1. Purpose
This white paper introduces a concept to change Navy organizational culture into an innovative, intellectually agile institution. This paper examines current conditions, introduces an approach, identifies themes, and proposes actions to build momentum for the concept.

To reap the benefits of new ideas and leverage developments in new technology the Navy must transform existing processes, adopt new problem-solving techniques, and cultivate “art of the possible” thinking. This paper proposes a departure from linear thinking compatible with attrition style warfare toward a culture founded on innovative professionals that thrive in an information rich environment and are capable of exploiting the high ground they hold in the cognitive domain. To achieve this it is necessary to understand the complexities of military culture and why culture is important.

This concept seeks ways to succeed in future conflicts by fostering human problem-solving and decision-making skills that will prevail in rapidly evolving battlespace conditions. It is intended to set the stage for more detailed products, such as, functional and enabling concepts, concepts of operation (CONOPS), and doctrine. This concept will help decision makers see the effects of culture on capabilities and provide options to improve it. It is intended to assist resource sponsors, program managers, and acquisition professionals to make well-informed programmatic decisions across the doctrine, organization, training, materiel, leadership & education, personnel, facilities (DOTMLPF) spectrum that link strategic objectives with advanced capabilities.

2. Organizational Culture Defined
Organizational culture is defined as a pattern of shared basic assumptions invented, discovered, or developed by a group as it learns to cope with problems of external adaptation and internal integration that have worked well enough to be considered valid and are therefore taught to new members as the correct way to approach those problems.ii Said differently, it is the collection of values and norms that are shared by people and groups in an organization and that control the way they interact with each other and with stakeholders outside the organization.iii In short, organizational culture is the shared attitudes, values, goals, and practices that characterize the larger institution. It consists of deeply embedded beliefs, philosophies, attitudes, and operation norms.
Culture is different from climate. Culture refers to the environment of the institution and of major elements or communities within it; whereas, climate refers to the environment of units and organizations. The primary responsibility for culture rests with strategic leaders, whereas leaders at lower levels are responsible for the organizational climate of their units or organizations. Organizational leaders set the climate for the organization by what they focus on and what they regard as important. Climate is generally short-term: it depends on a network of the personalities in a small organization. Climates change with personalities, cultures outlast personalities.

3. Scope
The sociological character of a large organization is shaped by many factors, including the distinct traditions and heritage of its internal communities. To understand the overall culture, this concept examines peculiarities, strengths, and weaknesses of the Navy’s major communities. It looks at communities in the Navy in two categories, warfighting and non-warfighting; where platform operators through combatant command staffs are in the warfighting category and remaining organizations fall into the non-warfighter category. It also assesses the cultural characteristics across the hierarchy of personnel by subdividing them into junior enlisted (E1-E7), junior leaders (E8-O4), and senior leaders (O5-O10). A similar hierarchical approach will be used to examine Navy civilian government employee characteristics.

Cultural change is normally a slow process. For this reason the timeline chosen for this concept is an incremental campaign leading up to the year 2025. Acknowledging the importance of current requirements and budgetary constraints, this concept will focus first and foremost on near term enhancements that can have a growing impact on long term results that give us a competitive edge over adversaries. Thus, the scope of this concept will describe in broad terms, ways and means to upgrade the Navy’s workforce to more effectively meet strategic objectives. It seeks to build a fundamental understanding of the general characteristics of an innovative organization and how to capitalize on the creation of new ideas with specific application to the Navy.

4. The Military Problem
Mankind is in the midst of explosive leaps in the formulation of new ideas. The speed and reach of information systems have radically transformed the temporal and spatial dimensions of war. Enabled by the internet and social networks, previously unconnected ideas are being fused and transformed into reality at an astonishing rate. Despite this dynamic environment many areas within the Navy eview a certain lethargy of mind, cynicism, and risk aversive behavior. To exploit the era’s rich atmosphere of innovation and prepare for challenges in future conflicts, Navy must energize and leverage the ingenuity of it’s workforce. It must transform and re Focus the perception of uniformed members from a response-oriented labor pool into a cadre of idea generating, dedicated professionals.

