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Innovation Workshop

Creating Capability to Envision and Shift U.S. Air Force Mindset for a Very Different Future

**Air Force Studies Board
Division on Engineering & Physical Sciences**

Meeting

March 12-14, 2018

National Academies of Sciences, Engineering, & Medicine

Keck Center

The Keck Center, 500 Fifth Street, NW, Room 100 & 101, Washington, DC.

Background

Many within the Air Force senior leadership ranks have offered that the Air Force is facing a unique set of opportunities and challenges associated with the speed at which the national security landscape is rapidly changing and more importantly, that the volume and velocity of this change seems to be accelerating beyond what the organizational structure and processes can accommodate. New and emerging technologies are creating new opportunities to advance capability while at the same time creating challenging threat issues. Advanced technologies are no longer the sole purview of the US military and the Air Force strives to develop strategic plans and acquisition programs to ensure successful stewardship of US air power. Perhaps the greatest challenge is the concern that the Air Force is not able to envision a very different organization that would be able to thrive at the same pace as the accelerating technological advancements. The lack of imagination to envision a different organizational structure for the Air Force could inadvertently create risk to the mission as it continues to pursue strategic planning initiatives and acquisition programs that address future capability requirements based on the paradigm of today's organizational constraints.

Workshop Goals

- 1) identify organizational elements or behaviors that have been successfully used by large/complex organizations to envision a future destination for the organization and shift their mind set and processes of the organization to arrive at that destination; where and how has the Air Force had success in supporting innovative behaviors
 - a. what were the barriers or impediments that needed to be overcome
 - b. which of these barriers or impediments were real or myth (bias or belief)
 - c. what organizational behaviors allowed for success
 - 2) investigate the core elements or behaviors that successfully brought imagination and exploration of disruptive technology and technology adoption to achieve different futures for the organization;
 - 3) explore common impediments organizations faced when executing on a new course for the organization and discuss strategies to overcome impediments; and
 - 4) explore high impact actions for the Air Force to adopt in a rapid and deliberate fashion to help shift to a different mindset that unleashes its culture of innovation. Identify a framework for a study effort that identifies a more extensive effort to affect cultural change for large, sustaining change within the Air Force.
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Agenda

Day One – Monday, March 12, 2018 – Room 101

1300 – Working Lunch with Committee members
Setting expectations, workshop alignment – Deb Westphal and Ray Johns, Workshop Co-leads
Introductions

1400 – View from Air Force Acquisition – **Gen (ret.) Fraser**, AFSB Chair, and **Lt Gen Arnold Bunch**,
Office of the Assistant Secretary of the Air Force for Acquisition

1500 – Open Session #1 – Panel Discussion on Common Themes from Past AFSB Acquisition Projects
as collected in *“Opportunities to Excel: Collected Advice and Dialogues on U.S. Air Force Acquisition”*
Facilitator: Doug Fraser

This session will highlight unifying themes from past AFSB studies and workshops focused on acquisition and how these observations might help to envision a different path forward for the Air Force. The findings and recommendations from these past activities all invariably converged the following key themes as barriers of change within the Air Force — Leadership, Culture, Strategic Planning, and the Workforce. The panelists, all former chairs of the studies and workshops, will discuss how insights gained from past AFSB studies can still inform the Air Force’s future.

Panel Members

- **Hon. Lawrence ‘Larry’ Delaney** – *Owning the Technical Baseline Study* (Vice Chair) (VTC/Dial-In)
 - **RADM (ret.) Rand Fisher** – *Optimizing U.S. Air Force and Department of Defense Review of Air Force Acquisitions Programs* (Chair)
 - **Hon. Paul Kaminski** – *Development Planning Study* (Co-Chair)
 - **Gen. (ret.) Lester Lyles** – *Assessment to Enhance Air Force and Department of Defense Prototyping for the New Defense Strategy: A Workshop Summary* (Chair) and *Experimentation Campaigns in the Air Force Innovation Life Cycle* (Co-Chair)
 - **Dr. Alex Miller** – *Experimentation Campaigns in the Air Force Innovation Life Cycle* (Co-Chair)
 - **(Lt. Gen., ret.) Henry ‘Trey’ Obering** – *Owning the Technical Baseline Study* (Chair)
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1700 – Recap of Discussions – What did we learn, what do we need to consider for tomorrow’s discussion, and what are the major observations we want to communicate in our workshop summary?

1730 – Adjourn

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Day Two - Tuesday, March 13, 2018 – Room 101

0800 – 1100 – Open Session #2 – Facilitator: Ray Johns

This session lays the foundation for what the Air Force is trying to achieve organizationally to meet national security needs of the future. As the Air Force adapts advanced technology such as autonomy, data analytics, human-machine integration to enhance multi-domain command and control, what organizational barriers or impediments need to be overcome to transform AF culture into an innovative, agile, and adaptable organization? What lessons can be learned from commercial business or other complex organizations that had similar challenges? What key areas of focus are necessary for transforming the Air Force?

