -- "an essential supplement to fire, shock, and maneuver" -- and directly tied to increased VTO effectiveness.²⁴⁰ REC supremacy is said to be as important today as was air supremacy in WWII -- perhaps a bit of hyperbole, but indicative of the importance attached to this threat. The major focus of discussion of the REC threat is on combined-arms combat, though applications in SEAD and naval combat are also prevalent.²⁴¹ While ground-based REC assets are addressed in threat assessment, the primary emphasis is on aerial platforms.²⁴² The EF-111, EC-130E Compass Call, and the E-3A AWACS are stressed. In the SEAD mission, of course, the major stress is on Wild Weasel SEAD

²³⁸ Klimovich (1985), Fedorovich (1987), Belokuzov (1987), V. Alekseyev (1988).

²³⁹ Belokuzov (1987).

²⁴⁰ These are the big three in Soviet tactics. Fedorovich (1987). On the connection between REC and VTO, see Alekseyev (1985), Lavrenyuk (1986), Alekseyev (1987), Dzhumayev (1988).

²⁴¹ Naval analysts may infact stress REC more than any other service. Aristov (1985) and V. Alekseyev (1987), for example. They also appear to have seized on the issue sooner than other services. See Richard H. Phillips "Origins and Implications of Soviet Development of Radioelectronic Combat," MIT Center for International Studies, Soviet Security Studies Working Group Research Report No. 89-2.

²⁴² The target of air-based REC assets remains primarily the combined-arms battle. Klimovich (1985), Nazarenko (1986), Belokuzov (1987). Fedorovich (1987) focuses mainly on ground forces systems.

aircraft, though individual aircraft systems are also addressed in the air vs. PVO battle.²⁴³

Taking the four functions of VTO in addition to REC, it is easy to see why Soviet analysts perceive a potent threat. This is in particular tied to the Soviet concept of warfare. With a centralized command and control system, and a "scientific" approach to combat, Soviet commanders place a premium on predictability in operations and close conformity to the operational plan by lower echelons. The combination of VTO strikes against troop control centers and communications relays, supplemented by REC, is seen as likely to disrupt both of these elements. Similarly, the fact that VTO and remotely-sown minefields can be targeted accurately and quickly would throw forces off schedule, even if they are able to remain combat-ready. The impact and ramifications of enemy VTO use are potentially great from the Soviet perspective.

6.6.2c VTO threat impact on the battlefield: Threat assessment *vis-a-vis* VTO addresses their impact on virtually all aspects of combat and combat readiness. The first and perhaps most important area affected is the **battlefield engagement**. Soviet threat analysis stresses, first of all, the time factor in engagements. The side that is first able to detect targets and acquire accurate coordinates, pass this information through the command and control system, and fire first, will be the side that wins the engagement.²⁴⁴ This is

²⁴³ Especially in Klimovich (1985), Krasnov & Silin (1985), Nazarenko (1986), Belokuzov (1987).

²⁴⁴ Ivanovskiy (1985c), Chernavin (1986f & 1987a), Grinkevich (1986), Aristov & Rodionov (1985), Petrov & Manachinskiy (1987), V. Alekseyev (1988a), Plotnikov (1989), V. Ivanovskiy (1989).

because of the very high SSPK's the Soviets associate with VTO. In the assessment of many high-level military analysts, the picture painted of a near-future battlefield resembles a "Wild West shootout". This quick draw mentality is especially evident in ground (particularly armor) and naval forces analysis.²⁴⁵ The gunslinger perspective extends from the tactical level (e.g., tank-on-tank), up at least to the operational level through the projected deployment of RUK's with a range of more than 500 km. Developments along these lines were at the heart of the Ogarkov threat assessment in the early 1980's. While Ogarkov and his coterie are now out of the picture, the issues they stressed are now conventional wisdom in military threat assessment.²⁴⁶

Naval threat assessment was perhaps the first to seize upon this gunslinger mentality. Gorshkov, and increasingly other naval analysts as well, described modern naval combat as "contactless", as fleets utilize long-range reconnaissance and intelligence assets (including satellites) to receive target information in real time. Using a highly automated control system, taking the man out of the loop to the extent possible, target coordinates and characteristics are relayed to strike and fire assets, including naval RUK's, cruise missiles and aircraft equipped with "fire and forget" long-range missiles. The focus is on each sides' capability for real time beyond-visual-range (BVR) target engagement. As a result, naval combat will be extremely fluid, dynamic, and rapid. Added to this situation is enemy use of REC to degrade or eliminate C³ performance, thereby reducing the likelihood that Soviet

²⁴⁵ Ivanovskiy (1985c), Chernavin (1986f & 1987a), Grinkevich (1986).

²⁴⁶ Even the resource allocation demands -- probably the real cause of Ogarkov's ouster -- are back with a vengeance.

forces will be the first to find, fire, and kill the enemy.²⁴⁷

A similar situation is foreseen in combined-arms ground combat.²⁴⁸ At the operational level, using long-range intelligence/reconnaissance assets including high-flying aircraft like the TR-1, satellites, deep-looking battlefield radar, and radioelectronic intelligence such as SIGINT, both sides attempt to acquire important targets such as groups of tanks on the move, C³ nodes, or nuclear-capable targets before the other side.²⁴⁹ This target information is then passed through a highly automated data processing and troop control system -- strike and fire resources receive the intelligence in real time. JSTARS, JTIDS, and JTACMS are the current prototypes stressed in Soviet analysis.²⁵⁰ Long-range assets, including RUKs and ROKs, then launch extremely-high SSPK strikes against the targets virtually instantaneously. This demanding scenario is replicated at the tactical level, most graphically in a tank-on-tank engagement.²⁵¹ Modern combined-arms combat is rapid, fluid, and dynamic. Remote minelaying systems are another key element in this scenario, in terms of the potential to rapidly react to developing situations and deny the adversary

²⁴⁷ Shinkov & Kokina (1986), G. Kuznetsov (1987), N. Smirnov (1985), Gorshkov (1985a).

²⁴⁸ Belov & Shchukin (1985), Mayorov (1986), Grinkevich (1986), Vorobyev (1987a & 1987b), Zhdanovich (1988).

²⁴⁹ Belov & Shchukin (1985), Grinkevich (1986), A. Krasnov (1986), Neupokoyev (1988a & 1988b), Vorobyev (1987a & 1987b).

²⁵⁰ Especially Shinkov & Kokina (1986), A. Sergeev (1985 & 1986), V. Alekseyev (1988a).

²⁵¹ Ivanovskiy (1985c & 1987a), Galkin (1988b).

the initiative.²⁵² Combat consists primarily of a series of meeting engagements, with no clear distinction between the front and rear. REC is employed by both sides to increase the time required by the other to acquire targets and communicate data to strike assets, or to prevent these functions completely for some period of time.²⁵³ An analogous picture is drawn of the air-to-air and the air defense battles.²⁵⁴

One of the primary affects of VTO on the battlefield, according to the Soviets, is to change the **correlation between offense and defense**. However, the picture is far from clear. On the one hand, the range, flexibility and speed of VTO enable the defender, for the first time, to "seize the initiative".²⁵⁵ Equipped with long-range strike resources and the target acquisition to employ them deep, the defender need not wait for the attacker to choose the time and place of battle. Similarly, VTO add to the defender's ability to achieve surprise. Due to the VTO threat, offensive forces must be dispersed, much as under the threat of nuclear use. Concentration for offensive operations, especially breakthroughs, is more difficult to achieve, particularly if enemy REC degrades troop control.²⁵⁶ Set against these defensive advantages, there is the gunslinger mentality noted above. According to this perspective, there is a sizable offensive advantage accruing to the attacker, provided he can react more rapidly than the defender. Obviously, going first is the best way to achieve this

²⁵² Aganov (1985), Shabanov (1986c), Vorobyev (1987b), Ivanovskiy (1987a), V. Kuznetsov (1987).

²⁵³ Gorshkov (1985a), Zaytsev (1985), Drozhzhin (1985), Grinkevich (1986), Postnikov (1987), Lobov (1989), Vorobyev (1989b).

²⁵⁴ Neupokoyev (1987 & 1988), Neupokoyev & Pushik (1987), Tretyak (1988a).

²⁵⁵ Especially Vorobyev (1987a).

²⁵⁶ Especially Vorobyev (1987b). Also, Malikov (1988).

time advantage.²⁵⁷

Both of these perspectives can be found in abundance in Soviet analysis. However, what is missing thus far is a thorough assessment of the tradeoffs in offense-defense dynamics.²⁵⁸ For example, those analysts stressing the quick draw offensive advantage fail to mention advantages that might accrue to the defender in a high-tech shootout. The defender, as always, has the ability to work from prepared positions, allowing the use of communications equipment less vulnerable to radioelectronic intelligence (e.g., wire). Thermal emissions can be reduced to mask targets from infrared recce systems. Radar systems can remain in a passive mode to reduce ELINT vulnerability. Radioelectronic protection (*zashchita* - REZ) and *maskirovka*, including communications security, false positions and targets and the like, make target acquisition a more difficult task for the attacker.²⁵⁹ The offensive force, though, is on the move and has a more difficult task in REZ and *maskirovka*.²⁶⁰ On the other hand, analyses stressing defensive advantage (mostly by lower-level officers, incidentally) make no mention of the purported offensive advantages seen by the gunslingers.

The major factor separating these viewpoints is their projections of the nature of the

²⁵⁷ Extending the "Wild West shootout" analogy, one would not wait for the other gunslinger to say "draw".

²⁵⁸ There may be such an analysis; however, it is not in the open source material available at this time.

²⁵⁹ I am indebted to Barry Posen for this point.

²⁶⁰ There have been some analyses of methods of REZ and *maskirovka* of armor precisely in this vein -- techniques that are potentially useful on the move and that require no crew initiative to employ (a perennial Soviet shortcoming). See Richard H. Phillips, "Stealthier Tanks? New Trends in Armor Survivability", Soviet Defense Notes, October 1989, Vol. 1, No. 5.

future battlefield. The gunslingers believe the battlefield will be spatially and temporally fluid and dynamic, and dominated by meeting engagements. On such a battlefield, there will be no clear distinction between attacker and defender, as both forces are engaged in highly mobile, offensively-oriented combat. Those who stress defensive advantages arising from VTO retain some elements of more traditional positional defenses, at least in the initial stages. In this situation, the defender retains certain advantages. This issue is related to Soviet discussions of the merits of "positional" vs. "maneuver" defense in the context of a defensive military doctrine.²⁶¹

On balance, it is not clear whether offense or defense is favored by widespread deployment of long-range VTO. Defensive advantages emphasized in Soviet analyses are likely to hold. On the other hand, the offensive advantages foreseen by the gunslingers could hold up if the attacker achieves surprise. Assuming good intelligence is available, the speed with which VTO can strike might allow either side a first-strike advantage in the form of a decapitating strike against C³ and other crucial points. This surprise conventional deep strike scenario is the one stressed in high-level Soviet threat assessment. Overall, it seems that VTO favor the offense in terms of a surprise preemptive attack -- the bolt from the blue scenario. There is not so much an offensive advantage derived from VTO, as much as a surprise attack advantage.²⁶² On the other hand, in the course of battle advantages continue to benefit the defender. Much depends on the complicated interaction of the opposing sides' forces and operations, which would largely determine which of the two

²⁶¹ See especially Vorobyev (1989a & 1989b).

²⁶² Surprise does not have to be total. Soviet military science recognizes various levels of surprise, from strategic to tactical.

projections of the future battlefield is closer to the mark.

There is one extremely important caveat that must be appended to this analysis. The Soviet analyses outlined here are predicated on the assumption that both sides are roughly equal in terms of target acquisition, C³/troop control, and strike assets. In the extreme low-level tank-on-tank case, this is perhaps the case. However, at higher tactical, operational, and strategic levels, the Soviets lag NATO and the US in many key component technologies.²⁶³ The key shortcomings are in the functions of intelligence/reconnaissance and especially the highly automated data processing and communications needed to fulfill the real time engagement requirement. Notwithstanding three decades of Soviet discussion of the "introduction" of automation and computers in troop control, and an elaborate theoretical understanding of its impact, the Soviet lag remains. Furthermore, as the generational turnover in high-tech weapons and support systems accelerates, a given lag in years represents a larger lag in quality. Thus, Moiseyev calls for changes in the NIR/OKR process to allow faster turnover of new systems.²⁶⁴ In the present context of Soviet economic performance and priorities, it is unlikely that the lags in numerous critical technologies will shrink. While economic reform offers some prospect for the future, in the near and medium terms economic reform has caused turmoil that adds to the problems.²⁶⁵

²⁶³ See for example "The Soviet Economy in 1988: Gorbachev Changes Course", CIA/DIA presentation to the National Security Economics Subcommittee of the Joint Economic Committee, Congress of the United States (DDB-1900-155-89, April 1989), especially pp. 3-7.

²⁶⁴ Moiseyev (1989c).

²⁶⁵ I am indebted to Stephen Meyer for this insight.

What would be the situation if the US and NATO were to deploy VTO, while the USSR is unable to match these developments? In Soviet eyes, disaster. The advantages accruing to both offense and defense from VTO would belong only to the West -- the achievement of military-strategic parity might be reversed, and the West achieve its long-sought goal of military superiority.

6.6.2d VTO impact on readiness, training, and C³: While the Soviet military is currently unable to adequately match Western developments in VTO, that does not mean that there has been no response to the threat. The first response has been a recognition of a need for higher combat readiness, to deal with the surprise attack potential. In addition, there has been a surge in discussion of the shortcomings of training, especially at the tactical level. Similarly, there have been calls for changes in the C³ system, again particularly at the tactical level. These responses are interesting in their own right; however, they are also useful in the context of threat assessment analysis. For example, analyses of tactical training emphases and shortcomings are revealing both regarding Soviet problems and the most likely threats for which to prepare.

Calls for increased combat readiness are straightforward responses to the Western threat, especially of surprise attack. However, there is one aspect of increased combat readiness that is often overlooked. In the Soviet lexicon, one of the primary components of combat readiness is the technical quality of troops' equipment. In calling for increased combat readiness, then, in addition to the connotation of alert status commonly associated

with readiness, Soviet analysts are implicitly calling for improved quality of equipment.²⁶⁶ These implicit calls have increasingly been joined with explicit, as increasing *glasnost*' has allowed military analysts as well as civilians to voice wider-ranging opinions and demands.

The surge in discussions of tactical training occurs primarily in the later part of the period of study, predominantly in 1989.²⁶⁷ As a result of the fluid, dynamic, and very rapid battlefield projected for modern warfare, and usually explicitly in the context of enemy VTO, Soviet analysts have placed increasing stress on tactics, some even going so far as to say that tactics is now the most important element of military art (surpassing operational art and even strategy).²⁶⁸ Soviet analysts examining their own tactical training find it wholly inadequate to meet the requirements of the situation. In brief, exercises and maneuvers are completely stereotyped and stripped of any element that seems complicated and therefore risky to the commander. While this characterization is by no means new, the shortcomings have assumed new urgency due to advancing military technology.²⁶⁹ Various stopgap solutions have been proposed to close the gap between requirements and reality; however, the prospects for their success are bleak in the absence of fundamental changes

²⁶⁶ On the need for increased combat readiness, see for example: editorial (1985b), Akhromeyev (1985a), Petrov (1985a), Belonozhko (1985), Sokolov (1985c), Yefimov (1986a), Akhromeyev (1986a & 1986d), Govorov (1986), Chernavin (1986f), Vorobyev (1987a), Tretyak (1988a).

²⁶⁷ Borsuk (1989), Khazikov (1989), Khvatov (1989), Lobov (1989), Ranevskiy (1989), Vorobyev (1989a).

²⁶⁸ Borsuk (1989).

²⁶⁹ An additional source of urgency in meeting training shortcomings is the actual and potential shrinkage of forces and resources. Training must be improved if the Soviet military is to accomplish the same missions with smaller forces.

in the forces as well as the command and control system.²⁷⁰

Changes in the forces -- primarily the conscription system -- are needed both to improve the quality of the troops as well as to reduce the need for endless repetition of basic training in units every six-month rotation cycle. While this has been, until recently, strenuously resisted by the top military leadership, and is subject to economic and resource constraints, there are signs that the cadre-conscription system will be phased out in favor of some sort of volunteer or mixed military structure over the next several years.²⁷¹

The other problem is the degree of centralization characteristic of Soviet military C³. Partially rooted in the quality of troops in the conscription system, centralization nonetheless has very deep roots in the Soviet military. Essentially, the system is designed to afford maximum flexibility to high echelons of control, at the cost of leaving no room or inclination for initiative at lower (operational or tactical) levels. This worked in the past, though it was extremely costly in manpower and resources expended. However, if the modern battlefield looks as Soviet analysts project, this C³ system may well prove to be too rigid to react rapidly as required by the impact of VTO. In addition to sluggish reaction time, an overly centralized C³ system is more subject to catastrophic breakdown in the event of precision strikes against control and communications nodes, or from skillful application of REC. An historical analogue comes from the initial period of the Great Patriotic war, when a combination of German attacks on the C³ system and the resultant reluctance of officers to use radio communications for fear of inadvertently calling down German strikes

²⁷⁰ See Richard H. Phillips, "Problems in Soviet Tactical Training," Soviet Defense Notes, July 1990, Vol. 2, No. 4.

²⁷¹ See Judyth Twigg, "Abolish the Draft? Soviets Debate Conscription Policies," Soviet Defense Notes, July/August 1989, Vol. 1, No. 3.

on their positions led to a catastrophic failure of troop control in many regions.²⁷²

Reacting to the changes in combat and the over-centralization of their own C³ system, some Soviet analysts are now calling for real independence in troop control for tactical units.²⁷³ In the past, the requirement was for "initiative", in the form of properly and effectively carrying out the plan. Initiative in the Western sense was not rewarded -- indeed, it was both implicitly and actively discouraged.²⁷⁴ Now, though, real independence is being stressed, in two ways. First, independence in decisionmaking based on an increased level of tactical skill is advocated.²⁷⁵ Second, and more importantly, there have been proposals for changes in force structure to afford tactical units the material wherewithal for real independent action. In this scheme, units as low as battalion would receive the organic armor, anti-tank, air defense, artillery, engineering, signal, and other additional support required for independent action in response to a rapidly changing situation.²⁷⁶ This reorganization scheme fits in well with the experimentation with a corps-brigade force structure in the mid-1980's. However, the call for real tactical independence so far comes

²⁷² See Richard H. Phillips "Origins and Implications of Soviet Development of Radioelectronic Combat," MIT Center for International Studies, Soviet Security Studies Working Group Research Report No. 89-2.

²⁷³ Vorobyev (1989b). Lobov (1989), in the context of maneuver and exercise planning. Chernavin (1987a) ties changes in troop control in the naval context directly to increasing Soviet C³ vulnerability in the face of increasing effectiveness of enemy VTO strikes and REC.

²⁷⁴ For an example of how initiative and independence are traditionally discussed, see Losik (1987), Smirnov, N. (1987).

²⁷⁵ Borsuk (1989), Khazikov (1989), Khvatov (1989), Lobov (1989), Ranevskiy (1989), Vorobyev (1989a).

²⁷⁶ See especially Vorobyev (1989b).

from a small minority, with prominent military leaders still stressing the benefits and requirements of centralization, even at the explicit cost of increased vulnerability to enemy VTO strikes.²⁷⁷ There has been no movement in this direction so far, and achieving a situation where, for example, a company commander can call in an air strike or modify his mission orders would face extremely high resistance, assuming the Soviets would want to go that far -- an unlikely prospect.

6.6.2e VTO impact on the initial period of war: Analysis of Soviet discussion of the initial period of war shows increasing emphasis and impact of VTO.²⁷⁸ Some Soviet analysts stress that the aim of NATO's long-term force modernization plan (through 1995) is to assemble the forces needed to shift the correlation of forces decisively in their favor within the first 48 hours of hostilities, and to accomplish strategic objectives leading to victory in the initial period of war without recourse to nuclear weapons.²⁷⁹

In brief, the conventional war initiation contingency is now perceived as the most probable, since missions that once required nuclear weapons can increasingly be

²⁷⁷ One good example of the traditional resistance to decentralization of C³ is Postnikov (1987). Postnikov disusses a proposal to split a battalion's troop control assets into two groups in order to increase survivability. He rejects this on the grounds that it will lead to reduced effectiveness of centralized troop control. Postnikov thus favors retained centralized troop control even at the expense of increased vulnerability.

²⁷⁸ The initial period of war literature is something of a separate area for analysis. See Matthew A. Partan (1987). "Soviet Assessments of Military Capabilities: A Case Study of the Beginning Period of War." MIT Center for International Studies, Soviet Security Studies Working Group Research Report No. 87-6. This study covered the period 1959-1985. For analysis of the large literature since that time, see Richard H. Phillips, "Soviet Military Debate on the Initial Period of War: Characteristics and Implications." MIT Center for International Studies, Soviet Security Studies Working Group Research Report No. 89-1.

²⁷⁹ Proskurin (1985), Alekseyev (1986).

accomplished with conventional VTO. Soviet analysis of the initial period also shows a decline in the perception of the inevitability of escalation to nuclear use. This is clearly counter to much of the threat articulation in propaganda and arms control settings, and supported by threat articulation in Cluster 2a.

Soviet analysis of the initial period of war revolves around seven primary and two secondary factors.²⁸⁰ A major change in the first factor -- the role of surprise -- is clearly linked to emerging conventional capabilities connected to VTO. Problems that used to be seen exclusively at the nuclear level, connected to warning time and the "threatening period" have been extended to the high-tech conventional level. The role of conventional surprise attack has been upgraded. Following from this fact, there has been a relative shift in emphasis from early warning to increased combat readiness to meet the threat.²⁸¹

The second strategic factor directly affected by the impact of VTO is at the level of C³. As noted above, there has been an increased emphasis on tactical C³ and troop control. This is directly linked to increasing vulnerability of troop control centers and relays to enemy VTO or REC. The analysis exhibited in general threat assessment is reflected in the more specialized literature on the initial period. In contrast to some of the more far-sighted analysts in the threat assessment literature, though, the overwhelming stress in analysis of the initial period remains weighted in favor of centralized command and

²⁸⁰ The primary factors are: 1) surprise, 2) preliminary preparations, 3) direct preparations, 4) intelligence and early warning, 5) C³, 6) strategic reserves, and, 7) logistics and supply systems (rear services). The two secondary factors are: 1) uncertainty issues, and 2) coalition factors.

²⁸¹ On the surprise factor in the initial period of war and the threatening period, see Yakovlenko (1987), editorial (1988a), and Pastukhovskiy (1988).

control.²⁸²

Finally, both reserve forces and rear services are accorded greater attention in recent analyses of the initial period of war. This is directly linked to the strategies and capabilities around FOFA and AirLand battle. US and NATO development and deployment of high-accuracy, fast-reacting weapons systems are correctly seen as placing both reserves and rear services in a more vulnerable position.²⁸³

Overall, the major changes that have occurred in Soviet analyses in the mid- and late-1980's are directly related to the changing conventional threat. The fact that major threats identified in the more general threat assessment literature are also reflected in more specialized analyses is indicative of the degree to which these concerns are diffused throughout the system of military science. In addition, it indicates that the Soviet military is attempting to achieve a grasp of the evolving situation and its implications, with an eye to meeting the increasingly heavy requirements they forecast for modern combat.

6.7 Interests and Agendas Served by Threat Articulation and Assessment

It seems probable that to the extent that a "real" Soviet military threat assessment can be isolated, this is it. This is not to say that there are not exaggerations or myths being

²⁸² Mal'tsev (1988), Salmanov (1988). On the issue of centralization vs. decentralization, see especially Danilov (1987), Mal'tsev (1988), I. Kuznetsov (1988), and Lobov (1988c).

²⁸³ On the importance of reserve forces, see Yevseyev (1986 & 1988), Gladyshev (1987), N. Medvedev (1987), Krivosheyev (1988), and Pastukhovskiy (1988). On the role of rear service, logistics, and support, see Perechnev (1988), Pastukhovskiy (1988), Kiryan (1988), B. Petrov (1988) and Gurov (1988). On the specific impact of VTO on *Tyl'* operations, see Golushko, I. [Col-Gen.] (1984). "The Rear in conditions of the use by the enemy of high-accuracy weapons," *Tyl' i snabzheniye*, No. 7 (July). Also, Lopatin, A. [Gen-Maj.] (1985), "Taking the developing situation into account," *Tyl' i snabzheniye*, No. 12 (December).

propounded here - there are. However, the clear correspondence between civilians and military, especially in terms of force structures and military doctrine and art, observed in Cluster 1, is wholly absent from Cluster 2a. Issues that one would expect to be stressed more strongly in "real" threat assessment, such as combat readiness and training, command and control, sustainability, and the like, are stressed the most strongly here. The one issue that has consistently been identified with Soviet threat assessment -- the initial period of war and its impact -- is present almost exclusively in this cluster's threat assessment. Finally, the pattern of threat assessment in this cluster is relatively stable compared to that in other clusters. Of the six clusters, the threat assessment presented in Cluster 2a changes at a slower rate than the others, as would be expected. In short, the threat assessment presented in this cluster of analysts is the most likely to reflect the true military threat assessment.

The Soviet military's "real" assessment of the threat is oriented towards the future. It is oriented on making the responses in military technology and especially military science and art required to meet the projected threat in the 1990's and into the 21st century. The most threatening technologies, from the military perspective, are advanced conventional weapons systems and munitions, and the entire complex of intelligence/reconnaissance and C³ systems supporting them (the technologies and systems that constitute VTO and the equipment that could make FOFA/AirLand battle a success). In the military's vision of a future war, these technologies loom large, threatening traditional military missions and, even more importantly, the basic theories of Soviet military art. Because of the consistent and widening Soviet lag behind the West in critical constituent technologies, there is a sense of urgency in meeting the evolving challenge. Whereas in the past "crash" programs could deal

with discrete technological challenges, the present and future military-technical situation is characterized by a synergy of many technologies. The broad front advances by the West, in this view, threaten to achieve the elusive "military-strategic superiority". While there are calls for advanced Soviet equipment to match the threat, the most energy currently is devoted to adapting military art, command and control, and training to meet the threat.²⁸⁴

The Soviet military, as has been demonstrated, articulates two very different assessments of the threat, for different purposes. One is for propaganda and arms control functions, and the other serves as a tool for military planning in meeting the evolving threat. Despite their differences, they are based on the same perspective on the world and the role of the Soviet military. This perspective is not shared by civilian critics in the Soviet debate. How do these two military assessments of the threat compare to those articulated by civilian officials and academics? The next four chapters examine each of the four civilian clusters in turn.

²⁸⁴ The relative dominance of "software" changes over "hardware" changes is forced on the military by the dire economic and technological situation in which the entire nation is mired.

7. CLUSTER 2b - ACADEMIC MILITARY-TECHNICAL THREAT ASSESSMENT

7.1 Threat Assessment in Cluster 2b: A Thumbnail Sketch

Cluster 2b is comprised exclusively of civilian academics, analyzing the threat in a military-technical context.²⁸⁵ Superficially, the threat portrayed by this cluster is similar to that articulated internally by the Soviet military (Cluster 2a).²⁸⁶ Many of the same issues and arguments are sounded. However, these arguments are twisted until they are diametrically opposed to the Soviet military's assessment, and the issues are discussed within very different perspectives.

