ABSTRACT

This paper discusses the potential of geovisual analytics to support intelligence analysis. In combat operations, analysts and decision makers must incorporate time sensitive information and variable attack patterns to formulate an appropriate course of action. Our specific focus is on the spatiotemporal visual analysis of Improvised Explosive Device (IED) terrorist incidents during the Intelligence Preparation of the Battlefield (IPB) cycle. Use of IED’s by domestic and international terrorist cells has increased in geographic scale, frequency, and sophistication due to the relative cheap cost of acquiring the materials (when compared to military-issued weaponry) and the ease in keeping such weaponry covert. Here, we introduce the Basic Ordinance Observational Management system (BOOMsys), a prototype geovisual analytics application designed to facilitate spatiotemporal sensemaking of the IED incident dataset maintained by the National Counter Terrorism Center (NCTC) Worldwide Incident Tracking System (WITS). Using the BOOMsys prototype, we will demonstrate the utility of geovisual analytics for intelligence analysis and counter-terrorism.

Keywords: geovisual analytics, sensemaking, intelligence analysis, improvised explosive devices, counter-terrorism.