



Joint research combines modeling and social research to anticipate terrorist threats

The Joint Threat Anticipation Center (JTAC) combines expertise at Argonne National Laboratory and The University of Chicago to advance the state-of-the-art in anticipating long-term threats to U.S. national security. JTAC activities include research, education, modeling and communication. JTAC takes a unique interdisciplinary approach based on the close working relationship between Argonne's computational modeling resources and the university's diverse research portfolio in social sciences and area studies.

JTAC's goal is to integrate social science and technology by constructing the foundations of computational social science for applications to national security and actively developing and recruiting a new generation of researchers. JTAC conducts new social, cultural, behavioral and economic research, often involving field research, aimed at anticipating future threats. Several projects in support of threat anticipation are underway in the social science realm as well as in the computational modeling area. Research areas include:

- Terrorist strategy and tactics, such as suicide terrorism database development and analysis;
- Failed states, including insurgent sanctuaries and terrorist havens;
- Socio-cultural processes and precursors to terrorism, such as poverty, inequality and terrorism relationships, and state versus non-state actors in territorial disputes; and
- Language studies related to threat anticipation and terrorism, including automatic machine translation from poorly studied languages and the development of an emotive dictionary of Arabic conflict terms.

JTAC's modeling work is closely integrated with social and cultural research and consists of developing frameworks and models for integrating cultural knowledge in meaningful ways to support policy



the sorial range of the social and cultural research to support policy analysis and to anticipate long-term threats to U.S. national security.

analysis. Modeling areas include the development of credible agent-based model validation procedures based on sound modeling practice and social science theory, the translation of social science theory into computationally valid modeling mechanisms and the development of large-scale models of social and cultural processes.

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