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Communities' Strategic Opportunities Through
Broken Window Repair and Global Commons Improvements

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Communities' Strategic Opportunities Through Broken Window Repair and Global Commons Improvements

ABSTRACT/OVERVIEW

The recent years have had many fiscal oscillations and adjustments for many organizations worldwide. There has also been increased interest and application of several styles and types of intervention interactions whether in the style of counter-insurgency techniques, or of some policing methods and techniques, employed internationally. Noting that a shortage of resources/funding has an impact, calls to mind the phrase 'with no money, we must think.' When considering the recent financial oscillations this insight should be interpreted to mean that true creativity must be sought and applied, when finding solutions and the balance between ways, means, and will. This was highlighted in a recent speech by Secretary Hagel outlining six Defense priorities: institutional reform; adjustments to force planning precepts; facing military readiness challenges; protecting military capabilities investments; organizational balance; and, personnel and compensation policy considerations. These priorities offer the starting framework for discussing them via the 'broken window repair' strategy and the possible linkage to management of the world's global commons. All of these factors and criteria are subject to: learning from past experiences; application of operations and management lessons; and, research regarding the direct and indirect implications of any proposed changes. These changes may be parochial or local, or even associated with the global commons as related to the organizations, communities, and individuals of the world community. Importantly, the framework of focus areas must be examined, discussed, and analyzed, even extended to other organizations and groups – in short, deeply and thoroughly thought about without or with money. Even to the point of adding the population as a new global common.

INTRODUCTION – OUTLINE DISCUSSION

A recent history review of countries' and organizations' financial balance sheets and restructurings can be interpreted to show that there have been many financial oscillations and adjustments, as well as economic impacts for national, international, and business financial and economic health. Some individuals will say that 'no adjustments are needed', some will say that everything should be restarted from scratch, others will say that only some adjustments need to be made. Yet the underlying factors seem to be a style of mismatch between the resources available and the ways, means, and organizational 'will', strength of character, involved with establishing the balance between these adaptation factors for an agile organization.

Both Sir Winston Churchill and Ernest Rutherford are attributed with the comment (or a variation): "Gentlemen, we have run out of money; now we have to think". (Farrell, 2011) While this seems rather simplistic, it does focus on a quite interesting aspect of finding solutions to problems and circumstances. Particularly, that creativity could be applied or utilized, compared to just applying funds to the problem for generating a solution. Even for example, thinking about the problem from a wholly different perspective to attempt to find a different solution, such as enquiring of the diverse workforce for suggestions; considering possible counter insurgency style mitigation approaches;

> Utilizing the six priorities to support the Global Commons and applying broken window repair analysis for understanding the strategic opportunities

or, translating the 'broken window philosophy' of police and community action onto a larger arena and stage; the alternate approaches might reveal a completely new opportunities and solutions.

Secretary Hagel, has opened this style of approach with his speech at the Center for Strategic and International Studies Global Security Forum (Hagel, 2013) where he identified six priorities, areas of focus: continue to focus on institutional reform; re-evaluate our military's force planning construct; preparing for a prolonged military readiness challenge; protecting investments in emerging military capabilities; balance; and, personnel and compensation policy. While these are the Department of Defense foci, they can also be transferred/applied to the other departments, organizations, and international actors' organizations. Variations on these focus points have foreshadowed this set of six; or, even grouped them differently, depending on the audience at the time.

The author will start with these focus points to discuss some factors, methods and styles for managing the framework factors and the impacts and on organizations' (military and civilian) adjustments and plans for future flexibility and agility based on experience, history, and lessons learned. Lessons learned both locally and within the global commons through emergent strategic opportunities, whether emerging from the direct or indirect implications of changes and adjustments through decisions and responses to the environment.

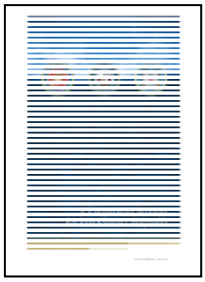
OF GLOBAL COMMONS AND BROKEN WINDOWS THEORY/POLICING (GCs & BWT/P)

Prior to working through Secretary of Defense's (Sec Def's) six foci for the rest of government and other organizations, the additional terms: 'global commons' and 'broken windows theory/policing' will be summarized for use and understanding within the remainder of this paper.

> "The 'Global Commons' refers to resource domains or areas that lie outside of the political reach of any one nations State. Thus international law identifies four global commons namely: the High Seas, the Atmosphere, Antarctica, and, Outer Space. These areas have historically bee guided by the principle of the common heritage of humankind – the open access doctrine or the *mare liberum (free sea for everyone)*." (UNEP, 2013) ". . . the Internet, World Wide Web and resulting cyberspace are often referred to as global commons." (Raymond, 2012)

These regimes have been discussed in detail and in their abstract in other venues. They are considered resources which must be managed individually and collectively. There are a number of international law agreements associated with some of the regimes, each with varying enforcement tools and methods which are beyond the basic scope of this paper.

Some readers may be thankful for this introductory review, as a certain amount of confusion could emerge with the concept of common intent. Common intent is related to the overarching objective or alliance outcome which assists in bringing groups, organizations, and individuals into associated groupings, such as small world networks to work together and subordinate aspects of differences, while supporting a more senior or higher objective.



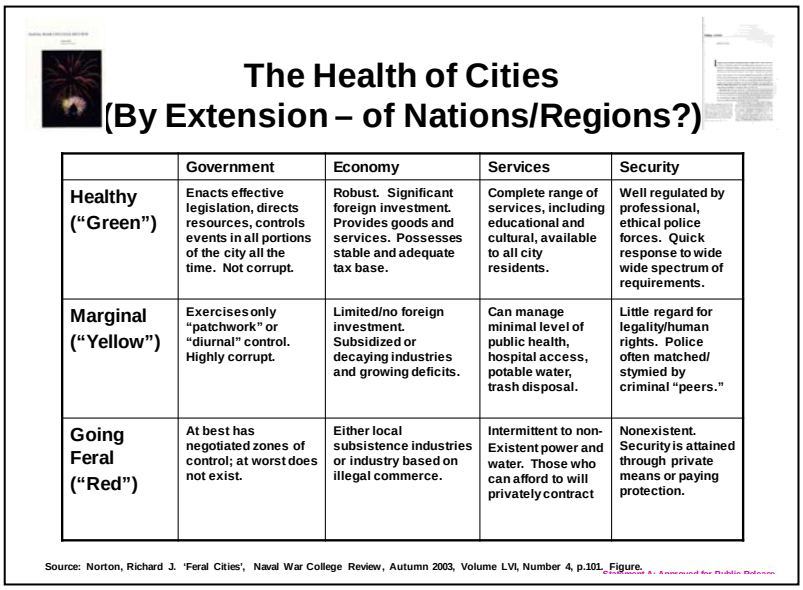
The grouping of organizations is noted with former Chief of Naval Operations (CNO) Mullen's international proposal for a 'thousand ship navy' as an international force (NWC, 2005), which through dialogue (international and national) became 'A Cooperative Strategy for 21st Century Seapower'. (CS21CS, 2007) [This was issued when Admiral Mullen was Chairman of the Joint Chiefs of Staff (CJCS), by the then

Commandant of the Marine Corps (CMC), CNO, and Commandant of the Coast Guard (CCG).] This strategy proposed that all nations contribute naval capability in their individual capacity to protect the oceans' global commons character for the benefit of all nations and groups who are the users of the oceans and seas, whether as merchants with goods, cargo carriers, or resource recovery entities, to be governed under various international agreements. While this shift took several years, this can be viewed as the long term fulfillment of a discussion initiated by Alfred Thayer Mahan in the late 1800's. While Mahan wrote 'The Influence of Sea Power Upon History 1660-1783' (Mahan, 1892), as an analysis of English Naval history, the intent and purpose was to promote the importance of a U.S. Navy as a potential force for ensuring the safety of the open sea (global common) for the conduct of commerce by a nation or the world community of nations. This linkage of the CS21CS (2007) back to Mahan demonstrates that there must be long term, as well as short term, efforts for achieving outcomes and goals.

