

The Changing Face of WMD Proliferation

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Review of: Russell, James A. and James J. Wirtz (Eds): *Globalization and WMD Proliferation: Terrorism, transnational networks, and international security*. Routledge 2008, 192 pp. ISBN 970-0-415-43394-5.

After the fall of the Soviet Union the international environment changed rapidly. Next to the states, new actors entered a global arena. The amount of trade has increased, as well as the number of payments for goods, exchange of information, human resources and technologies. These developments strengthened non-state actors, offering them the new possibilities of transnational networks. In this new environment state control of weapons of mass destruction (WMD) and their technologies is no longer so secure — this poses a serious danger for international security. This book edited by James A. Russell, Senior Lecturer in the Department of National Security Affairs at the Naval Postgraduate School in Monterey and James J. Wirtz, Professor of Strategy in the Department of National Security Affairs at Postgraduate School in Monterey is dedicated to analysis of accelerating process of globalisation and the proliferation of WMD. The book is topically divided into eleven chapters and each is written by an international security expert.

Transnational networks and proliferation

James Russell presents a basic introduction to the book topic, which deals mainly with globalisation as a security paradigm and with the influence of proliferation and globalisation on the national security dilemma. Russell, noting example of the A. Q. Khan Affair and ongoing vertical and horizontal proliferation, is very sceptical about the role of the state as the central actor to international security. States are simply not able to control all financial or technological movement and attempts to regulate such movement forced them into the black market, where the power of states is even less.

H. H. Gaffney discusses the proliferation of nuclear weapons and answers the question of whether proliferation of nuclear weapons is exponential or not. He deeply analyses step-by-step retrospectively main moments of proliferation and concludes that it was globalisation, which permitted proliferation. Proliferation motives are according to him based on political decision (mainly from Cold war era), rather than unmanageable and inevitable consequence of globalisation. Much more precise is his contribution concerning proliferation networks and their function in theory and practice. Alexander H. Montgomery incorporates theories from transaction-cost economics and network analysis to explain the general structure of proliferation transactions as markets, networks and hierarchies. With practical application of network structures on ballistic missile proliferation and nuclear proliferation, he discovers that one of the main factors determining what the structure will look like is 'tacit knowledge' (pp. 33). According to Montgomery, tacit knowledge required to build nuclear weapons results in nuclear proliferation networks that are more likely to adopt star structures and missile networks are more likely to be cliques. After this great contribution, full of new and interesting information, a rather descriptive part by John P. Caves Jr. follows. Caves mainly describes the policy landscape connected with WMD proliferation networks. From an evaluation of George W. Bush's policy of non-proliferation, mainly concerning the bodies of the Proliferation Security Initiative (PSI) and IAEA, concludes that action-oriented, multidiscipline approaches built on expanding coalitions of the willing and continued progress on the law enforcement appear to be an appropriate response to an urgent and dynamic threat.

A.Q. Khan and the nuclear trade proliferation network are also dealt with in another chapter. David Albright and Corey Hinderstein chronologically reveal the origins of Khan's network and later operations with all actors. The lack of analysis and mainly descriptive nature of this contribution is well balanced by logically placed facts and new information about the functioning of Khan's network. The authors reflect the weaknesses of multilateral export control regimes and controlling agencies and are slightly sceptical about their improvements in near future.

Terrorism

An excellent contribution by Margaret E. Kosal deals with near-term threats of chemical weapons terrorism. According to Kosal, there are two main threats: 'traditional Chemical Weapons dispersed via improvised methods and improvised agents and delivery methods' (pp. 74). Her article deals with Improvised explosive devices, which are responsible for over half of the US fatalities in Iraq and shows the path from the 'street chemistry' of high explosives for improvised explosive devices to improvised chemical devices incorporating commercial chemicals. Despite the fact that traditional chemical terrorists operated with cca 50 associated traditional chemical agents, a new form of terrorism starts to operate with shared tacit knowledge of how to use thousands of known industrial and research chemicals. Kosal also discusses possible use of *osmium tetroxide* (OsO_4) as an improvised choking and blister agent. Osmium tetroxide is publicly available and used, for example, for preparation of biological samples in technique called 'fixation,' which is a very important step in most biological applications of electron microscopy, improving visibility of biological structures (pp. 69). Actual information in connection with the analysis makes this article a great innovative source.

