

Chapter 1

Introduction

Resilience is an increasingly important concept and quality in today's world. It is particularly important in the area of Critical Infrastructures. It is crucial in the area of Critical Information Infrastructure. This is because, since the year 2000, man has been dependent on information and telecommunications systems for survival, particularly in the Organization for Economic Cooperation and Development (OECD) countries, and because all other Critical Infrastructures depend upon, to a greater or lesser extent, Critical Information Infrastructure.^{1,2}

Until, probably, the late 1980s it would be fair to say that the defense of individual nation states depended upon a mixture of political will and armed might. The fall of the Berlin Wall may have effectively ended the Cold War, and with it a bipolar world, but it brought globalization and a multipolar digital world in its wake. Simply put, a number of power vacuums were created and these have yet to be fully filled and settled. In this "New World" many changes were afoot. These changes include the increasing irrelevance of nation states in federated structures and the export of democracy on the back of globalization. One of the biggest changes, though, is the use of digital technology by the OECD countries. This is on such a scale that these countries have become both dependent upon information technology and as individual states largely irrelevant to the new "global" electronic economy.³

¹ This adaptation of Maslow's hierarchy of needs is attributed to KPMG. It would seem to be a by-product of the analysis of the Y2K problem – in that, suddenly, it was realized exactly how dependent mankind has become on computers.

² Maslow's hierarchy available at www.businessballs.com/maslow.htm (Accessed: 6 January 2007).

³ The OECD consists of Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States of America.

In 2007, traditional armed conflict is only one of a number of ways of both attacking and defending political and economic interests. Asymmetric Warfare⁴ is an increasingly popular means of waging war on large entities by smaller ones. Many terrorist groups now use the electronic environment as a means of taking on much greater and bigger enemies. At the same time the equal and opposite reaction to globalization has been the phenomenon of Obstructive Marketing. Obstructive Marketing uses similar tactics to Asymmetric Warfare to stop companies from going global.⁵

The nature of both the political and economic landscape has therefore changed over the last 25 years. Because of this, the nature of defense has changed too. In a parallel universe, fifty years ago, in the United Kingdom (UK), this chapter might have been called “Defense of the Realm” and might even have been an introduction to a handbook issued by the “War Office.”⁶ The fact is only something that is likely to be attacked or damaged needs to be resilient or protected. Therefore, it could be said that this book is about defense in its broadest sense. However, it is about a different sort of defense than anything seen before.

Both at the time and with hindsight it was clear that the Poles could not win the battle against the Germans in 1939 by pitting horses against tanks. Today the west and north of the world needs to understand that it will not win a modern battle fought with tanks or aircraft carriers in an Asymmetric War, or an Obstructive Marketing environment. Whether understood widely or not, it is the case that the west and north are engaged in an Asymmetric War. An Asymmetric War is a battle between a force with many resources and one with less. This may sound like a normal military conflict except that Asymmetric Warfare is not necessarily a battle between military forces or states. It is increasingly a battle between and, importantly, within infrastructures.

Critical Infrastructures themselves need some description and classification. There are some familiar terms in the list. Most people would understand that protection is required from flood defenses. They would understand that a food and water supply is required to live, that waste water and sewage treatment along with health services keeps diseases and illness in check, and that transportation is needed for us to go about our daily lives. Some are clear after some thought: financial, commercial, and industrial institutions are required to maintain our standard of living, our way of life is determined by the political fabric and government services, and a stable society promotes a feeling of safety. These, too, are Critical Infrastructures. Others are not so familiar: national icons and intellectual property. These are more difficult.

⁴ Hyslop, MP (2003) Asymmetric Warfare, Proceedings International Conference on Politics and Information Systems: Technologies and Applications (PISTA '03), Orlando, Florida, USA. 31 July 2003 – 2 August 2003.

⁵ Hyslop, MP (1999) Obstructive Marketing, MSc Thesis, Huddersfield University Business School.

⁶ The name for the current UK Ministry of Defense.