This cluster did not find an active voice until the sanction and prodding of Gorbachev and Shevardnadze. There was no significant threat articulation by these academics until 1987. In 1988, however, there was a large surge, made possible by Gorbachev's *glasnost*, *perestroika* in the policy process, and search for *novoye myshleniye*.²⁸⁷

The academics' military-technical cluster focuses heavily on conventional forces. While the assessment is primarily in the context of intentional war, a sizeable minority stresses inadvertent war and escalation. The scope of the threat is broader than in the two military clusters, focusing primarily on global and multi-theater contingencies. Specific threat content is largely addressed in general terms, at the level of force structures and

²⁸⁵ The is distinguished from academics' threat image in arms control contexts: Image 4b.

²⁸⁶ The cluster analysis therefore initially shows them as sub-clusters of a common larger cluster.

²⁸⁷ Again, articulation of this threat image died down somewhat in 1989, as other issues assumed increasing importance and required more attention.

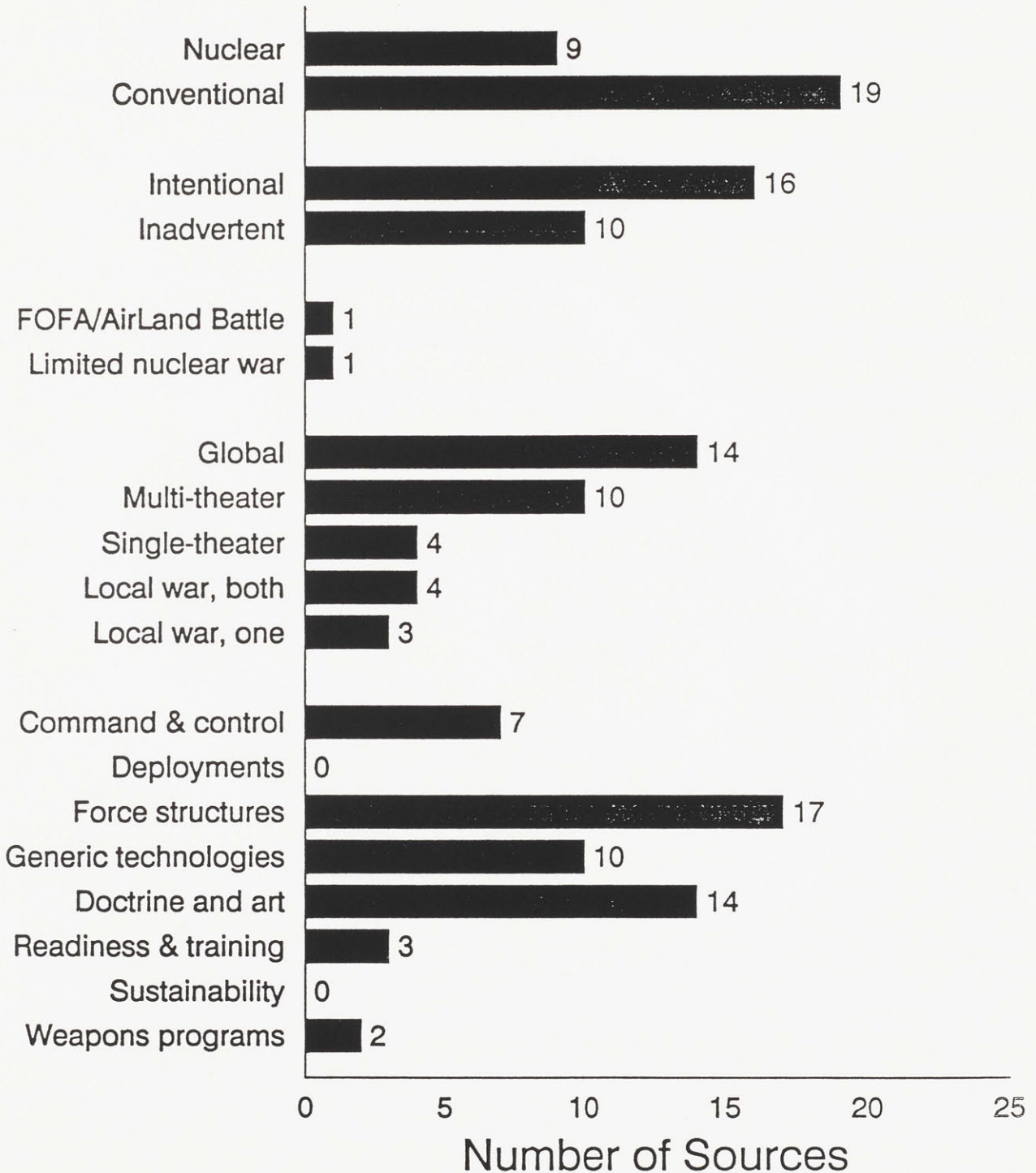
military doctrine and art. Generic military technologies are also strongly emphasized, as are issues of command and control in the context of inadvertent war.

As noted, the assessment of Cluster 2b is superficially similar to military analysts', but issues are discussed in terms that further the academics' arms control and political agendas. Economic aspects of military policy are a major underlying factor driving the threat portrayed, particularly in terms of technology-intensive systems and R&D. There is a tendency to implicitly and explicitly downplay the external military threat.²⁸⁸ The primary military threats facing the USSR in this academic assessment arise from stability-instability dynamics associated with conventional force structures and strategies. These dynamics are caught up with the debates on "defensive" defense and "reasonable sufficiency" in military policy.

²⁸⁸ In this military-technical image, academics tend to be more implicit in their arguments about the existence of a threat. Their doubts and criticisms are much more explicit in their arms control oriented image, 4b.

Figure 7.1

**Threat Assessment in Sub-cluster 2b
1985-1989, Cumulative**



7.2 The Structure of Cluster 2b Academic Threat Assessment

For the civilian analysts in Cluster 2b, there are two interesting groups of closely associated variables, both of them dealing primarily with conventional threats. The first nexus pairs conventional threats with both force structures and generic technologies, reflecting the chief concerns of the civilian analysts represented in Cluster 2b. Overall, this group of threat factors accounts for approximately two-thirds of the assessment presented in Cluster 2b, with the second set accounting for the other one-third.²⁸⁹

The second nexus is closely connected, and concerns the potential for inadvertent war at a single-theater level. Command and control issues are closely associated here. This accurately reflects the civilian academics' preoccupation with the NATO-WTO conventional balance, and in particular their perception of dangerous instabilities associated with it. The distribution of attention between the two sets of threat factors accurately reflects their priorities in this threat assessment. The major threat is at the conventional level, and comes from the instabilities associated with the current force structures of both sides, exacerbated by destabilizing aspects of high-technology conventional generic military technologies (VTO and the like).²⁹⁰

7.3 Quantitative Trend Analysis

7.3.1 Threat nature

²⁸⁹ Given that civilians were not significantly engaged in the debate until 1987, there is little sense in presenting trends in these distributions over time.

²⁹⁰ Kokoshin discusses the generic technologies associated with ABM in the context of their potential contribution to instability. This would be inadvertent war at the nuclear level. He also addresses the destabilizing nature of VTO, RUK's, and REC. Kokoshin (1988c).

7.3.1a Nuclear vs. conventional: The pattern of emphasis on this issue follows the changes in attention of civilian academics in defense policy overall. The few sources from 1986 all focus on issues of nuclear force threats. From 1987 on, though, the balance is increasing on conventional forces and threats, as the attention devoted to nuclear forces declines steeply and that to conventional forces increases steeply.²⁹¹ As a result, by 1988, conventional threats were stressed over nuclear threats by a ratio of 4:1.

7.3.1b Intentional vs. inadvertent war initiation: As was the case for the two military clusters, the degree of attention focused on intentional war initiation declined over time. In contrast to them, though, there was a corresponding increase in the level of attention devoted to the dangers of inadvertent or accidental war. While intentional war was still ranked higher, the spread between the two was decreasing. Overall, about half of the analysts in this cluster stress intentional war, while a substantial minority of one-third stress inadvertent war.²⁹² This is a significant departure from the pattern exhibited by military analysts in Cluster 2a, where an average of only 2% mention the possibility of inadvertent

²⁹¹ Attention to nuclear threat declines at a rate of almost 8% per year, while attention to conventional threats increases at a rate of almost 7% per year. This corresponds to the areas of interests for civilian academics as a whole over time. Initially, they were primarily concerned with issues of nuclear forces, in part because they lacked the expertise and information to address conventional forces. While the level of expertise still leaves something to be desired, they are sufficiently well-versed presently to at least discuss the issues involved in conventional force postures and arms control. See Stephen M. Meyer, "The Sources and Prospects of Gorbachev's New Political Thinking on Security", *International Security*, Fall 1988 (Volume 13, No. 2), pp. 124-163; and, Richard H. Phillips and Jeffrey I. Sands, "Reasonable Sufficiency and Defensive Defense in Soviet Conventional Military Policy: A Research Note", *International Security*, Fall 1988 (Volume 13, No. 2), pp. 164-175.

²⁹² It is worth noting that Cluster 4b, which contains sources by some of these same authors, but in arms control forums, stresses inadvertent war even higher. Indeed, in 1988 inadvertent war is emphasized more than an intentional attack by either side.

war.

7.3.1c Specific scenarios - FOFA/AirLand battle vs. limited nuclear war: Analysts in this cluster discuss specific scenarios very rarely, and there is no distinction between the level of attention accorded to either. Since there is a definite distinction between nuclear vs. conventional threats in favor of the latter, the equal weight and low level of attention given to the two scenarios probably does not reflect a truly equivalent threat perception. Rather, it probably reflects the persistent lack of requisite expertise and information to discuss more esoteric issues.

Figure 7.2

Cluster 2b: Threat Nature Variables, 1985-1989 Percent of Annual Cluster Total, 3-Year Mean

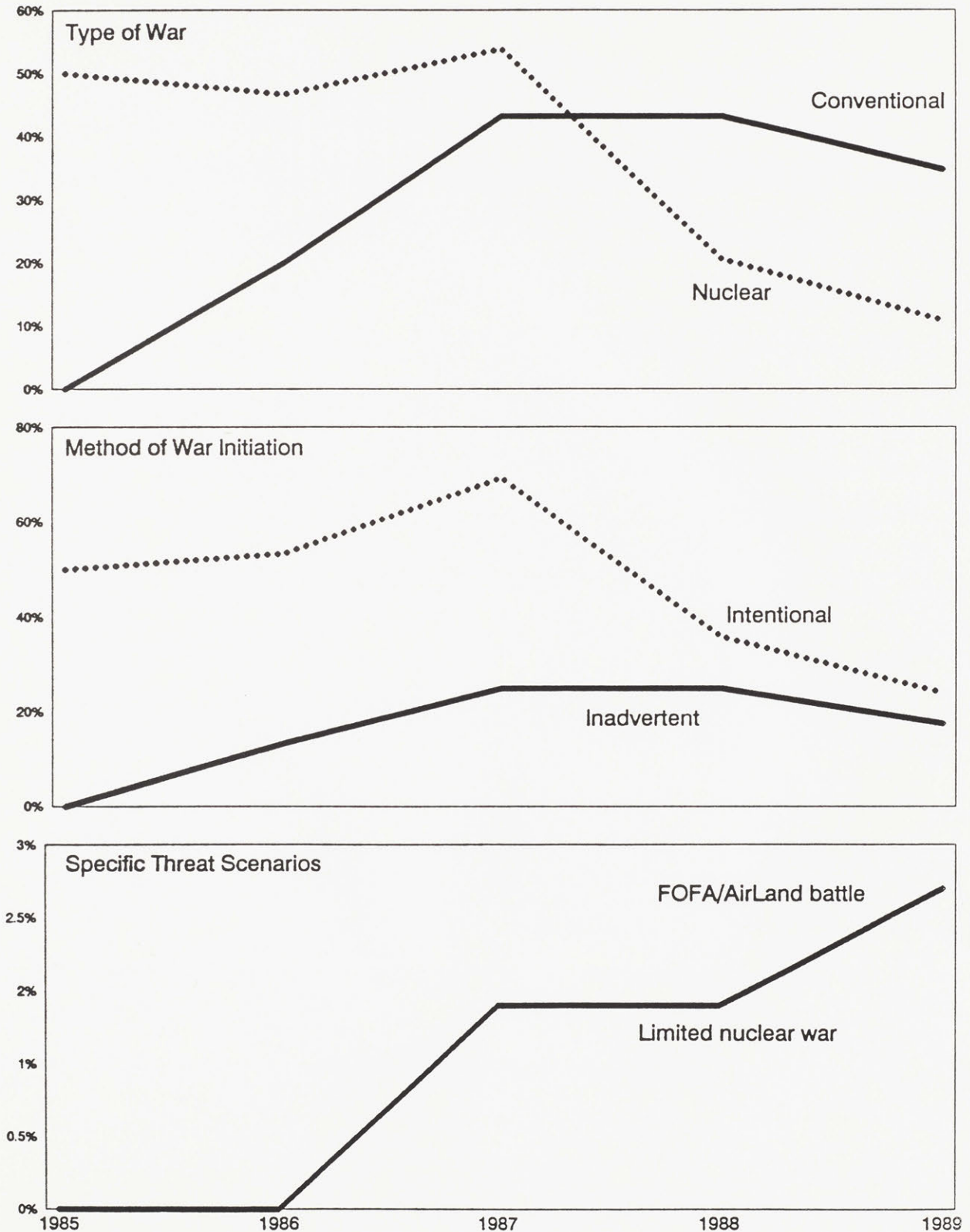
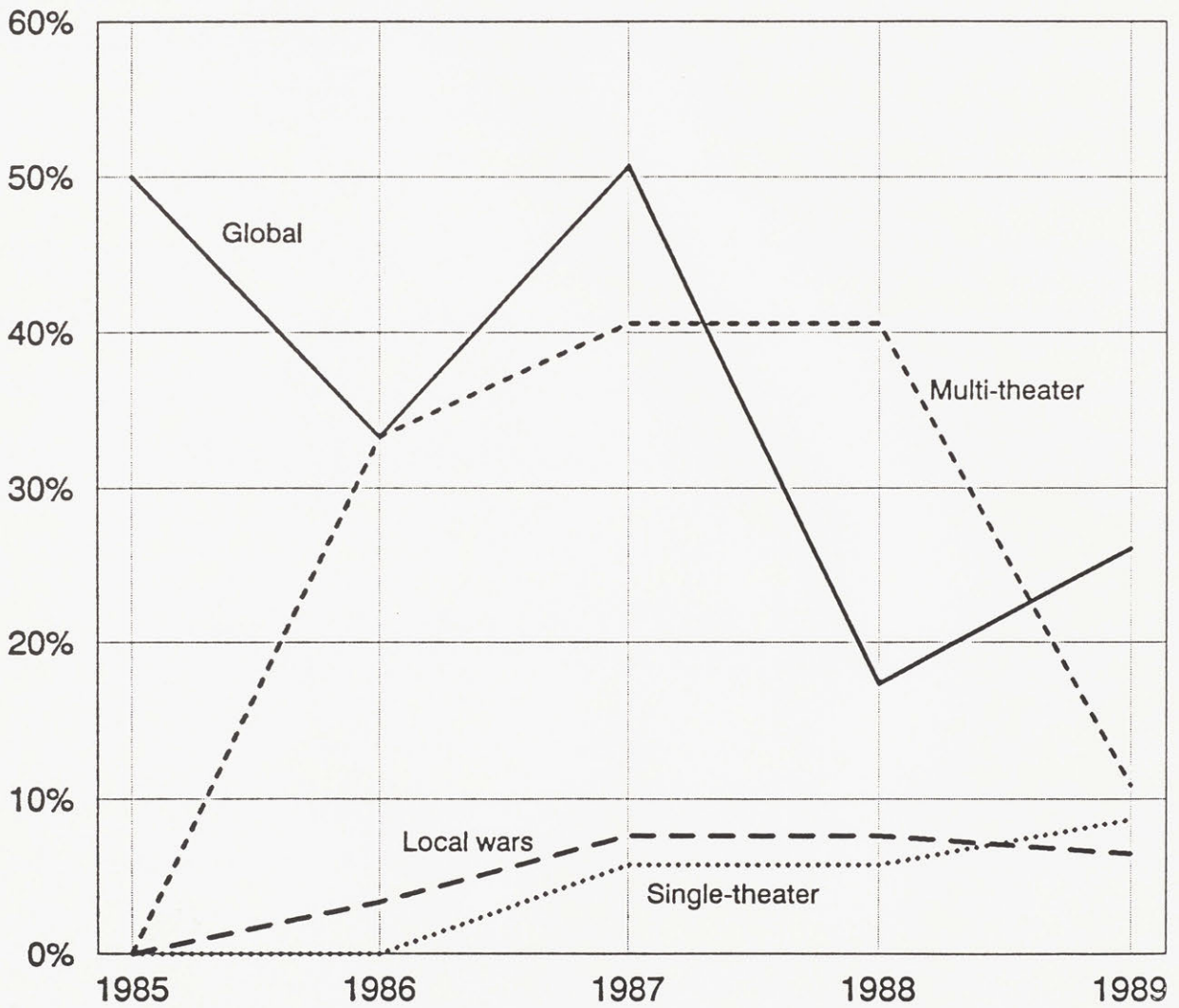


Figure 7.3
Cluster 2b: Threat Scope Contingencies
Percent of Annual Cluster Total, 3-Year Mean



The two local war contingencies are collapsed

7.3.2 Threat scope

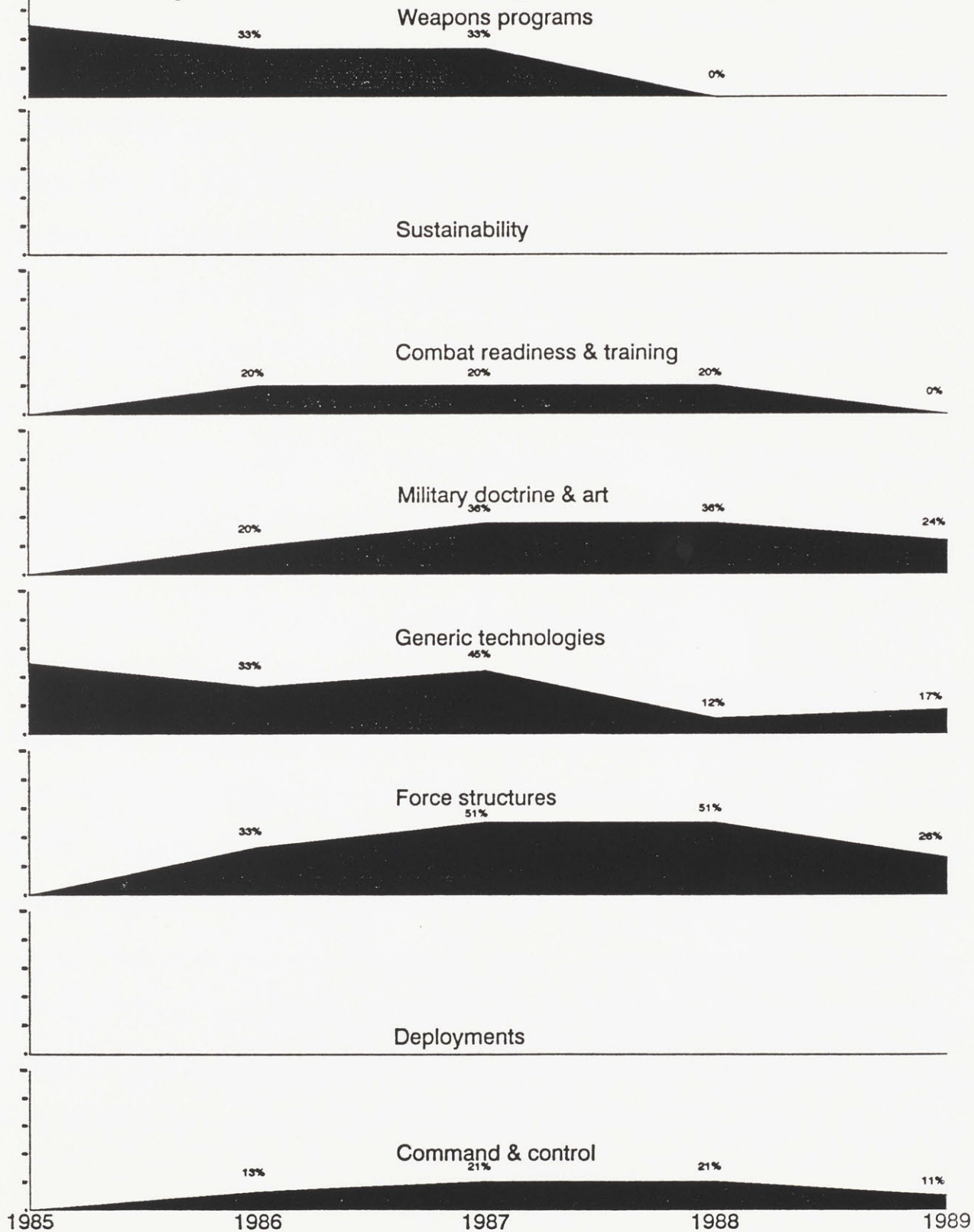
The level of attention to the scope of the threat is too sporadic to allow meaningful analysis of the trends over time -- therefore, the best measure here is the overall distribution of attention. In the two military clusters, increasing relative attention to conventional threat was accompanied by a rise in emphasis of single-theater contingencies. This is not the case for the civilian analysts in Cluster 2b. For the entire period, global contingencies are stressed the most frequently, receiving almost 50% of the total. Multi-theater contingencies follow, with about one-third.²⁹³ Single-theater contingencies receive a surprisingly low level of attention, being tied with the first local war contingency (involving both superpowers) at about 13%. The second local war contingency is last, with 10%. The reason for this is that many of the analysts in Cluster 2b tend to discuss military forces in a rather abstract framework, applicable to all scopes of military conflict. Despite this, the primary focus of the agendas they are pursuing is on the European theater.

²⁹³ One analyst, Alexei Arbatov, explicitly rejects the possibility of a multi-theater war, as well as of a protracted European conventional war. Arbatov, A. (1989).

Figure 7.4

Cluster 2b: Threat Content, 1985-1989

Percentage of Annual Cluster Total Stressing Content Issues - Three-year Mean



7.3.3 Threat content

As was the case with threat scope, attention to the eight content categories is rather sporadic. The overall distributions will be presented, though trends can be examined in some cases. Overall, force structures as a contributor to the threat were emphasized the most strongly (57%), followed closely by military doctrine and art (47%). These two factors are the most general, and therefore those most amenable to discussion by the civilian academics, considering their lack of expertise and information. In addition, and rather similar (in degree but not orientation) to the threat assessment in Cluster 2a, issues of generic technologies and command and control receive some attention (33% and 23% respectively). Combat readiness and training receives short shrift, as do weapons programs. Both are mentioned briefly early in the period, and not again thereafter. Neither deployments nor sustainability issues are mentioned at all as a source of the military threat.

7.4 Themes in Threat Articulation

One theme that is apparent in civilian academic threat assessment in military-technical forums is the appropriation of issues stressed in military threat assessment. However, while the issues are the same, they are commonly twisted to meet the civilians' agendas. The prime example of this tendency is the military argument on the increasing battlefield effectiveness of high-tech conventional weapons systems (i.e., VTO). The relatively nuanced military argument makes the case that in some cases, the battlefield utility of VTO can approach that of tactical nuclear weapons. In the academics' threat assessment, this blurring of the nuclear-conventional distinction is taken to mean that conventional warfare would be as destructive as nuclear war. Therefore, it follows that

neither one is a rational action, and neither the US and NATO or the USSR and the WTO would initiate one. From here, it is a short jump to the argument that conventional forces can be reduced substantially, even unilaterally.²⁹⁴ This emphasis on force reductions is one of the basic underlying agendas of civilian academics.

A second example of academic twisting of military logic is in relation to the initial period of war. In military analysis, the threat has increased in the initial period, requiring increases in the quality of equipment and in combat readiness. Especially in the military propaganda threat articulation of Cluster 1, this issue is couched in ominous terms of 22 June 1941. The academic spin on the initial period likewise stresses 22 June 1941 -- as a major factor in a traditional and continuing military emphasis in the USSR in general and in a "fortress mentality" in the military in particular.²⁹⁵ The initial period of the Great Patriotic war is thus an inertial, atavistic, and irrational brake on changes in defense policy almost fifty years after the fact.

A third example relates to the portrait painted by the military of a hostile imperialist world encircling the USSR, poised to strike at any minute.²⁹⁶ In the academics' argument, this is simply another example of the fortress mentality. Alexei Arbatov refers to this as part of US strategy of economic attrition against the USSR, playing on the fortress mentality, which must be resisted.²⁹⁷ Other academic analysts echo this precisely in terms

²⁹⁴ Arbatov, A. (1988 & 1989), Blagovolin (1988b).

²⁹⁵ Falin (1988), Kokoshin (1988c), Blagovolin (1988b).

²⁹⁶ This is a theme in Cluster 1 military propaganda threat articulation.

²⁹⁷ Arbatov, A. (1989).

of the adverse impact on the Soviet economy.²⁹⁸ As Arbatov says, even if the USSR were the economic equal of the US, the attempt to match any potential enemy coalition would be impossible economically. This is closely related to the military threat articulation about the US "competitive strategy". The military stresses that the goal is economic exhaustion, but takes it no further than that -- it is simply another indicator of US aggressive intentions. Civilian academics, on the other hand, take the argument a step further, stating that this economic and technological US strategy requires shifting resources and talent from the defense sector into civilian spheres.²⁹⁹ In their opinion, the best way to meet the strategy is to boost overall Soviet scientific, technological, and economic competitiveness. Again, this is one of the major underlying agendas of civilian spokesmen.³⁰⁰

As a final example, take the military argument that victory in war cannot be achieved through defense alone. The military says this as one way of arguing for either retention of the old offensive orientation, or for retention of at least some counter-offensive capability.³⁰¹ Andrei Kokoshin takes this argument, using Clausewitz's dictum that "Absolute defense is in full contradiction to the idea of war..." as a foil, to mean that once both sides have

²⁹⁸ Shlykov (1988a), Blagovolin (1988b).

²⁹⁹ Bogomolov (1988), Falin (1988), Zhurkin, et al. (1987a & 1987b), Arbatov, A. (1988 & 1989).

³⁰⁰ The military is not without its civilian defenders. Aleksandr Prokhanov, a long-time defense industrialist, play the "appropriate and then twist" game on the civilian academics. Many academics argue that there is too much talent and resources bottled up in the defense sector. Prokhanov accepts this, but goes on to twist this by saying that "amateurish experiments and rash actions" amounting to "giving up on defense" would result in the loss of all this talent and resources. See Prokhanov (1988).

³⁰¹ Though it is not clear where the distinction between offensive and counter-offensive lies. See Phillips, in Zimmerman, op. cit.

changed to a purely defense force posture, war will be impossible.³⁰² Even conceding that there might be some unambiguously defensive force posture (a highly questionable proposition), this is certainly stretching a bit on Kokoshin's part.³⁰³

These examples bring out some other themes. First, there are the underlying agendas of reducing military forces as a means of shifting resources and talent to the civilian economy from the defense sector. Second, civilian academics have no qualms about apportioning some of the blame for the arms race and potential instabilities to the USSR. Of course, the military is the culprit, primarily in terms of organizational interests and deeply entrenched attitudes. These increasingly open attacks on the military have of course been vigorously rebutted by the military, as well as by some civilian defenders.³⁰⁴

A final theme, and one that clearly distinguishes civilian academics from military analysts, relates to the degree of the military threat. Where some high-level military leaders grudgingly concede that the military threat has been declined due to Gorbachev's initiatives in the foreign policy arena, civilian academics in Cluster 2b are quite explicit on this point. They use it to bolster their arguments for reducing forces and shifting resources to the civil economy. Bogomolov, for example, ironically points out that the idea of an immutably

³⁰² Kokoshin (1988a).