Some readers may have come across the term or philosophy of 'broken windows policing/theory' (BWT/P) associated with community police forces as part of local government. Quoting the original authors relating police allocation within the community and responsiveness:

> " . . .the best the police can do with limited resources is respond to the enormous number of calls for service. Other neighborhoods are so stable and serene as to make foot patrol unnecessary. The key is to identify *neighborhoods at the tipping point*-where the public order is deteriorating but not unreclaimable, where the streets are used frequently but by apprehensive people, where a window is likely to be broken at any time, and must quickly be fixed if all are not to be shattered." (emphasis added) (Kelling and Wilson, 1982)

An important phrase in this quote is 'neighborhoods at the tipping point', which can also mean communities, cities, or regions – detailed information is required to act. While the theory/policy as introduced was associated with the local jurisdictions/governments, it fits with the framework of failed vs. successful cities/communities discussed by Norton (2003) and shown in Figure 1. It also is extensible to larger groups, such as the community of nations of the world, or the communities of groups respecting the rule of law on the small and large stages of jurisdiction – from the local town/city, to the national, and international courts. Thus the extended BWT/P also is related to the failure/success of cities – representing an evaluation metric of whether an organization structure works or does not work, and thus can be measured, adjusted, and tracked for success/failure and adjustment on a cyclic basis.



The Health of Cities (By Extension – of Nations/Regions?)

	Government	Economy	Services	Security
Healthy ("Green")	Enacts effective legislation, directs resources, controls events in all portions of the city all the time. Not corrupt.	Robust. Significant foreign investment. Provides goods and services. Possesses stable and adequate tax base.	Complete range of services, including educational and cultural, available to all city residents.	Well regulated by professional, ethical police forces. Quick response to wide wide spectrum of requirements.
Marginal ("Yellow")	Exercises only "patchwork" or "diurnal" control. Highly corrupt.	Limited/no foreign investment. Subsidized or decaying industries and growing deficits.	Can manage minimal level of public health, hospital access, potable water, trash disposal.	Little regard for legality/human rights. Police often matched/ stymied by criminal "peers."
Going Feral ("Red")	At best has negotiated zones of control; at worst does not exist.	Either local subsistence industries or industry based on illegal commerce.	Intermittent to non-Existent power and water. Those who can afford to will privately contract	Nonexistent. Security is attained through private means or paying protection.

Source: Norton, Richard J. 'Feral Cities', Naval War College Review, Autumn 2003, Volume LVI, Number 4, p.101. Figure.

Figure 1 – The Health of Cities (By Extension – of Nations/Regions

There must be the ability to drill down from the top most to the lowest element contributing to the chain of effects and engagement methods contributing to success, maintenance of a common intent, the potential for support of a global common is one of the important points of BWT/P analysis in its approach of detailed analysis, then action plans, execution, and monitoring. The analysis details are critically important.

It takes getting down to the small details of the areas of the DoD focus areas. The analysis of contributions and costs must also take place beyond the regime of DoD, it must be applied through all the supporting and contributing government, non-government, and community organizations which contribute effects in small world networks and large community of interest networks.

With that introduction and linkage discussion, some readers may be a bit more familiar with these two terms of reference and concepts so there can be some understandings arise through their use while working through the six foci of Sec Def's CSIS speech (Hagel, 2013). This introduction may help with the emerging national discussion and analysis, which also flows from the Strategic Choices and Management Review (SCMR) discussion of 31 July 2013 (SCMR, 2013) and Sec Def's speech to the Veterans of Foreign Wars (VFW) at Louisville, KY on 22 July 2013 (Weisgerber, 2013), both events' comments foreshadowed portions of the six foci which will be examined within the next section and sub-sections for extension across more groups, and connection to the world community of peoples. Some individuals will not accept, let alone understand the concepts introduced; or for that matter even consider them important, the emerging discussion and analyses are considered important for the resulting details, norms, and actions.

SIX FOCI – THE RADAR OF REFORM, PLANNING, READINESS, CAPABILITIES, BALANCE, AND POLICY (RP-RC-BP)

There have been precursor statements studies, and speeches prior to Sec Def's introduction of his six foci. The points and areas were partly included within his VFW speech (ibid). The press briefing of SCMR (2013) output and general scenarios provided some foreshadowing of the foci and their components. Also, General Shelton, Commander, Air Force Space Command in speaking to George Washington University students 7 Jan 2014 (Garamone, 2014), stated:

> "Space is fundamental to the economy, the military and the way of life in the United States and officials must continue to guard against challenges in the domain from adversaries."

This provides some sense of the need for unfettered access and protection of space as a global common, which underwrites and supports many other activities and services for the communities of the world population. So this leads a reader to wonder: What are some of the potential details of, and implications to be drawn from the six focus areas as starting points for discussion and detailed analysis? Not only are the implications worthwhile for consideration, but the resource related comments of: "Gentlemen, we have run out of money; now we have to think", and "We've got no money, so we've got to think" (attributed to Sir Winston Churchill and Sir Ernest Rutherford respectively (Farrell, 2011)), truly is reflected by the projected analyses resulting from the six foci with the associated current funding shifts, realignments, and constraints, which are and have been present for the last several years within many organizations besides those of the U.S. Government.

With that preliminary, the next three sub-sections will work through the six foci in pairs. Why pairs?, one is correct to question. A reason is the actual speech phrasing employed within the speech, which has some implications in conjunction with the actual focus areas citied.

Thus the reader is provided some structure and factors which support the use of these six foci as launching points for analysis of options and linkages. The foci are not the only framework which could be used for analysis. The U.S. DoD has also used, and is using

DOTML-PF, PMESII, and DIME [1] as evaluation frameworks. Yet there may be others, or adjustments to all four (six foci, DOTML-PF, PMESII, and DIME), which can be translated/transitioned/utilized by other government, non-government, or international government organizations; to link and order goals and frameworks with others' sets of goals and frameworks., while finding opportunities for synergistic gains, reductions of duplication, and mitigation of group and individual risks and vulnerabilities, while providing positive contributions to linked efforts and goals.

FOCI OF INSTITUTIONAL REFORM (R) AND FORCE PLANNING (P) AXES

The leading pair of Sec Def's foci are those of reform (R) and planning (P), our first two initials. They are introduced in the imperative with 'will', emphasizing the intent to execute the action. The foci are: R: "we will continue to focus on institutional reform" (Hagel, 2013); and, P: "we will re-evaluate our military's force planning construct . . .". (Ibid)

While presented as two separate points and statements, they are not completely independent. Changing an organization or institution is not a simple task and is not independent of outside forces and pressures. The same is true for how an organization looks at the outside environment to attempt to fathom the challenges, opportunities, mitigation of current short comings, and financial planning which will require changes to the organization. Literally, institutional and organizational change are dependant on and predicated on the people of the organization, their training and education, along with the items and materiel which must be on hand for them to interact with the outside environment. Of note, the equipment and concepts for the future organization must be developed and produced in parallel, as well as with the future users. The equipment, concepts for organizations, and the future users must co-evolve together. This makes for an execution and prediction task which can be considered a 'wicked problem'.

Figure 2 – EDS Squirrels – Metaphor for Agility-Nimbleness-Adaptability

While these two foci have been introduced regarding the military, their general thrust is not limited to the military. Any organization (institution) hopefully is aware of its customers, suppliers, and outside challenges with the associated influences. If the organization is to continue with any prospect of longevity, it must adapt, grow, adjust, re-invent, and have some sort of internal revolution mechanism for that survival. To not have a version of this type of quality opens the door to the possible loss of the survival struggle. That struggle is one of several themes presented by Christensen, in 'The Innovator's Dilemma'(Christensen, 1997, 2003); and, is also one of the points of Electronic Data Systems' (EDS') 'Running of the Squirrels' advertisement (EDS, 2001) (See Figure 2 for image from the advertisement); that one of the characteristics of survival is the attribute, the ability to be adaptive, to be quick and

[1] DOMTML-PF, PMESII, and DIME are: Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities; Political, Military, Economic, Social, Infrastructure, and Information; and, Diplomatic, Information, Military, and Economic

nimble. Or, stated differently, survival is partly based on being agile and responsive to emerging opportunities and challenges.

This is not to say that a successful organization must change everything. It is more to imply that in some aspects the successful organization must make astute changes in response to the circumstances and immediate environment. That the changes are not executed at the expense of the organization's long term and larger environment/world of interactions, implications, and responsibilities for the sake of its near or short term interactions, implications, and responsibilities.

