

ADAPTATION AND INFORMATION IN THE AFGHANISTAN INSURGENCY

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Throughout the War in Afghanistan, both the International Security Assistance Force (ISAF) and various insurgent organizations must make decisions about which strategic actions to take and when to take them. For example, do insurgents rely on planting roadside explosive devices or do they choose to engage their targets with gunfire? Does ISAF pursue defensive actions like searching for hidden weapon caches, or do they take the offensive and directly attack their targets? The Afghan War Diary, released by WikiLeaks in 2010, encapsulates six years of such interactions between ISAF and insurgents. It comprises over 78,000 categorized military events, which capture decision-making at a fine spatio-temporal resolution.

In this project, we use the War Diary data to investigate two aspects of group decision-making: (1) how do the groups' strategies co-adapt over time, and (2) what information-theoretic factors influence their choice of strategy?

Preliminary results show that there are indeed broad shifts in strategy over the course of the conflict. The next step in answering the first question is to assess the degree of dependence between the groups' actions. The second question is rooted in notions of uncertainty and surprise, which have historically been regarded as important aspects of military strategy. Information theory provides a way to quantify these notions and measure their contribution.