³⁰³ It is also something of an anomaly in Kokoshin's work. His articles co-written with Gen-Maj. (Ret.) Larionov are relatively competent and lucid, as are his solo works in military sources such as Krasnaya zvezda and Voyennaya mysl'. The latter two in particular share quite a lot of the military perspective, especially in reference to the threat from VTO and REC in a surprise attack role. For the Krasnaya zvezda citation, see Kokoshin (1988c). The article in Voyennaya mysl' is "K voprosu o vnezapnosti", No. 1 (January), pp. 62-68. I am grateful to Matthew Partan for providing an abstract of this article.

³⁰⁴ Prokhanov (1988) is an explicit defense of the military against four "myths" and allegation against it.

aggressive imperialism is not very dialectic.³⁰⁵ Bogomolov also states that increased world economic interdependence reduces the likelihood of a "major military clash". Similarly, others warn against the danger of either underestimating or overestimating US and NATO aggressive intentions, with a clear stress on avoiding the latter.³⁰⁶ Assessments of the degree and immediacy of the threat will be addressed further in Chapter 11.

7.5 Characteristics of Threat Articulation and Assessment

First of all, there is a common focus on conventional force structures in the context of *offensive vs. defensive dominance*. The offensive-defensive arguments are heavily caught up with analysis of *stability-instability dynamics*. The two basic conclusions of these analyses are that neither side should have the capability for effective offensive breakthrough operations, and that neither side should have the capability to escalate to nuclear use with impunity.³⁰⁷

The offensive-defensive and stability-instability arguments manifest themselves in several ways. First, as noted above, there are general arguments about the impact of either

³⁰⁵ Bogomolov (1988).

³⁰⁶ Zhurkin, et al. (1987a & 1987b). On the other hand, some analysts actually hype the threat to serve different positions. Avakov & Baranovskiy (1987), for example, state that progress in arms control has lowered the nuclear threat, with the consequence of making a conventional war more likely. While some elements of the military could probably support this position, they would probably not support the conclusions following from it. Avakov and Baranovskiy make this point as a rationale for intensification of the conventional arms control process, even to the point of advocating Soviet unilateral conventional reductions to defuse the situation.

³⁰⁷ These analysts share a common belief that a force could be designed that would be unambiguously defensive.

conventional force structure of military doctrine and military art. The primary areas emphasized tend to be armored forces and strike aviation, both of which are held to be destabilizing in terms of their mobility and firepower. These dynamics are addressed in both historical and contemporary frameworks.³⁰⁸ These analyses tend to be either very general or superficial, and are heavily intertwined with the debates about "reasonable sufficiency" and "non-offensive" or "defensive" defense. Alexei Arbatov's analysis, for example, starts with two basic premises: 1) conventional war would be as destructive as nuclear war, and therefore neither one would be winnable, and 2) a protracted conventional war is an impossibility due to the likelihood of escalation. From these two premises, Arbatov sets about trimming unnecessary portions of the Soviet force posture. There is no analysis supporting these proposals.³⁰⁹ The most likely explanation for this is that the academics lack the requisite information and expertise at this stage -- they are "incompetent", as the Soviet military puts it. In addition, to the extent that these arguments are intended to support primarily economic and political agendas, in-depth military-technical analysis may not be required to meet their goals.

One article stands out from the others in the cluster. Writing in Krasnaya zvezda, Andrei Kokoshin provides an analysis of stability-instability dynamics that embodies much

³⁰⁸ In the historical setting, see Kokoshin & Larionov (1987), Kokoshin (1988a), Shlykov (1988a & 1988b). These are of course addressed to contemporary issues in an historical framework. In the contemporary context, see Avakov & Baranovskiy (1987), Zhurkin, et al. (1987a & 1987b), Arbatov, A. (1989).

³⁰⁹ Arbatov, A. (1988 & 1989). The one time that he makes reference to explicit figures - - stating that 20-30 divisions would be sufficient to cover the WTO-NATO border -- there are no indications of how these numbers were derived.

of the military perspective and concerns.³¹⁰ At the nuclear level, Kokoshin's main concern is that US ABM programs might undercut stability. Especially in the case of large strategic nuclear force reductions, Kokoshin states that both ABM and ASW assume greater importance. He also makes the connection to the survivability of strategic C³ as a primary factor in assuring stability. A primary future threat to strategic C³ is from non-nuclear forces and "exotics".³¹¹ Moving to the conventional level, Kokoshin states that the strategy and forces of AirLand battle and the Maritime strategy are directly counter to the idea of stability. Furthermore, the prime threat to the current stability equation comes from long-range VTO or REC in an independent role.³¹² In this article, Kokoshin also presents the more nuanced analysis of the blurring distinction between nuclear and conventional warfare.³¹³

As noted above, civilian academics in Cluster 2b devote considerable attention to the possibility of inadvertent war, primarily a conventional war in the European theater. In most cases, this stress is tied to the potential danger of large-scale military exercises getting

³¹⁰ Kokoshin (1988c). Kokoshin has ties to the military. As noted, he co-wrote three articles with Gen-Maj. Larionov (formerly of the General Staff), and has been published in *Voyennaya mys'*, the (at the time) restricted journal of the General Staff.

³¹¹ This echoes the military concern with spinoffs from SDI in the form of directed-energy weapons and third-generation nuclear weapons.

³¹² Kokoshin's analysis of REC is identical to some military analysts: "In our view radioelectronic combat is growing from a backup for military operations into a combat system and is becoming part and parcel of a battle or operation, turning it into a relatively autonomous, specific form of armed warfare. It would be highly dangerous to overlook this fact -- as shown, in particular, by the experience of a number of local armed conflicts in the seventies and eighties."

³¹³ To the effect that conventional strikes against nuclear power or chemical plants might have similar catastrophic effects as actual nuclear use. This is nearly verbatim from some military analysis.

out of hand.³¹⁴ In some cases, there are explicit arguments that the Soviet Union should be careful not to undertake parallel responses to US "provocative actions" such as SDI, the countervailing strategy, and the Maritime strategy. While couched in terms of the potential for inadvertent war, an underlying motive for these arguments appears to be the economic costs that would be required to make symmetric responses.³¹⁵ Alexei Arbatov makes this explicit in the case of the countervailing strategy, by stating that the US aim is to involve the Soviet Union in a "technologically-intensive" arms race, where the chief resources required would cost the Soviet 2-3 times more than the US.³¹⁶

7.6 Interests and Agendas Served by Threat Articulation and Assessment

The overall functions served by threat articulation and assessment in this cluster revolves around civilian academics' attempts to gain greater access and influence in Soviet military policy. In particular, this cluster presents an image of the threat that uses similar language and concepts as military threat assessments, but uses them in ways that are consonant with the academics' political agendas concerning economic allocation policies and

³¹⁴ Avakov & Baranovskiy (1987), Zhurkin, et al. (1987a & 1987b), Falin (1988).

³¹⁵ Zhurkin, et al. (1987b).

³¹⁶ Arbatov, A. (1989). One element of Shlykov's analysis of the armor balance in Europe also bears on the relative economic capabilities of the two sides. Shlykov seems particularly impressed with the US military-industrial surge capacity demonstrated in the Korean war, when in his words the US started essentially from scratch to production of 30,000-35,000 tanks per year in just two years. He was similarly impressed with the US buildup (from nothing) in the 1970's for production of the M-1, especially in terms of the sub-contractor base. Shlykov (1988a). This article and the second part (1988b) are also interesting in that they call for a "zero option" for tanks in Central Europe. While that appears to be the case by default for the Soviets in the near future, at the time it seemed very radical.

involvement in military policy.

To these ends, the academics primarily emphasize economic and technological aspects of the threat, especially in R&D. This allows them to argue that resources currently devoted to military programs should be diverted to civilian programs. By stressing the current unstable and offensively-oriented force structures and military doctrines of **both** sides, the academics pursue their goal of reducing and restructuring the Soviet military. The concerns with instability and offense dominance are supplemented with a relatively large emphasis on the possibility of inadvertent war. In criticizing the "fortress mentality" and the vision of an implacably hostile imperialist world fostered by the Soviet military, the academics seek to reduce military influence in decisionmaking and increase their own. Finally, the sometimes explicit statement that there is actually no real military threat to the USSR supports both of their primary agendas. If there is no threat, defense resource allocations can and should be drastically (and unilaterally) reduced. If there is no threat, the role of the Soviet military overall and especially in national security decisionmaking need not be paramount.

These agendas and interests are somewhat muted in this military-technical cluster - - in the academics' arms control cluster, they are stronger and more explicit. The threat assessment in the academics' arms control cluster is the most radically "new thinking". Before examining that image in detail, though, attention turns to the two assessments of the threat articulated by civilian officials. Then, all three will be compared to the radical assessment articulated by academics in the context of arms control.

8. CLUSTER 3 - OFFICIALS' EXTERNAL ARMS CONTROL THREAT ASSESSMENT

8.1 Cluster 3 Threat Assessment: A Thumbnail sketch

Cluster 3 is the "fuzziest" of the six in its composition. While it is primarily composed of civilian officials, it also contains some threat articulation by military service-affiliated officers.³¹⁷ This is important in two ways. First, it is the only cluster where there is some clear common ground between military and civilian perspectives -- both military and civilian spokesmen are on the same page. However, this commonality is tempered by the target audiences to which Cluster 3 is directed, and the context in which it is articulated. The threat portrayed is primarily in the context of arms control, and almost exclusively directed towards external audiences (mostly NATO Europe and the United States). One is left with the clear impression that this view is articulated solely for external propaganda purposes. In that case, any common ground is purely artificial and for external consumption. This brings out the second important aspect of the cluster -- it appears to represent a very limited "unified front" approach to dealing with East-West arms control. The focus of this common front is made clear by the factors stressed in the threat assessment.

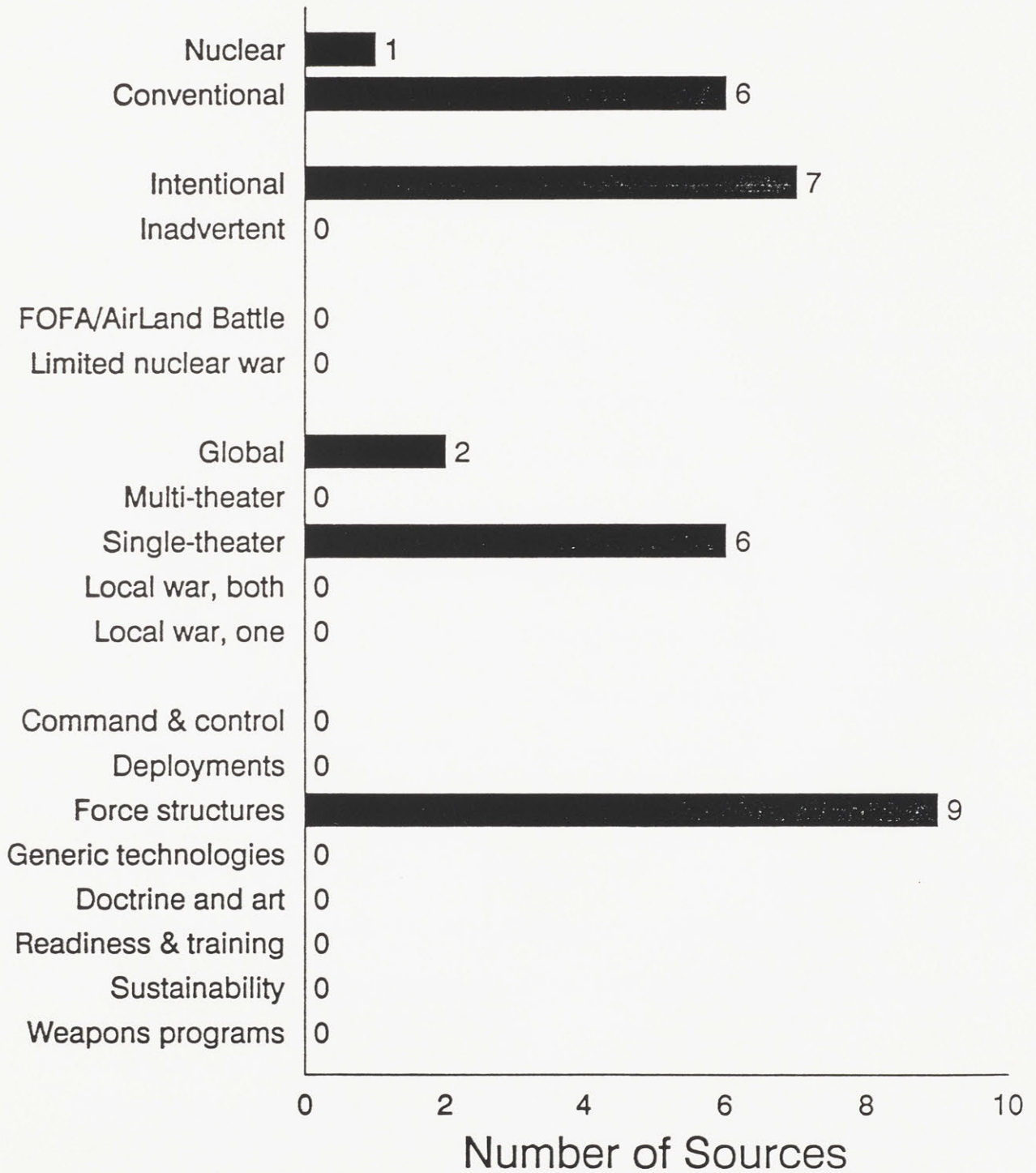
While Cluster 3 is the least clearly defined in composition, the threat articulated is the tightest in terms of the assessment. The threat assessment presented by spokesmen in Cluster 3 focuses almost exclusively on conventional forces, virtually purely in terms of

³¹⁷ Like the other civilian clusters, there was very little threat articulation activity prior to 1987, and 1988 was the peak year.

offensive vs. defensive force structures in the WTO-NATO balance. As this focus suggests, the threat scope contingency emphasized is almost entirely at the single-theater level. In sum, this cluster represents a limited common front approach in an attempt to get the best "deal" in NATO-WTO conventional arms control.

Figure 8.1

**Threat Assessment in Cluster 3
1985-1989, Cumulative**



8.2 The Structure of Cluster 3 Threat Assessment

For analysts and commentators in Cluster 3, there is only one significant group of associated variables. The focus is on the conventional threat, in the context of an intentional attack by NATO at the single-theater level. The threat content factor closely associated to this nexus of issues is that of force structures.³¹⁸

8.3 Quantitative Trend Analysis

8.3.1 Threat nature

8.3.1a Nuclear vs. conventional: In 1988 and 1989, all sources taking an explicit position stress conventional forces and conventional threats. There was only a single reference to a nuclear threat, early in the period. Over the entire period, 30% of analysts stressed conventional issues, while only 5% stressed nuclear.

8.3.1b Intentional vs. inadvertent war initiation: In this set of sources, there were no references to the possibility of inadvertent war initiation, and an increasing proportion were explicit about the dangers of intentional Western attack. This is in marked contrast to the portrait painted by some of these same analysts and commentators in Clusters 4a and 4b, where inadvertent war is stressed relatively strongly. The reason for the discrepancy is in the target audience to which the assessments are directed. In this cluster, where sources are primarily directed toward external audiences, the goal is to influence Western publics and officials to soften their arms control positions in the USSR's favor. Therefore, the stress on potential Western attack is retained. In contrast, in internally directed assessments

³¹⁸ Global scope contingencies as well as nuclear threats are "stand alone" factors. This is quite different from the situation in the military assessment of Cluster 1, where these two issues are closely related.

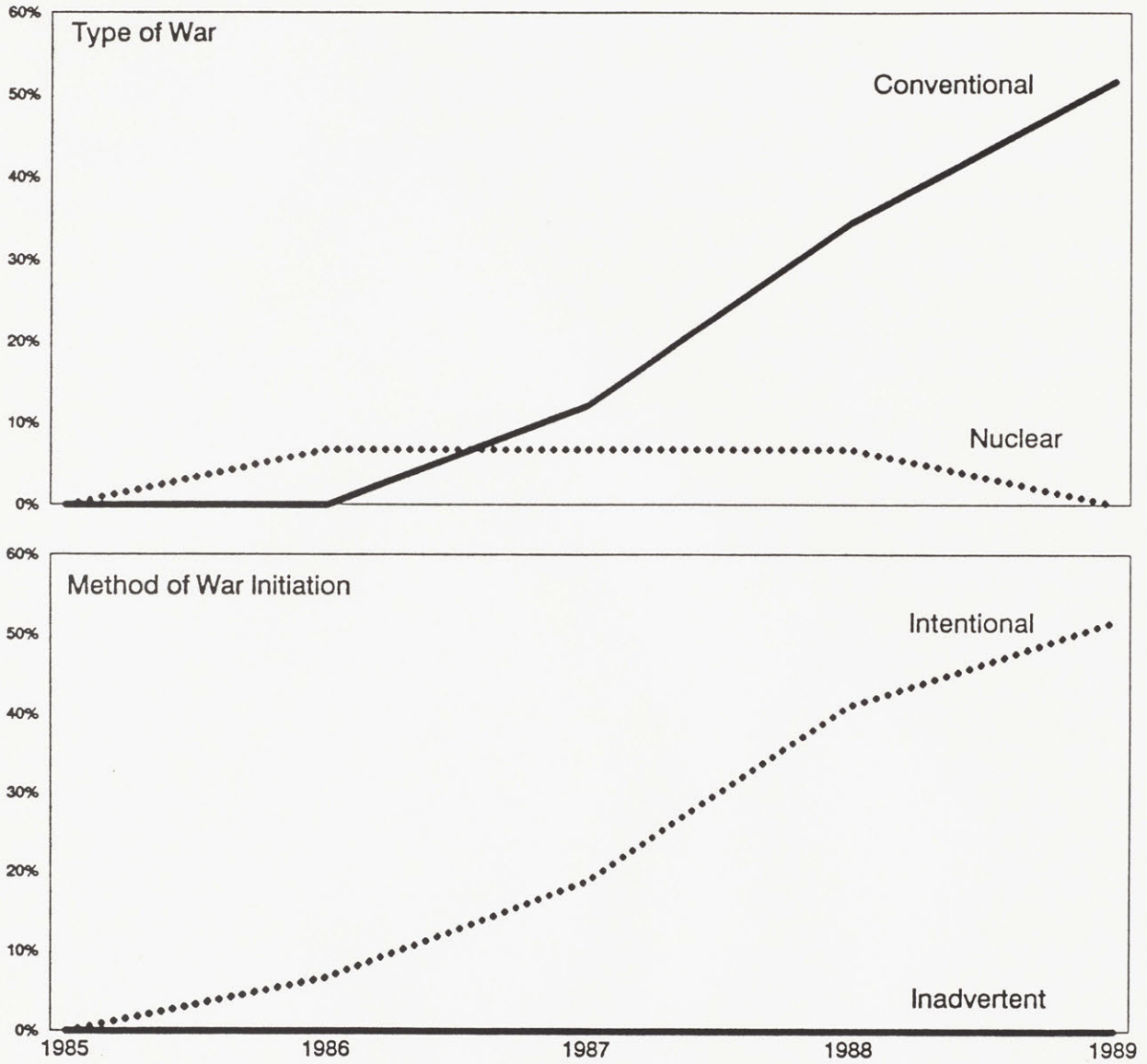
(Cluster 4a), there is a different agenda. There appears to be an attempt to counter-balance military rhetoric of a NATO surprise attack, in order to strengthen the case for reducing the military budget through arms control and unilateral force reductions.

Considering that this cluster is composed of both military service-affiliated officers and civilians, one might expect that the emphasis on intentional war initiation overall might be due to the service threat assessment, while civilians are silent on the issue. This is not the case. The sources that stress intentional war initiation are almost evenly divided between the two groups.³¹⁹

8.3.1c Specific scenarios - FOFA/AirLand battle vs. limited nuclear war: Analysts in this cluster do not refer to either of the two specific scenarios.

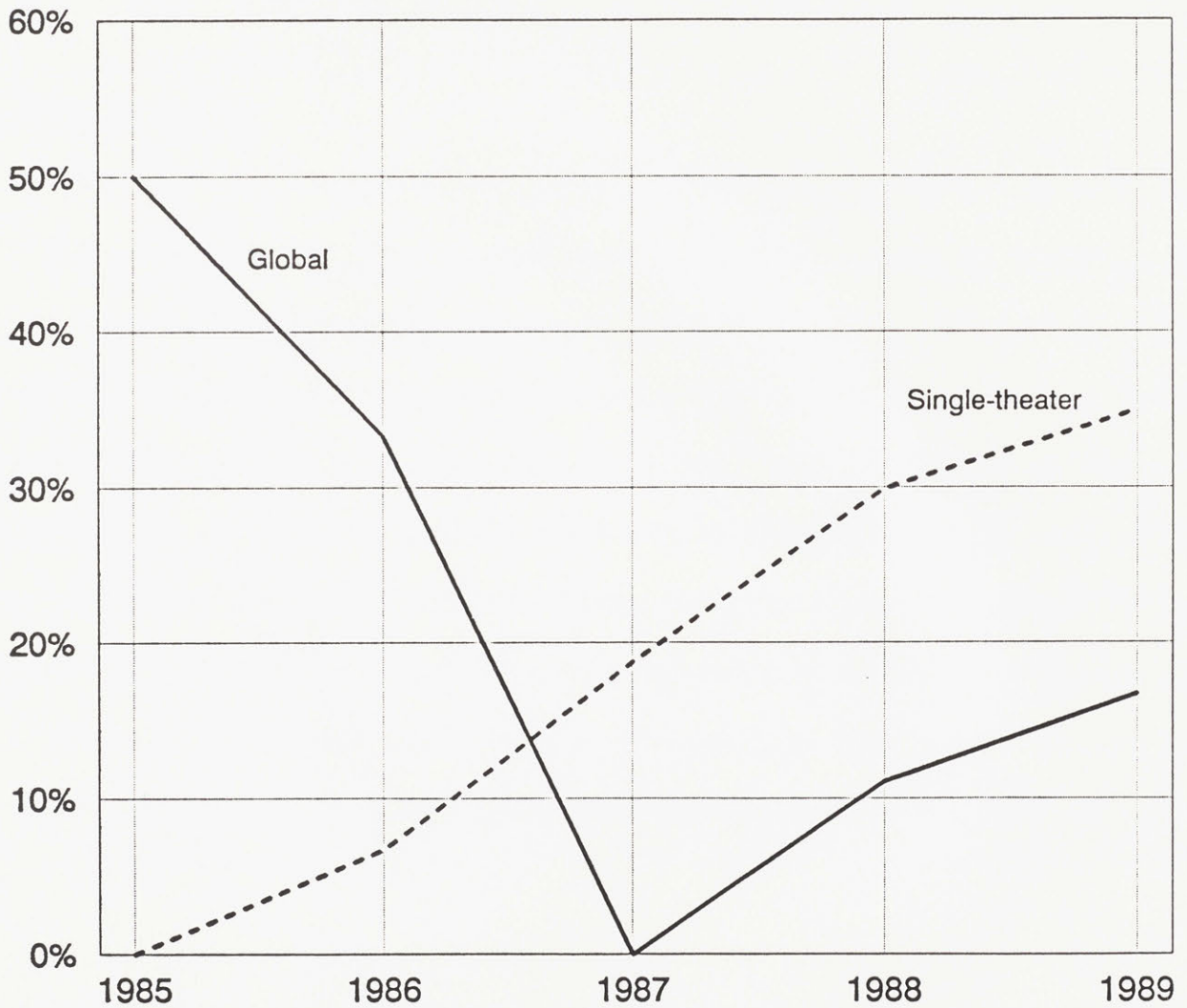
³¹⁹ Four of the sources are military, and the remaining three are civilian.

Figure 8.2
Cluster 3: Threat Nature Variables, 1985-1989
Percent of Annual Cluster Total, 3-Year Mean



Note: Sources in Cluster 3 take no explicit positions on specific threat scenarios.

Figure 8.3
Cluster 3: Threat Scope Contingencies
Percent of Annual Cluster Total, 3-Year Mean



The two local war contingencies are collapsed

Note: Cluster 3 shows no attention to multi-theater or local war contingencies.

8.3.2 Threat scope

Overall, the emphasis is on a single-theater threat contingency. There are only two references to global conflicts, one in 1985 and one in 1989. Multi-theater conflicts are not mentioned at all, nor are either of the two local war contingencies. In contrast, attention to single-theater conflicts (in the WTO-NATO context) increases over time. Overall, 30% of the sources specifically deal with this category.

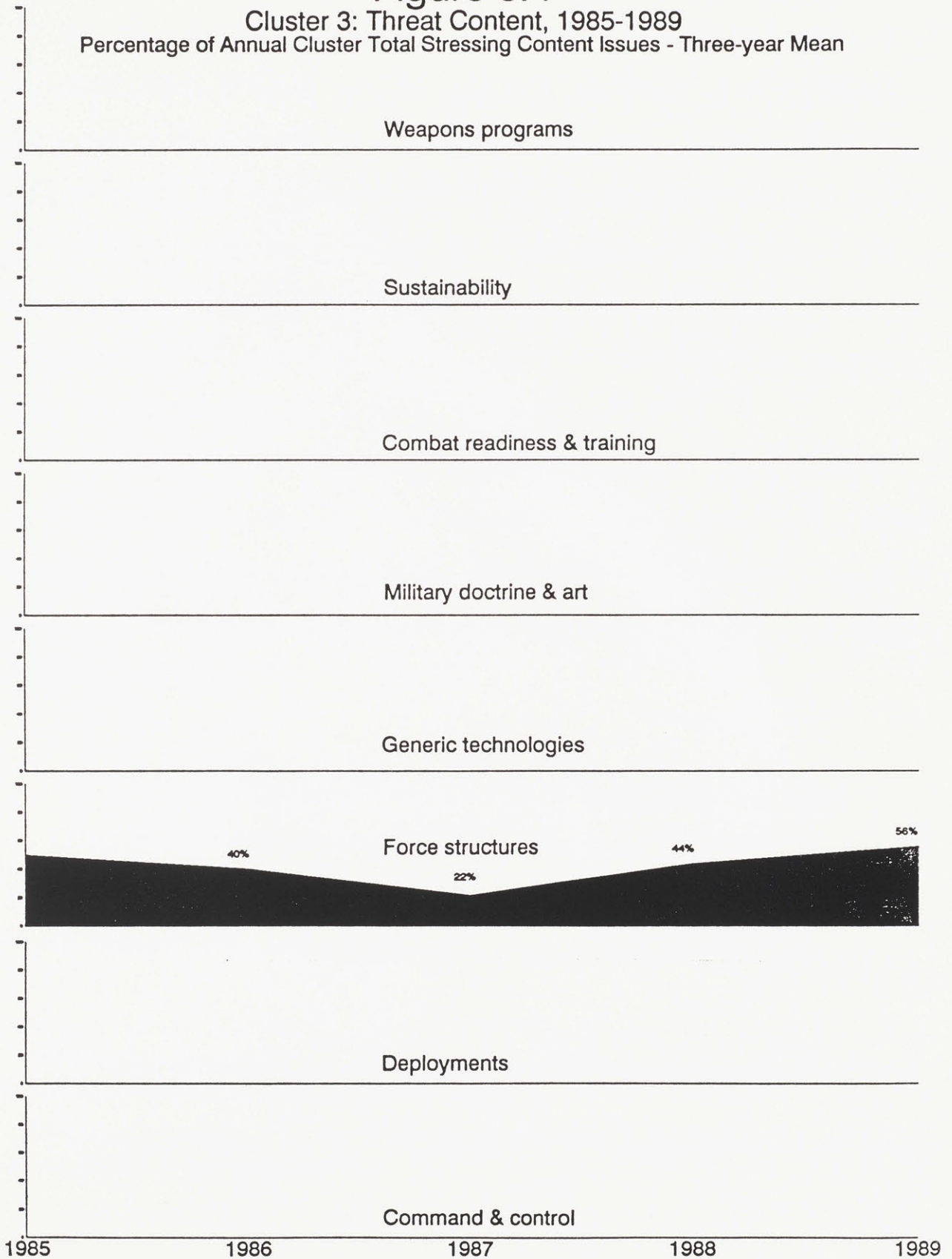
8.3.3 Threat content

As noted above, analysts in this cluster deal with a very constrained set of issues. This is especially true with regard to the content categories. Probably due to both a lack of expertise and information (on the part of civilian officials), as well as a relatively constrained agenda related to influencing Western arms control positions, the single threat content issue stressed is force structures. They are discussed essentially in terms of offensive-defensive distinctions, in the context of stability-instability dynamics. As would be expected from the emphasis on conventional forces noted above, the primary concern is the NATO-WTO conventional balance in Central Europe, and methods of reducing and altering force structures. As has been noted elsewhere, this agenda has both national security and economic underpinnings. Both are explicitly mentioned in threat analysis in this cluster.