William W. Browne writes about constituency constraints on violence in the case of Al-Qaeda and the possible use of WMD. A vast majority of the article deals with justification for indiscriminate violence on civilian targets, which is prohibited under Islam. The author examines works like *The Management of Barbarism* by Abu Bakr Naji or Zawahiri's *Knights under the Prophet's Banner* and compares the main thoughts with the strategy of al-Qaeda. Browne discovers that despite al-Qaeda constituted itself as a means to mobilize Muslim masses, the vast majority of Muslims is rejecting its strategy, mainly because of indiscriminate killing of civilians. This mismanagement seems to be the result of a failed interpretation of violence by this organization as well as other jihadist movements. Al-Qaeda believed they could conduct a WMD attack without negative repercussions in Muslim world, which is according to Browne 'inconsistent' (pp. 98) with al-Qaeda's strategy, noting the fact that even 9/11 attacks led to rejection of such practices even in jihadist organizations and, moreover, made the environment for them much more complicated. Based on letters between Jihadist strategists and Zarqawi, the author concludes that al-Qaeda is aware of the contra productive outcomes of indiscriminate targeting of civilians, which will not be tolerated by the majority of Muslims. And thus, WMD attack on US is inconsistent with al-Qaeda's strategy and counterproductive for building Muslim support. Despite a lack of data from the period before 2001, the author conducted interpretation of opinion polls and translated outcomes into these interesting conclusions. For example the level of anti-American feelings is not related to

the number of suicide-attacks or that the level of confidence in bin Laden may not necessarily imply acceptance of al-Qaeda's tactics.

Dennis M. Gormley discusses unmanned aerial vehicles (UAV) as terrorist weapons. According to his article, this seems to be most dangerous method of terrorist attack, because the US defence is vulnerable. The author examines the possible use of UAVs or cruise missiles from angles of motivations and capabilities and then applies his findings to two possible and very relevant scenarios: conversion of anti-ship cruise missiles for launching from an offshore freighter and transformation of a simple airplane into an unmanned means of inflicting mass casualties. Although it could be easy to buy and convert old anti-ship cruise missiles, the geographical delivery could be problem for majority of terrorist groups. Thus the second scenario seems to be more likely, especially with the use of kit airplanes. The author concludes, that the USA should provide more active leadership among Missile Technology Control Regime members and convince the overall membership to reach consensus on strengthening export control regulations that would make the prospect of transforming small manned aircraft into unmanned air vehicles more difficult.

Nuclear trafficking

Lyudmila Zaitseva presents her research about ties between organized crime, terrorism and nuclear trafficking. After reviewing the historical background and recent trends in nuclear trafficking, Zaitseva notes the problem of categorization cases, based mainly on a lack of an internationally acceptable definition of organized crime. Her research is concluded by the findings that criminals are motivated mainly by profit rather than extremist activities. Her analysis is based on data from the Database on Smuggling, Theft and Orphan Radiation Sources (DSTO) from Salzburg University. According to data from this database, there is no strong evidence that there is a 'marriage of convenience' (pp. 119) between organized crime, nuclear trafficking and terrorist groups. It is a question of whether open-source based research has some relevance and how much her interpretations correspond with reality. Zaitseva is aware of the limits of her research and addresses the main obstacles.

The last contribution is dedicated to Intelligence and nuclear proliferation. Phil Williams provides an overview of current smuggling networks, analysing the detection challenges these networks provide for intelligence agencies and using some theoretical models, thereafter evaluating its effectiveness. Williams presents basic categorization of traffickers, writing about opportunistic individuals and small groups, ethnically based smuggling organizations (mainly Turks and Chechens), Russian organized crime, so called 'Comrade Criminals,' who are mainly high officials in nuclear institutions with business connections and finally, hybrid trafficking networks. After a short review

of the A. Q. Khan proliferation network, he describes the problem of complexity for intelligence, noting especially David Snowden's analysis (2002). Simply put, the old patterns are no longer applicable in a very quickly changing environment and a conceptual shift is essential. After a very theoretical discussion and presentation of several ways of analysis (Zero based analysis; Multiple alternative competing hypotheses and Strategic network analysis), Williams concludes that applying the complexity theory in relation to transnational threats like nuclear proliferation encourages a more imaginative approach to intelligence. In this way analysts could accomplish a 'reduced frequency of surprise and its strategic significance' (pp. 155).

Conclusion

In the conclusion of this fine book James J. Wirtz notes mainly the impact of globalisation on individuals and small groups. Globalisation empowered them and they became global actors. Furthermore, they are empowered at the expense of traditional institutions. Existing non-proliferation regimes were not created to counter individuals. According to Wirtz, there are two ways to deal with new actors: 'Deny individuals access to the information revolution and the benefits of globalisation, which is obviously counterproductive option, or increase their awareness of the activities being undertaken within their jurisdictions.' (pp. 163) According to Wirtz, policymakers need to estimate likely threats and their ability to detect those threats. In other words, local actors (such as police) should also be prepared to act locally, in order to prevent small group or individual terrorist attack.

This book is a valuable source of new information and new thoughts about how much the international environment changed in last two decades and how groups and individuals are using globalisation for changing patterns of proliferation. The editors are recommending this book mainly to students of nuclear proliferation, international security and international relations in general. Policymakers and public administration workers dealing with security agendas could be added to this list as well. Because of the contributions from a wide range of experts, these contributions vary in topics. Policymakers could highly appreciate the chapters with practical ideas on the use of WMD and their delivery systems; policy analysts will appreciate the theoretical parts of the book. This book is very readable.

References

- Snowden, David (2002) 'Complex Acts of Knowing: Paradox and Descriptive Self-Awareness', *Journal of Knowledge Management* 6, 2: 100–111.