To have institutional reform requires individuals and organizations which are able to change and adapt, to change course, to seize the emergent opportunity while the swirl of events is proceeding in the here-and-now of the circumstances and conditions (Focus #1). That quality is also predicated on how the group (military or some other group) is organized, trained, and developed, as well as resourced, based on prior and current planning and prediction efforts (Focus #2).

While the recent attention to these two foci have been demonstrated by the many groups making adjustments alongside the military in southwest Asia. The re-emergence of counter insurgency (COIN) strategies, as an organizational construct (teaming special operations with conventional forces) and locale adaptations, shows that the military as a group could change based on some assessments and analysis of the local environment. This is not to say that COIN is to be the only 'tool in the kit' of responses, yet is does offer that others will see and adopt some of the demonstrated characteristics, applying and adapting them to and within their own constraints and circumstances. This is not a new concept, and is manifested by the pursuit of "creative swiping" discussed by Tom Peters in 'Thriving on Chaos (Peters, 1991), along with building on others' initial innovations as a contribution to the solution (with other cumulative solution pieces), and also discussed by Christensen (1997, 2003) in 'The Innovator's Dilemma'. Change just for change sake offers no particular return on investment, the organization must be prepared and ready for opportunities from a wide spectrum of options and contingency circumstance which may come along. Then, as the opportunity emerges, at that point the impetus for making re-organization decisions for: composition, teaming, and structure (such as adaptive force packaging capability), forces some action. The organization can then decide to make the needed changes. The organization should not make structure changes that would limit unnecessarily the possible scenarios which will be considered in the future.

This is an important aspect of value stream analysis and optimization. If sections of the value stream are over optimized, or optimized without considerations of up and down stream impacts and limitations, than certain solutions and options are taken off the table. Such decisions may make on organization unable to respond to the environment and circumstances encountered.

The BWT/P (Kelling and Wilson, 1982), Peters (1991), and Christensen (1997,2003), all emphasize and rely on detailed, continuing analyses for evaluation of the contributions of internal organization structure, products, and processes for the value added to the goals, objectives, and missions, to allocate all available resources toward the highest rate of return for: products, capabilities, and readiness to respond. Maybe the solution for the organization structure would be built from a compilation of flat mission order style teams and other groups, which are able to respond and grasp the emergent opportunities when they are encountered in the haze of uncertainty and events. This capacity and capability must not only be in the military organizations during the fog of conflict, but within all groups and organizations during all conditions and circumstances.

Returning to Sec Def Hagel's initial two foci, part of the stated outcomes and objectives of these focus areas include: 1) the military goal of "not only to direct more . . . resources to real military capabilities and readiness, but to make organizations flatter and more responsive . . ." (Hagel, 2013); and, 2) "that contingency scenarios drive structure decision, and not the other way." (Ibid) These statements of intent must apply not only across all government teams and groups, but also across the extended team of partners, national/international groups and organizations with their memberships, not only of the military groups, but all the collective groups.

The ability to shift and adopt has parallels in other disciplines and discussions, such as fluids/heat transfer regimes; the four Perrow quadrants of organizational response discussed within 'Coping with the Bounds – Speculations on Nonlinearity in Military Affairs', Ch 7 (Czerwinski, 1998); and the related organizational group self-organizing/re-organizing characteristics also being explored through the ELICIT [2] study community within CCRP. The four quadrants from Perrow seem to eventually have become those used to communicate the shifting organizational needs and ranges of authority capabilities. While Perrow's display utilizes interactions (Linear – Complex) and coupling (Loose – Tight), the QDR utilizes vulnerability (Lower - Higher) and likelihood (Lower - Higher). Within the DoD Quadrennial Defense Review (QDR, 2006), this framework is evoked as regarding the range of uncertainty and types of challenges to be confronted, displayed here as Figure 3. An analysis of the DoD framework is discussed by M. Flourney in 'Did the Pentagon Get the Quadrennial Defense Review Right?' (Flourney, 2006). The summary of that analysis is displayed here as Figure 4. These images represent possible additional evaluation frameworks, which, along with DOTML-PF, PMESII, and DIME, opening the way for the granular, detailed analyses and evaluations required and underlying the BWT/P framework. The devil is in the details. These additional frameworks partly introduce the middle pair of Sec Def Hagel's foci in the next sub-section – readiness and capabilities.

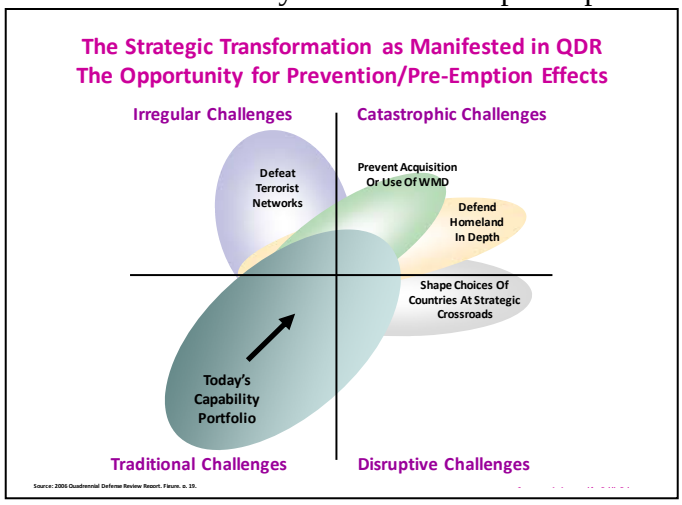


Figure 3 – Shifting Capabilities for Emerging Challenges

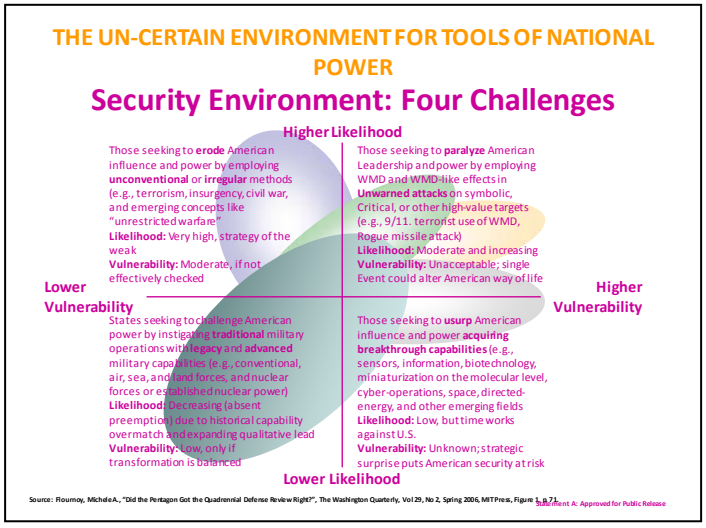


Figure 4 – Security Environment : Four Challenges ? Perrow's Quads

FOCI OF READINESS (R) CHALLENGE AND EMERGING CAPABILITIES (C) AXES

[2] ELICIT – **E**xperimental **L**aboratory for the **I**nvestigation of **C**ollaboration, **I**nformation-sharing, and **T**rust.– For some background regarding ELICIT see the CCRP website: http://www.dodccrp.org/html4/elicit.html.

The central pair of Sec Def Hagel's foci are those of readiness (R) and capabilities (C), our second two initials. They are introduced with 'will be', indicating a supposed shift, desire, or intent; an act to be completed in the future. The middle foci are: R) "will be preparing for a prolonged military readiness challenge" (Hagel, 2013); and, C) "will be protecting investments in emerging military capabilities . . ." (Ibid).

In truth these two foci are not for the future, but are already ongoing in the present, as they represent a continuing assessment of resources, plans, and risks, associated with the ever continuing transition from the current state or condition to any of the future states (both near term and long term), including that future state occasionally referred to as the ultimate objective or goal of some indistinct future point. That ultimate goal or objective could also be expressed as a style of capability or capacity, such as the adaptability and agility, researched and discussed within the CCRP community in Atkinson and Moffat's 'The Agile Organization' (Atkinson & Moffat, 2005) and the ongoing research with the volumetric 'organization maturity/agility model', the 'C2 Approach Space', initially introduced in 'Understanding Command and Control' (Alberts & Hayes, 2006). (Figure 5 shows this volume display.) That from these images maybe an ultimate goal should be establishing that the individuals and organizations have and execute the capability and capacity to adjust and adapt, to be continuously ready to change and respond.

