

EXECUTIVE SUMMARY

On March 24, 1999, the North Atlantic Treaty Organization (NATO) started an air campaign by attacking targets in Serbia, including Kosovo. Afterwards it was discovered that the overall number of 37,200 sorties had provably destroyed only 26 tanks, 12 infantry fighting vehicles (IFV), and eight howitzer batteries. To date, the exact cause of the Serbian withdrawal has not yet been determined.

This thesis analyzes the question: "What might have happened if Serbia had not retreated and NATO had had to conduct a ground forces campaign to achieve its objectives?" The evaluation satisfies two measures of effectiveness (MOE): minimizing friendly casualties and successfully ending the campaign as soon as possible. Furthermore, the created model is a starting point for the development of a decision support tool for joint contingency planning in higher HQ.

The data and information of this campaign analysis are based on unclassified sources. The level of this campaign analysis is the NATO command level for such a campaign, i.e. Supreme Allied Commander Europe (SACEUR) level. Thus, this study limits its resolution to the

level of divisions for the Blue Forces (NATO) and to the level of armies for the Red Forces (Serbia); simultaneously, the guerilla warfare element is taken into consideration. Although such a campaign would be a joint one, this study focuses on the ground forces.

A brief history of the Balkans contributes to the reader's understanding of the conflict in this area. These nations have suffered seven hundred years of political and civil oppression, resulting in countless wars with alternating coalitions. Historically, the mutual violence could only be suppressed when strong political leadership could form a united organization. The hatred, however, was not eliminated—only left dormant. As soon as the "iron clamp" ceased to exist, the violence among the Balkan nations erupted again.

This paper's aggregated combat model uses the situational force scoring (SFS) methodology, introduced by RAND, to compute force ratio, attrition, and movement as the result of combat. The SFS methodology is a force-on-force methodology which adjusts scores dynamically by considering the effects of the type of terrain, the type of battle, and the combined arms imbalances—or shortages.

For a portion of the campaign analysis, the General Campaign Analysis Model (GCAMTM), developed by *Systems Planning and Analysis, Inc.*, is used.

Based on a preceding study and the study of the German Invasion of Yugoslavia in 1941, the scenario chosen for this thesis reflects a combination of the "Macedonia Option," the "Montenegro Option," and the "Albania Option;" i.e., the invasion into Kosovo and southern Serbia out of the Former Yugoslav Republic of Macedonia (F.Y.R.O.M.), Montenegro, and Albania.

The overall concept of operations (CONOPS) for a NATO campaign on the Balkans, which includes ground forces, is divided into four phases: a deployment phase (deployment of NATO troops in assembly areas close to the ports of embarkation), a forward deployment phase (deployment of these troops close to Serbia's borders), an air campaign (air strikes in preparation of the land campaign), and a ground campaign (attack of NATO ground forces into Kosovo).

The land part of the CONOPS includes the engagement of four divisions. Based on the availability of data and the efficiency of the operational approach, the author has chosen one division from each Germany (GE), France

(FR), the United Kingdom (UK), and the United States of America (US).

The Serbian Army consists of three armies with eight army corps, three task forces, and several air defense and artillery units. Additionally, a Special Forces Corps (only in peace time under army command) and a corps-sized Belgrade Defense HQ are available.

A key factor for warfare in the Balkans is the rugged and mountainous terrain. It prevents mechanized forces from displaying their high-tech based superiority and enables the defender to withstand supposedly superior equipped enemies. The terrain even allows the defender to use rather old equipment effectively.

The result of this campaign analysis shows that a NATO ground forces campaign in Kosovo will only be successful if tactical and technological measures can reduce significantly the defender's use of anti-tank (AT) weapons; even then, the casualties on the attacker's side may be relatively high. With these type of weapons, indirectly the enormous large number of Serbian infantry troops is reflected.

Finally, with the developed spreadsheet—containing the implementation of RAND's SFS methodology—the basis

for a decision support tool for joint contingency
planning has been made.