



# Proteus: New Insights for a New Age

## *The Proteus Futures Academic Workshop*

By Mr. Bill Waddell and Mr. Bill Wimbish

The Proteus Management Group (PMG) hosted the first annual Proteus Futures Academic Workshop 22-24 August 06 at the Center for Strategic Leadership, United States Army War College at Carlisle Barracks. This workshop was focused on providing scholars from various organizations the opportunity to present papers on topics and issues related to the Proteus Insights that addressed future strategic national security challenges. Workshop participants were from a variety of nations, disciplines, and backgrounds, and included: students and faculty from universities, colleges and military service schools; government civilian and military senior leaders, planners and analysts from joint agencies, the uniformed services and the national intelligence community; former political appointees, and international representatives from Canada and Israel.

This initial workshop was the culmination of a year of inaugural activities and centered on scholarly research, study and writing by interested individuals and organizations. The workshop plenary sessions consisted of five different panels that provided a variety of topics for the presenters and panelists to consider. Panelists who had submitted workshop papers were given the opportunity to explain their theses during panel sessions and take questions from the other panelists and participants. A total of 17 papers were presented. The following is a synopsis of the five panels and corresponding topical papers and presentations:

1. Geo-Strategic Policy and Strategy. Future Middle East policy and strategy, democratization challenges, 21st century/Fourth Generation Warfare (4GW) and “Peacefare,” Jihad and the Global War on Terror (GWOT).
2. Psychological, Religious, Social and Cultural Complexity in Future Policy and Strategy Formulation. National profiling in predictive analysis, Saudi Arabia’s future, and Iran’s promotion of an Islamic “Just War.”
3. Future Strategic and Operational Intelligence Challenges. Homeland Security and Agro-terror and intelligence collection in “failed states.”
4. Future Technology. Future National cyber security policy challenges, combating digital multi-domain with civilian red cells, improving Computer Network Attack (CNA) and Computer Network Defense (CND) through Body Mind Spirit (BMS) and martial arts education and strategic stress management.
5. Future Modeling, Simulation, and Gaming Technology in Strategic and Operational Analysis, Decision Making and Experiential Education. Machine learning techniques to support counterterrorism analysis and decision making, Protean Media Critical Thinking Game and complexity gaming, Sentient World-Simulation (SWS), Disciple and cognitive assistants for analysis and the Far Future Conflict Game.

Other highlights of the workshop included a number of guest presenters and speakers that supported the plenary panel topics, presentations and events. These included guest speaker presentations from Mr. Leon Fuerth, the former National Security Advisor for Vice President Gore and current professor at George Washington University, Dr. Joshua Teitelbaum from the Moshe Dyan Center for Middle Eastern and African Studies, Dr. Ely Karmon from the Institute for Counter-Terrorism in Herzliya, Israel, Mr. Ken Knight, Office of the Director for National Intelligence, Dr. John Alexander, Joint Special Operations University and Mr. Jack Smith, Director of Foresight, Canada.

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Form Approved  
OMB No. 0704-0188

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1. REPORT DATE <b>OCT 2006</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2006 to 00-00-2006</b>	
4. TITLE AND SUBTITLE <b>Proteus: New Insights for a New Age. The Proteus Futures Academic Workshop</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Army War College, Center for Strategic Leadership, 650 Wright Avenue, Carlisle, PA, 17013-5049</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

The workshop concluded with a demonstration of the initial version of the “Protean Media Critical Thinking Game,” an interactive cognitive Role Playing Simulation (RPS).

## PROTEUS MANAGEMENT GROUP

The PMG,<sup>1</sup> established in October 2005, is a formal follow-on project to the original effort by a volunteer group that examined ways to apply innovative insights from a government study called *Proteus: Insights from 2020*,<sup>2</sup> which was sponsored by the National Reconnaissance Office (NRO) in 1999. The original group was an international consortium that included members from the Canadian Office of Technology Foresight, the Naval Postgraduate School, the U.S. Army War College, the NRO, the National Geospatial-Intelligence Agency (NGA), the National Security Agency (NSA), and the office of the Director, Central Intelligence (DCI).