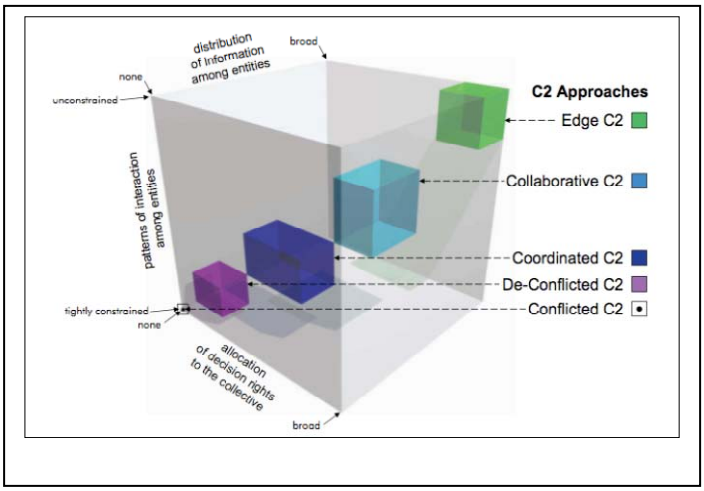


Figure 5 – Positions of Decision/Leadership Styles

Readiness requires dedication of resources (finance, personnel, and material), the success of commerce, along with the success of the other government, commercial, and demographic groups. That success can then allow allocation of resources, whether financial, or a ready and capable workforce, with a recruiting pool, which is educated, capable, and understanding. The likely inevitable struggle between the groups and organizations can be partly demonstrated with the iron or tortured triangle (shown in Figure 6, from Schnoll, 1996), which places a leader of some organization within a 'matrix, network' of other competing and compelling organizations, influences, and objectives of those groups. When those components of the matrix are in discord or dissonance, then return on investments are literally less than optimal in many aspects and assessments. The value stream analysis and allocation of resources, means, and

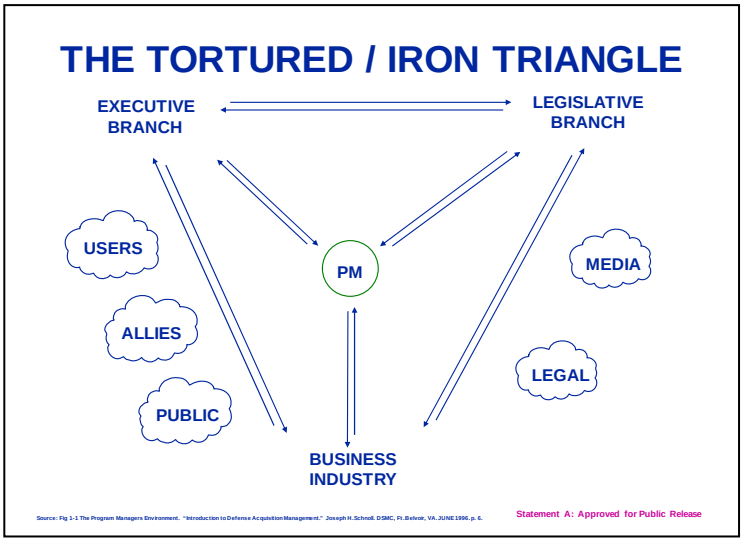


Figure 6 – Tortured/Iron Triangle – Competing Interests (Partial Display)

goals is quite likely to be sub-optimized, potentially through the poor choice of measures of effectiveness and efficacy as data collection drivers. When the financial resources are short, the condition and circumstance attributed to Churchill and Rutherford (Farrell, 2011) becomes almost imperative, that 'Without funds . . . we must think'. Then the organizations, groups, and individuals must execute those analyses driven of decisions which result, and are preconditioned on understanding and knowledge of the circumstances through the deep, detailed analyses of possibilities and options of applying scarce and limited resources of personnel and funds. Those applications hopefully will not create a further readiness crisis, or a denial future needed and emerging capabilities for the uncertain future as cited in the 2006 QDR. To be a successful and surviving organization, the underlying foundational condition and requirement for successful decision making and accomplishment of objectives and goals remains the ready and capable personnel and organizations performing the analyses and executing their decisions to act.

Yet some of the other resources which must be available are those which enable the use of the global commons in their several current indentified forms. As introduced previously, retired ADM Mullen's concept which resulted in the CS21CS (2007), with its international partnership aspects and coordination, may be considered a later day re-emphasis of the ideas presented by Mahan (1892). Mahan's discourse emerged, was adopted within the U.S. interest groups after it was recognized and discussed in the international community. This is almost the opposite course of recognition and discussion of Mullen's 'thousand ship navy' (1KSN) (NWC, 2005) presentation at a U.S. and 17th International Seapower Symposium, which later emerged as CS21CS in 2007. It represents a norming, adapting, and adoption of an idea, with an emerging acceptance while the underlying concept was retained: That the seas and oceans are a global common whose maintenance must have a diverse team of supporters and managers who collectively act in concert. Its framework concept collected support and grew by collecting supporting strategies and partnerships within the international community and the users of the oceans and seas. This was accomplished via national and international discussions and fora which where involved in the resulting process and product was the progress culminating in the release of that 'A Cooperative Strategy for 21st Century Seapower' in 2007. It represents the continued, not the new concept of 'thinking without funds', and the employment of, and adoption of innovative ideas and interactions which are called for under the pressure of events and circumstances. The process demonstrates the ability to approach immediate circumstances from an alternative perspective, and to draw upon the details, differences of background, and diversity of the work forces and groups involved (the organizations, the population, and numerous organizations which make up governments, businesses, and a large number of communities of interest in their large variety, mixes of objectives, and spectrum of diversity), to arrive at a consensus, an overarching objective and goal. This is creative use of limited resources for long term readiness and planning.

That source of diversity (whether in demographics, education, or experiences) is among the spectrum of characteristics which must be nurtured, sustained, channeled, and not allowed to die out. If lost, the possibility of group, herd think and following, band-wagoning or free-riding, can result, because the ability of original thought and insight could possibly be lost. Or nearly as disastrous, that the ability of original though is a rarity, the exception, not the normal expectation within the population. That rarity was portrayed in Asimov's 'Profession' (1957), where the whole point of an employment test screening is not to place the tested individuals in employment positions, though that screening process generated the resources/income for the government, leadership, supervising organization. The objective of the placement testing is to find the few gems amongst all the mass of the population – those who have the capacity for original thought,

so that new capabilities and opportunities are developed and realized. It is a cautionary tale of continued development and not simply relying on technology to provide all the solutions, People are still important.

This points out the challenge of whom to develop and nurture, of how to value the capacities and capabilities of the source segments of the whole population to sustain the pool of thinkers and developers of new capabilities, not only within and for the military, but for all the sections of government (education, health, food, finance, environment, resources, transportation, commerce, etc.), and, non-government groups and organizations. This is not limited to only the upwardly mobile, but the whole population – representing by the concept that by fixing the problems (the broken windows of the community), the whole set of communities (the diverse population pool) are better cared for, vice partly shunted to the side, as implied by the Anderson and Parker (2011) in 'Un-American Reservations – Why Don't Our Indian Lands Have Secure Property Rights?', and Koppisch (2011) in 'Why Are Indian Reservations So Poor? A Look At The Bottom 1%', related to Native American segment of the U.S. population and their lands (resources) management practices or malpractices depending on one's perspective, is but one example.

These short vignettes point out the need for truly deep analysis and the development of understanding which is suggested by the BWT/P style approach, not a superficial wide brush approach of generalization and simplification. That for overcoming any readiness challenge and still protecting investments for any emerging capabilities and capacities (or yet to be identified capabilities against emerging, unidentified threats/gaps/challenges) will need to be addressed through the future population. The future population will need investments toward developing and having an inclusive pool of well educated, trained, developed, and understanding personnel, the whole population (including all types of organizations and groups), as the recruiting pool for all organizations and communities of interest. That really deep thinking and analysis when there is no money must still take place, even when there is money; and, that the really deep thinking and analysis must go beyond the military group to provide and develop the understanding foundations for all the groups beyond the military group, to include the rest of government, non-government communities, groups, and individuals.