Figure 8.4

Cluster 3: Threat Content, 1985-1989

Percentage of Annual Cluster Total Stressing Content Issues - Three-year Mean



8.4 Themes and Characteristics of Threat Articulation and Assessment

The basic themes in threat articulation are clear from the the variables emphasized, as presented above. However, there are a few points worth making. First, in regard to force structures, threat assessment in this cluster focuses strongly on naval forces and tactical aviation.³²⁰ The focus on naval forces appears to be part of the overall Soviet effort to include them in arms control negotiations. Those sources stressing aviation draw an explicit distinction between fighters and attack aircraft. This is obviously in the context of the counting rules for conventional arms control, where the Soviets were attempting to exclude air defense interceptors, where they have a 36:1 advantage.

The second point concerns arms control itself. Some civilian analysts are unsatisfied with the process in that it is such a long-drawn affair.³²¹ Some service-affiliated military officers, on the other hand, obliquely criticize arms control itself.³²² It is hard to escape the idea that the military officers represented fear the threat from arms control more than the military-technical threat.

8.5 Interests and Agendas Served by Threat Articulation and Assessment

Based both on the context and target audience of threat articulation, as well as the content of the threat assessment, the arguments in this cluster are obviously designed to influence Western public opinion and government policies in arms control matters.

³²⁰ Chernavin (1985a), Pankin (1988), Zhurkin (1987a), Arbatov, G. (1988a), Karpov, V.P. (1988c), Pozdnyakov (1989), Makarov (1989).

³²¹ Especially Arbatov, G. (1988a). Arbatov also takes the opportunity to criticize the lack of *glasnost* in the military sphere.

³²² Especially Pozdnyakov (1989).

The threat articulated by civilian officials (together with some military officers) externally is relatively conservative. In contrast, these officials offer an assessment of the threat internally that is both more radical and more critical towards the Soviet military.

9. CLUSTER 4a - OFFICIALS' INTERNAL ARMS CONTROL THREAT ASSESSMENT

9.1 Cluster 4a Threat Assessment - A Thumbnail Sketch³²³

Where Cluster 3 represents civilian officials' externally-directed threat articulation, Cluster 4a constitutes their internally-directed threat assessment. Again almost entirely in the context of arms control, this cluster is more radical and critical of the Soviet military vision of the threat than the civilian official's assessment in Cluster 3.

There is a clear and coherent (though not necessarily correct) argument presented by in Cluster 4a. The common thread running through assessments of threat nature, scope, and content is a concern for the stability and instability dynamics of the East-West balance of forces. This is primarily focused on the conventional level, in a single-theater context. To this extent, assessment in this cluster is consistent with the officials' external cluster. There are differences, though. The emphasis on stability-instability is reflected in stress of potential inadvertent war initiation, in the discussions of command and control and force structures, as well as military doctrine and art.

In addition to the concern with potential military instability, and also different from Cluster 3, there is also an explicit argument that places the military threat and military policy more in economic terms. This is reflected most strongly in the civilian discussions of generic technologies, but is also an underlying thread in the arguments about force structures and military doctrine. The goals and means of attaining stability and lowered

³²³ Presentation of this chapter departs from that of previous chapters. Instead of separate sections presenting quantitative and qualitative analysis, this chapter combines qualitative presentation of themes and characteristics with the quantitative analysis.

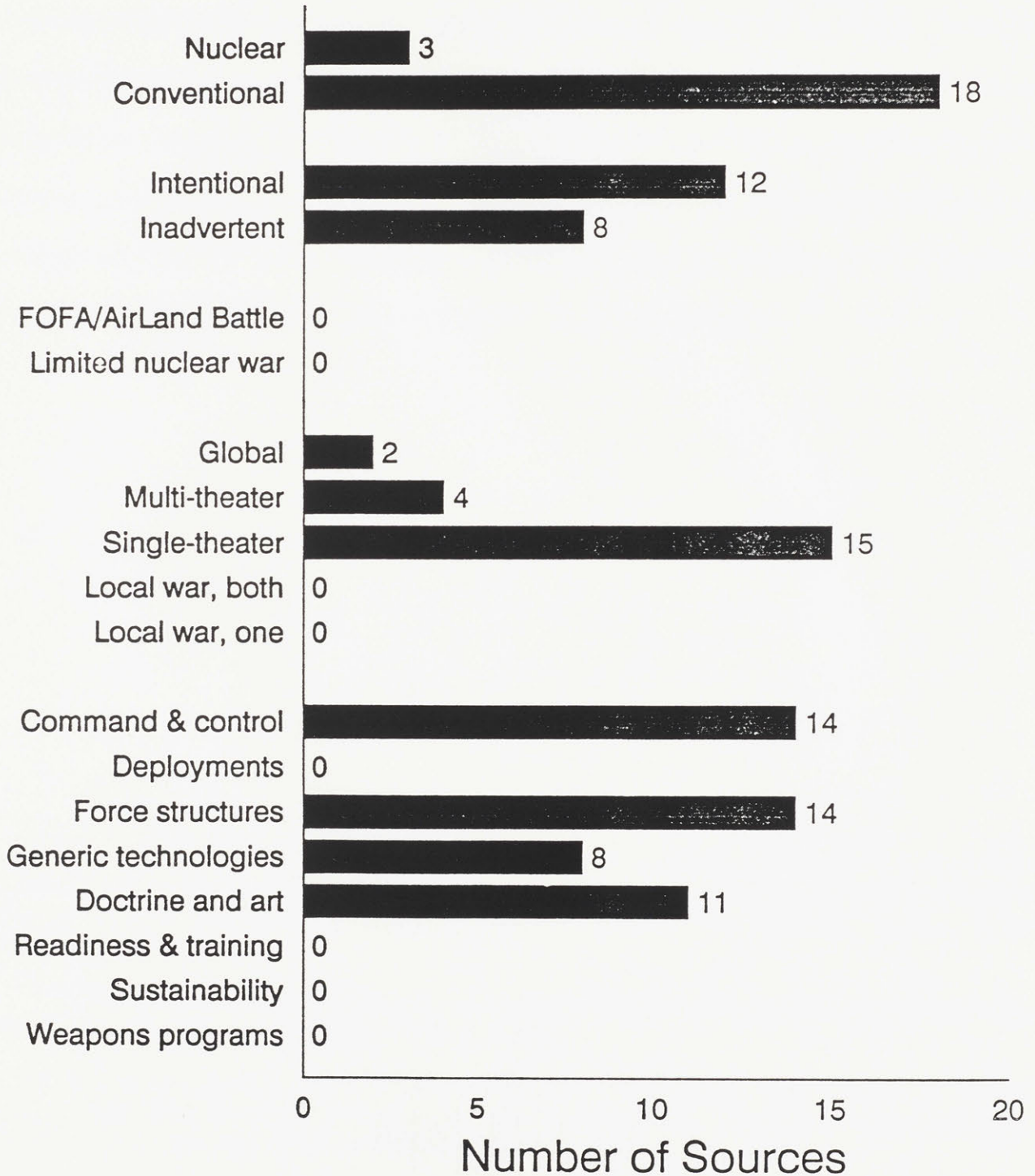
expenditures are heavily intertwined. It is clear, though, that these civilian officials, like academics, make arguments that usurp the lexicon and some of the issues of military analysts, and then twist them in different directions. What is equally clear is the military reaction to these arguments, as is shown by the close correlation between civilian arguments in Clusters 4a and 4b, and the military arguments in Cluster 1.

Threat articulation and assessment is also similar to that in Cluster 2b in some ways. The themes emphasized are close. The major differences are in assessment of the scope of the threat, and in threat content. The academics' military-technical analysis includes discussion about factors that are missing here. The most prominent examples are combat readiness and training, and weapons programs.³²⁴ It seems that these two groups are pursuing similar agendas, but arguing in different frameworks to suit different contexts and target audiences.

³²⁴ There are also differences in the rank ordering of other threat content variables.

Figure 9.1

**Threat Assessment in Sub-cluster 4a
1985-1989, Cumulative**



9.2 The Structure of Cluster 4a Threat Assessment

There are three significant sets of closely associated variables that together define the structure of Cluster 4a threat assessment. First, conventional threats tend to be emphasized at the single-theater level, in terms of intentional war initiation. The content factor associated with this nexus is the impact of force structures, mainly in terms of offensive-defensive dynamics. This is the dominant set of factors in Cluster 4a.³²⁵ The second set of threat factors is associated with a multi-theater contingency, centered around a common emphasis of command and control issues, military doctrine and art, and generic military technologies.³²⁶ Finally, global scope contingencies tend to be closely related to discussions of the danger of inadvertent war initiation and escalation.³²⁷

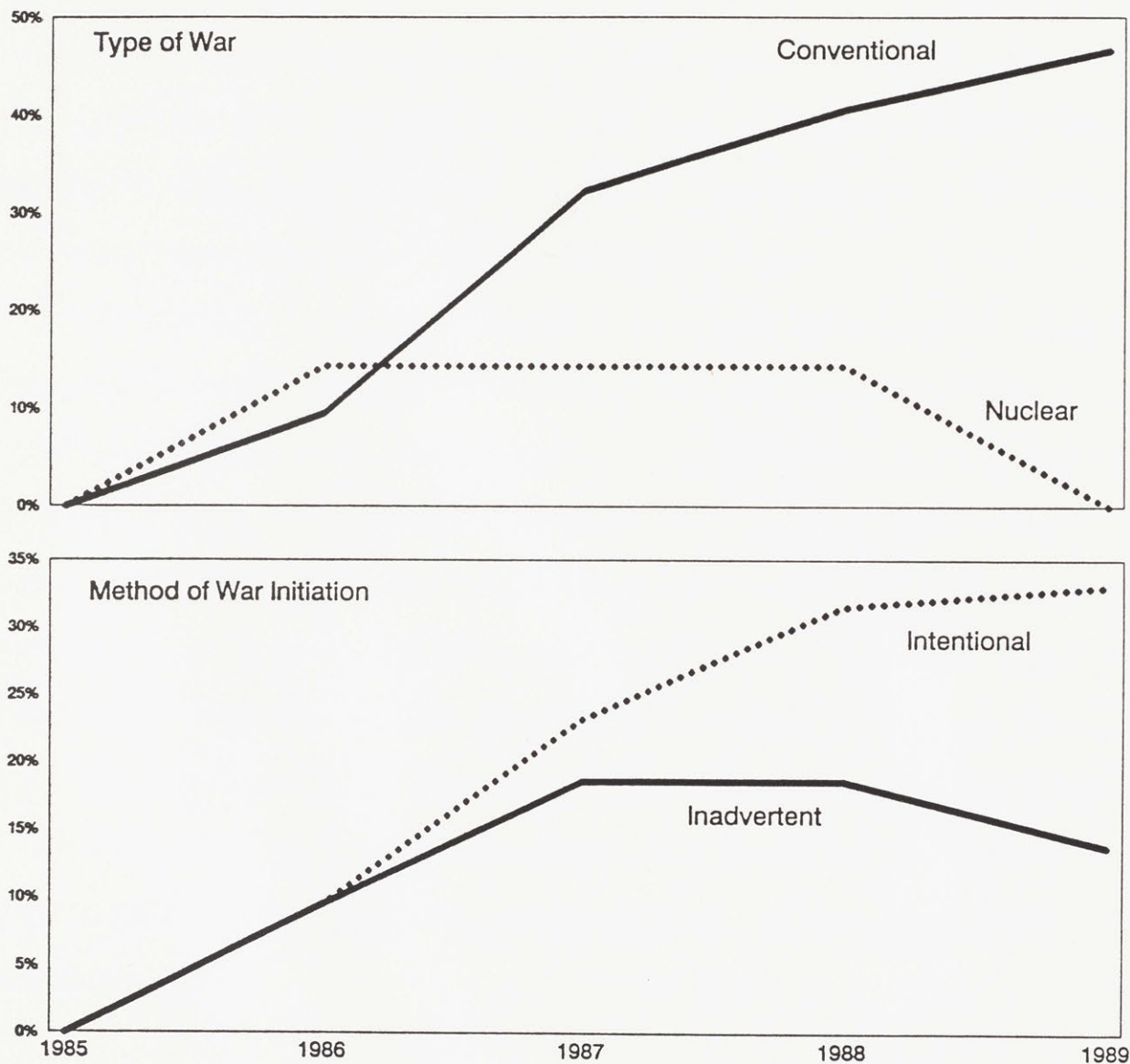
³²⁵ This nexus of threat factors accounts for slightly more than half of the assessment in this cluster, at 56%. For representative sources, see Vlasov (1987), Petrovskiy (1988), Kalyagin (1988), Petrovskiy & Zhurkin, in Zorin (1988a), V.P. Karpov (1988c), Bovin (1988b).

³²⁶ This nexus accounts for about 37% of the assessment. Vybornov & Leontyev (1988) are the best example of treatment of these issues.

³²⁷ Just under 10% of the Cluster's assessment is bound up with this set of threat factors. See, for example, V.P. Karpov (1987b), Petrovskiy & Zhurkin, in Zorin (1988a). Nuclear threats are not highly correlated with any of the other factors.

Figure 9.2

Cluster 4a: Threat Nature Variables, 1985-1989
Percent of Annual Cluster Total, 3-Year Mean



Note: Sources in Cluster 4a take no explicit positions on specific threat scenarios.

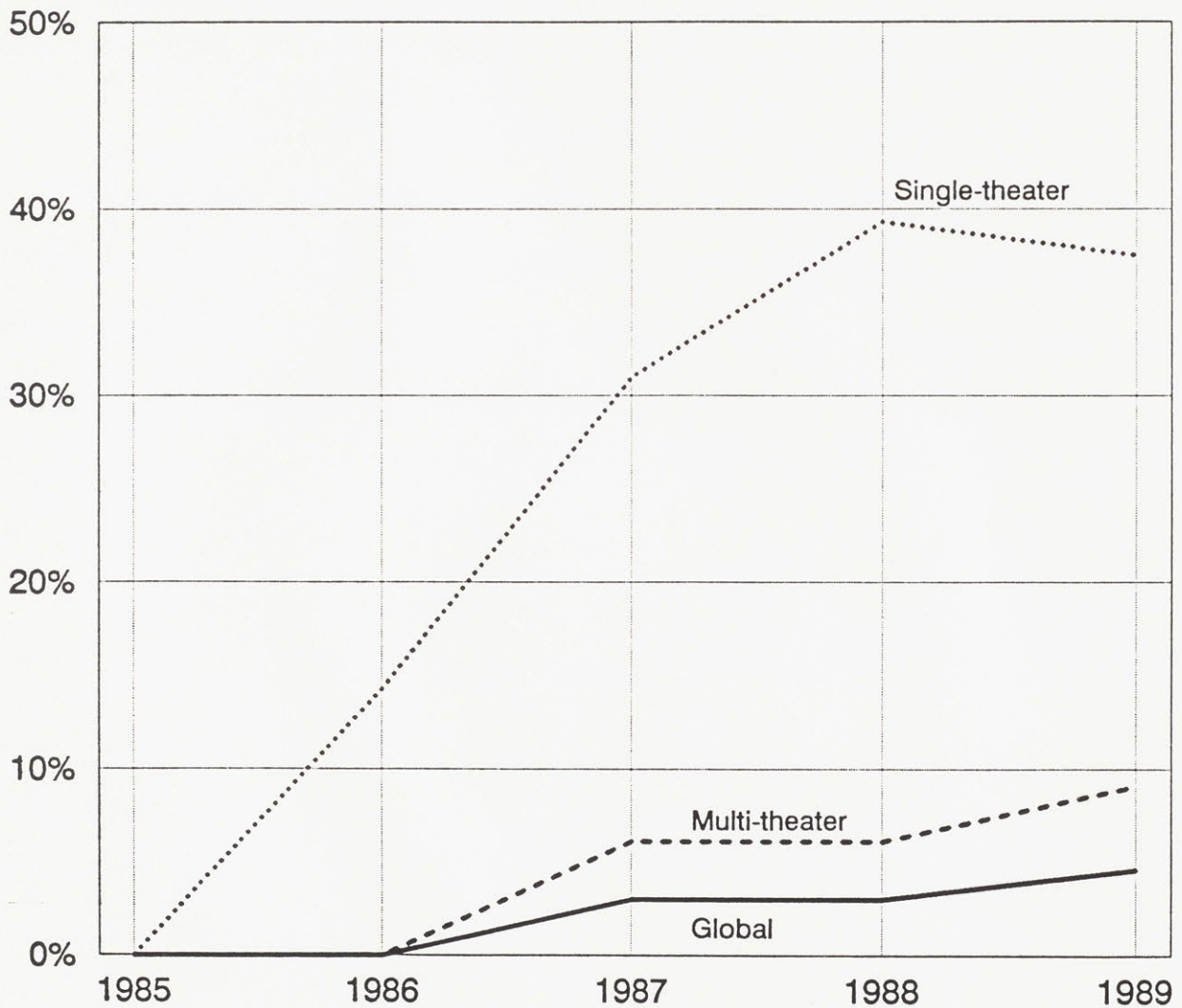
9.3 Threat Nature

9.3.1 Nuclear vs. conventional: For the period as a whole, the overwhelming emphasis is on conventional force issues and threats, with about 55% of sources explicitly stressing this over nuclear threats (at less than 10%). In the first year of activity in this cluster (1987), the balance was nearly even, 40% stressing nuclear forces and 30% stressing conventional. Thereafter, discussion of nuclear threats disappeared from the analyses, and discussion of conventional forces increased rather dramatically.

9.3.2 Intentional vs. inadvertent war initiation: On this issue, analysts in this cluster are much more balanced than are military analysts. Although the balance is weighted on the side of the threat of intentional war (with approximately 35% overall), there is a relatively large segment that stresses the possibility of inadvertent war (about 25%). This is a larger stress than in either of the two military clusters, and is very different from the situation portrayed by civilian academics and officials in Cluster 3, as noted above. It is similar to the level of attention given to inadvertent war in Cluster 2b. Again, the reason for the divergences appears to be primarily in the differing agendas pursued in the clusters.

9.3.3 Specific scenarios - FOFA/AirLand battle vs. limited nuclear war: Again, there are no explicit references to any particular threat scenario, either conventional deep-strike or limited nuclear war.

Figure 9.3
Cluster 4a: Threat Scope Contingencies
Percent of Annual Cluster Total, 3-Year Mean



The two local war contingencies are collapsed

Note: Cluster 4a shows no attention to local war contingencies.

9.4 Threat Scope

As in the other civilian clusters, there is a strong emphasis on single-theater contingencies.³²⁸ Indeed, from 1987 through 1989, this cluster exhibits the highest proportion stressing this category of all the clusters (averaging around 45%). In 1988, there was some attention paid to both multi-theater and global contingencies (in that order). Local war contingencies are not addressed at all.

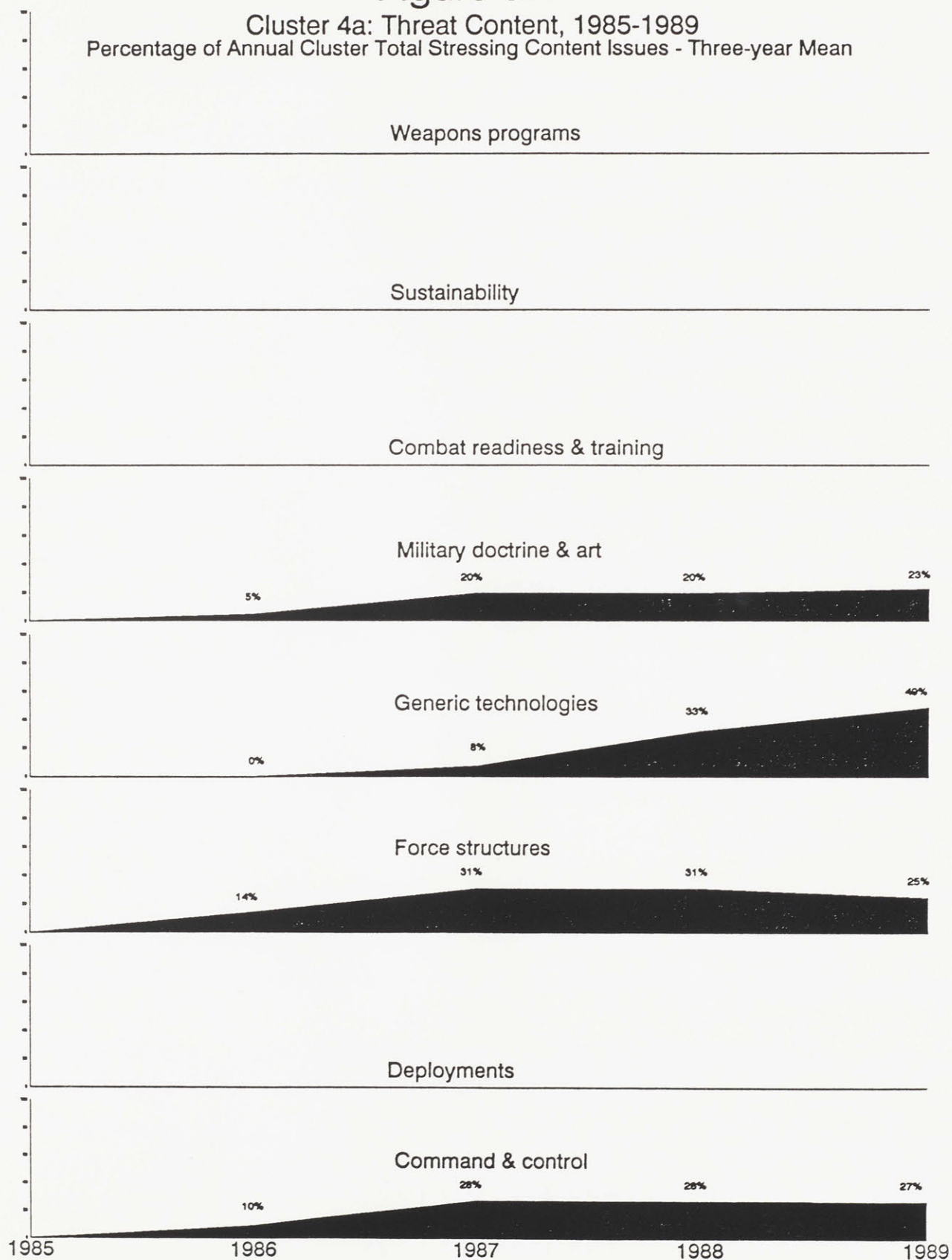
9.5 Threat Content

Of the eight threat content categories, only four receive any attention. Two that figured prominently in military threat assessments initially and subsequently declined are missing altogether here -- deployments and weapons programs. Combat readiness and training as well as sustainability are also absent.

³²⁸ The exception to this is Cluster 2b.

Figure 9.4

Cluster 4a: Threat Content, 1985-1989
Percentage of Annual Cluster Total Stressing Content Issues - Three-year Mean



Two categories receive a relatively large degree of attention -- command and control and force structures.³²⁹ Force structures in this cluster are discussed in essentially the same frame of reference as in Cluster 3 (i.e., offensive vs. defensive force structures in the context of stability and instability).³³⁰ Armored forces, tactical strike aircraft, and combat helicopters are singled out, as are dual-capable tactical weapons systems.³³¹

The degree of emphasis of command and control issues is very similar to that exhibited by military analysts in Cluster 2a; however, the thrust of the argument is radically different. Where military analysts were concerned with the adequacy of their own command, control, and communications vis-a-vis that of the enemy, and with Western capabilities to degrade or interdict C³ effectiveness, the civilian analysts here are more concerned with potential command and control problems leading to an inadvertent outbreak of hostilities.³³² Deputy Foreign Minister Petrovskiy and Academician Zhurkin discuss inadvertent war in the context of the "Chekhov gun law" -- if you see a gun hanging on the wall in the first act of a Chekhov play, you can be sure it will be fired by the end of act three. (These spokesmen are not given to the most technical of analyses.) In contrast, Ministry of Foreign Affairs third secretaries Sergei Vybornov and Vladimir Leontyev

³²⁹ These two are tied for the highest emphasis, with about 42% of sources stressing them.

³³⁰ For example, Vlasov (1987), Petrovskiy (1988), Kalyagin (1988), Petrovskiy & Zhurkin, in Zorin (1988a), V.P. Karpov (1988c), Bovin (1988b).

³³¹ V.P. Karpov (1987b).

³³² V.P. Karpov (1987b), Petrovskiy & Zhurkin, in Zorin 1988a), Vybornov & Leontyev (1988).

provide a more original analysis of the potential for inadvertent war.³³³ In their view, and borrowing from military arguments, one major problem is that missions that previously required nuclear weapons to be effective and successful can now be carried out with high-tech conventional weapons (VTO). They find this troubling in that conventional weapons systems are less tightly controlled than are nuclear weapons. What they miss is that while a single nuclear warhead would plausibly be enough to detonate a war no one wanted, a single conventional explosion is less likely to have that effect. The military argument is not that a single VTO munition can accomplish what used to require a nuclear warhead, but that VTO in sufficient quantities can accomplish that mission.³³⁴

The two other threat content categories that receive attention are military doctrine and art and generic technologies. Again, these two receive similar degrees of attention to that exhibited in Cluster 2a, and again the character of the arguments presented is radically different. In discussion of military doctrine and military art, the civilian analysts represented here agree with military assessments that NATO-US doctrine and strategy are excessively offensive and a major cause of instability at the conventional level. There is a major difference between the two groups though, as the civilian analysts tend to impute these same characteristics to Soviet military doctrine and strategy as well.³³⁵ This line of argument is closely related to the issues of force structures and command and control highlighted above, as well as the part of the threat assessment in this cluster focusing on

³³³ Vybornov & Leontyev (1988).

