



Taking the Long View in a Time of Great Uncertainty Preparing for Social Chain Reactions



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“What should the INMM’s role be in a world defined by the new ‘international order’ and how should we be preparing today to fill that role in the future?”

Introduction

In the last two issues of the *JNMM*, we traced the remarkable journey by the Obama Administration in its efforts to pursue the seemingly impossible goal that many have had since the dawn of the atomic age: the elimination of nuclear weapons and the creation of a new international order. We also explored the complexities of the nuclear fuel cycle with guest columnist, INMM Vice President Ken Sorenson, in the context of world events and the recent reorganization of the Institute’s technical divisions. Those first two columns have sparked some e-mail exchanges with members, including Jim Larrimore, the chair of the International Safeguards Division, that indicate a genuine interest exists in creating a forum to discuss current and future events and what more the INMM can do to better prepare for very different futures.

Since the first two columns were published, President Obama has achieved his first major goal on a timeline toward the objectives set forth in his April 5, 2009, Prague speech: the ratification of the New Start Treaty.¹ With the exchange of the ratification instruments with Russia at a ceremony in Munich, Germany, on February 5, 2011, the stage is now set to pursue more difficult objectives: Senate ratification of the Comprehensive Test Ban Treaty (CTBT); the negotiation and ratification of a Fissile Material Cutoff Treaty (FMCT); and the negotiation of a follow-on treaty to New START that addresses tactical weapons and even further

reductions in stockpiles. At the same time, the objective of sharing nuclear technology for peaceful purposes continues to be advanced as the United Arab Emirates (UAE) works toward building the first of four large nuclear power plants. This success by the UAE has encouraged other nations in the Middle East to pursue nuclear power to solve their future energy needs, as the United States demonstrates an extraordinary willingness to remain flexible in negotiating agreements with those countries.

But, as with any path toward an uncertain future, there are detours that may occur, driven by critical uncertainties that could suddenly take us in a very different direction. Such is the news coming out of the Middle East in January: political and social upheavals in Tunisia, Egypt, Yemen, Algeria, and even Iran. Facilitated by twenty-first century technology, including the proliferation of handheld communication devices and social networks such as Facebook and Twitter, these historic uprisings and potential regime changes alert the scenario planner that serious potential discontinuities are in the offing that will change the path to the future.

Connecting the Dots — The Impact of Social Chain Reactions

In scenario planning it is not unusual for critical uncertainty-driven events on very different future paths to occur in the same time frame. One of the powerful benefits of scenario planning is the expansion of the imagination to visualize the impact of seemingly disconnected events and how they will influence the future, enabling preparation for dramatic change. Thus, on one path toward the future, today

we have the ratification of New START and the encouraging cooperation with several nation states in the development of their nuclear energy programs. On a simultaneous-occurring darker path to the future, we have the continuing clandestine pursuit of nuclear programs by Iran and North Korea, and their defiant attitudes in the face of overwhelming international pressure. These are known critical uncertainties that we can monitor, and as events unfold aligned with them we can “connect the dots” to project their impact to create possible futures enabling us to make more informed decisions.

Occasionally, however, wildcards occur that change the game.² Such were the events that occurred in Tunisia and Egypt in January and February. How these events will unfold and impact the global security landscape is the subject of much speculation, particularly in light of the decision by the Mubarak government last year to begin construction of their first nuclear power plant with Russian assistance. Of particular note is the role that twenty-first century technology has played in facilitating the events in Egypt and the failed attempt by the government to intercede by temporarily shutting down the Internet. We have indeed entered a new age of technology, where political and social change can be directly influenced by these new instantaneous modes of communications. In fact, what we witnessed in Egypt could be characterized as a “social chain reaction” unleashed upon the body politic. A new set of critical uncertainties has been established:

- What new regime will emerge?
- How will that regime view its international obligations with respect to their nuclear program?
- What other dominoes will fall in the



Table 1.