Confusion induced by information saturation is a daunting challenge. Yet despite the unique attributes of military problems in modern warfare, in many ways they are age old problems. As Carl Von Clausewitz noted long ago:
“War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty. A sensitive and discriminating judgment is called for; a skilled intelligence to scent out the truth.”

Clausewitz further proclaims, “During an operation decisions have usually to made at once: there may be not time to review the situation or even think it through.”

To cut through this enduring problem requires enhanced intellectual faculties. Clausewitz suggests that for a mind to emerge triumphant from the relentless struggle with the unforeseen requires coup d’oeil, determination, and presence of mind. A linear-oriented, unimaginative mentality makes it especially difficult to anticipate and adjust to environmental changes. Bound by this state of mind, significant deviations from normal conditions or “black swan” events can have a dangerous, cascading effect on decision making acuity. Hence, Navy must break free from over-reliance upon technical processes and structures and nurture the spark of genius in individuals so that they may rise above minimum acceptable standards and confront complexity with élan.

To tackle this problem it’s important to acknowledge the intransigent nature of the problem. Even when circumstances change systems tend to remain. Mankind is more inclined to create new systems than change or eliminating existing ones. Sociologist Robert K. Merton coined the term “goal displacement” to describe what happens when complying with bureaucratic processes becomes the objective rather than big-picture organizational goals. Slavish compliance to rules and procedures soon stifle innovation and free spirits and open the door for cynicism. The only way to break free from a descent into lethargy is through the application of decisive leadership.

In this light, this concept establishes lanes, guideposts, and propellants that will set in motion the conditions for a new Navy culture. Markers and shoals that lay ahead include:

- Focus on the purpose for which a system was created over the processes and procedures of the system.
- Simple cause-and-effect relationships are insufficient to understand or explain a complex social system. Patterns over time and feedback loops are a better way to think about the dynamics of complex systems.
- Think in terms of synthesis over analysis; the whole over the parts.
- Busyness and excessive focus on short term gains interferes with our ability to use a systems approach.

The U.S. military confronted a similar challenge in the early 1800s when it became entrapped in a culture of technical learning at the expense of other military characteristics. Samuel Huntington describes the effects of technicism: “The Army officer was frequently more engineering-minded than military-minded, and the naval officer more seamanship-minded than naval-minded.” In the words of Williamson Murray what makes “techno-craze so dangerous is that it flies in the

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1 Clausewitz defines coup d’oeil as “the rapid discovery of a truth which to the ordinary mind is either not visible at all or only becomes so after long examination and reflection.”

2 A “black swan” is an event that is unexpected, has an extreme impact, yet seems predictable by explanations after the fact.
One reason is that the problems themselves are so immense that their solution will require all of the organizations' competitive energies; another is that the face of the competitive "enemy" has changed: It is the problem itself, rather than, in the first instance, another company or industry." - Robert Merton

To pursue a more innovative culture it is necessary to understand the characteristics of innovation and what fuels it. The ultimate example of innovativeness is the evolution of life. Where, as Charles Darwin theorized, the natural selection of species is due to continual exploration of adjacent possibilities. This then helps understand what environments are most conducive to innovation. Environments that expose a wide variety of pre-existing spare parts - mechanical or conceptual - and encourage the recombination of spare parts in new ways. The most fertile zone of innovation is the seam between order and chaos; where allowance is granted for meandering and tinkering. Furthermore, after the right conditions are in place a system is needed that captures hunches, but doesn’t bin them into categories which can create barriers between disparate ideas and allows time to nurture and shake out hunches.

New ideas cannot be forced, but can be induced and caught by a prepared mind. Serendipity thrives on random collisions, but must be anchored on a preconceived inadequacy. Exposure to broad unrelated subjects, such as reading a variety of books simultaneously can generate new ideas. The recombination of previous ideas in light of a new challenge can cause innovative connections. The movement of an idea from one context to another allows for the tools of one discipline to solve the problems of another discipline. “The secret to organizational inspiration is to build information networks that allow hunches to persist and disperse and recombine.”