³³⁴ For example, an F-16 or Tornado equipped with thousands of "smart" armor-killing submunitions might do equivalent damage to a group of tanks as a tactical nuclear warhead.

³³⁵ Primakov (1987b), Vybornov & Leontyev (1988).

the potential for inadvertent war.

Generic technologies, also on the surface a common element with military analysis, are actually discussed in a light diametrically opposed to the goals pursued by military planners. Where military analysts stress generic technologies in terms of Western threats to make the case for increased or continued research and development, Soviet civilian analysts in this cluster stress generic technologies in terms of a broad-front scientific-technical revolution. The thrust of their argument appears intended to divert R&D resources from the military sector to increase the resources available for civilian R&D and production.³³⁶

9.6 Agendas and Interests Served

The clear function of the threat assessment presented by civilian officials in Cluster 4a is an attempt to influence the size and direction of Soviet military forces. The present military situation -- unstable, in their view -- is presented as being caused by the actions of both sides, not just the West. In addition, the threat assessment presented provides a basis for arguments that the Soviet not only can, but must undertake unilateral actions to change the situation, for military and national security reasons, as well as for economic reasons. Though the two factors are heavily intertwined, economic factors probably play a dominant role. These economic factors are even more explicit and prominent in the assessment of the threat articulated by civilian academics in the context of arms control (Image 4b).

³³⁶ Shelepin (1988), Vybornov & Leontyev (1988), V.P. Karpov (1989b), Spassky (1989).

10. CLUSTER 4b - THE RADICAL ACADEMIC "NEW THINKERS"

Cluster 4b is made up exclusively of civilian academics arguing in arms control forums. This group of sources represents the most radical "new thinkers". The threat assessment presented is slightly more differentiated than that presented in the civilian official cluster (4a), especially in discussions of threat scope and threat content. Many of the same arguments present in Cluster 4a are also present here. In particular, the stress on inadvertent war, reflected in emphasis of command and control, force structures, and military doctrine and art, is similar between the two clusters. Rather than simply recapitulate the characterization, this section will instead focus on the differences between the two clusters.

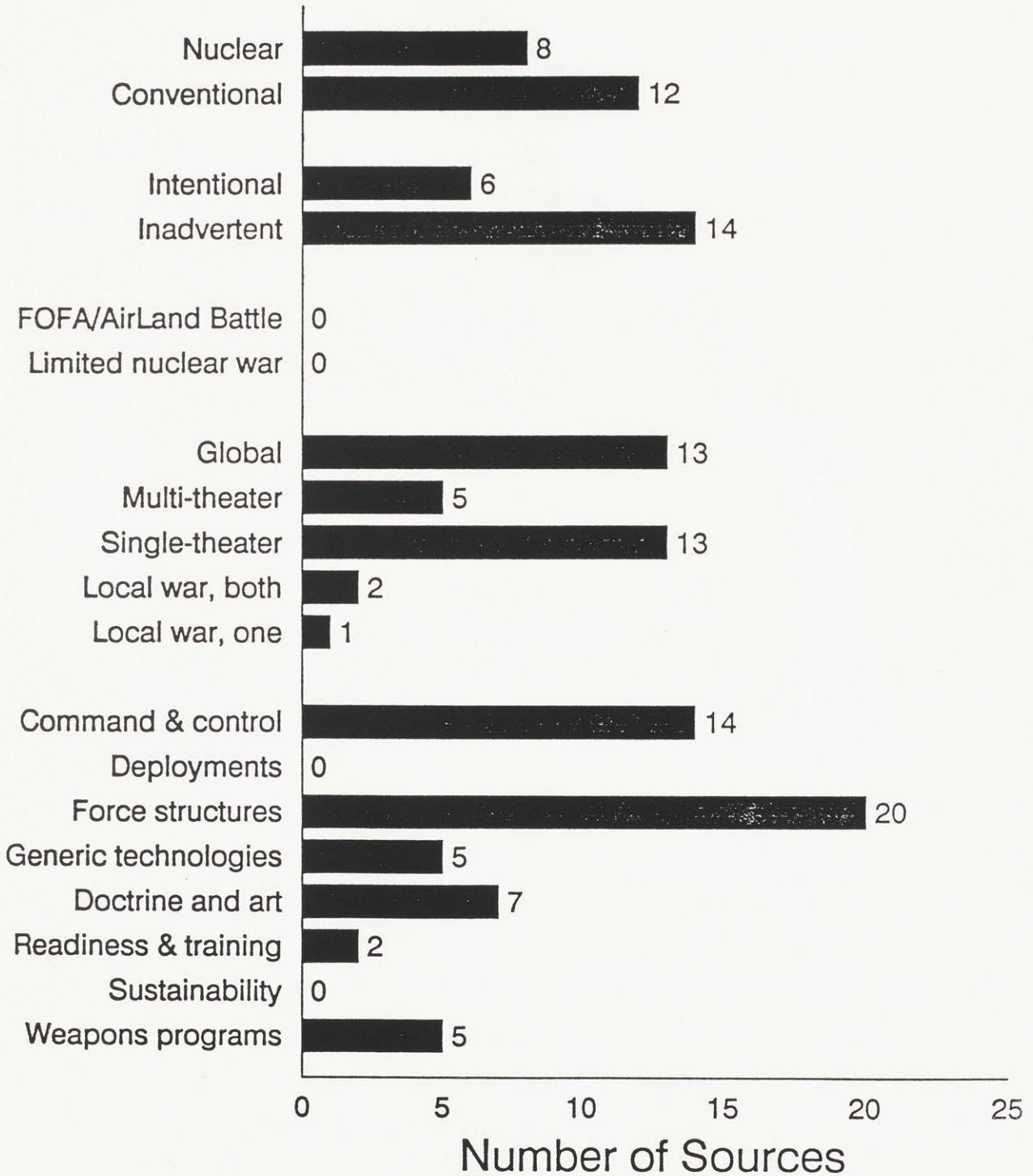
10.1 The Structure of Cluster 4a Academic Threat Assessment

For the civilian academics in Cluster 4b, there are four significant groupings of associated variables.³³⁷ First, the single-theater contingency is closely related to emphasis of conventional threats. Second, the potential for inadvertent war is usually co-emphasized with potential command and control instabilities and problems. Third, the threat content issues of force structures and generic technologies are closely correlated, together with a relatively lower stress on intentional war initiation. Finally, nuclear threats, to the extent that they are stressed, tend to be associated with discussions of specific weapons programs at the strategic level.

³³⁷ Three of the four receive relatively equal attention in the threat assessment in Cluster 4b, each comprising about 29% of the image. The nexus, described below, encompassing nuclear war and weapons programs, receives the least attention, at about 13% of the assessment.

Figure 10.1

**Threat Assessment in Sub-cluster 4b
1985-1989, Cumulative**



10.2 Threat Nature

10.2.1 Nuclear vs. conventional: While the overall balance -- stressing conventional threats -- is similar to that in Cluster 4a, the spread between the two categories is much narrower. Approximately 27% of these civilian academics stress conventional forces and threats, while about 18% stress nuclear. They are less explicit on this issue than were civilian officials.

10.2.2 Intentional vs. inadvertent war initiation: On this issue, there is a marked difference between this cluster and Cluster 4a. Indeed, this cluster is unique in stressing inadvertent war more strongly than intentional war. Overall, more than twice as many of these analysts emphasize the danger of inadvertent war than those emphasizing intentional.³³⁸

10.2.3 Specific scenarios - FOFA/AirLand battle vs. limited nuclear war: Again, there is no reference to either scenario.

10.3 Threat Scope

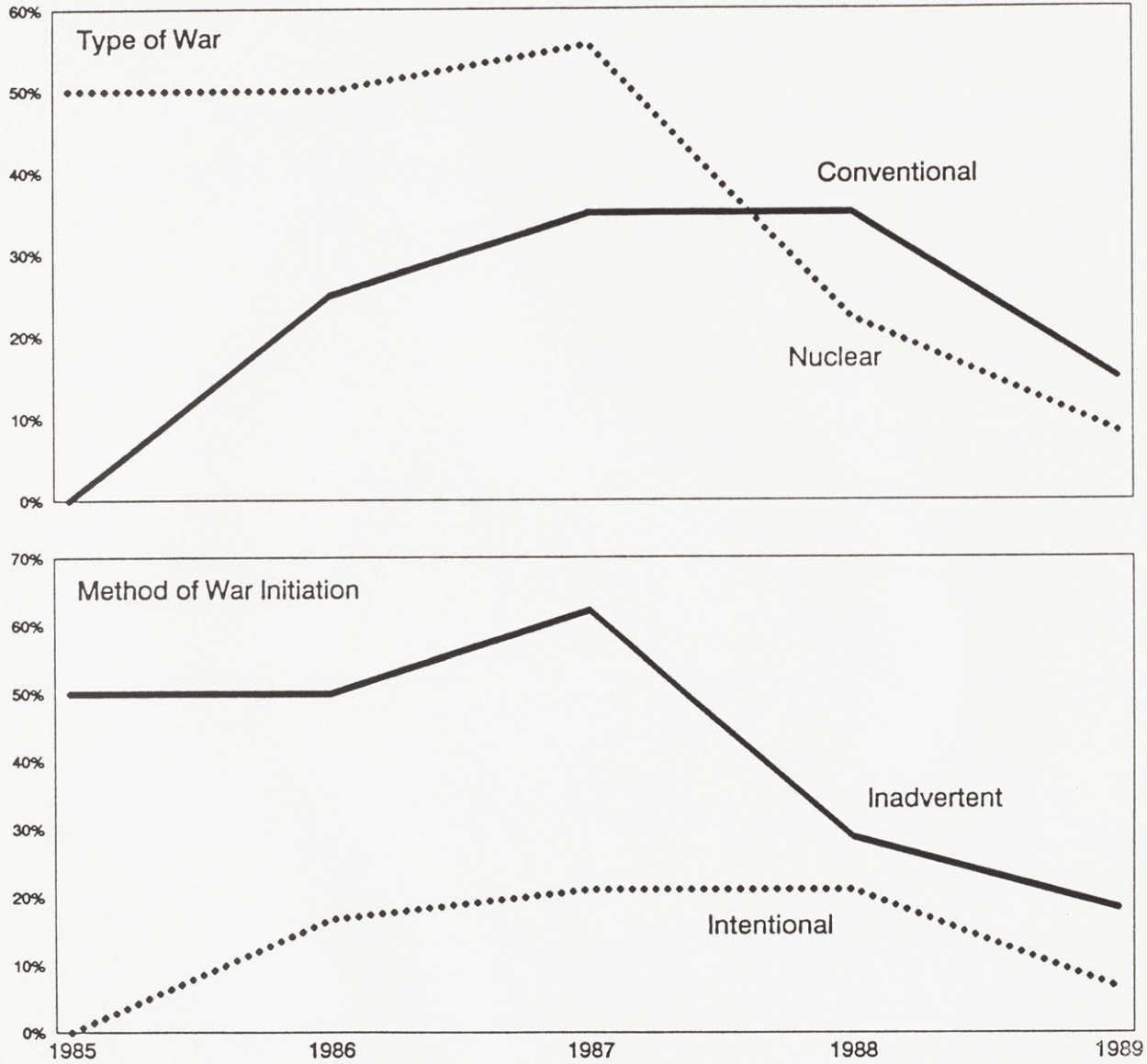
In contrast to Cluster 4a, assessment of the threat scope here is much more differentiated, as all five contingencies are mentioned, and the spread among the categories is much narrower. Overall, global and single-theater contingencies receive equal attention, each with about 30% of the total. This distribution is relatively constant over time. That is, one category does not predominate early and the other late in the period. Multi-theater contingencies are perceived as less pressing, as only 10% of analysts address them. Local

³³⁸ For example, Zhilin (1986), Zhurkin, et al. (1987b & 1987c), Kondrashov (1988a & 1988b), Petrovskiy and Zhurkin in Zorin (1988a), Karaganov (1988a), Falin, in Zorin (1988b), Chernyak (1988), Shlykov (1988).

wars, while receiving some attention (they did not in Cluster 4a), are a low priority.

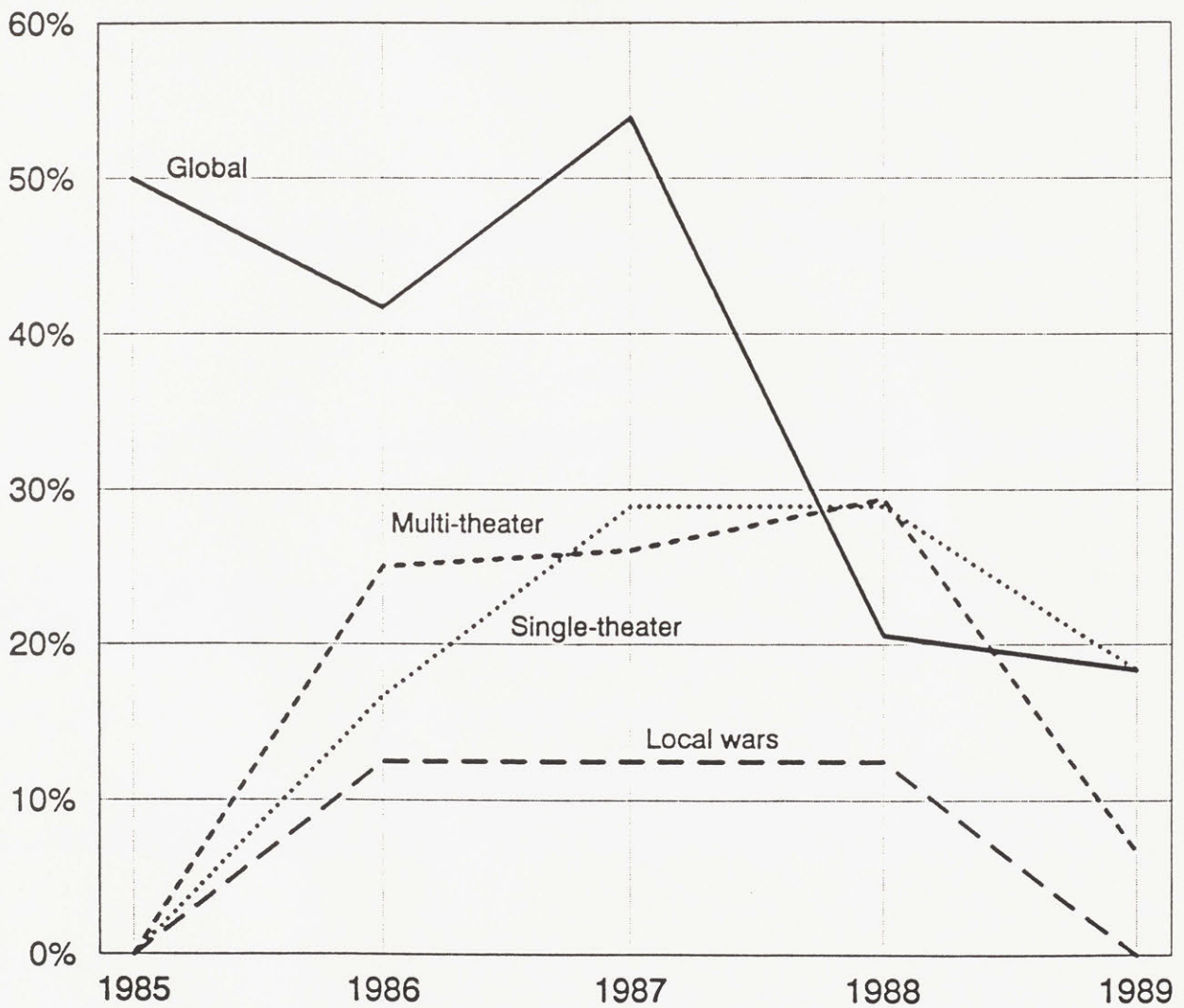
Figure 10.2

Cluster 4b: Threat Nature Variables, 1985-1989
Percent of Annual Cluster Total, 3-Year Mean



Note: Sources in Cluster 4b take no explicit positions on specific threat scenarios.

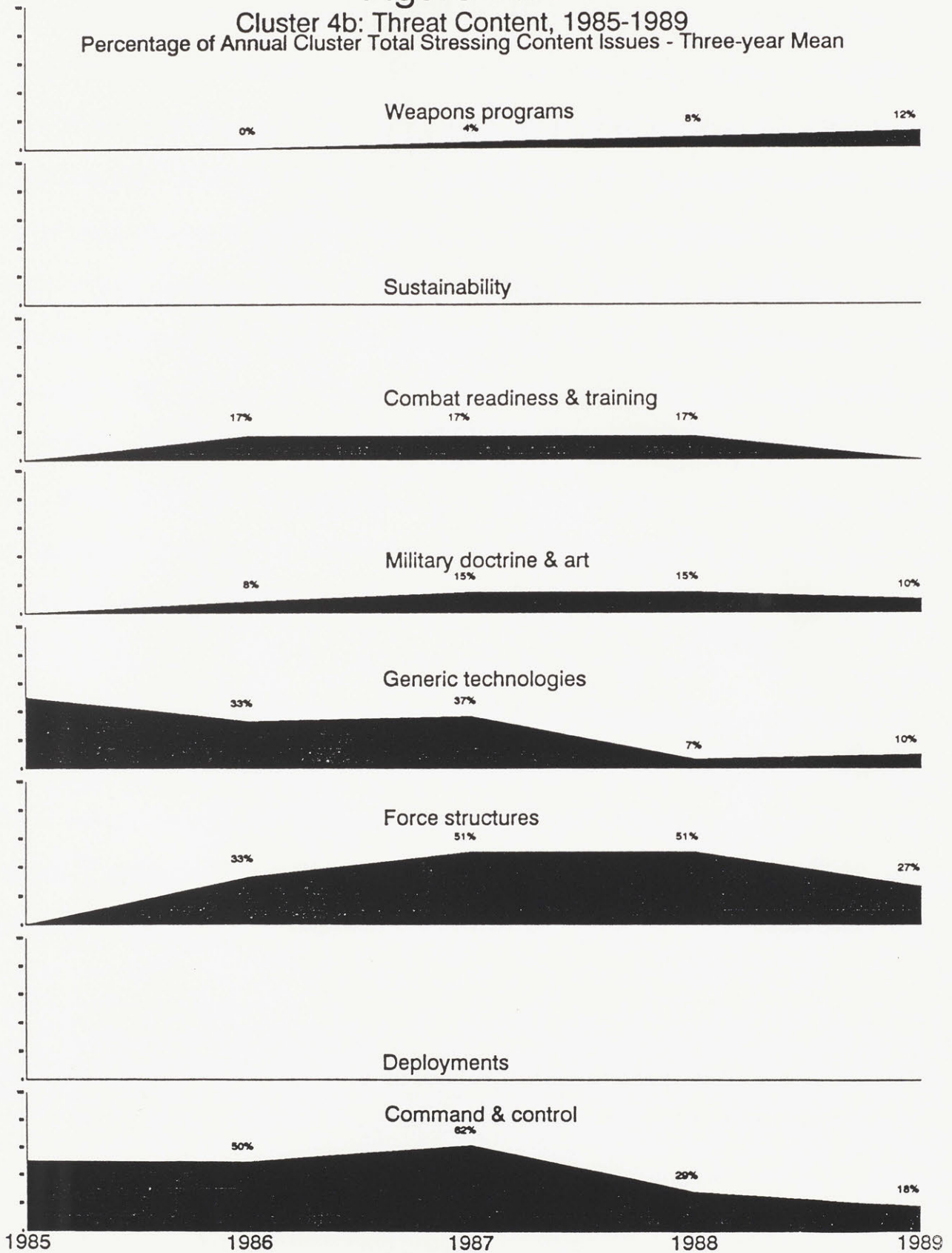
Figure 10.3
Cluster 4b: Threat Scope Contingencies
Percent of Annual Cluster Total, 3-Year Mean



The two local war contingencies are collapsed

Figure 10.4

Cluster 4b: Threat Content, 1985-1989
Percentage of Annual Cluster Total Stressing Content Issues - Three-year Mean



10.4 Threat Content

As noted above, Clusters 4a and 4b are quite similar. The three top categories in Cluster 4a -- force structures, command and control, and military doctrine and art -- are stressed here as well, and in roughly the same order. However, there are differences in relative emphasis. Force structures are stressed slightly more (at 45%) while command and control and military doctrine and art receive relatively less attention (at 31% and 16% respectively). However, other issues not mentioned in Cluster 4a -- combat readiness and training, and weapons programs -- receive some attention from civilian academics. Overall, the thrust of the arguments presented in threat assessment by the civilian academics here is parallel to that presented by civilian officials in Cluster 4a. The major differences are two. First, the stress on inadvertent war is amplified. Second, the pattern of threat assessment tends to be more differentiated and broad, as additional factors not addressed by officials are addressed by academics.

10.5 Themes and Characteristics of Threat Articulation and Assessment

These civilian academic threat assessments in arms control contexts display some of the themes common to other civilian clusters. First, the now-familiar arguments about force structures and military doctrine and art in the context of offensive-defensive dynamics are present.³³⁹ Second, as already noted, there is the familiar stress of inadvertent war. While

³³⁹ Zhurkin (1987a), Zhurkin, et al. (1987b & 1987c), Sankoyev (1988), Kondrashov (1988a & 1988b), Kalyagin, et al. (1988), Zhilin (1988), Zhukov (1988a), Blagovolin (1988a), Karaganov (1988b). Interestingly, in the last citation, Karaganov links the issue of force structures to Soviet military personnel policies, advocating a shift to a professional, volunteer system. He feels that this will also alleviate another military problem -- the decline in military prestige. Karaganov is a rather ironic defender of military prestige, considering he has been prominent in attacking the military on a number of issues.

the degree of attention is higher in this cluster, the frame of reference is the same, even to the point of invoking the "Chekhov gun law".

Themes that were more muted in other civilian clusters are very prominent among these new thinkers. Most striking is the willingness to share the blame for the current military confrontation equally between the West and the USSR (although these academics are of course not specifically to blame). This theme is especially apparent in 1988, and was very radical at the time. Academics acknowledge that while Western fears about the Soviet threat are actually unfounded, they are real.³⁴⁰ Further, both sides are guilty of "old thinking" in trying to "one-up" the other side.³⁴¹ Other academics focus even more on Soviet contributions to the present confrontational deadlock. Deployment of SS-20's, as well as the invasion of Afghanistan, are referred to as Soviet "own goals".³⁴² The 1982 walkout from the INF talks is also cited as unjustified and counter-productive from the viewpoint of Soviet security interests.³⁴³ At a more abstract level, the traditional *kto-kogo* mindset is indicted as an "altogether dangerous anachronism", one that led to Soviet actions that objectively gave their neighbors cause to think of it as an enemy and fear the Soviet

³⁴⁰ That is, they are not the result of insidious manipulation by the military-industrial complex, as military agitprop would have it. See Kondrashov (1988a).

³⁴¹ Kondrashov (1988a). Bykov (1988) states that the blame for the early part of the arms race must be on the shoulders of the US; however, with Soviet achievement of military-strategic parity, inertia on both sides led to missed opportunities to curtail the arms race.

³⁴² Bovin (1988a).

³⁴³ V.P. Karpov, in Kalyagin (1988).

threat.³⁴⁴ One analyst goes so far as to say that no country in history has ever been so "brilliantly" surrounded as a result of its own actions and inaction.³⁴⁵

Going even further, some academics state that there is no military threat against the Soviet Union or its erstwhile allies.³⁴⁶ Zhurkin, for example, calls attention to the threat inflation common in the USSR: "For a decade or two, the political commentators, the scientists, as well as the military press have overstated the threat of war against the USSR." He specifically denigrates the persistent and ominous reminders of 22 June 1941.³⁴⁷ Bogomolov reminds that the idea of an unchanging imperialist threat is not really in the spirit of Marxist dialectics.³⁴⁸ Aleksandr Bovin of *Izvestiya* discusses the lack of a real threat in the context of Gorbachev's unilateral force reductions, stating that even after the cuts, the conventional balance is "two to one" in the WTO's favor.³⁴⁹ Two academics writing

³⁴⁴ Chernyak (1988). Chernyak's reasoning is rather simple, but irrefutable. If the USSR had not previously acted in a threatening manner, the "new thinking" would not have been necessary.

³⁴⁵ Bogomolov (1988).

³⁴⁶ The most forthright statement of this comes from Kondrashov (1989): "There is no threat of war on the horizon...."

³⁴⁷ Zhurkin, in Zorin (1988a). It is interesting that Petrovskiy, also a guest on the program, comes off as something of a hawk compared to the radical Zhurkin. In particular, he feels constrained to stay within the guidelines (Theses) set down for the 19th CPSU Conference, which was explicit that "imperialistic militarism still poses a threat of war". Nor is Petrovskiy the only civilian official that seems a harliner in comparison to the radical new thinkers. L. Mendelevich, chief of the Foreign Ministry Evaluation and Planning Administration, rebuts Bogomolov on the lack of a military threat: "...I think that for many decades our security was, and still is, under a certain threat. We must always plan for the worst-case scenario." In Bogomolov (1988).

³⁴⁸ Bogomolov (1988).

³⁴⁹ Bovin (1988b). Bovin here is pressing another agenda -- the lack of military *glasnost*' and hence the need to rely on Western data. This is a rather common maneuver among academics -- use the Western figures that show the Soviet military in the worst (most

in Mezhdunarodnaya zhizn' state that it is time to "renounce the traditional notion of the allegedly inherent 'aggressiveness' of the West...."³⁵⁰

The last two academics, Bogdanov and Kortunov, also demonstrate another theme in this cluster -- a sense of decline in Soviet superpower status. They state that Soviet status in world politics "is objectively bound to decline irrespective of whether or not we retain a surplus of nuclear arms." They believe that it would be better to give up "obsolete symbols of international status" and concentrate on catching up in the most important areas.³⁵¹ This leads directly to the last theme, and probably the major underlying agenda of academic threat articulation -- the increasing lag by the USSR in economic, scientific, and technological terms. The "most important areas" in academics' eyes are increasingly economic, scientific, and technological.³⁵²

These economic, scientific, and technological aspects of threat assessment are more prevalent in this cluster than in any of the others. The basic line of argument is that military expenditures are disproportionately heavy on the Soviet peoples' shoulders, and that huge military expenditures have been detrimental to the Soviet economy and hence to

threatening) light, and then imply that this might not be the case, if only Soviet information was available to refute it. This is part of the academics' political agenda to gain greater access to defense and foreign policy decisionmaking.

³⁵⁰ Bogdanov & Kortunov (1989). The second half of the exhortation is to "master the achievements of the US and West European military science."

³⁵¹ Bogdanov & Kortunov (1989). The most succinct manifestation of this pessimism (or realism), comes from Aleksander Bovin, who described the USSR -- albeit in the context of a Western quote -- as "Upper Volta with rockets".

³⁵² Academician N. Molchanov states that great power status is achieved not through weapons, but rather through information and technological expertise -- through "brainpower". In Bogomolov (1988).