Original Question	Reshaped to Stimulate Direct INMM Engagement
How will the world deal with the untenable situations in Iran and DPRK?	How could the nuclear situations in Iran and DPRK be resolved in a win-win manner?
What happens if other nation states similarly pursue nuclear weapons?	How could the nonproliferation system be improved to encourage NPT states to fully meet their obligations and stay in the system, and to better deal with cases where a lack of confidence develops that a nation is meeting its obligations?
Can nuclear forensics provide the deterrence needed to prevent terrorist attacks?	How could nuclear forensics become more effective in the nuclear nonproliferation and nuclear security toolbox and in deterring nuclear terrorism?

Middle East and elsewhere, encouraged by the events in Egypt?

- How will these events be shared with the rest of world through socially connected networks?

Suddenly, our world has become even more complicated.

Creating a Dialogue Within the INMM

In the first column of this series I posed eight questions for the membership to consider as we travel the path to the future. Intended to be thought-provoking in their design, and painted in caricature, these questions can be refined by discussions to provide more specific and manageable challenges for the Institute:

- How will the world deal with the untenable situations in Iran and DPRK?
- What happens if other nation-states similarly pursue nuclear weapons?
- How are other nations responding to President Obama's global nuclear initiatives and what impact will those responses have on the INMM?
- What will be the worldwide response to the first terrorist nuclear event (either nuclear or dispersal)?
- Can nuclear forensics provide the deterrence needed to prevent terrorist attacks?
- Will unilateral reductions in the U.S. stockpile influence the decision of other nuclear weapons states to further reduce their own stockpiles?
- What is the evolving role of the United Nations and IAEA in the new "international order" proposed by President Barack Obama?

- What scientific, technological, and policy innovations can INMM promote to make the world a safer place?

In e-mail exchanges with Jim Larrimore, mentioned earlier, the suggestion was made that we should recast these questions into meaningful challenges the Institute could pursue. An example of transforming the initial set of questions to inquiries that might use the Institute's range of competencies is shown in the table above for three of the original eight questions.

Larrimore has suggested that these types of challenges to the Institute would enrich the Sunday afternoon Technical Division discussions at the INMM Annual Meeting and better engage the membership. We will explore the logistics of that suggestion as more input is received on this column from the membership.

The global social networking phenomenon that we have watched emerge in its various forms also presents an opportunity to facilitate strategic discussions within the INMM family. Such a change brings with it a re-learning of concepts of personal interaction, something that is not comfortable for many of us from the "older generation." However, never has there been as dramatic an example of "a sign of the times" as this technological phenomenon, perhaps since the launch of the Internet itself. Nor has there been a more urgent need to provide a dynamic social environment for those discussions, particularly for the growing number of younger generation members in the Institute. An early entrée into using these communications technologies by the Institute

is the *INMM Communicator* (http://www.inmm.org/INMM_Communicator_Newsletter/1695.htm), designed to provide a more immediate and informal mechanism to communicate to the membership on issues and happenings in the INMM.

Perhaps the time has come for the INMM to consider its own "social chain reaction," by launching an interactive Web presence.

We encourage *JNMM* readers to actively participate in these strategic discussions, and to provide your thoughts and ideas to the Institute's leadership. With your feedback we hope to explore these and other questions in future columns, addressing the critical uncertainties that lie ahead for the world and the possible paths to the future based on those uncertainties.

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End Notes

1. For timelines of the Obama Administration's efforts to implement the Prague goals see: <http://itpnm.com/whats-new-archives/criticaluncertaintytimelinegeneric2010.pdf> and <http://itpnm.com/whats-new-archives/criticaluncertaintytimelinegeneric2011.pdf>.
2. See *Ahead of the Curve: Anticipating Strategic Surprise*, by Peter Schwartz and Doug Randall, for a discussion of how to anticipate forcing events and wild cards in global politics. http://www.gbn.com/articles/pdfs/Monitor.GBN_%20strategic%20surprises_SchwartzRandall.pdf