Negative factors such as crises or errors can also be conducive to innovation. Hostile or urgent conditions drive up the pressure to innovate due to new levels of risk tolerance. World War II unleashed an avalanche of new ideas on the frontlines and in laboratories. Similarly, faulty assumptions or errors also accelerate innovation. As eloquently stated by author William James, “Error is needed to set off the truth, much as a dark background is required for exhibiting the brightness of a picture.” Hence, errors or mistakes tend to promote the pursuit of alternative paths that lead beyond comfortable assumptions and force exploration.

5. Central Idea

To energize a spirit of creativity and innovation the Navy needs top-down advocacy that sets expectations and unfolds new charts for future Sea Warriors. Viewed as one of the Nation’s most formidable “weapons”, the enterprising nature and resourcefulness of the American people must be sharpened and fully exploited in the information era. This concept aims to establish a culture of innovative professionals, an environment conducive to the creation of agile leaders who can anticipate and thrive in chaotic conditions. This is to be accomplished by encouraging a culture
of pragmatic innovation that leverages the American spirit of ingenuity and forges it into a sharp-edged sword that can be wielded to maintain security or win battles. The concept proposes that Navy must reshape itself into a continuous learning organization. It provides structural and procedural reforms to facilitate the growth of those human qualities vital for success in the information age. It also proposes ways to incentivize and reward exceptional innovative performance. This reformation also addresses ways to break free from the constraints of the current culture. It recommends ways to stimulate and support rigorous debate, scorn mediocrity, and marginalize risk-averse behavior. Most significantly, it breaks the paradigm of innovation as an institutional process, and instead characterizes it as an implied task of leadership.

In the volatile and ambiguous environment we are likely to face for the foreseeable future, the preeminent advantage that should be pursued is to be superior in the art of learning and adaptation. A culture of innovation is typified by an organizational context within which every single person in the organization is invested in the organization’s success and feels a responsibility to implement new and better ways to achieve organizational objectives. People are encouraged to try alternative paths, test ideas to the point of failure, and learn from the experience. Experimentation and prudent risk taking are admired and encouraged.xii

To succeed in future wars where information is exchanged around the globe virtually instantaneously Navy leaders will need rapid decision making capabilities. Speed of decision is essential to gaining and maintaining the initiative. Initiative enables the force that holds it to dictate the context of battle on terms it deems most favorable to itself and its ends. By generating a higher operational tempo through superior speed of decision, a smaller and quantitatively inferior force can wrest the initiative from an otherwise dominant adversary and dictate the terms of engagement. Speed in war is relative to that of the enemy, so to disrupt enemy cohesion a tempo is needed that is faster than the adversary can cope. Decentralized decision making at the tactical edge is inherently faster and more dexterous than that of remote centralized decision authorities, especially in geographically dispersed and complex environments.

The predominant enabling characteristic of decision making in the face of uncertainty is mental agility. Mental agility has two supporting attributes: the ability to learn rapidly and coup d’oeil. Agile leaders are “critical thinkers who examine problems carefully and make fresh connections with relative ease. A strategic military leader must therefore have the “mental and emotional capacity to cope with the stress and strain of war.” Crucial decisions have to be made under “conditions of enormous stress, when noise, fatigue, lack of sleep, poor food, and grinding responsibility add their quotas to the ever-present threat of total annihilation.” Leaders must be able to cope effectively with adversity and pressure, and retain concentration in the face of many potential distractions. It is that calm courage in the midst of tumult, that serenity of soul in danger, which is the greatest gift of nature for command.xiii

To cultivate the benefits of innovative leaders in the art of war requires a compatible command and control process. A command and control method that has proven to be effective for rapid decision making is mission command. Mission command is decentralized decision makers acting in accord with commander intent. Marine Corps Doctrinal Publication 6 summarizes:
Mission command and control offers the flexibility to deal with rapidly changing situations and to exploit fleeting windows of opportunity. It provides for the degree of cooperation necessary to achieve harmony of effort yet gives commanders at all levels the latitude to act with initiative and boldness.