Soviet national security. Essentially, the USSR has been paying a "wartime price for the present fragile peace."³⁵³ This is caught up in disagreements as to the true level of Soviet military expenditures relative to national wealth. Figures as high as 18% to 27% of Soviet GNP are bandied about, in contrast to the first official figures released. This is partly an effort to overstate the defense burden to force the military to release realistic numbers,³⁵⁴ and partly overstatement to make reductions seem even more necessary. Of course, conventional forces are singled out as taking up the lion's share of the burden.³⁵⁵ What is worse, the situation regarding the military burden is seen as getting worse, not better. For example, several academics stress that modern armaments are increasingly technology-intensive (especially in the form of electronics), and that these components cost the Soviet 2-3 time more than the US and NATO.³⁵⁶ While some military analysts note these same developments, the solutions to the problems are radically different. Where the military favors increased investment in military R&D,³⁵⁷ civilian academics favor getting out of the

³⁵³ Kondrashov (1988a).

³⁵⁴ It is not clear that there have been realistic numbers for the defense burden in GNP terms for the military to release. It appears that there has never been a real "defense budget" in ruble terms until quite recent attempts to calculate one. The official figures given now are almost certainly incorrect, if only because of unrealistic pricing and hidden subsidies in military production. See Stephen M. Meyer, "Economic Constraints in Soviet Military Decision-making," in Henry S. Rowen and Charles Wolf, eds. The Impoverished Superpower: Perestroika and the Burden of Soviet Military Spending. (San Francisco: Institute for Contemporary Studies, 1989).

³⁵⁵ For example, Bovin (1989).

³⁵⁶ Bogomolov (1988).

³⁵⁷ The military's favored solution is, as stated above, unlikely to be adopted. Indeed, the recent decision to shift 30 military weapons programs from OKR (development) back to NIR (research) indicates that the civilian academics' favored solution holds sway presently.

business altogether, shifting resources to the civil economy, and catching up in scientific-technological infrastructure.³⁵⁸ The conversion of defense industries to civil production is one method of achieving this.³⁵⁹ In addition to the scientific-technological lag of the USSR *vis-a-vis* the US, the NATO-Warsaw Pact comparisons are not favorable. As Kondrashov put it: "In terms of population numbers, economic potential, and world ranking in scientific and technical development the GDR is no FRG, Poland is no France, Czechoslovakia is no Britain, Hungary is no Italy, and Bulgaria is no Canada."³⁶⁰

10.6 Academic Threat Assessment in Military-technical vs. Arms Control Contexts

Many of the analysts represented in Cluster 4b are also represented in Cluster 2b. However, the images presented in the two are quite different. The interests and agendas driving the two are the same, but articulated in different contexts. Differences and similarities are compared directly in this section.

10.6.1 Threat nature: The relative stress on nuclear threats and conventional threats is very close in the two clusters. The distribution of sources stressing nuclear forces is nearly identical. In discussing conventional threats, the overall patterns are the same; however, the trend is amplified in the military-technical cluster, such that over the entire period almost 65% stress conventional forces and threats, as opposed to only 27% in the arms control cluster.

There is a major divergence in the relative balance of emphasis on intentional vs.

³⁵⁸ Bulakov (1988), Falin in Zorin (1988b), Bovin (1989), Kondrashov (1989).

³⁵⁹ For example, Kireyev (1988), B. Ponomarev (1988).

³⁶⁰ Kondrashov (1989a).

inadvertent war. Where the military-technical cluster stresses intentional over inadvertent in a ratio of 1.6-to-1, the pattern is completely reversed in the arms control cluster (the ratio being 1:2.3). This is a clear example of threat assessments being tailored for different purposes.³⁶¹

In terms of specific scenarios, the difference is that they are mentioned in the military-technical cluster, but not in the arms control cluster. This is another example of the civilian academics' attempts to co-opt the language and issues of the military, when the arguments are in a military-technical context.

10.6.2 Threat scope: Attention to global and multi-theater contingencies conforms closely between the two clusters, though multi-theater contingencies are stressed more strongly in military-technical forums than in arms control. The most intriguing difference is in the degree of attention to single-theater contingencies. In military-technical forums, as noted above, the level of attention to this scope category is surprisingly low -- almost twenty percentage points lower than in the arms control cluster overall, for the reasons noted above.³⁶² Attention to local war contingencies in the two clusters follows substantially the same pattern, though the level of attention is somewhat higher in arms control than military-technical forums.

³⁶¹ The difference is apparently due to the context of the arguments in the two clusters. Where Cluster 2b is in a military-technical context, these sources in Cluster 4b are in an arms control context. The more hardline of the two on this issue is the former. This is not only an example of a group saying different things to different people. There are also instances where the same analyst make very different arguments in different contexts and toward different audiences.

³⁶² In Cluster 2b, the arguments are on a more abstract plane. They are not so much about any particular contingency (i.e., NATO-WTO central European conflict), as they are about military force structures and doctrine in general. See Chapter 7.

10.6.3 Threat content: The major differences between the two clusters in attention to threat content categories are in attention to command and control, military doctrine and art, and weapons programs. In terms of command and control, the level of attention is much higher in arms control forums than in military-technical forums. This corresponds well with the higher emphasis on inadvertent war in arms control forums. Based on this, then, one might expect to see similar differences in elevation of attention to the other factors that tend to be associated with inadvertent war -- force structures, and military doctrine and art. However, the two clusters are almost identical with respect to attention to force structures, and attention to military doctrine and art is substantially higher in the military-technical cluster than in the arms control cluster. Furthermore, there is a significant distinction between the two clusters' discussion of weapons programs. Where the civilian academics in military-technical forums discussed weapons programs exclusively in the early part of the period, in arms control forums this factor was initially absent completely, but then appears in 1988 and 1989.

10.7 Agendas and Interests Served

Taking this academic threat articulation and assessment as a whole, one characteristic that is evident is that it serves a variety of political agendas and interests. First, it is clear that many of the criticisms of past policies ("own goals") are meant to argue for greater civilian involvement in foreign and defense policy. The implication of many of these indictments of past actions is that if civilian (academics) had been more involved, they would not have occurred. This is a political argument to obtain influence. Second, the manipulation of facts and figures in terms of both force balances and budgetary figures

supports the academic desire to obtain greater information of Soviet defense policies and programs. This has two goals. It feeds into the first agenda -- more information means more access and influence. It also feeds into the other basic underlying agenda -- the economic agenda. Academics portray the defense burden at high levels in order to bolster their argument for reduced expenditures. They portray the balance in the Soviet favor to bolster their arguments for reduced forces. The two go hand in hand. Likewise, the arguments that seek to demonstrate that there is no real military threat have a similar purpose -- removing the underpinning military rationale for sustaining or increasing defense expenditures. If, on the one hand, there is no real military threat, and on the other hand there is a very real threat on the economic, scientific, and technological fronts, the proper priorities for resource allocation are clear. And, given the constraints imposed by the state of the Soviet economy, the source of these resources is likewise clear -- a reallocation from the military to the civilian sector through conversion of production facilities, manpower, investment, and especially R&D.

Detailed examination of the six clusters' assessments of the threat facing the USSR has revealed, in addition to the general fragmentation, very real and deep differences in perspective and priorities among civilian and military analysts. The most drastic difference in perspective is the assertion by some civilians that there is in fact no real military threat to the USSR. The Soviet military, of course, has a very different opinion, and the two positions denote radically different dynamics in resource allocation and political influence. The next chapter examines this issue directly. How do civilians and military officers differ in their assessments of the degree and immediacy of the threat?

11. THE DEGREE & IMMEDIACY OF THE THREAT

Neither civilian or military commentators and analysts see the likelihood of war as great. Nor is the threat seen as immediate. The consequences of war -- either nuclear or conventional -- on the other hand, are unanimously seen as catastrophic. These are "more or less" distinctions, though. Civilians view the military threat as extremely remote, with the exception of a possible inadvertent war. The military calls for prudent analysis to maintain the armed forces. As *glasnost*' and the *novoye myshleniye* have brought reexamination of fundamental tenets of Soviet national security policy, the military and civilians are increasingly engaged in an open, public struggle about the nature and even the very existence of a military threat.

11.1 Civilian Assessments

Civilians almost unanimously assess the likelihood of intentional war as virtually nonexistent. Various reasons for this assessment are given -- economic interdependence,³⁶³ a "real" assessment of the potential opponent's intentions and interests,³⁶⁴ and the previously sacrilegious idea that imperialism is not inherently militaristic.³⁶⁵ For civilian analysts, the only real threat of war is in the form of inadvertent war.³⁶⁶

³⁶³ Bogomolov (1988).

³⁶⁴ Zhurkin, Karaganov & Kortunov (1987c).

³⁶⁵ Kireyev (1988).

³⁶⁶ Refer to the discussions in Chapters 6-9. See also Petrovskiy & Zhurkin, in Zorin (1988a), Chernyak (1988), Falin, in Zorin (1988b).

All civilian sources directly addressing this question state that the threat of war has been reduced.³⁶⁷ Some analysts argue that it will not increase again.³⁶⁸ Academician O. Bykov takes on this issue directly. The main guarantee restraining conscious initiation of war in the recent past has been Soviet achievement of military-strategic parity. This should have allowed a relaxation and reduction of tension and thus the threat of war. Despite this, tensions and the arms race continued, caused by inertial resistance as both sides (especially the militaries) continued to cling to "pre-nuclear" perspectives. Bykov concludes that there still has been no radical breakthrough, though, since the forces of militarism (and here he appears to include both East and West forces) could still block progress. Altogether, he sees room for qualified optimism, provided that rational thought on both sides can block militarist tendencies and the fortress mentality built up over decades.

In addition, some sources state that the threat has been intentionally overblown for some time.³⁶⁹ This manipulation was performed by the Soviet military as well as the West, to further the arms race. The cost of this threat inflation is placed at thirty to forty years of peaceful development.³⁷⁰ This assessment plays to an apparently widespread belief in Soviet public opinion that past and present military expenditures are the root cause of current economic crisis. If this is the case, shifting military resources to civilian programs

³⁶⁷ Petrovskiy & Zhurkin, in Zorin (1988a), Spassky (1989), Bogdanov & Kortunov (1989), Bykov (1988), Kireyev (1988), Chernyak (1988), Kondrashov (1989b).

³⁶⁸ Bogomolov (1988), A. Arbatov (1988 & 1989), Bogdanov & Kortunov (1989), Kireyev (1988).

³⁶⁹ Bogomolov (1988), Zhurkin, in Zorin (1988a), Bogdanov & Kortunov (1989), Falin, in Zorin (1988b).

³⁷⁰ Falin, in Zorin (1988b).

and conversion of defense production and R&D facilities serves as a panacea to solve the economic crisis. This is a clear call to civil-military battle, and the Soviet military has rushed to take on the revisionists and critics. Moiseyev and Akhromeyev in particular have attempted to rally General Staff efforts in this "hearts and minds" public education campaign.

11.2 Military Assessments

11.2.1 Military campaigns in the civil-military debate:

The majority of military sources taking explicit positions on the degree and immediacy of the threat come from center-affiliated officers, primarily in the cluster of threat assessment articulated for propaganda and arms control (Cluster 1).³⁷¹

In the early part of the period (through the end of 1987) military analysts stressed an increasing threat in rabid tones.³⁷² The image presented was one of a continuously increasing imperialist threat, ratcheting ever upward.³⁷³ Beginning in 1988 or so, the rhetoric became less categorical - the threat was portrayed as "continuous" or "not decreasing". Later in 1988, the top military leadership began giving grudging recognition to changes for the better in the international situation, lowering the threat of war.

³⁷¹ Most are in Cluster 1 (32, as opposed to 11 in Cluster 2a). Of the sources overall, 29 stress an increasing threat, while 14 state that the threat has declined (all in 1988-89). Most sources in either case are from the center. Of those stating threat increased, 17 are center, 5 service, and 7 defense intellectual. Of those stating threat declined, 11 are center, 2 service, 1 defense intellectual.

³⁷² Refer to Section 5.1 on themes in Cluster 1 threat assessment.

³⁷³ How the threat could continuously increase, for decades, without leading to war was never addressed, nor was any mention made of what is commonly perceived as a thaw in East-West relations in the mid-1980's.

However, this was primarily simple parroting of the Gorbachev's words. These statements continued to coexist uneasily with the continuing references to 22 June 1941 and other ominous themes in military propaganda sources. Perhaps the best example comes from V. Milovanov, writing in Kommunist vooruzhennykh sil in 1989. After a relatively brief and perfunctory explication of the benefits of *novoye myshleniye* and *perestroika*, Milovanov presents a balanced picture of the threat -- the peaceloving initiatives of the USSR and its socialist brothers are balanced by the aggressive plans and preparations of militarist monopoly-capitalists in the West.³⁷⁴ In most sources that concede that the threat has receded, one can almost feel the "but" or "however" coming. The common practice, exemplified by Milovanov, is to present a brief, perfunctory section noting the fruits of *novoye myshleniye*, followed by a longer section that implicitly contradicts or severely limits the opening section. The message to the Soviet military is essentially "keep your powder dry". The implicit (or, increasingly, explicit) message for the Soviet public and leadership is to make sure there is enough "powder".

Several military analysts and spokesmen try to qualify their assessments by dividing the military threat into the "military danger" and the "military threat" (the threat of war). The terms are ill-defined and inconsistently used; however, "military danger" seems to have two general meanings.³⁷⁵ First, it is used to refer to the consequences and costs of a war - - the danger should a war somehow start. Second, it refers to a sort of existential threat

³⁷⁴ This source also represents a prime example of the military habit of presenting every Soviet action that could possibly be construed as peaceful alongside the "aggressive" actions of the West. In this context, it is surprising that Milovanov does not characterize Stalin's military purges and "unilateral reductions".

³⁷⁵ The term does not have any official standing or definition, and is used in various ways by different analysts.

connected to the simple fact that states have armed forces, and the possibility that they might be used to further a state's interests in an anarchic international security regime. The "military threat" is more straightforward -- it is usually simply the direct threat of war. Milovanov divided this into the "actual" threat versus the "potential" threat. However, the definitions associated with each by Milovanov imply that both the actual and potential threats are great, if not immediate.

It is at this level -- the degree or even existence of a military threat -- that the civil-military struggle for the hearts and minds of the Soviet people and leadership is the most acute. After all, if the civilian position that there is no military threat is believed, there is no justification for continued existence, let alone dominance, by the Soviet military. Chief of the General Staff Moiseyev and former chief Akhromeyev have been the point men in this campaign. Moiseyev makes it very clear that the issue is vital in the civil-military struggle, stating that the question of whether there is a threat is a "fundamental *political* question".³⁷⁶ He calls attention to the numerous "noncompetent" articles in the press casting doubt on the threat and the measures taken to meet it. "At times it is bluntly asserted that an 'alleged military threat' is invented by the military itself in order to justify its existence." Of course, Moiseyev does not accept the charge that the threat is invented by the military, but he certainly recognizes that without a threat, justification of military programs and priorities is impossible. Therefore, he calls for the military, and especially the General Staff, to take on those casting doubt on the existence of a threat "with well-argued answers, to shape public opinion accordingly, to explain the real state of affairs, and to educate

³⁷⁶ Moiseyev (1989a), emphasis added.

young people and Army and Navy personnel in the spirit of a correct understanding of the military-political situation in the world."³⁷⁷ This emphasis on "educating" young people is crucial to the future conscription base of the Armed Forces, and will be even more important in the event of a shift to a volunteer personnel policy. The emphasis on educating military personnel implies that, even within the military, many soldiers doubt the existence of the threat or the need for military service. This has been graphically shown by conscripts' refusal to report for call-ups and large-scale desertion from the armed forces. Most importantly, the urgent measures needed to meet the military vision of the threat depend on public and leadership opinion. This is explicitly recognized by Moiseyev in his calls for "shaping public opinion" on the threat.³⁷⁸

With increasing influence and power going to new legislative organs, these too have become a battleground for the struggle. Marshal Akhromeyev, for example: "I am concerned at the fact that not all of the Peoples' Deputies fully understand at present the objective need for the Army and Navy to be at the appropriate qualitative levels and to reliably ensure the country against aggression."³⁷⁹

Overall, at the level of public education and the civil-military struggle, the military leadership attempts to manipulate perceptions of the threat of war for budgetary, organizational and arms control purposes. They do not believe that a war is imminent; however, the cost of being unprepared is great -- both in the event of a war, and for the peacetime status of the Soviet armed forces. Where in the past their pronouncements and

³⁷⁷ Moiseyev (1989a & 1989c).

³⁷⁸ Moiseyev (1989c).

³⁷⁹ Akhromeyev (1989g).

rabble-rousing went unchallenged, under conditions of *glasnost*' civilians increasingly have the opportunity and inclination to call military threat portrait into question.³⁸⁰ Greater civilian expertise and greater military *glasnost*' can only accelerate this trend.

11.2.2 Internal military-technical assessments:

The military's internal threat assessment likewise does not see the threat of war as especially imminent, and increasingly less so over time. As noted above, in military internal threat assessment, analysts do not address this issue directly.³⁸¹ However, the major emphasis is on preparing for the future threat, not on readiness to repel aggression at any minute. Over time the military's internal assessment of the threat is increasingly concerned with long-term developments in military technology and military science, and not with current weapons programs and deployments.

This perspective is not without tension, though. A major feature of Soviet analysis of the initial period of war is the increasing possibility and effectiveness of enemy surprise conventional attack, using the combat potential of VTO and their supporting elements as delineated by the FOFA and AirLand battle strategies. Soviet analysis of the initial period of a future war suggests that there will be no "threatening period". Therefore, while the

³⁸⁰ One particularly interesting example of these civilian challenges concerns military formulation of the threat posed by NATO's Autumn Forge-89 exercise series. The military made an unusually large fuss over the exercises, stressing in particular their proximity to the Warsaw Pact nations and the size of the exercises. One civilian took them on directly, by noting that the scale of the series in 1989 was in fact less than in previous years, particularly regarding US participation via REFORGER.

³⁸¹ There are some exceptions, primarily from defense intellectual writing theoretical or polemical pieces in *Kommunist vooruzhennykh sil*. Serebryannikov (1985), Skorodenko (1986 & 1988), Yasyukov (1986a), Lukava (1986a), Volkogonov (1987).

intention to initiate a war is seen as remote at present, the *capabilities* to do so are latent, and will increase over time. The responses needed to meet this threat require long lead times -- they must be begun now to be ready should the need arise.

This sense of urgency, coupled to increasing pressure on the military as a whole, goes a long way toward explaining the military engagement for the minds of the public and the political leadership. The military leadership feels that the USSR must take advantage of a period of reduced tensions to prepare for the long-term military threat. They feel that this period will inevitably come to an end, sooner or later. Civilians likewise see a period of relaxed tensions, but believe that changes in the USSR and in the West have made this likely to persist, to become "irreversible". Therefore, it is important to take advantage of this fact to shift resources and meet the more pressing economic, scientific, and technological challenges facing the USSR. The struggle between these two views is increasingly being played out in public, and in the new centers of power in the Soviet government.

12. AGGREGATE THREAT ASSESSMENT AND COMPETING VISIONS

Despite the fact that there are six separable assessments of the threat portrayed by Soviet military and civilian analysts, they do share some common trends. This chapter examines the six threat assessment clusters in the aggregate. It examines the commonalities in threat assessment among all clusters, and highlights those that diverge from the central tendencies. It serves as a summary of the six clusters in the Soviet threat assessment debate.

12.1 Threat Nature

Looking at a snapshot of the threat portrayed in 1985, nuclear threats (65% of sources) were stressed nearly twice as frequently as conventional threats (37%). There was virtually no attention at all to the possibility of inadvertent war initiation or escalation, while fully 80% of sources stressed the likelihood of a Western intentional surprise attack against the USSR and the Warsaw Pact. Among those raising specific scenarios, all stressed the conventional deep-strike contingency associated with FOFA and AirLand battle. Limited nuclear war was not addressed at all.

Over time, this picture changed significantly. Attention to nuclear threats among all clusters declined drastically, at an overall rate of about 18% decline per year. This was trend was common to all clusters, though civilian officials did not address nuclear threats very much at all. As attention to nuclear threats declined, stress of conventional threats increased. All clusters except one registered increases in attention ranging from 3-17% per year. The cluster that deviates from this trend is Cluster 2a -- the military's internal

military-technical threat assessment. Despite this decline, though, Cluster 2a threat assessment still sees conventional threats as more worrisome than nuclear, a fact reflected in their discussions of scenarios and the content of the threat.

Emphasis of intentional and surprise attack declines over time, primarily due to a less vociferous portrayal of the West by military analysts. This is a response to the political exigencies of the new political thinking. While attention to inadvertent war did increase, this was almost entirely due to the increasing voice of civilian officials and academics.

Specific scenarios are addressed by a minority of analysts throughout the period, and almost all references come from military sources. The FOFA/AirLand battle contingency receives increasing attention over time, while the limited nuclear war scenario remains at a low level of attention throughout. Comparing the military propaganda and arms control threat assessment to the military-technical one, the conventional deep-strike scenario is consistently stressed more in real threat assessment. Taking the period as a whole, Cluster 1 accords roughly equal attention to the two scenarios, while Cluster 2a stresses the high-tech conventional scenario more than three times as much as limited nuclear war.

By 1989, then, the snapshot had changed considerably. Nuclear threats are addressed by less than 10% of sources, while conventional threats have increased to more than four times this level. Attention to inadvertent war initiation or escalation had increased to about 15% in 1988 (subsiding to zero again in 1989 as civilian spokesmen turn their attention to other issues), while stress of intentional, surprise attack has declined to about 40%. Attention to FOFA/AirLand battle has increased to more than 10% of all sources in 1989 (the largest portion of the surge in 1989 itself), while limited nuclear war is not addressed at all.

Taking the period as a whole, conventional threats are stressed over nuclear by every cluster except Cluster 1. This was because of the large weight of nuclear stress early in the period -- by 1989, conventional threats were emphasized over nuclear 7:1. The overall weight of analysis stresses intentional war over inadvertent. However, military analysts pay almost no attention to inadvertent war, while civilians stress the possibility much more strongly. 30% of civilian sources stress inadvertent war, while only 35% stress intentional. The only exception to the general relationship comes from academics in arms control settings (Cluster 4b), where inadvertent is stressed more than intentional war.

12.2 Threat Scope

In 1985, the threat was overwhelmingly portrayed as global in scope. 60% of sources stressed this category, as opposed to only 22% for the next highest, multi-theater. The single-theater contingency received attention in only 9% of sources. The two local war contingencies (involving both superpowers or only one) received only 6% and 4% respectively.

Over time, the major change was a de-emphasis of global contingencies and a corresponding increase in attention to single-theater, Central European contingencies. Attention to global threats declined in all clusters, at an overall rate of about 13% per year. Attention to single-theater threat contingencies increased at a robust rate of about 6% per year. All six clusters conform to this pattern. The multi-theater contingency likewise increases in stress, with the exception of the military-technical threat assessment of Cluster 2a.

Both local war contingencies continue to receive a low and declining level of attention overall, concentrated almost exclusively in military threat clusters. However, local war contingencies are stressed three times as frequently in the military's internal threat assessment as in the threat assessment propounded for propaganda and arms control.

By 1989, the single-theater contingency was ranked first, at 23% of all sources, followed by the multi-theater contingency (18%). Global threats had declined in emphasis to only 13%. Neither of the two local war contingencies were addressed at all in 1989. Beyond the changes in relative ranking, an increasing vagueness can be seen in assessment of the scope of the threat. This reflects an increasing degree of uncertainty in threat assessment, due to the rapid pace of change in the international and especially European situation. This uncertainty was most apparent in the military's internal assessment.

12.3 Threat Content

A snapshot taken in 1985 shows a very heavy stress on specific weapons programs, largely at the strategic and theater nuclear level. 75% of all sources in 1985 stressed this category. Generic technologies were ranked second at 47%, followed by deployments at 33%. The remaining five categories -- military doctrine and art, command and control, combat readiness and training, force structures, and sustainability -- were fairly tightly grouped in the above order, all receiving attention in less than 20% of sources. Force structures were stressed in only 12% of sources.

Attention to issues surrounding *command and control* increased slightly over time in all six clusters' assessment. The highest degree of attention came from civilian academics

in arms control forums (Cluster 4b). This cluster sees command and control issues as threatening primarily in the context of the possibility of inadvertent war. In contrast, the second highest level of attention, in Cluster 2a, views command and control issues as threatening in a military-technical sense, in terms of US and NATO battlefield effectiveness as well as effective threats to the Soviet C³ system.

Particular force *deployments*, addressed exclusively by military analysts, show a significant de-emphasis over time (at an overall rate of 6% per year). However, the military-technical assessment of Cluster 2a declines more steeply than does Cluster 1. From a similar starting point in 1985 (27% in each), attention in Cluster 2a declines to zero by 1989, while attention in Cluster 1 remains at 14% in 1989.

From a low level of emphasis (12%) in 1985, attention to *force structures* increases rather steeply (8.4% per year overall). This increase is almost exclusively in the context of conventional arms control and civilian emphasis of offensive-defensive/stability-instability dynamics. All civilian threat assessment clusters show a high and increasing level of attention to these issues. Overall, the greatest degree of attention in this category came from civilian officials, followed by civilian academics. These civilian preoccupations are reflected in the military's propaganda/arms control threat assessment cluster, which likewise shows a steep increase in attention. The military's internal threat assessment shows no such increase in attention to force structures (only about 6% of sources in Cluster 2a address force structures, as opposed by an average of 42% for the other clusters).

Attention to threats associated with *generic technologies* remains ranked very high for all clusters throughout the period, though there is a slight decline in attention. The highest level of attention comes from the military's internal threat assessment, where the major

preoccupation is with conventional generic technologies and their battlefield impact.

Military doctrine and art increases in stress for all clusters, but the increase is most pronounced for civilian threat assessment clusters. As in the case of force structures, the military propaganda/arms control cluster mirrors the increasing level of civilian attention. Attention to doctrine and military art in Cluster 2a is also high, but is discussed in a very different frame of reference from civilians.

Combat readiness and training is addressed almost exclusively by military analysts. In both propaganda/arms control and military-technical threat assessment clusters there is an increasing stress on these issues. However, attention in Cluster 2a is consistently twice as heavy as in Cluster 1. This is especially pronounced in 1989, when military-technical threat assessment focuses heavily on problems associated with the Soviets' own readiness and training.

As for readiness and training, issues of *sustainability* are discussed exclusively by the Soviet military. While the issue receives a consistently low level of attention in both military clusters, it decreases in Cluster 1 and increases in Cluster 2a. By 1989, the military's propaganda/arms control threat assessment does not include sustainability at all.

Attention to specific *weapons programs* declines more steeply than any other threat content issue. There is an overall decline at a rate of about 16% per year. Again, the issue is discussed primarily by military analysts. For the entire period, weapons programs were stressed more in the propaganda/arms control cluster than in the military-technical threat assessment.

By 1989, the snapshot had changed radically. From being ranked next-to-last in 1985, force structures had increased to be ranked first in attention, at nearly 50% of all sources. Military doctrine and art followed at 34%. These are the two major issues stressed by civilian analysts and spokesmen, and the fact that they are ranked at the top among variables reflects both civilians' increasing voice as well as the military response in Cluster 1. Attention to generic technologies was ranked third, in large part due to a high level of attention in the military's internal threat assessment. Where weapons programs and deployments had been ranked first and third respectively in 1985, by 1989 they had fallen to rank sixth and seventh overall. Command and control and combat readiness and training increased in rank slightly -- they had been fifth and sixth in 1985 and increased in attention to fourth and fifth by 1989.