Dr. Richard Joseph, Chief Scientist of Air Force

How will advanced technology adoption drive the need for innovative organizational models, behaviors and structures for the Air Force?

General Stephen W. "Seve" Wilson, Vice Chief of Staff of the U.S. Air Force

What are the priorities and challenges of the Air Force as it strives to become more innovative and agile and what are the barriers or impediments that need to be overcome to achieve success?

Ms. Loretta Penn, President at Penn Executive Coaching and Consulting LLC

What common barriers, impediments and/or organizational behaviors (real or myth/bias) have large/complex organizations overcome to transform themselves into a high performing, agile organization? What leadership behaviors have been key in changing culture and building organizational capability? What key areas of focus were needed for successful transformation?

1100 – 1430 – Open Session #3 – Facilitator: Dr. Elizabeth Altman

This session will focus on identifying organizational elements or behaviors that have been successfully used by large/complex organizations to stay competitive in a dynamic changing environment. What core elements or behaviors successfully brought imagination and exploration of disruptive technology and technology adoption to the organization? How is technology impacting organizational agility and what culture changes were needed to support organizational agility?

Dr. Elizabeth Altman, Assistant Professor of Strategic Management at the University of Massachusetts Lowell

Working Lunch – Grab lunch and resume presentations

Mr. Simon Sinek, Author, Speaker and Consultant (VTC)

Mark Johnson, co-founder and Senior Partner of Innosight

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1430 – 1730 – Open Session #4 – Implementing Transformational and Cultural Change

Facilitator: Dr. Todd Jick

This Session will focus on the “how” of managing innovation and change. It will highlight the key best practices from research on implementing change, then examine two examples in rich detail—one from the corporate sector (IBM), and one from the Army and Government (Iraq war, and forging the Army budget through government agency stakeholders).

Dr. Todd Jick, Professor, Columbia Business School

Research and Best Practices in Change Management

- Key theme - Vision is 10%, Implementation the Rest.
- Successful Implementation occurs when there is commitment to change, not compliance, and resistance is overcome.
- Implementation requires an arsenal of tools and techniques to align and gain the commitment of key stakeholders and change behaviors.

Ms. Kinthi Sturtevant, former VP Transformation for IBM

Corporate Experience with Innovation and Culture Change

- Learnings from a MasterClass with Companies Focused on Innovation—“It’s the culture, stupid”.
- IBM’s Culture Refresh—Preparing for New Business Challenges and New Ways of Working.
- Tools and techniques used to drive and guide culture change—e.g. Values Refresh, Change Leadership Training, Translating lofty values into behavioral actions.

General George Casey, 36th Chief of Staff of US Army ('07-'11) and Commanding General Multi National Force, Iraq, '04-'07

Military and Government Experience with Transformational Change Interventions—from Iraq and from Washington

- What do leaders do to drive transformation—Strategic reflections?
- Learnings from Iraq—Prepared for One Type of War, but Fighting a Different Type of War.
- Creating a New Budget Mindset: Working with the Washington Bureaucracy and Silos—Changing Processes, Knowhow, and Culture

1730 – Recap of Discussions – What did we learn, what do we need to consider for tomorrow’s discussion, and what are the major observations we want to communicate in our work?

1800 – Adjourn for the Day

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Day Three – Wednesday, March 14, 2018 – Room 100

0730 – Recap and Discussion of Day One and Two

0800 – 1030 – Open Session #5 - Facilitator: Ray Johns

This session will highlight specific challenges AF leadership must be willing to address and be responsible to support a sustained cultural change to an innovative and agile organization.

Dr. Danny Miller, Managing Director, CLR Leadership Development and Mr. Bill Boesch, President of CLR (VTC)

Mr. Matt Whiat, Barry-Wehmiller Leadership Institute

Gen Ray Johns (Ret) USAF

1030 – 1200 – Open Session #6 – Facilitator: Dr. Kevin Bowcutt

This session will explore high impact actions for the AF to adopt in a rapid and deliberate fashion now. It will also identify a framework for a more extensive study effort that will create a deeper cultural change for large, sustaining change within the Air Force. Presenter will discuss what and how plans were developed and executed to create sustained change across several generations of leaders.

Dr. Kevin Bowcutt

Mark Bonchek, Chief Epiphany Officer of Shift Thinking, Singularity University faculty

Exponential Innovation: Unleashing the Network Effect

What does it take to go beyond the incremental to the exponential? How can we unlearn outdated mental models and embrace new ways of thinking? How can we use network effects to go from the 10% to the 10X? What does it take to unleash the full potential of our organizations to innovate and lead?

Michael Hauser, Disruptive Innovation Lead, Boeing HorizonX

Disruptive Horizons

Boeing HorizonX was formed to do the things that our core business cannot or will not do on their own yet are within the strategic scope of Boeing. We are the company-wide disruptive innovation shop, and in this conversation will discuss why we exist, how and on-what we work, and what we've learned from our own and others' successes and failures.

1200 – Closing Comments from General Wilson and his departure

1215 – Recap of Discussions – What are the major observations we want to communicate in our workshop summary?

1300 – Adjourn