FOCI OF BALANCE (B) AND POLICY (P) AXES

The closing pair of Sec Def Hagel's foci are those of balance (B) and policy (P), our final pair of initials. They are introduced by 'is' to indicate an established fact, and note potential changes to some aspects of compensation policy, representing the to continuing need to maintain balance many competing solutions, mixes of groups, and paths to short, intermediate, and long term goals, objectives, policies, and future states. The final foci are: B) for " . . . balance. Across the services . . . capacity and capability, between: active and reserve . . . forward stationed and homebased . . . conventional and unconventional . . . capabilities" (Hagel, 2013); and, P) as the "personnel and compensation policy." (Ibid)

As introduced and discussed in prior sub-sections, without flexibility and adaptability in many dimensions, including financial resources allocation and alignment, the summarized balances can not be realized. Nor can the balance of investments, acquisition, training, maintenance and facilities (in short a balanced DOTML-PF framework), be achieved for the best balanced return on investment for the general population's balanced health, welfare, and security, neah, the realization of the health, welfare, and security of the population at large. The policy of compensation (and financial balance) is not new, the United States' founding fathers

struggled with that point over assumption of debts by the central government. The solution to this struggle was the balance between the republic and states over the federal bank, states rights, distribution of power, taxing authority. It was but one of the birthing struggles and adaptations of this experiment called the United States. A current manifestation is routinely expressed as linking and balancing of the components of the DoD budget which go to pay, benefits, retirement, care for veterans, acquisition, maintenance, and operations sections of the DoD funding. A balancing of readiness, promises, and care of those who have carried the burden for others.

However, the balance and trade off goes between the DoD sections, and into the remainder of the government; it is seen in classic economics as expressed in the 'guns vs butter' trade-offs. With respect to personnel policy, if sufficient numbers of capable, competent, and qualified personnel are not available from the general population, then costs to have a successful force structure can potentially increase at the expense of other facets and pieces of DOD, government, and the population. Why? One may well ask. It is not a simple interaction, even though in some respects it is a zero sum balancing. Neither is it a one way street or direction of interactions, but an interaction in both directions. When an individual joins another group/organization there is not just organization interaction to the individual; but, there is also individual to organization interactions, changes, adjustments, and re-alignments. In simplistic terms, and individual joining has to overcome prior experiences and training, as well as family, school, and community learned patterns of action and response. Some patterns may be in alignment with military capabilities, capacities, and skills; while some may be partially or completely at odds, and need to be mitigated, channeled, suppressed, or discouraged. The ongoing institutional conversation of human capital and diversity resources is the balancing effort of not falling into group think, and drawing upon and mining the richness of experience and heritage of the personnel through a style of Monte Carlo/Bayesian group solution approach to problem. Thus the richness of personnel and the population becomes the source of ideas 'now that there is no money', as the rich diversity helps to overcome organizational inertia and some types of resistance. Stated differently, the human capital resource increases the available solution space, decision approach space, to provide more opportunities for innovative ideas and approaches.

As previously discussed, Perrow's analysis of organizations and crises (Czerwinski, 1998), showed that an organization may be partly characterized by the dimensions of interactions (linear-complex) and coupling (loose-tight). The ability and capacity to change locations within the quadrants according to the circumstances and environmental interactions can also be likened to the three regimes of fluid mechanics/heat transfer: laminar flow – some change, but relatively high stability and consistency – linear and stable; turbulent flow – very large amounts of change and very high volatility of form and organization, chaotic – too complex; and nucleate boiling – medium rate of change, quite good mixing, and quite a large number of results – innovative churn. (See Figure 7 for a depiction of this relationship. (Ibid.)) It takes overt actions to cause shifts between the regimes, likewise, it takes overt

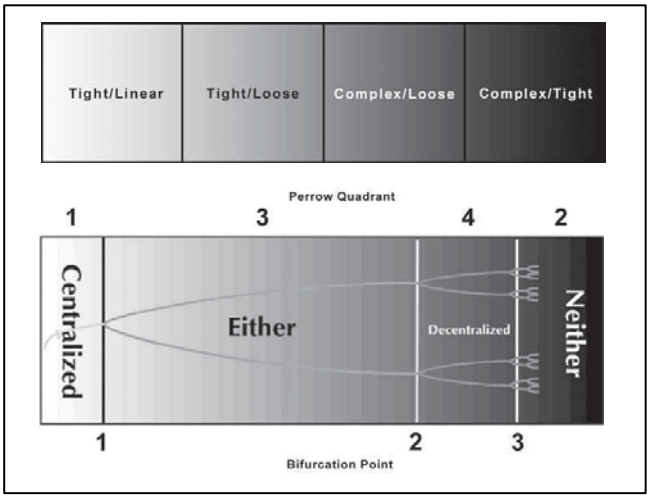


Figure 7 – Perrow's Quadrant Continuum & Chaos Theory Bifurcation Points

decisions to move between the four quadrants. These three regimes also parallel the bifurcation points and regimes within chaos theory, and later analyses of various military organizations as presented, discussed, and summarized within Understanding Information Warfare (Alberts, et al., 2001). Figure 8 (following) presented here represents the summary of that discussion.

While this is exploring the balance and policy of these final DoD foci, the exploration is extensible not only to the remainder of the government organizations and branches, but also the organizations and groups outside the government. They all have their internal and external balances and policies on compensation. The collective groups all have their own 'guns vs butter' balances to establish, monitor, and adjust, e.g., medical and agricultural research vs medical and agricultural subsidies and assistance programs; infrastructure recapitalization vs regulation/inspection efforts; research vs implementation of results; consumer product production vs shareholder value; research and development vs consumer product production; organization production vs outsourcing production; and, a continuing series of items and efforts to balance and trade off. They are trade offs which may/will not satisfy every party, yet must be understood and the balance must be more than finding the minimum satisficing balance solution. This is a challenge of analysis granularity and balance between the multiple facets within the regimes of the classic three legged stool introduced by von Clausewitz (Howard & Paret (translation), 1976, 1989). Those three legs are: the people, the military, and the government[3]. Another triple entity of the international arena is that of commerce, military, and diplomacy (trade, fight, and talk), with their own complexity and detailed granularity. The triple entities are in some respects simplistic, yet like the focus areas, are in reality wicked analysis and decision problem sets, while also being *np* hard. Both designations of math characteristics require large analysis and computation capacity, and align with the BWT/P detailed analysis style required whether there is or is not funding. The focus areas and double set of three legs have these characteristics because the measured results parameters are also parameters on the other side of the equation, making analysis and decisions difficult and iterative processes which must be a continuous process.

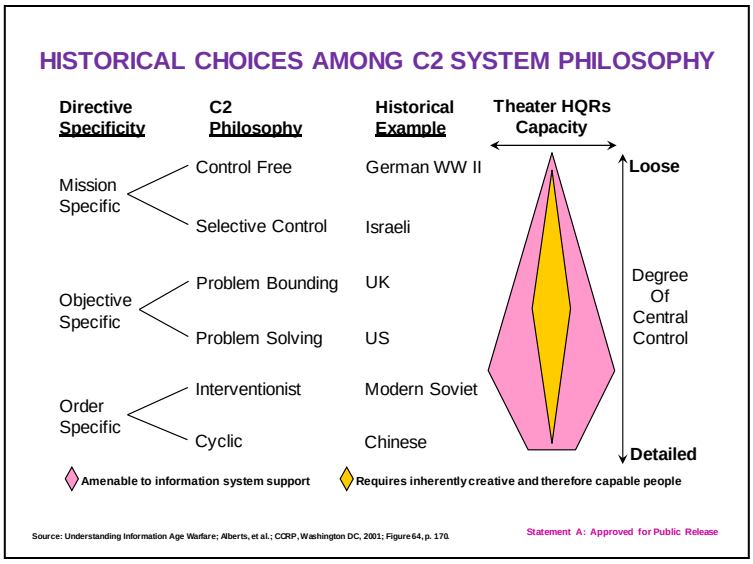


Figure 8 – Historical Choices Among C2 System Philosophies

This cyclic analysis and decision process also applies to protect and maintenance of the global commons, and is represented by the detailed analysis required to employ the BWT/P framework which requires many individuals/organizations to operate/maintain the community resources and conditions for the larger common good. Utilizing detailed analysis and developing understanding is the basis of decisions and actions for effects. These decision and actions are undertaken to influence individuals and organizations to respond in certain ways for certain outcomes, objectives, and goals – to compel others to act and respond in certain ways.

