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Chapter VII

Realized Applications of Positioning Technologies in Defense Intelligence

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Abstract

Spurred by the recent escalation of terrorist attacks and their increasingly devastating outcomes, defense intelligence in the context of homeland security has been drawn into the spotlight. The challenge, at both national and global levels, of managing information in order to offensively resist attack or defensively keep citizens safe from further harm has never been greater. In meeting this challenge, the tools and strategies used by relevant defensive powers are a key factor in the success or failure of all activities, ranging from small-scale, homeland security administration through to large-scale, all-inclusive war. In all areas within this wide scope, the adoption of positioning technologies has played an important role. Of special significance are the global positioning system (GPS), second-generation (2G) and beyond mobile telephone networks (including

wireless data networks), radio-frequency identification (RFID) and geographic information systems (GIS). Since most positioning technology has been developed or released for use within the commercial sector, however, concerns beyond technological feasibility are raised when applications are harnessed solely for defense. The integration between commercial and military sectors and public and private needs must be considered and, primarily, this involves ensuring that the enforcement of homeland security does not compromise citizen rights.

Introduction

Since the turn of the millennium, terrorist attacks have triggered heightened interest in homeland security issues. Terrorism is defined as "a form of political or criminal violence using military tactics to change behavior through fear" (Wang, 2004, p. 22). The September 11 (9/11) attacks marked a new phase of warfare, forcing United States (U.S.) President George W. Bush to respond with an Executive Order establishing an office of homeland security (White House, 2001). One can ponder as to why the Executive Order did not come any earlier, given the frequency of hijackings and bombings by extremist groups during the 1980s and 1990s. One can also question why other states, even the most remote nations, have begun to concern themselves with homeland security. What was it about 9/11 that caused such a ripple effect in defense strategy worldwide? Was it that a "successful" terrorist attack was launched on what is perceived by many to be the most powerful nation in the world? Was it the nature of the attack, the element of shock created by a passenger airline flying into the Twin Towers and destroying them that was morbidly "revolutionary"? Or was it the sheer number of civilians that were impacted by the aftermath in New York City? Independent of the answer, believing that heavily investing in homeland defense security measures will curb all future attacks is foolish. In some respects it is analogous with searching for a needle in a haystack — the odds of complete success are low, although the effort is still warranted. Justification of this effort is only furthered by the implementers and the tools and strategies they use to maintain homeland security.

Technologies, particularly those that incorporate positioning intelligence, have an important role to play here. They are not foolproof, but they go a long way toward aiding preventive and responsive measures in critical situations. The