The initial effort concentrated on establishing a framework with which to build a team that could provide varying and innovative perspectives on the application of PI for strategic and operational planners and decision-makers within the Joint, Interagency, Intergovernmental and Multinational (JIIM) environment. The key objective was to show these communities the feasibility and utility of using the PI framework when considering all elements of national power to help solve complex issues on the future geo-strategic landscape.

Today, the PMG is sponsored by the Office of the Director for National Intelligence (DNI), with the Army War College taking the lead in the development of the project. The group is also closely associated with Proteus Canada, a parallel effort. The PMG’s primary objective is to promote further discourse, study and research on the application of Proteus Insights to strategic issues; focusing on the refinement, continued development and use of the Proteus lenses in future complex geo-strategic scenarios enabled by the global information grid and advanced technologies. Its secondary objective is to assist strategic and high-operational level decision-makers, planners and intelligence analysts in coping with uncertainty, enhancing creativity, gaining foresight, and developing critical analytical and decision-making processes to effectively provide insight and knowledge on future complex national security, military and intelligence challenges.

The PMG is devoted to exploring creative and alternative methods to enhance current processes in order to identify future threats and seize discreet opportunities to prevent strategic surprise. The PMG’s main focus areas are:

- Educational Exercises/Experiential Learning. This area examines course work, computer assisted learning, role playing games and simulations that incorporate Proteus Insights on “critical and out of the box” thinking.
- Analysis and Decision Support. This area looks at the application of Proteus Insights in intelligence analysis, decision making and planning processes at the strategic and operational levels.
- Future Research and Publication. This area promotes the study of new Proteus related insights, refine/develop current insights and work on future Proteus applications for identifying future threats and capitalizing on opportunities.

The initial effort culminated with the successful completion of this First Proteus Futures Workshop and established a springboard to launch future PMG activities.

## PROTEUS INSIGHTS

The Proteus effort centers on the application of the ten established insights. These insights were developed in the initial study, and continue to be relevant to contemporary and future issues. The original Proteus Insights are:

- **Starlight**. Most current intelligence is derived from retrospective insights. However, real predictive foresight capacity is turning toward the recognition of a need for strategic information from a confluence of multiple planes of influence in time, space, meaning and cyber systems.
- **Sanctuary**. ‘They’ can run and ‘they’ can hide. Information about movements may be more valuable than secrets tied to stable locations and luminosity may be more important than stature.
- **Small Stuff**. From biotech to nanotech to internet supported infotech appliances and cognitive systems, technologies are converging to create distributed and diverse threats. The world of the small (including cellular or networked organizations) and the relatively autonomous is creating ambiguity and potential threat.

1. For more information on the PMG see: [https://www.carlisle.army.mil/proteus/pmg\\_history.aspx](https://www.carlisle.army.mil/proteus/pmg_history.aspx)

2. Pamela H. Krause, comp., Michael S. Loescher, Chris Schroeder and Charles W. Thomas, *Proteus Insights from 2020* (The Copernicus Institute Press, 2000)