[3] Originally listed as People, Commander and his Army, and Government, as the link and source of: 1-the existence of violence, hatred, and enmity; 2-chance and probability; and, 3-war subordinated to policy. Book 1, Chapter 1, Part 28, p. 89.

The recent history of adapting and changing military forces methods and processes (their tactics, techniques, and procedure (TTPs)) as manifested by the employment of mixed special and regular forces unit teams; employing a combination of guerilla, counter insurgency, conventional, civil affairs, public services, and agricultural engagements and interactions, demonstrates the complexity of the thinking and actions which must be applied and executed when considering balance within this final pair of foci. Yet, without an adequate, healthy, and sufficient population pool, the government, military, state department, commerce, businesses, and volunteer organizations will likely be unable to find and recruit their needed organization personnel as resource to operate and interact with the environment. This is the compensation focus are for the people pool. "It is people who invest, lead, describe, inspire, and both prosper and suffer." (Hagel, 2013) Indeed, former Secretary of the Navy Danzig rightly noted the 'people are the jewel of the force', a more important resource than the Navy's carriers, and not from the sense of large numbers. As Collins, in 'Good to Great' (2001), indicated in a different style, it is not just that people are important, it is more important 'to also have the right people . . . in the right places and positions' for managing to be create great performing organizations and demonstrating their performance capabilities. This was demonstrated by Welch (with Byrne) in 'Jack – Straight from the Gut' (2001), through his reviews of performance and accomplishments, as related to managing personnel through movements, shifts, advancement, and lateral assignments of General Electric organizational personnel, balancing the needs of the organization with the individual (Focus #5), and the compensation policy, in both directions (Focus #6) – to balance what both the companies-organizations, and individuals realize from each others efforts. Again it is then people and personnel who come to the forefront of the closing focus areas.

In the preceding three sub-sections Sec Def Hagel's six foci for analysis and courses of action development have been used as launch points to discuss some aspects and implications of those focus areas to each other and to larger arenas, i.e.: the concept and realities of the global commons; detailed analysis required to apply broken window theory/policing in different venues and circumstances; and, the supporting foundation of personnel and human capital. There is an apparent need to get beyond the rather platonic summary statements of the six foci, and the constraint invoked by the quote variously attributed to Rutherford and Churchill, "Gentlemen, we have run out of money; now we have to think". (Farrell, 2011) While even this paper's discussion and examination consumes some level of resources, it is not as costly as having to scrap large quantities of materials, sunk costs, and materiel, as a result of completely incorrect assumptions – having the ladder on the incorrect building. The expense of resources of this paper is also not as costly as just throwing away or consuming personnel for a commander's belief in poor objectives, as described by Courtenay (1999), in his novel 'Solomon's Song':

> "Commanders who substitute men for ideas and approach a battle with complete disregard for saving the lives of the troops under their command almost always turn battles into killing fields without being granted victory as the prize."

Maybe this paper's attempt at discussion of some aspects of the six focus areas could be similar to the Allied Rainbow War Games completed at the U.S. Naval War College which prepared many leaders and staff for almost all of the opposition counter thrusts and purées of the World War II Pacific Theater. This paper hopefully presents some level of thinking through some of the many options, variations, and circumstances helps to generate some of the analyses to be employed as an established part of the tool kits and recalled experiences, learned activities, and almost automatic responses, which can be relied upon in the friction and fog of interactions.

Analyses and components of the decision makers tool kits that support adaptation to circumstances and events, as well as, allow individuals and organizations to grasp the fleeting opportunity when it emerges almost as an apparition within the surrounding fog and mist of the events and circumstances. This was noted by von Clausewitz as:

> "The general unreliability of all information presents a special problem: all action takes place, so to speak, in a kind of twilight, . . . like fog. 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 . . . The commander must work in a medium which his eyes cannot see, which his best deductive powers cannot always fathom; and which, because of constant changes, he can rarely be familiar." (Quoted from Alberts, et al, 2001)

Thus, as noted by von Moltke, "No operation extends with any certainty beyond the first encounter with the main body of the enemy" (Keyes, 2006), yet planning for a mix of interactions can mitigate some of the set backs which may occur with that first encounter, and support adaptive execution of the plan when executing any plan. This is essentially Eisenhower's impetus when speaking at the National Defense Executive Reserve Conference in 1957, he said in part that:

> "Plans are worthless, but planning is everything. There is a very great distinction because when you are planning for an emergency you must start with this one thing: the very definition of "emergency" is that it is unexpected, therefore it is not going to happen the way you are planning." (Eisenhower, 1957)

The planning allows for the additional of tools which can be called upon for quickly constructing options to the actual circumstances encountered.

Still just the planning and the thinking seems to not be quite enough. Just as the thinking must be accomplished by personnel, the teams and organizations involved must contain and even recruit their members from the population leg of Von Clausewitz's stool – the people. They (we) are not monolithic, just as the six foci are not complete in their details from just introducing them. The concepts and points must be broken down into their subcomponents, strategies, and short and long term objectives, along with analysis and trade offs between the implications for the strategies and decisions which can, may, and must be taken. The projected outcomes of those actions and decisions must be weighed according to the costs on many scales (the productive results, outcomes, and returns on investments), along with the distributed, linked contributions to ultimate objectives and goals, along with the feeding and contributing near term or intermediate objectives and goals across organizations and groups large and small, in all their diversity for those ultimate objectives and goals. The foundation of the population, the people, must be included in the equations of evaluations, as well as making the decisions, doing the evaluations, establishing the objectives, and receiving the impacts of the complete value stream which decisions will impact, because of the shifting balance between goals, ways, and means (which the population underwrites) – the second three legged stool which goes with the government, military, and population stool of von Clausewitz. Not everyone will agree with all the details associated with the six legs of those two stools, let alone the six foci (RCRCPB) of Sec Def Hagel, when expanded beyond the military to all the remaining groups and organizations, and the associated analyses required to attempt to understand and apply patterns and results of the huge quantities of information and data for decisions and balance. Maybe this discussion might help to establish a new global common – the population.

The new global common might not have to take as long as the evolution of Mahan's 'Sea Power' (1892) (with its emphasis for a strong Navy), to the CS21CS (2007) teamwork approach, for protection of the global common (the seas and oceans) for the common good of all the organizations and the population in total.

SO WHAT – MOVING FROM THE RPRCBP FOCI TO THE LARGER GLOBAL COMMONS SCOPE WITH BWT/P

The preceding sections and sub-sections have presented and summarized some aspects of the global commons and the broken window theory of policing as related to the six focus areas which Sec Def Hagel (2013) announced for alignment of ways, means and resources for DoD, the military. These focus areas have been the launch points for discussion regarding the expansion and extensions of those focus areas within and outside the initial military presentation environment. This discussion also pointed out the importance of detailed analyses and understanding to support decisions and actions with their associated impacts

That extension and extensibility to other organizations and entities is the supporting reason for thinking about how to use all the powers of influence available to all groups and organizations. It takes deep thinking and reasoning to understand and establish the knowledge of all the factors which contribute to and make up the power of organizations and groups. Without that understanding and knowledge, the resulting position would be the Athenian position toward the Melians according to Thucydides was that "the standard of justice depends on the equality of power to compel and that in fact the strong do what they have the power to do and the weak accept what they have to accept." (Warner, 1954, 1972 – Ch 5; Para 89) That is not an equal interaction. Likewise, with out the understanding of the means of power, its employment may well have less chance to cause or compel others to shift their positions, change their plans, or even stop their actions, as discussed by Schelling in 'Arms and Influence' (Schelling, 1966). This could be the short coming of faulty analyses and poor decisions for action.

The style of details of BRT/P analyses are shown in the details and characteristics of a safe community environment (contained in the Conclusions and Annex of Doing Windows (Hayes and Sands, 1999)). The many small details as partly presented are those small details which are associated with the delivery, or the lack of delivery, of services. The delivery status itself sends messages to the receivers of those services, or in different venues and arenas, the users of the protected global commons regarding legitimacy, effectiveness, competency, and efficiency, along with the larger context and issue of the concept of rule of law, and caring for those who need help or a hand up the ladder of development and education. (This is an aspect of the international concept of the responsibility to protect.) The delivery status of services was discussed by Norton (2003), and is partly summarized with the Figure 1 of this paper, reproduced from his article.