12.4 Competing Visions of the Threat: Military vs. Civilian

Having examined the aggregate trends in Soviet threat assessment, the next section tries to place each of the six clusters in the framework of civil-military debates, international dialogue, or professional analytic discussions. The goal is to isolate the "consensus" military and civilian perspectives on the threat, by discarding portraits of the threat that are

obviously propaganda.³⁸² These perspectives can then be compared to extract the few common elements of a "Soviet" threat assessment.

On the civilian side, the threat assessment clusters articulated in the framework of the civil-military debate form the basis for their "consensus" view of the threat. They serve common military-political and economic interests. In contrast, Cluster 3 (from civilian officials) is directed towards Western audiences. It does not play a role in the civil-military debate -- it is essentially externally-directed propaganda. Therefore, the consensus civilian view of the threat can be seen as a composite of Clusters 2b, 4a and 4b.

On the military side, on the other hand, the "real" view of the threat is not articulated in the framework of the civil-military debate. The threat assessment cluster that falls within that framework serves propaganda and arms control agendas and interests. Instead, the military's "real" view of the the threat is found in Cluster 2a -- articulated among MoD personnel in a purely military-technical context.

Therefore, the "consensus" military view is represented by Cluster 2a, while the consensus civilian view is the composite of three clusters.³⁸³

³⁸² On the military side, this is relatively easy. The military articulates two clearly defined images of the threat -- one for instrumental propaganda and arms control purposes, and one for professional military analytic purposes. On the civilians side, however, the instrumental goals are inextricably interwoven with the substantive arguments and perspectives. It is not simply that it is difficult for an outside observer to determine the difference. The problem is that even the individuals involved would have difficulty in honestly determining the difference. For example, do civilian academics argue that there is no threat **in order to** make the case for a pre-existing preference of reallocating resources away from the military? Or, conversely, do they argue for reallocation of resources towards civilian goals **because** there is no pressing military threat?

³⁸³ Quantitative analysis can support this breakdown. Using the cluster analysis technique, the six clusters are analyzed to establish the overarching structure of the debate. [See Figure A2, in the Appendix]. This analysis clearly establishes the over military-civilian

12.4.1 Consensus military vs. civilian threat assessment

The perspectives of military and civilian analysts display very little common ground. Essentially the only points of convergence are in terms of the type of conflict seen as most threatening, and its scope. Both sides emphasize conventional conflict as more likely than nuclear, and both direct their primary attention to the single-theater scope contingency.³⁸⁴

The differences are numerous. Civilians accord almost equal weight between the dangers of intentional war initiation and inadvertent war, while military analysts almost completely discount the latter. This is a fundamental difference between the two perspectives -- for civilians, the preferred response to the danger of inadvertent war is to drastically reduce Soviet/WTO and US/NATO military forces, and to restructure them in a purely defensive manner. This path has been strongly resisted by the military.³⁸⁵ Another difference in assessments of the nature of the threat -- specific scenarios -- is that the military view of the threat emphasizes their danger, while civilians do not. This no doubt is due to continuing lack of information and expertise among most civilian analysts. The military perspective sees the FOFA/AirLand battle scenario as more compelling than any

distinction. Furthermore, on the civilian side, Cluster 3 is a distinct assessment, while the other three form a relatively tight cluster. This supra-cluster analysis offers no validation of the military side.

³⁸⁴ For the military (Cluster 2a), this was not the case early in the period. However, by 1989, the military's internal threat assessment saw the single-theater contingency as the most pressing. See Chapter 6.

³⁸⁵ These proposals, under the rubrics of "reasonable sufficiency" and "defensive" defense, undercut the organizational interests of the Soviet military in terms of both resources and organizational autonomy.

limited nuclear threat.

The most drastic divergences between military and civilian perspectives is in assessments of the factors making up the content of the threat. The military's threat assessment sees US and NATO deployments and weapons programs as somewhat threatening, though at a declining rate. Civilians ignore these factors altogether. On the other hand, civilians overwhelmingly stress the threat arising from the force structures of the two sides. In their assessment, both sides' force structures lead to instability and offensive bias, enhancing the danger of inadvertent war in the event of a C³ failure. Military analysts do not address the issue of force structure in this way, and in fact give very little emphasis at all to threatening aspects of NATO or US force structures. The two more military-technical factors of combat readiness and training are virtually completely ignored by civilian analysts.³⁸⁶ Military analysts do address sustainability as a factor in threat assessment, and devote considerable attention to combat readiness and training.

There are a few cases where the two sides accord similar degrees of attention to an issue; however, in all of these cases, the thrust of the arguments are radically different. Issues surrounding command and control command attention from about 30% of analysts in each group. However, where the military discusses this primarily in terms of Western advances in all aspects of battle management and the corresponding Soviet lag, civilians address C³ mostly in the context of failures leading to inadvertent war.³⁸⁷

³⁸⁶ For a mixture of reasons. First, there is again the lack of information and expertise. Second, neither of these two factors really have much bearing on their fundamental resource allocation and military-political influence agendas.

³⁸⁷ The military assessment of the threat in terms of C³ is based around enemy automation, data processing, data fusion, and the like, coupled to their won potential vulnerability to enemy VTO strikes and radioelectronic combat. Refer to Chapter 6.

The degree of attention to military doctrine and art on each side is roughly similar. Both sides also discuss the threatening, offensive nature of NATO and US doctrines. The military stresses this issue primarily in conjunction to NATO and US conventional warfighting strategies (FOFA and AirLand battle). While civilians also note the potentially offensive thrust of NATO strategy, they portray Soviet and Warsaw Pact and strategy as perhaps even more offensively oriented. They apportion equal "blame" on both sides of the confrontation, calling for major changes in the doctrines and strategies of **both** sides.

Both sides of the Soviet debate stress the impact of generic technologies relatively highly.³⁸⁸ For the military, the threat from generic technologies lies in a wide range of conventional military technologies and their impact on the future battlefield. In contrast, for civilians the military aspects of technology development is not important. Rather, civilians see the primary threat to Soviet security precisely as economic, scientific, and technological. It is not military technological lag that threatens Soviet security, but civil lag.

Finally, consider military and civilian assessments of the degree and immediacy of the threat. Both sides assess the current situation as relatively unthreatening. There is no immediate external military threat.³⁸⁹ However, the two sides reach this conclusion for fundamentally different reasons, leading to fundamentally different implications. Civilians appear to believe that changes in international affairs and within the USSR have (or soon will) reduced the threat of war between the superpower coalitions permanently. The only

³⁸⁸ The military's assessment actually stresses generic technologies more than twice as highly as the civilian perspective. Nonetheless, both sides stress these issues.

³⁸⁹ Remember, the military does not state this explicitly. This conclusion arises from analysis of their threat assessment.

threat is from a potential inadvertent war.³⁹⁰

The military appears to have recognized that the current period is one of relaxed tensions. This is reflected in the shift in attention from current, concrete threats to emerging threats (in the form of C³, and assorted generic conventional technologies). Furthermore, these advances in military technology threaten to fundamentally alter the nature of armed combat in the future, undermining the military-strategic parity so long sought, and finally achieved at great cost. From the military perspective, the period of relaxed tensions is not permanent. The changes in the world are not "irreversible". Furthermore, while the superpower thaw may, in their view, slow the rush of advancing military technology, it will not halt it. The major emerging threats in their assessment are the result of long-term technological trends. Similarly, developing an adequate response will be a long-term process -- one that must be begun now to be ready when required. These considerations together are the source of much of the urgency in intra-military threat assessment.

12.4.2 The struggle between opposing world views

The struggle between Soviet military and civilian analysts and spokesmen to define the degree, nature, scope, and content of the external threat reflects differences in the way the two sides view the world. The divergence can be characterized by the title a recent roundtable discussion: "From Balance of Forces to Balance of Interests".³⁹¹ The Soviet

³⁹⁰ Civilian analysts, remember, do not address the threat of regional conflicts. Their focus is almost exclusively on superpower and European issues.

³⁹¹ Bogomolov, et al. (1988).

military is on the first side of this dichotomy. Leaving aside organizational and ideological rationales for the moment, high-level Soviet military officers appear to see the world as an inherently hostile place where the vital interests of nations inevitably conflict. When this occurs, nations use armed forces to pursue their goals. In this view, Soviet military power plays a vital role in guaranteeing the security interests of the USSR, since the hostile outside world respects only Soviet power. The key to international and national security is balance of power. In this view, "power" means predominantly military power. The current thaw in relations is transitory, based on a fleeting coincidence of superpower interests.

Despite the thaw, the underlying long-term trends in military science and military technology continue unabated. These trends involve a fundamental transformation in the shape of a future battlefield, based on advances in a broad range of military technologies. The West is ahead in this conventional high-technology development. Therefore, the current fleeting respite should be seized as an opportunity. If, for reasons of their own (strengthened by Soviet policies and propaganda), Western nations opt out of the race for a time, the Soviet Union should take advantage of this opportunity to close the gap.

Soviet civilian academics and officials, on the other hand, see fundamental changes in international relations and in both sides of the superpower confrontation. These positive changes are seen as largely the result of Gorbachev's gambits. Where the military sees the current balance of interests as coincidental and transitory, civilians see hope that these changes can be made "irreversible".

This belief (or hope) is based on several key factors. First, the West has changed (or Marxist-Leninist ideology was wrong). "Imperialism" is not inherently militaristic. This is largely due to widespread recognition of the second key factor. In the civilian view, because of changes in military technology and the vast scale of the forces on each side, the costs of a conventional war would rival those of a nuclear war. If this is the case, then it follows that there is no rational reason for any nation to go to war. There are no interests worth the horrendous cost. This argument is supported by increasing international economic interdependence. Therefore, the only risk of war comes from inadvertent or accidental war. The *novoye myshleniye* and *glasnost'* have reduced the risk of war from misunderstanding or miscalculation. However, the vast infrastructure of military confrontation makes the risk of war arising from an accident still pressing. This is true on a global scale, but especially in central Europe. The path for reducing this risk lies in reducing armed forces, and restructuring those that remain to be purely defensive.

This agenda is heavily intertwined with another agenda, related to the civilian assessment of real security as opposed to military security. In the civilian view, real security for the Soviet Union depends on economic, scientific, and technological power, not military power. Soviet pursuit of military power over the past forty years has not translated into political power or real security. Indeed, this pursuit has been detrimental in at least two ways. First, the pursuit of military capabilities capable of meeting any conceivable coalition of enemies has stimulated the outside world to respond -- to balance Soviet power. In this view, the USSR has been brilliantly self-encircled. Even more importantly, the economic balance between the USSR and any potential enemy coalition (the entire rest of the industrialized world) makes the defense burden extremely heavy on the Soviet economy.

In this sense, the single-minded pursuit of military power has damaged real security, by sapping the strength of its true economic, scientific, and technological pillars. Furthermore, this situation has been reality for some time, since Soviet achievement of military-strategic parity. Failure to recognize this fact and avoid "the mistakes of the past" is laid squarely at the door of the Soviet military. In the civilian view, if the military had not had preponderant influence in security policy in the past, those mistakes and the current crisis could have been avoided. This is their argument for an increased share in influence now.

In sum, the civilian view of the world sees changes in the world and within nations that promise to make a world of "balance of interests" irreversible. Because the only risk of war is inadvertent or accidental, military forces should be reduced and defensively restructured. Because real security is bought with economic, scientific, and technological power, the vast resources that have historically been devoted to the pursuit of military power should be shifted to civilian programs. Like the Soviet military, civilians see a window of opportunity; however, it is not transitory, and the opportunity is to fundamentally shift Soviet priorities in line with the requirements of real security. Where the Soviet military says "Keep your powder dry", civilians say that too much powder is dangerous and counterproductive in the pursuit of real Soviet security.

12.5 "Soviet" Threat Assessment?

It is clear that there is an extremely limited amount of common ground between military and civilian perspectives on the threat facing the USSR. As with most aspects of Soviet security policy, threat assessment is in a state of flux. Where in the past there was an official assessment of the threat, it is now impossible to isolate any substantial degree

of commonality in military and civilian assessments. In short, there is no longer a "Soviet" threat assessment.

Outside of a common focus on conventional war in a single-theater context, the two sides disagree on virtually everything. Furthermore, these perspectives are based on completely contradictory world views. Therefore, it seems unlikely that a compromise between the two is possible in which one side does not lose the debate. The struggle is a zero-sum game. In turn, losing the debate means losing the struggle to define the agenda and priorities for planning future Soviet security policy.

13. IMPLICATIONS AND CONCLUSIONS

13.1 Summary Judgements

The conclusions of the analysis refer back to the five major purposes outlined in the introduction. This analysis set out, first, to examine the debate itself, to determine what impact civil-military, military-political, and international changes have had on the framework of the debate. The starting point was Gorbachev's policies of *glasnost*, *novoye myshleniye*, and *perestroika*. *Glasnost* and the *novoye myshleniye* brought an explosion of debate and a reexamination of fundamental tenets of Soviet security policy. The search for new ideas led to *perestroika* in the policy process and in policy debates. In addition, these internal Soviet changes had substantial effects on international dynamics, by giving increased impetus to arms control negotiations.

These changes had three major effects on the framework of Soviet debates on the threat facing the USSR. First, with Gorbachev's sanction and prodding, civilian officials and academics dramatically increased their participation in the debate. Second, with the increasing importance and impetus of arms control, both military and civilians gave increasing effort to articulating the threat in the context of arms control issues. Finally, and again tied to increasing attention to arms control, both civilian and military spokesmen increased their efforts to influence Western public and elite opinion -- threat articulation directed towards external target audiences increased substantially. Clearly, the changes introduced by Gorbachev have altered the framework of debates on threat assessment.

The second purpose of the analysis was to trace the impact of these changes in framework and structure on threat assessment itself. The goal was to establish a coherent,

comprehensive research methodology, to establish the fact of fragmentation in Soviet threat assessment and to isolate the competing assessments of the threat emerging from the increasingly heated debate. This purpose has three components -- a methodological component and two substantive components. Methodologically, the analysis is judged to be successful. The research design and methodology developed to analyze Soviet threat assessment has demonstrated utility in understanding the evolution of policy debates. In particular, the cluster analysis technique is well suited for sorting the wheat from the chaff in the vast and increasing Soviet discussion of national security issues. Just as important as this technique, though, is the way the research design was set up. It has been said that the goal of analysis in Soviet studies should be "richness, rigor, and relevance".³⁹² In this analysis, the rigor is provided through the comprehensive methodology and the quantitative techniques. Richness is provided in the form of the qualitative narrative accompanying these techniques.³⁹³ The two should go hand in hand.³⁹⁴ Furthermore, the methodology employed in the analysis is both transparent and replicable.

The first substantive component of the second purpose is to demonstrate the increasing fragmentation of Soviet threat assessment. As presented in Chapter 4, this is the case. In 1985, when the military largely had the field to itself, there was a single, unified

³⁹² See Jack Snyder, "Richness, Rigor, and Relevance in the Study of Soviet Foreign Policy," International Security, Winter 1984/1985 (Vol. 9, No. 3).

³⁹³ The "relevance" portion of this measuring stick will be addressed below.

³⁹⁴ For example, without the richness provided through qualitative analysis, Clusters 2a (intra-military threat assessment) and 2b (civilian academics in military-technical contexts) would have been assumed to be very close together overall. In fact, while they are very similar superficially, addressing the same issues and threat factors, they are nearly diametrically opposed in direction, intent, and implications.

threat assessment. Over time, this monolithic view split into competing assessments articulated by different groups in the debate, in differing contexts, and towards different target audiences. By 1989, there were fully six distinct clusters of threat assessment vying for dominance in defining the threat.

The second substantive component was to isolate and characterize the competing assessments, and to delineate the "fault lines" constituting the structure of the debate. Overall, there are six clusters that comprise the structure of the debate. These six clusters break down cleanly along the lines of the three independent variables: affiliation, context, and target audience. Each of three groups -- the Soviet military, civilian officials, and civilian academics -- presents a pair of threat assessments. The first and primary division is analyst affiliation. Below the level of this major demarcation, the two variables of context and target audience come into play.

The Soviet military articulates one assessment of the threat that is very tightly defined. It is purely military-technical in context, and articulated internally among the Ministry of Defense, the General Staff and the Armed Forces services. The military's other cluster is more of a "grab bag". It includes arguments in both military-technical and arms control contexts, and directed towards many internal and external audiences. Essentially, the major distinction for Soviet military threat assessment is "us" vs. "them". "Us" represents only Soviet military personnel, and "them" refers to everyone else.

For civilian officials, both clusters are articulated in the context of arms control. The delineation is in the target audience to which they are directed. One is directed towards external audiences (primarily NATO Europe and the United States), while the other is directed internally, towards Soviet public and official audiences. Civilian academics, on the

other hand, direct both of their assessments internally -- the distinction between the two is context. One cluster is articulated in the context of arms control, and the other in a military-technical context.

In sum, the second purpose is judged to have been successfully fulfilled. A comprehensive, coherent methodology was established, and was used to demonstrate the increasing fragmentation of the previously monolithic assessment of the threat. The methodology also succeeded in delineating the major and minor "fault lines" constituting the structure of the debate.

The third purpose of the analysis was to examine each of the six clusters in turn, isolating dominant themes, characteristics and trends. This has been done in some detail in Chapters 5-10. These conclusions will simply reiterate some of the more important issues and elements.

13.1.1 Military Views of the Threat

For the **military**, the dominant dividing variable between the two clusters is target audience. The major division is "us" vs. "them", or *kto-kogo*. One cluster is articulated for propaganda and arms control functions, while the other, military-technical, cluster is articulated internally -- threat assessment "for real". The propaganda and arms control cluster initially focuses heavily on nuclear threats, and on concrete contributing factors (deployments & weapons programs). Mirroring civilians, and especially academics, this threat assessment gives increasing stress over time to force structures and military doctrine and art. More esoteric military-technical issues are not emphasized. The threat portrayed in this cluster swings drastically over time, in response to increasing civilian participation,

and to a rapidly changing arms control environment.

In contrast, the military's internal threat assessment is both more stable and more "professional" -- professional in the sense of less ideological cant and ominous themes, and in the sense of a more businesslike approach to identifying threats, weaknesses, and responses. Probably the best reason for concluding that this view of the threat is the "real" one is that the responses taken by the military thus far -- to date mostly in terms of military theory and in training -- conform with this assessment. The increasingly vocal calls for increased research and development and changes in the NIR/OKR process also reflect the central preoccupations of the military threat assessment.

The dominant themes in internal military threat assessment revolve around high-technology conventional force developments. In particular, the weapons and support systems involved in high-accuracy conventional weapons (VTO) are a dominant issue. This includes issues and systems ranging from reconnaissance and target acquisition, to C³ and battle management, delivery systems, and enhanced munitions effectiveness. "Mine warfare" and radioelectronic combat are also prominent elements of this threat. It is a forward-looking threat assessment, oriented toward determining the directions and pace of military developments, and reacting to them.

13.1.2 Civilian Views of the Threat

Civilian officials and academics each offer two clusters, based on distinctions in context and target audience. For **civilian officials**, the major distinction is target audience. They offer one assessment primarily for external consumption. This externally-oriented threat assessment is relatively conservative. It contains a strong emphasis on single-theater

nuclear threats (issues surrounding INF), almost exclusively in the category of force structures. The second civilian official cluster is for internal consumption. It is more "new thinking", with greater stress of conventional threats at the single-theater level. It contains a greater stress on the potential for inadvertent war from C³ breakdowns (which is missing entirely from the externally-directed cluster).

For **civilian academics**, the major distinction between the two clusters is context -- one is articulated in a military-technical context and one in the context of arms control. Both are directed almost exclusively internally. The military-technical threat assessment utilizes the military's own issues and arguments, twisting them in subtle ways to serve a very different agenda. The second academic cluster, articulated in an arms control context, is much more radically "new thinking", containing open attacks on the military and its assessment of the threat. Both academic clusters stress conventional over nuclear threats. The arms control cluster stresses inadvertent war as more pressing than Western intentional attack scenarios. In both clusters' threat assessment, the essential point argued is that there is no pressing military threat facing the USSR -- the real threats are economic and technological. This makes the case for reduced defense (especially R&D) expenditures, and for reduced force postures to decrease the inadvertent war threat.

Academics call into question whether there is a military threat at all, stressing instead economic, scientific, and technological threats in the civil sphere. This reflects two intertwined agendas and concerns. First, academics do indeed place a high emphasis on economic and technological threats, perceiving a nearly inevitable decline in Soviet superpower status. The most readily available repository of resources and expertise to halt this decline is the military and military-industrial sector -- if there is no military threat,

there is no need to devote huge amounts of resources and expertise any longer. This dovetails with the other civilian academic agenda, which is to increase their influence in all aspects of military policy, from arms control to force posture and use-of-force decisions -- to avoid repeating "the mistakes of the past", or for simpler reasons of power and authority.

The fourth purpose of the analysis was to isolate "consensus" military and civilian perspectives of the threat facing the USSR. On the military side, this should be judged as successful. The picture of the threat propagated for propaganda and arms control can easily be discarded -- it represents military interactions in the civil-military debate for resources and influence, and military arguments that try to restrain the pace and scope of arms control negotiations. The differences between this cluster's assessment and the one articulated internally are clear and stark. Image 2a (intra-military, military-technical threat assessment) represents the "real" assessment for planning purposes.

On the civilian side, isolation of a consensus view can be judged as only a qualified success. It is simple to discard the one cluster that clearly serves in an external propaganda role: Cluster 3, from civilian officials. Among the three remaining civilian clusters, it is impossible to distinguish between arguments advanced for instrumental reasons and those representing a true assessment of the threat. The two are hopelessly intertwined. However, the analyst cannot simply throw up his hands. And the situation is not completely hopeless, because the distinction need not be vitally important. Each of the arguments articulated by civilian officials and academics serve dual purposes. They serve instrumental functions, as rationales for civilian resource allocation and military-political influence agendas. They

also represent real attempts to grapple with assessment of the true threats to Soviet security. As long as the analyst keeps in mind the military-political, economic, and civil-military aspects of civilian assessments of the threat, they can be taken as representative of a "consensus" civilian position.

The important point to keep in mind is that civilian officials and academics approach threat assessment from a very different point of view than military analysts. While they sometimes appropriate and twist military arguments and issues, their agendas are radically different. Military analysts, as is natural, focus on military-technical aspects of the threat, and propose solutions to meet or match that threat. Civilians, on the other hand, consider military threats as only one (increasingly minor) aspect of Soviet security. In the civilian perspective, the true threats to Soviet security are economic, scientific, and technological. The distinctions between the two groups are the result of very different world views. In particular, the two groups disagree heavily on what components of national power are dominant in international relations, and to what degree the current thaw in East-West relations is "irreversible". Military analysts see the thaw as transitory. Their paradigm for understanding international relations is "balance of forces". As such, Soviet military power serves as the ultimate guarantee of Soviet security. Civilian analysts, in contrast, approach the world from a "balance of interests" paradigm. In this view, growing international economic interdependence coupled to changes in capitalist and socialist societies have combined to make common East-West interests dominant over clashes and power struggles. While the thaw may not yet be irreversible, it is well on the way. The major obstacle remaining to be overcome are the atavistic, militarist tendencies on both sides of the confrontation. In this world view, military power is not the sole guarantor of Soviet security

and international influence. Indeed, it is not even the primary one, and over-pursuit of military power has been damaging to true Soviet security interests. Externally, the quest for sufficient military power to counter any conceivable enemy coalition has caused power balancing by the rest of the world. Internally, over-pursuit of military power has sapped Soviet economic, scientific, and technological power.³⁹⁵

Keeping in mind these two distinct world views, the "consensus" military and civilian perspectives on the threat are relatively clear, as are the priorities following from them. The Soviet military sees the threat in the context of a high-tech conventional conflict at the single-theater level. The threat revolves around the strategy and technological wherewithal for FOFA and AirLand battle. Advances in intelligence and reconnaissance, battle management and C³, delivery vehicles, and conventional munitions, along with radioelectronic combat/electronic warfare and remote minelaying systems are the major factors stressed in this assessment. The combination of these advances in technology threaten to allow the enemy to decisively shift the balance of forces in the initial period of war. Over time, this view of the threat sees advancing military technology, developed and eventually deployed in sufficient quantities, as fundamentally altering combat operations, leading to a "new revolution in military affairs". Urgent responses must be begun to respond to this emerging threat, first in military art, combat readiness and training, and in troop control, and then in the development of advanced weapons and support systems to match the threat. The current East-West thaw presents a window of opportunity to take

³⁹⁵ These two trends together interact particularly adversely. The first effect essentially pits the USSR against the rest of the industrialized world, while the second effect constrains Soviet ability to compete on the true measures of national and international power and influence. This dual impact is succinctly summarized by Falin, in Zorin (1988b).

the necessary steps before it is too late.

In marked contrast, civilian officials and academics see the current thaw as more "irreversible", based on changes in international relations and the interests of states. Continued or renewed pursuit of military technology in a high-tech arms race would threaten this process. The civilian view sees no rational basis for nuclear or conventional war -- no interests that could be worth the catastrophic costs. On the other hand, there is a real danger of inadvertent war. While the *novoye myshleniye* and *perestroika* have reduced the risk of a war arising from misunderstanding, the current military confrontation is unstable because of the vast arsenal involved and their offensive orientation. Therefore, the best way to achieve real security lies in reducing military forces (through arms control or unilaterally) and restructuring them in a defensive direction. This dovetails with the other half of the civilian assessment. Where there is no pressing military threat, there is a very real and urgent need to respond to economic, scientific and technological threats.³⁹⁶ These are the true determinants of international power and influence in the international context, and the Soviet lag must be closed, or the USSR will become a second-rate power. Considering the economic crisis in which the USSR is mired, and the fact that there is no real external military threat, the obvious source of resources to close the East-West gap is military coffers. Finally, to prevent the pursuit of a high-tech arms race and to avoid reliving the "mistakes of the past", civilian officials and academics must have a stronger voice -- more influence -- in defense and national security decisionmaking.

These two perspectives lead directly to the fifth and final purpose of the analysis -

³⁹⁶ Stressed in the form of generic technologies in civilian threat assessments.

- to isolate a single "Soviet" assessment of the threat. This goal must be judged to be a failure, victim to the polarization of the internal Soviet debate. There are few points of convergence between the two perspectives. They share a focus on the threat of conventional conflict at the single-theater level. On other aspects of the nature of the threat, especially the relative probability of intentional attack vs. inadvertent war, they disagree completely.

Most striking is the difference in factors constituting the threat content. On most threat content issues, they assign radically different weights to threat factors. On the few that receive about equal weight, the direction and implications of the emphasis are miles apart. Notably, military analysts emphasize command and control issues in terms of Western advances and Soviet vulnerability to strikes and countermeasures, while civilian analysts emphasize command and control issues in the context of potential failures leading to inadvertent war. Military analysts stress the threatening aspects of NATO and US FOFA/AirLand battle doctrine and strategy, while civilians assess both sides as dangerously offensively oriented. This increases instability and further raises the probability of inadvertent war. Both sides stress issues surrounding generic technologies. There is a degree of conceptual convergence in the two positions -- both sides see advancing technologies as vitally important. However, the direction (military vs. civil applications) is diametrically opposed. Finally, the differences in perspective are arised most sharply in assessments of the degree of the external military threat and its immediacy. The civilian position is essentially that there is no threat of war on the horizon, nor is there likely to be. The military position grudgingly recognizes the relaxation of tensions. However, this is seen as a transitory window of opportunity in which to begin the urgent responses needed to

match their projection of the high-tech conventional threat emerging in the 1990's and into the 21st century. To miss this opportunity means to remain behind on the sharp curve (the "transitional stage") that will give way to and define the "new revolution in military affairs".