- **Veracity.** Truth and knowledge are not as absolute and fixable as previously believed. Empiricism, authentication and revelation may be relative and difficult to determine when viewed in the context of their creation in the dynamic environments able to be modelled by Proteus.
- **Herds.** People and ideas are on the move – affecting loyalties and affinities in complex space-time and idea-belief situations. Herds have inherent capacity for malevolence or benevolence and Proteus can elaborate the distinctions.
- **Wealth.** It's not just money – non-traditional currencies are entering the influence planes and creating substantial shifts in global value. New currencies expressed as capacities for influence can alter strategic positions and create vulnerabilities. Proteus creates perspective upon these complex interactions and transactions and examines prospective impacts.
- **Power.** As values change, the distribution and instruments of power can shift. Power is temporal, dimensional and erodible in the emerging cellular environment.
- **Bedfellows.** The significance of teaming increases as global complexity is accelerating even where the U.S. is disengaging. Intelligence and security demand agility and new partners internationally in diversified arenas of information, access and alliance.
- **Parallel Universe.** From networks to cyber realities and avatars, the flows of information capability and configurations of prospective threats are becoming more extensive as cyberspace assumes new and highly strategic relevance in all domains.
- **Threat-Opportunity.** Watchfulness in all venues is necessary because every threat is someone else's opportunity. Anticipation of threat requires understanding the ecology of the continuum – accounting for both the pre-conditions and the manifestation of threat in terms of capacity and technology in context.

## PLANES OF INFLUENCE

The study provided application of these insights in five plausible future scenarios across the planes of influence. The original Proteus workshop teams identified five planes of influence. These are places in which future friendly, hostile or neutral actors and things influence others and are acted upon. Key to this concept is not only to identify these places but to finitely analyze actor attributes and discreet interrelationships. The planes are similar to those domains used in Network Centric Warfare (NCW)<sup>3</sup> and are outlined below:

- **Terrestrial:** The Classic military and geopolitical domains of land air sea as well as the physical concentrations of wealth (i.e., sea lanes, oil fields, etc.)
- **Space:** The domain of satellites and future space platforms
- **Spectral:** The electromagnetic spectrum where EW, bandwidth, frequency management and sensing occur
- **Virtual:** The global world of networks and connectivity
- **Psychological:** The media and info conduits used to influence the hearts and minds of people

While these insights are not new individually, when combined and applied within the analytic and decision making process they can generate unique patterns of thought, allowing the analyst or decision maker to consider issues outside of normal biases, contributing to the desired “outside the box” thinking. An ability to determine possible second and third order effects and unintended consequences can be gained by asking “what do I want to happen” and “what do I not want to happen” while considering all ten of the above insights as they relate to the issue being considered.

## PMG 2007 GOALS

The ultimate success of this workshop and other PMG efforts over the past year has sparked new interest internationally from multiple organizations within government, academia, intelligence and the private sector. It has also garnered continued sponsorship by DNI's National Intelligence University with the U.S. Army War College continuing as the host organization. Additionally, the PMG has laid the ground work for a second

3. These domains are characterized as Physical, Informational, Cognitive and Social. See Alberts, Garstka, Hayes and Signori, Understanding Information Age Warfare, (CCRP Publication Series, August 2001), 10-29.

workshop in August 2007. The PMG has established aggressive goals for FY07 including:

- Intelligence Futures Common Core Curriculum Development. These blocks of instruction will supplement core curricula at National and DoD Intelligence colleges and universities. Modules will be centered on teaching tomorrow's mid to senior level analysts and planners how to handle uncertainty and think creatively and critically about future complexity.
- Publication of key Proteus related Topical Works. The goal is to provide leading authors and subject matter experts across the communities an opportunity to conduct research and write on new and emerging futures concepts. These articles, papers and monographs will be featured on the PMG website and included in other professional publications.
- Complexity Gaming Enterprise (CGE). This effort will gather and discuss ideas from the various user communities on the possibility of expanding the use of serious gaming to assist modeling and simulation for intelligence analysis, planning and decision making and education. As a parallel effort the PMG is working to further develop the Protean Media and interactive Role Playing Simulation that will provide a wide audience with hands-on opportunities to experience the application of Proteus Insights.



Individuals and organizations who are interested in joining or contributing to the PMG effort, please contact Mr. Bill Waddell 717-245-4222 or Mr. Bill Wimbish 717-245-3366 or email to: [proteus@carlisle.army.mil](mailto:proteus@carlisle.army.mil)

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## THE PROTEUS FUTURES ACADEMIC WORKSHOP PROTEUS: NEW INSIGHTS FOR A NEW AGE

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