Like the BWT/P analyses, the work is in the fine details for the adoption, adaptation, and choices of approaches within and between the six focus areas and the preceding discussions; including the balance between and among the sets of legs of the two stools, to support the organizations and individuals of the population. One of the messages from Collins and Poras (1994), was that successful organizations had quite stable long term objectives (tight control), while also having a team, organization, and personnel with the flexibility and demonstrated adaptability for near term, day-to-day type activities (delegated, decentralized control), and achievement of long term goals through those activities. Thus, demonstrating the ability and capacity of operating in several of Perrow's quadrants at the same time. This is not true of all successful organizations, i.e., certain food providers have established, maintained, or advanced their success on the foundation of product consistency, irrespective of where it is delivered and not having variation. Consistent execution is essential. A follow-on discussion by Collins (2001) provides another related point associated with the people and personnel of organizations.

That while the people and personnel are quite important, it is even more important to have the right people and personnel in the correct positions for themselves and their organizations. (This is demonstrated by Welch (with Byrne, 2001), where his process of reviewing of division and leadership personnel is discussed and described. Where he evaluates personnel for being slotted up, moved horizontally, or shuttled elsewhere for an improved fit, development opportunity, or departure transition. Welch is demonstrating a style of insightful analysis and decision making related to personnel resource investment and management, efforts discussed by Collins (2001), to place the correct people in the correct positions.)

These points also apply when considering the analysis of options for the six focus areas, and the 'windows' aspects of the details of their associated action strategies, monitoring, feedback, and examination of implications. Personnel and people are the foundation of the analysis and the decisions, they (we) come from the larger population group. That larger population group provides the pool of diversity, the human resources needed for finding the personnel and people, hopefully the correct, best individuals, for the positions and the organizations. (? A new global common ?)

The numbers of organizations and groups involved and their interconnected nature through the extended analysis focus areas, along with the impacts on personnel and organizations of any actions will require large, maybe huge, amounts of data and information. Amounts which may, or likely will challenge individual or organization abilities to find, perceive, organize, and analyze that data. Madrigal (2013), quoting H.P. Lovecraft, provides a telling possibility of the potential for information and data overload:

> "The most merciful thing in the world, I think, is the inability of the human mind to correlate all its contents. We live on a placid island of ignorance in the midst of black seas of infinity, and it was not meant that we should voyage far. The sciences, each straining in its own direction, have hitherto harmed us little; but some day the piecing together of dissociated knowledge will open up such terrifying vistas of reality, and of our frightful position therein, that we shall either go mad from the revelation or flee from the deadly light into the peace and safety of a new dark age."

Though these two possibilities are presented, there is a third possibility . . . the full emergence of some truly understandable patterns which can be acted upon to beneficial outcomes and futures through and for people, personnel, organizations, and groups collectively. This is a wicked problem of action and impact, where many variables are not independent of each other. This is where the foundation of human capital and the importance of the people come into play, along with the importance of the resources which support the human capital and the people. That human capital as a resource also supports and provides the ability and capacity to complete the detailed analysis of circumstances, progress, and movement toward the future through the individual, as well as the organization and group goals. It takes the people, the global commons, and the analysis of the broken windows, along with the reasons behind those windows, to conceive the future goals, the various alternative course for achieving them, along with the management of all the resources available to progress, monitor, adjust, and journey to those goals and objectives. Uniting the people, the global commons, and the analyses exemplified behind the BWT/P concept – getting to the pertinent details, not broad brush strokes.

This has been the essence and partly the intent of these symposia and of its supporting organization, Evidenced Based Research. That like the BWT/P concept, the data and metadata must be captured, AND it has to be analyzed and employed in context. Visually this could be represented as the areas of overlap in Figure 3 of this paper.

CLOSURE AND SUGGESTIONS

The prior sections of this paper have used the six focus areas announced by SecDef Hagel (2013) as a framework for their discussion. That discussion had included aspects of the focus areas impacts for DoD, other government agencies and organizations, non-government organizations, various types of communities, along with the people and general population constituting all of those groupings. The discussion also cited the broken window theory, policing approach utilizing the detailed analysis behind this approach to understand the community problems and allocation of mitigation resources. The paper also utilized the international resources concept of 'global commons' to assist in this discussion of some of the impacts and implications from the six focus area as extended to all groups and organizations.

These components and discussion have lead the author to the conclusion that the current accepted regimes of global commons warrants expansion and extension, such as taking the six focus areas and extending the analyses to all groups and organizations. That the people and population should be, must become, a new global common, whether there is or is not money available.

WHY?

-The people and population include our youth, the source of all future group and organization members. As pointed out via Anderson & Parker (2011), along with Koppisch (2011), the American Indian population as a human capital resource of diversity strength which can be supported through both physical and intellectual property rights under the rule of law. These articles represent the need for even, predictable, and consistent application of the rule of law. Through this style of support and approach, all groups can contribute their set of skills and capabilities to the overall pool of resources available from the population global commons.

-The people and population include the youth's mothers and women of the households, who raise the youth and manage many of aspects of the household. The management of the household and its income helps the most individuals when those 'managers' also are the receivers and managers of the household income. The source of this idea is Bryce Courtenay's character Mary 'Abicus' Klerk, made the decision when she was running her Potato Factory Brewery, that the male workers' pay would go to the wives (Courtenay, 1995). When the pay went to the wives names in the company account, the male worker could not 'drink it away' and leave the household to be unsupported with funds. Mothers and women of the households develop and nurture the youth – the youth and women are a part of the population (human capital), along with the men. This concept is actually demonstrated through the Tufts University study in Niger which

> "found that during a drought, allowing people to request emergency government support through their cell phones resulted in better diets for those people, compared with the diets of those who received cash handouts. *The researchers concluded that women were more likely than men to control digital transfers (as opposed to cash transfers) and that they were more likely to spend the money on high-quality food.*" (emphasis added) (Kendall and Voorhies, 2014)

-The people and population represent all mothers as the initial nurturer and caregiver of all members of the population. As such their health is critical to their children's health and survival. If the mothers are healthier, their children are healthier at birth. The children's mortality rate goes down, and the families have fewer children toward carrying on the family's future. Fewer children improves women's health, just as their household income management helps the household unit. That financial stability and assistance is available via help to women with small business opportunities. When healthier, less effort goes to food and fuel collection. This allows for effort to go into small business opportunities via micro-loans for sewing

machine, small looms, cell phones, etc., which then offer the ability to generate income to help the household. The household is the initial group, with the family unit, of the population global commons. When it is supported the global commons of the population is supported.

-These points and this paper offer the chance to look at the current circumstances form another perspective, another framework. As the six focus areas have been used to open the consideration and discussion of ideas with their implications, as well as, the sources of those ideas. Those ideas have to come from the organizations and groups involved. Those sources include different experiences, points of reference, and framework perspectives for ideas and solutions. The discussions and examples within this paper offer some of those perspectives of the importance of the human capital (with its diversity) as a resource. David Galula's (1963, 2006) analysis of the French Algerian civil war also points out the perspective of understanding the other side's perspective and objectives for decisions and actions to have their intended results. That understanding the groups of the population as a human capital resource supports the efforts of all the groups within the population, as new global commons.

When considered in the aggregate, the whole, the population is the source of all members of all groups. In some ways they are self organizing – families, households, communities. The population is a resource for all groups. The interactions of groups are complex and call for detailed analysis and thinking. The interactions call for and require balance between ways, means, and goals. This is represented by Lippman's quote (from Harries & Switzer, 2013):

> "Without the controlling principle that the nation must maintain its objectives and its power in equilibrium, its purposes within its means and its means equal to its purposes, its commitments related to its resources and its resources adequate to its commitments, it is impossible to think at all about foreign affairs."

While the quote is representative of foreign affairs and maintaining national objectives in balance with resources, as discussed through this paper, it is also extensible to all organizations and groups, the population pool.

Administration of global commons requires all the six focus areas. Administration of global commons requires many perspectives for detailed analysis and management. The population provides the members of the groups for that administration, and the human capital for all the perspectives and detailed analyses. The people and population should represent a new global commons.

Stated differently, the author offers a final suggestion, point, or conclusion. That the reader should consider the following recommendation with its impacts and possibilities:

As the people and the population are, or seems to be, the foundation of a successful organizations, innovation, and health, welfare, and security of organizations and their members;

It should be resolved that the whole population should be considered a new global commons, a resource. A resource overseen and managed through the international rule of law concept of the 'responsibility to protect';

That 'responsibility to protect' is to be the overarching, unifying objective component of organizations, communities of interest, and small world networks (in all their diversity), as the source of all solutions through detailed analysis and understanding.