13.2 Balance of Forces vs. Balance of Interests

This section examines the implications of the evolving debate for Soviet military policy. In particular, it focuses on the implications of the debate and the civil-military balance of power on the military's preferred responses to the external military threat. As shown above, there is no real balance of interests in the internal Soviet debate. Military and civilian positions are polarized in a zero-sum competition. This need not have been the case in the absence of economic crisis. The choices between the two sides and their priorities would not be so stark without the fact of extremely scarce resources. Economic crisis exacerbates the stakes in the game. This goes a long way towards explaining why the civil-military relationship is as it currently is on these issues: completely adversarial. In the absence of a balance of interests, how does the balance of forces shape up?

At the present time, the Soviet military leadership is caught in a vice. They are under pressure from two separate forces.³⁹⁷ On the one hand, there is a perception of rapidly accelerating long-term military-technological trends in the Western threat, coupled to endemic Soviet technological lag. On the other hand, there are increasing attacks and criticisms from Soviet civilian analysts on military programs and influence. Unfortunately,

³⁹⁷ These pressures do not even include ethnic tensions, problems of desertion and draft evasion, and the many shortcomings in military living standards (especially housing). Not only do these issues increase overall pressure on the military establishment, they also divert attention from responses to military-technical pressures and threats.

the two pressures dovetail particularly adversely. The proposed military solution to counter the first problem is to increase efforts to **match** the evolving threat by increasing the scale of high-technology military R&D, and to accelerate R&D activity by restructuring the NIR/OKR process.³⁹⁸ This approach is undermined by civilian assessments of the threat that effectively would cut the legs from under military rationales for such a response. This is especially true since the increased R&D response is especially technology- and expertise-intensive.

In the face of these dual pressures, the Soviet military is rocked back on its heels. Caught between adverse military-political internal trends and military-technical external trends, the General Staff and Ministry of Defense is functioning in a reactive mode. Civilian officials and academics have seized the initiative in defining the structure of the internal civil-military debate, while the West has the initiative in the pursuit of the military high technology the Soviet military sees as changing the face of armed combat.³⁹⁹

Unfortunately for the Soviet military leadership, the world view and threat assessment articulated by civilian academics and officials appears to be shared by President

³⁹⁸ This is the preferred military response on the hardware side. On the software side, changes in C³, combat training, and military art are advocated to **meet** the threat. As noted in Chapter 6, these responses are perhaps as problematic as the hardware solutions.

³⁹⁹ Moiseyev has explicitly recognized the need for more intensive General Staff work in educating the public and elites on threatening military-technical trends. Similarly, he calls for more intensive General Staff work to keep "others" from seizing the initiative in arms control. Exactly who the "others" are in this call is somewhat unclear -- the US and NATO, or civilian critics of Soviet military policy. Moiseyev (1989a). Evidence that the military has failed to gain the initiative in the civil-military debate abounds. A telling example is that in the "hearts and minds" campaign for public opinion, the military has lost. Perhaps the most graphic evidence of this is that in public opinion, the most widely held view of the military threat is not of a US and NATO military threat, but rather of a threat coming from the Soviet military itself (i.e., the widely circulated rumors of a military coup).

Gorbachev and his circle of advisors.⁴⁰⁰ They share the belief that, for the long term, economic and technological power are more important than military power in guaranteeing Soviet security. The civil economic, technological, and scientific lag is more of a threat than the possibility of war. Military power has not translated into international power commensurate with the costs of achieving it. In fact, the over-pursuit of military power has been counterproductive. As a result of this world view and the current economic crisis, the most likely source of resources and expertise to close the civilian lag lies in reallocating military resources and expertise to civilian programs.

For example, some 30 military programs have been shifted back from the design (OKR) stage to the research (NIR) stage. Finally, the process of reform introduced by Gorbachev as a means of bolstering the Soviet economic and technological level is currently having the opposite effect. The dislocations resulting from conversion of defense industrial capacity and especially R&D resources and talent have disrupted what capability the military might have had to match the Western high-tech threat.

From the military standpoint, this concatenation of problems is disastrous. The military-technological lag is large and accelerating. Right now, the quantity of high-tech conventional systems may not be decisive, but the current relaxation of tensions is transitory, and the technological race will resume. The combination of inexorably advancing quality and eventually decisive quantity will reshape the nature of the future battlefield. This is the rhetoric of the "transitional stage" in military affairs, leading to a new revolution.

⁴⁰⁰ This does not necessarily mean that the civilians has "persuaded" Gorbachev of their position. In fact, a persuasive case can be made that Gorbachev held this world view upon coming into office, and opened up the policy process precisely to bring out this world view into public debate, to legitimate his own policy preferences.

Without urgent measures begun now to turn or at least stem the tide, the Soviet military will be left on the sidelines, unable to compete on the future battlefield and therefore unable to perform their mission of guaranteeing Soviet security interests.

The bottom line for the Soviet military in the face of these trends is that they are in a "no win" situation. Caught between threatening external trends in the form of advancing military technology, and threatening internal trends in the form of civilian pressure on their programs and beliefs, they are the victim of a double encirclement. Stripped of their once sacrosanct priority and influence with the Soviet leadership, they may be unable to implement the urgent responses required by their assessment of the threat.

13.3 The Continued Relevance of Soviet Threat Assessment

Inevitably, the question arises of the relevance of Soviet, especially military, assessment of the external threat in the current situation. Even excluding the systemic economic, social, and political crises in the Soviet Union, the military has lost its coalition partners in the Warsaw Pact. Even more importantly, they have lost the battlefield they have planned around for decades. What difference does it make how the Soviet military and political leadership perceives the threat, or even the responses they might make?

It is clear that pressing economic and political pressures currently have the upper hand over military programs in Soviet policy. However, this situation will undoubtedly not last forever. Gorbachev has made clear that he considers an all-union military an indispensable element of Soviet security.⁴⁰¹ Politically and in terms of Soviet security,

⁴⁰¹ Most recently, in an address to 1100 military legislators, he stated that this is one of the key preconditions for a new All-Union treaty. Reported in The Washington Post, November 14, 1990, p. A19.

Gorbachev cannot afford to allow the Soviet military to atrophy. How might the current priorities, favoring civilian programs at the expense of military, change in the future?

Either a worsening of the international situation (or a change in regime) or an improvement in economic and technological position could lead to an attempt to match the threat by engaging in a high-tech arms race. A worsening international situation (or a regime change) could lead to a change in **priorities**, while economic-technological improvement could lead to change in **capabilities**.⁴⁰²

In addition, even in the absence of increased energy and resources devoted to high-tech military R&D (the preferred military response to match the threat), the military will be able to move forward on the software side of military affairs to meet the threat. These changes, if successfully implemented, would alter the Soviet military substantially. They therefore bear watching.

Moiseyev has called for refocusing the work of the General Staff to be more forward-looking, to get ahead of the curve in military affairs in the context of a changing threat. The recent Soviet analysis of the initial period of war shows the attempt to understand the impact of the changing threat through the structure of military science and military theory. Discussions of the shortcomings in tactical training due to the changing

⁴⁰² This brings out some of the major issues for further analysis. Most of all, more analysis is needed of what the Soviet military's response has been to the evolving threat, beyond the sketch presented here. What are Soviet capabilities to respond *ceteris paribus*? How will that change in the current resource-constrained environment? For example, the 30 programs moved backward in the R&D process -- what was kept, what was stretched out? What further reactions can be expected at the level of military doctrine and art? The analysis raises other issues. Can the Soviet military re-emphasis of defensive operations (pre-Gorbachev and after) be explained as a response to the threat? In the context of the countervailing strategy, what are Soviet strengths and weaknesses brought out in threat assessment analysis? While important, these questions are beyond the constrained scope of this analysis.

threat, and the search for solutions to these problems are part of the response. Calls for changes in troop control and force structure to meet the dynamism of the future battlefield, while so far nascent and facing resistance, are likewise possible responses. The possibility of a change in personnel policy to a volunteer system, if effectively implemented, could do much to provide the highly-motivated and professional soldiers and the flexible independent forces that would be required to meet Soviet projections of the future battlefield. Initially rejected out of hand by the military leadership, some have come to see the shift as desirable but impossible economically. The balance has shifted significantly in the past year in favor of some radical change. While such a shift would undoubtedly be painful in the near term, it could be cost-effective in the longer-term.

In a similar manner, while it is certain that the Soviet military will face reduced resource allocations in the near term, they may be able to influence the structure of defense allocations. The Ministry of Defense and the General Staff will still retain significant influence and authority in deciding exactly how to slice a smaller resource pie. For example, there is currently a question in the West as to whether the Soviet military will attempt to maintain military production at the expense of R&D, or whether they would shield R&D programs at the expense of current production. Since the Soviet military's assessment of the threat has increasingly come to focus on high-technology applications to reconnaissance/intelligence, battle management, and conventional delivery vehicles and munitions, one would expect R&D to be a higher priority than current production. The military threat assessment focuses on the conventional technologies that constitute the new revolution in military affairs -- the "Ogarkov agenda". While a massive infusion of resources in high-tech R&D (the "Ogarkov solution") is out of the question in the short term,

preferential allocation of defense resources to R&D to plan for the future threat would be the logical response.⁴⁰³

More importantly, the dominant force driving Soviet threat assessment (and driving the threat as well) is changes in military technologies. These are the result of long-term plans and dynamics. While they are changing more rapidly over time, this simply accelerates the direction Soviet threat assessment sees military affairs evolving. The threat they portray has been evolving for some period of time, with their threat assessment perhaps lagging behind. This evolution in military technology is certain to continue well into the 21st century, and beyond. These are long-term trends, and by the same token, Soviet responses to the threat are in the form of long-term programs. Actions taken or not taken in the near future will affect the shape and capabilities of the Soviet military well into the 21st century.

⁴⁰³ There is a problem with this scenario which the Soviet military leadership appears not to recognize. This scenario sees increased emphasis of R&D leading to development of highly advanced prototypes. If it became economically feasible or necessary for Soviet security, these prototypes would serve as templates for rapid generation of an advanced force. However, this misses the fact that one of the fundamental weaknesses of Soviet advanced technology development is not R&D *per se*, but rather the link between R&D and full-scale production.

APPENDIX: RESEARCH METHODS AND TECHNIQUES

The research strategy followed in this analysis is a sequential one, based on disaggregation and reaggregation of the data. An undifferentiated data set of 643 sources is classified into smaller, more numerous categories based on threat articulation patterns, and then reaggregated into larger groups based on threat assessment patterns.

A.1: Cluster Analysis

The first step in analysis of this type is classification of the data into useable categories. In this analysis, the sources are classified according to the affiliation of the author, the context or forum (arms control vs. military-technical), and the target audience at which the source is directed. Coding each source by affiliation is straightforward. Each source is first coded as military or civilian. Military sources are further classified by branch or institution -- the five services, the Ministry of Defense and the General Staff, as well as Civil Defense and the *Tyl'* (Rear Services). Based on these categories, each source was classified as either "center" (the four latter categories) or "service" (the five services). The point of this division is to capture any distinctions between "generalist" and "particularist" perspectives. There is an additional classification for professors at high-level military academies and Doctors of Military Sciences, denoted as "defense intellectuals". Civilian sources are classified as either official CPSU or state representatives, or academics within the framework of the USSR Academy of Sciences institutes.

Classification according to the forum and context is likewise straightforward. In almost all cases, it is clear whether the arguments being presented are in either arms

control or military-technical forums.⁴⁰⁴

Coding according to target audience is done primarily according to the venue in which the source appears. For example, source directed towards the Soviet Armed Forces are those found in Krasnaya zvezda and the various service journals. Sources appearing in the Eastern European central press, radio, or television are coded appropriately. Official CPSU or government press organs (Pravda, Izvestia, and the like) are coded as targeted towards an official audience. Sources coded as directed toward the Ministry of Defense and the General Staff are only those that are clearly distinguishable.⁴⁰⁵ The only potential problem occurs when sources appear in more than one venue. For example, military sources are sometimes picked up by the TASS International Service and rebroadcast to Eastern or Western Europe or the United States after appropriate translation. Another example is sources that are originally published in Russian for internal consumption (e.g. Mezhdunarodnaya zhizn' or Novoye vremya) and the reprinted in translated form for external consumption. In these cases, the source is counted in each of the appropriate categories.

After each source is coded for these three articulation variables, each is then classified based on the combinations of the three. With five affiliation categories, two context categories, and eight possible target audience categories, there are a total of eighty potential combinations of threat articulation variables. However, only 48 of these

⁴⁰⁴ There are a few cases where the source combines arms control and military-technical arguments. These are usually in separable sections of the same source. In this case, the source is "split" and counted in each category along with the specific arguments relevant to each. If a clear distinction is impossible, the sources are not included in the analysis.

⁴⁰⁵ For example, Moiseyev's speech to the General Staff Party aktiv. Moiseyev (1989a).

combinations actually contain sources.⁴⁰⁶ At this stage, what had been an undifferentiated data set has been aggregated into a smaller, but still relatively large and unwieldy, number of categories.

For each of these 48 combinations, a threat assessment profile was compiled, summarizing the degree of attention given to each of the 19 threat assessment variables over the entire five-year period. What is needed now is a technique to compare these profiles in order to aggregate the 48 combinations further based on similarities among the profiles. A cluster analysis technique is ideal for this.

Cluster analysis is a technique developed to discriminate the similarities or dissimilarities of large groups of data, and then allocate each case to a "cluster" of cases that are the most similar. Probably the most identifiable application has been in biological taxonomy, where plants or animals are classified by genus, species, etc. according to their physical attributes. In the social sciences, probably the most widespread application is in the development of personality profiles, where subjects are classified by personality type according to their responses on a questionnaire or some other information.⁴⁰⁷ The application of cluster analysis in this project is somewhat similar, though the profiles into which cases may fit are not known in advance.

⁴⁰⁶ Actually, 51 of the combinations contain some sources; however, three of these have nothing explicit to say about the threat assessment variables under examination. Their threat assessment profile is "flat", and they are therefore discarded from analysis, leaving 48.

⁴⁰⁷ For example, the Minnesota Multiphasic Personality Inventory (MMPI), which contains 566 true/false items commonly summarized in terms of 13 scales that have diagnostic significance (e.g., the schizophrenia and hysteria scales). See Mark S. Aldenderfer & Roger K. Blashfield, *Cluster Analysis*, Vol. 44 in the Sage Series: Quantitative Applications in the Social Sciences (Newbury Park, CA: Sage Publications, 1984), pp. 1-16.

Clusters are characterized by shape (the pattern of peaks and valleys across variables), scatter (the dispersion of scores around the average), and elevation (the mean score of the case over all the variables). In this case, the factor of interest is the shape over the 19 threat assessment variables. There are a variety of measures to compare the relationships among cases on groups of variables, and they are sensitive to differing cluster characteristics. The most basic distinction among measures is distance vs. similarity measures. Without going into detail, distance measures tend to be most sensitive to elevation. Using these measures on the threat assessment patterns would simply cluster those groups that have a similar size (frequency across all 19 variables). Similarity measures, on the other hand, are most sensitive to the shape of the cluster. They are ideally suited for the task at hand. In this analysis, a similarity measure referred to as the "cosine of vectors of variables" is used, which is essentially a measure of similarity among the patterns for groups.⁴⁰⁸ A variety of methods for clustering the data are possible, corresponding to different algorithms; however, the choice of the cosine measure rules out a number of them. A complete hierarchical agglomerative method was chosen. Essentially, the technique constructs a similarity matrix, comparing each case for all 19 variables, and

⁴⁰⁸ This is best understood in a geometric sense. Starting at the origin on an x-y plane, draw a line to two separate points, representing the values attention to a specific variable. The cosine of the angle between the two points can be used as a measure of similarity between the two cases. The closer the two points are to one another, the smaller the angle and therefore the cosine of that angle. At the extreme case where the two points share the same x-y coordinates, the angle between them is zero, as is the cosine. At the other extreme, an angle of 90 degrees would have a cosine of 1. This value is invariant to the length of the vectors (i.e., the actual values of the variables do not matter - rather the relationship does). While this is a drawback in some analytical situations, this measure is ideal for examining the pattern similarity among the groups. See Michael R. Anderburg [Air Force Systems Command, USAF], Cluster Analysis for Applications, (New York: Academic Press, 1973).

then allocates each case to a cluster with those most similar to it.⁴⁰⁹

In this context, this clustering technique can perhaps be understood through analogy. The clustering technique is analogous to the target acquisition system at the terminal phase of the infamous reconnaissance-strike complexes so prevalent in Soviet military threat assessment. The acquisition sensor scans the surrounding environment, and compares objects through a series of algorithms, searching for patterns that match a pre-programmed set of characteristics (e.g., a Soviet T-80 tank). Objects are classified and then discarded or targeted. Cluster analysis techniques are analogous, except that there is no pre-existing set of characteristics, and excluding the end results (no cases are discarded, and they are only targeted in an analytic sense).

Cluster analysis output is commonly in the form of a dendrogram, which graphically shows the linkages among cases and the degree of similarity among them. Figure A1 is a reproduction of the output dendrogram showing the linkages among the 48 combinations. There are four easily identifiable clusters of cases.⁴¹⁰ After this clustering, each cluster is then examined in more detail, through a sub-cluster analysis. Based on this analysis, it is apparent that two of the four clusters (Clusters 2 and 4) are each comprised of two distinct sub-clusters. Therefore, one can speak of six relatively distinct assessments of the threat being portrayed among Soviet civilian and military analysts and spokesmen. Two are

⁴⁰⁹ This is why cluster analysis of the entire undifferentiated data set was not possible. The similarity matrix for 643 cases and 19 variables would require computation, storage, and manipulation of more than 1×10^{100} figures -- more than the available computer power would allow.

⁴¹⁰ It is sometimes difficult to determine exactly where to "cut" the clusters. In this case, the clusters are relatively distinctive; however, there are also measures available through cluster analysis to assist in this task. In this case, comparison of the cluster fusion coefficients was used as a method of cutting the dendrogram.

exclusively military, and the other four are exclusively or predominantly civilian in composition. Following this step, a "supra-cluster" analysis is performed, which compares the composite profiles for each cluster to the others. The civil-military distinction is again very clear [Figure A2].⁴¹¹

⁴¹¹ In this step of the analysis, low-level threat assessments are also factored in -- the profile for these (using only threat content variables since low-level sources are vague about threat nature and scope) fits in with the other two military clusters.

Figure A1: Overall Cluster Analysis Dendrogram

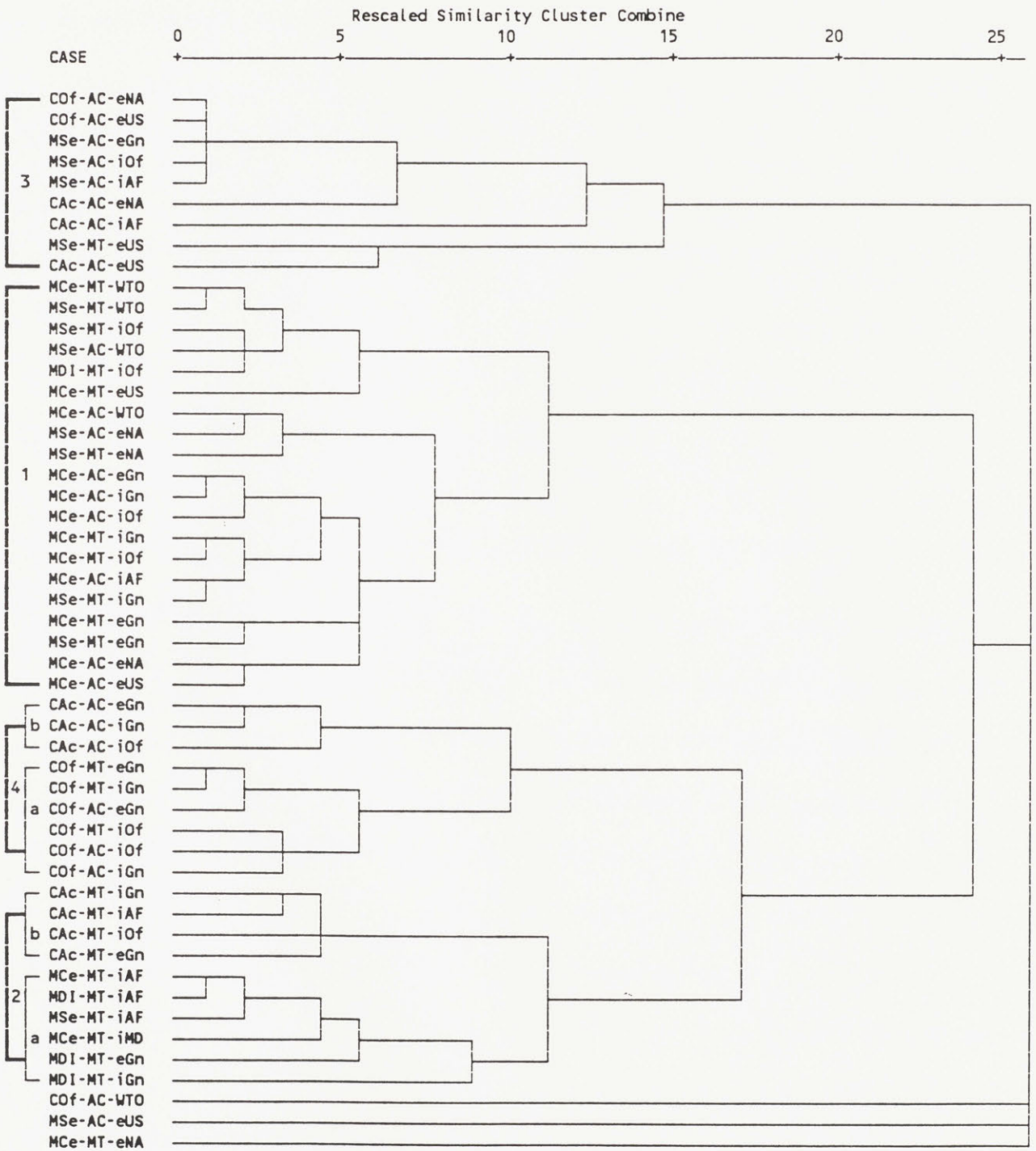
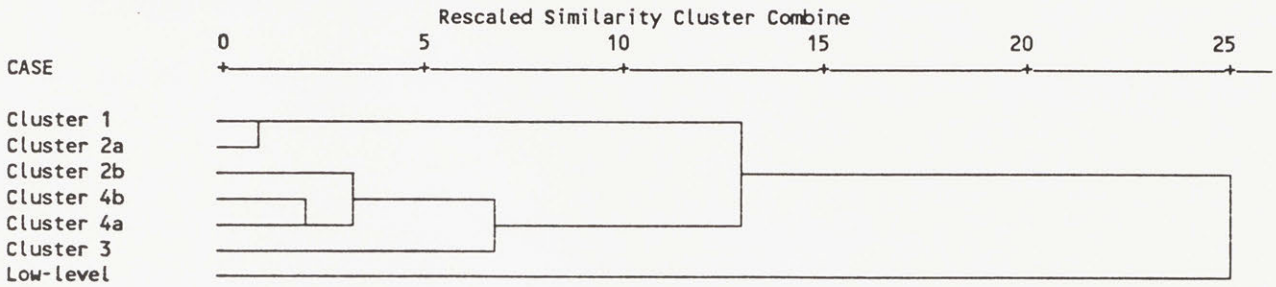
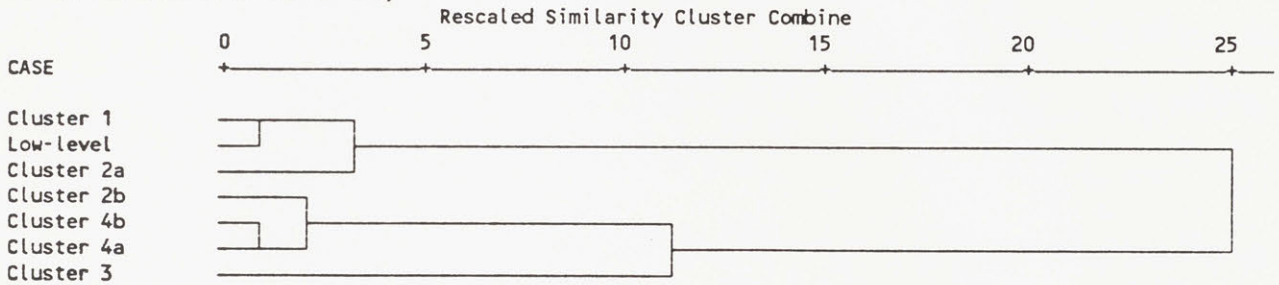


Figure A2: Supra-Cluster Analysis Dendrogram

I. All threat assessment variables



II. Threat content variables only



The end result of these cluster analyses is a series of threat assessment clusters, analogous to the personality classification categories of psychological analysis. They can then be used to isolate the dominant threats in each assessment. The "real" threat assessment is then supplemented with low-level military sources to provide more detail.

A.2: Other Analytic Techniques

In each of the six threat assessment clusters, a factor analysis was performed on the 19 threat assessment factors to discover the underlying structure of inter-relationships. Factor analysis is a technique used when one believes there to be patterns in a group of data that are determined by some underlying factors. In this case, it was hypothesized that threat articulation variables -- affiliation, context, and target audience -- exert some influence on the threat assessment articulated.

Usually, the use of factor analysis requires interval level data -- a requirement not satisfied here. However, in certain limited circumstances and for constrained purposes, factor analysis can be used for categorical or even dichotomous variables. Because factor analysis is dependent on the **relative** magnitude of correlations among variables, dividing data into categories or dichotomies does not necessarily affect the structural patterns of relationships. That is, factor analysis performed on dichotomous variables is valid provided the researcher is interested only in the underlying structure patterns.⁴¹²

For this portion of the analysis, then, each of the 19 variables was treated as a

⁴¹² See Jae-On Kim & Charles W. Mueller, Introduction to Factor Analysis, Vol. 13 in the Sage Series: Quantitative Applications in the Social Sciences (Newbury Park, CA: Sage Publications, 1984); and Kim & Mueller, Factor Analysis: Statistical Methods and Practical Issues, Vol. 14 in the Sage Series: Quantitative Applications in the Social Sciences (Newbury Park, CA: Sage Publications, 1984), esp. pp. 74-75.

dichotomous variables (i.e., "present/absent" in terms of stressing that variable). Factor analysis was then performed for the constrained purpose of determining which variables tend to be associated -- isolation of "nexus" of threat assessment variables. These nexus of threat assessment variables differ significantly across the threat assessments portrayed by each cluster.

Techniques used to analyze time trends center around regression analysis. The measure of interest is straightforward -- the slope of the regression equation for each variable. The slope is simply a measure of the degree and direction of change in attention to variables over the five-year period. The degree of change is indicated by the magnitude of the slope, while the direction is indicated by whether the slope is positive or negative. Because the sizes of the clusters vary widely, regression analysis was performed in terms of the percentage of the total cluster sources in a given year stressing a given variable. Using this measure, the trends in attention among the six clusters can be compared directly. For example, for the military in Cluster 1, the slope for attention to nuclear threats is about -19, while that for Cluster 2a is about -12. In these cases, this represents an annual decline in attention to nuclear threats of 19% and 12% respectively.

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