Through the exercise of mission command, commanders give subordinates wide latitude to accomplish missions, enabling them to creatively adapt capabilities and talents to meet the task. Within this construct subordinates are expected to exercise dutiful initiative and tailor the actions of their unit to conform with and assist in achieving the senior’s wider purpose.

The desired end state of this concept is a professional force honed and forged in the art of war; a human-centric force capable of rapidly adjusting to meet future challenges and continuously exploring new ways to gain a decisive edge over potential adversaries. To do this the Navy must educate, better yet, arm its leaders with intellectual methods to deal with new realities, and compel them to breakout from their acclimatized low-risk comfort zones.

6. Supporting Ideas
Leadership is the key to implementing cultural change. The Navy defines leadership as “the art of influencing people to progress towards the accomplishment of a specific goal.” Leadership is the ability to move an individual or group toward an objective. With its unique role in armed conflict, military organizational leadership can be divided into two categories, warfighting and non-warfighting. In the context of warfighting, the ability to inspire and guide individuals is a critical leadership skill. In the context of a large non-warfighting organization leaders are often characterized by how effectively they interact with bureaucracies and other organizations. Common to all types of leadership is the responsibility for decision making. Decision making founded on knowledge is optimum, yet in chaotic environments experience-based intuition has an important role. To alter the culture will require enhanced leadership competencies at all levels. Senior leaders must set expectations and empower subordinates to promote conditions favorable for cultural change to take root.

Navy bureaucracy is entangled in a fastidious pursuit of solutions to an expansive list of problems. Sociologist Robert Merton asserts that all organizations are governed by “the iron law.” That is, they are susceptible to the natural migration toward rule by oligarchy. It may be time to step back and see the panorama of challenges as an opportunity to enlist the spirit of American ingenuity to gain advantages on a grander scale. Merton goes on to smartly capture the role of leadership in a complex organizational landscape:

“Leadership is not so much an attribute of individuals as it is a social transaction between leader and led... Leaders assist their associates in achieving personal goal by contributing to organizational goals. In exchange they receive the basic coin of effective leadership: trust, confidence, and respect.” “What instills confidence between superior and subordinate is joint commitment: commitment to one another and to agreed-upon organizational goals.”

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3 The Navy Leadership Competency Model consists of five core competencies: Accomplishing Mission, Leading People, Leading Change, Working with People, and Resource Stewardship.
4 The iron law was introduced by Robert Michels in 1915
Realizing the desired end state will take years of consistent influence and commitment. Thus a campaign is required to guide and focus activities and to sustain efforts that lead to an environment of innovation across the Navy. It will include a series of events with realistic objectives and measures of effect that enable senior leadership to track progress and implement adjustments. Conducted to facilitate the free exchange ideas among experts from communities within and beyond the Navy, the campaign will stimulate and align innovation to improve mission effectiveness. In addition to forums, the plan will use new ways to facilitate collaboration through social media virtual networks. Finally, the plan will coordinate a strategic communication plan that broadly exposes current events and an awareness of roles and expertise resident in organizations across the Navy.

Methods for harvesting and harnessing good ideas must be available and visible to innovators and their organizations. Submitting new ideas for evaluation and transforming them into real capabilities must be simple and swift. It should include ways to develop ideas into concepts through collaboration among people with diverse perspectives and skills. Methods for vetting innovative solutions should include venues that expose the idea to subject matter experts, and practitioners who can test a theory through workshops, wargames, laboratory experiments, prototyping, and testing in the Fleet to determine its validity.

Determinations must be made on the appropriate curricula throughout the Navy education continuum to ensure innovation is understood and effective techniques are taught to channel it. This should include enlisted technical training, leadership training, the Naval Academy, ROTC, officer entry level education and throughout their career progression, Naval War College, Naval Postgraduate School, and others.

“By training, discipline and consideration of the men’s welfare, the commander obtains fighting strength – a strength so great that it will take its toll against an opposing force superior in numbers or equipment.” – War Instructions, CINCUSFLEET 1944

Industrial age culture continues to permeate Navy training and education. Locked into a self-perpetuating cycle Navy is remiss to develop adaptive leaders and institutions. Change must begin with the application of a new leader development model that produces rugged adaptive thinkers. This will require a range of continuous education that prepares leaders to embrace change and shape the future force, namely:

- Strategic leaders must change counterproductive long-established beliefs including regulations and policies based on out-of-date assumptions.
- Leaders must drive and sustain a cultural evolution through effective education and training of the next generation of leaders in a system flexible enough to evolve with changes in, and lessons from, war, society and technology.
- Senior leaders must nurture and protect younger leaders as they explore and put into practice new ways and means of operating.xvii

An integral component of any culture is its promotion system. The current Navy career system is skewed in favor of conformists and against innovators. It rewards short term success, is
intolerant of mistakes, and lacks advancement paths for bold thinkers. Any attempt to create a
more innovative workforce must include modifications to career metrics and milestones - such as
fitness reports and selection boards - so that the Navy of the future is headed by leaders that have
been promoted, in part, due to their agile-minded, innovative qualities.

7. Conclusion and Way Ahead
In order for Navy to become a “learning organization” where leaders practice innovation it will
have to change its culture, particularly its leader development paradigm. A concept, fuelled by a
robust strategic communication plan and progressive actions, is needed to clarify the way
forward for leveraging the intellectual capital of Navy personnel. It should seek to:

- Elevate initiative and innovation as a core leadership attribute
- Deeply ingrain the Navy ethos and an indomitable spirit in all members
- Promote mental agility and develop rapid decision making skills

As Navy lead for concepts and doctrine NWDC is well positioned to spark the implementation of
cultural improvements by ensuring concepts and doctrine include language to guide the change.
Moreover, NWDC can spearhead a revision of the concept generation concept development
process to include a flag officer general board that provides advocacy and aligns initiatives that
set the conditions for innovation. NWDC should press ahead with plans for an innovation
campaign that will link and build upon related activities. It will include a series of forums to pull
together experts within and without the naval community to exchange ideas, and describe and
prioritize desired capabilities. Forums in 2012 that will be led or supported by NWDC include:

- March: Maritime Innovation Symposium, Norfolk
- May: Joint Coalition Warfighter Conference, Virginia Beach
- August: Maritime Industry Day, Norfolk

In addition to Navy forums, NWDC should lead participation in and the shaping of other
Service, Joint, and Coalition innovation events, such as:

- Academia workshops (NPS, NWC, NDU, JFSC, etc)
- Army TRADOC Unified Quest campaign
- US Coast Guard Innovation summits
- US Marine Corps, MCCDC events
- NATO, Supreme Allied Command Transformation concept and experiment events
- Joint Staff, JCW CD&E events
- NASA Research Centers, and other Government Departments and Agencies

This white paper outlines challenges that summon broad organizational changes. It serves as a
clarion to raise awareness and rally support to address challenges holistically. The follow-on
concept will provide detailed analyses of problems and propose solutions across the DOTMLPF
spectrum to achieve the desired end state.
8. Endnotes

i War Instructions Nov 1944, CINCUSFLEET ADM King


iv Carl Von Clausewitz, *On War*

v Leadership and Systems Thinking, Col. George Reed, in Defense AT&L, May-June 2006

vi Leadership and Systems Thinking, Col. George Reed, in Defense AT&L, May-June 2006

vii Samuel Huntington, *The Soldier and the State*


x Ibid. Johnson

xi Ibid. Johnson

xii “Adapt or Die” by Brigadier General David Fastabend

xiii Strategic Military Leaders–Leading Tomorrow, Colonel Ng Wai Kit Singapore Army, USAWC 2008

xiv US Marine Corps Doctrinal Publication 6, 1996

xv Corbett, Art, Col, USMC (ret) Mission Command (working papers)

xvi Robert Merton, "The Ambivalence of Organizational Leaders"

xvii Donald E. Vandergrift, *Raising the Bar*