'Disclaimer' – The opinions, conclusions, and recommendations, expressed or implied are those of the author. They do not reflect the views of the Command and Control Research Program, DoD, U.S. Navy, Naval Sea Systems Command, or Program Executive Office for Integrated Warfare Systems. The author likewise assumes responsibility for any errors in this work.

References:

(Alberts & Hayes, 2006) – Alberts, David S. and Richard E. Hayes, *Understanding Command and Control*. Command and Control Research Program (CCRP), Washington:DC. 2006. https://www.dodccrp.org/files/Alberts_UC2.pdf

(Alberts, et al, 2001) – Alberts, David S., John J. Garska, Richard E. Hayes, and Davis A. Signori, *Understanding Information Age Warfare*. CCRP, Washington:DC. 2001. https://www.dodccrp.org/files/Alberts_UIAW.pdf

(Anderson & Parker, 2011) – Anderson, Terry and Dominic Parker, *Un-American Reservations – Why Don't Our Indian Lands Have Secure Property Rights?* Defining Ideas, Hoover Institution Journal, Stanford University, Stanford:CA. 2011. http://www.hoover.org/publications/defining-ideas/article/67756

(Asimov, 1957) – Asimov, Isaac, *Profession*. Street and Smith, Publications, Inc., Astounding Science Fiction, July 1957. In collection: *Nine Tomorrows*. Fawcett Crest Book by Doubleday & Company, Greenwich CT, 1959.

(Atkinson & Moffat, 2005) – Atkinson, Simon Reay and James Moffat, *The Agile Organization – From Informal Networks to Complex Effects and Agility*. CCRP, Washington:DC. 2005. https://www.dodccrp.org/files/Atkinson_Agile.pdf

(Christensen, 1997, 2003) – Christensen, Clayton M., *The Innovator's Dilemma – The Revolutionary Book That Will Change the Way You Do Business*. Harvard Business School Press, 1997. HarperBusiness, HarperCollins Publications, New York:NY. 2003.

(Collins, 2001) – Collins, James C., *From Good to Great – Why Some Companies Make the Leap . . . and Others Don't*. HarperCollins Publications, New York:NY. 2001.

(_____ and Poras, 1994) – Collins, James C. and Jerry I. Porras, *Built to Last – Successful Habits of Visionary Companies*. HarperCollins Publishers, New York NY. 1994, 1997.

(CS21CS, 2007) – Conway, James T., General, U.S. Marine Corps, Commandant of the Marine Corps; Gary Roughhead, Admiral, U.S. Navy, Chief of Naval Operations; and, Thad W. Allen, Admiral, U.S. Coast Guard, Commandant of the Coast Guard, *A Cooperative Strategy for 21st Century Seapower*. Department of Defense, Washington:DC. 2007. http://www.navy.mil/maritime/maritimestrategy.pdf

(Courtenay, 1995) – Courtenay, Bryce, *The Potato Factory*. Penguin Books Australia Ltd, Ringwood, Victoria, Australia. 1995, 2000.

(_____, 1999) – Courtenay, Bryce, *Solomon's Song*. Viking Penguin Books Australia Ltd, Ringwood, Victoria, Australia. 1999.

(Czerwinski, 1998) – Czerwinski, Thomas J., *Coping with the Bounds – Speculations on Nonlinearity in Military Affairs*. CCRP, Washington:DC. 1998 (2003 & 2008). https://www.dodccrp.org/files/Czerwinski_Coping.pdf

(EDS, 2001) – *Super Bowl 2001 'The Running of the Squirrels'* . Image from http://www.blackenterprise.com/money/12-most-expensive-super-bowl-commercials/attachment/running-squirrels-620x480/

(Eisenhower, 1957) – Eisenhower, Dwight D., "*Remarks at the National Defense Executive Reserve Conference*," November 14, 1957. Online by Gerhard Peters. http://www.presidency.ucsb.edu/ws/?pid=10851

(Farrell, 2011) – Farrell Jr., Lawrence P., *Gentlemen, We Have Run Out Of Money; Now We Have to Think*. National Defense, NDIA, Arlington:VA. 2011. http://www.nationaldefensemagazine.org/archive/2011/November/Pages/%E2%80%98Gentlemen,WeHaveRunOutOfMoney;NowWeHavetoThink%E2%80%99.aspx

(Flourney, 2006) – Flourney, Michele A., *Did the Pentagon Get the Quadrennial Defense Review Right?* The Washington Quarterly, Vol 29, No 2, Spring , MIT Press. 2006

(Galula, 1963, 2006) – Galula, David, *Pacification in Algeria*. RAND Corporation, Santa Monica:CA. 1963, 2006. http://www.rand.org/content/dam/rand/pubs/monographs/2006/RAND_MG478-1.pdf

(Garamone, 2014) – Garamone, Jim, *Shelton Discusses Importance of Space Defense*. American Forces Press Service, Washington:DC. 2014. http://www.defense.gov/news/newsarticle.aspx?id=121443

(Hagel, 2013) – Hagel, Chuck, *Speech at the Center for Strategic and International Studies – Global Security Forum* as Delivered by Secretary of Defense Chuck Hagel. Department of Defense, Washington:DC. 2013. http://www.defense.gov/Speeches/Speech.aspx?SpeechID=1814

(Harries & Switzer, 2013) – Harries, Owen and Tom Switzer, *Leading from Behind: Third Time a Charm*. The American Interest, The American Interest LLC, Wshington:DC. 2013. http://www.the-american-interest.com/articles/2013/04/12/leading-from-behind-third-time-a-charm/

(Hayes and Sands, 1999) – Hayes, Richard C. and Jeffrey I. Sands, *Doing Windows- Non-Traditional Military Responses to Complex Emergencies*. CCRP, Washington:DC. 1999. https://www.dodccrp.org/files/Hayes_Doing_Windows.pdf

(Howard & Paret (translation), 1976, 1989) – Howard, Michael and Peter Paret, *On War* by Carl von Clausewitz. Princeton University Press, Princeton:NJ. 1976, 1989.
(Kelling and Wilson, 1982) – Kelling, George L. and James Q. Wilson, *Broken Windows, The Police and Neighborhood Safety*. The Atlantic, The Atlantic Group, Washington:DC. March 1982. http://www.theatlantic.com/magazine/print/1982/03/broken-windows/304465/
(Kendall and Voorhies, 2014) – Kendall, Jake and Rodger Voorhies, *The Mobile-Finance Revolution*. Foreign Affairs, New York:NY, March/April 2014, Vol 93, No. 2., p. 9-13. http:///www.foreignaffairs.com/print/137884
(Keyes, 2006) – Keyes, Ralph, *The Quote Verifier: Who Said What, Where, and When*. St. Martin Press, 2006. Online by Ralph Keyes, accessed 05 May 2014. http://www.ralphkeyes.com/quote-verifier
(Koppisch, 2011) – Koppisch, John, *Why Are Indian Reservations So Poor? A Look At The Bottom 1%*. Forbes.com, New York:NY. 2011. http://www.forbes.com/sites/johnkoppisch/2011/12/13/why-are-indian-reservations-so-poor-a-look-at-the-bottom-1/
(Madrigall (citing H. P. Lovecraft), 2013) – Madrigal, Alexis, *HP Lovecraft on Big Data*. NextGov.com, National Journal Group, Inc., Government Executive Media Group, Washington:DC. 2013. http://www.nextgov.com/big-data/2013/12/hp-lovecraft-big-data/74696/
(Mahan, 1892) – Mahan, Alfred T., Captain USN, *The Influence of Sea Power Upon History 1660 – 1783*. Sampson Low, Marston & Company, Limited, St. Dunstan's House, London:UK. 1892.
(Norton, 2003) – Norton, Richard J., *Feral Cities*. Naval War College Review, Newport:RI, Autumn 2003, Volume LVI, Number 4, p. 101. https://portal.nwc.navy.mil/press/Naval%20War%20College%20Review/2003/Article%20by%20Norton%20Autumn%202003.pdf
(NWC, 2005) – Introduction of the *'Thousand Ship Navy' (1KSN)* by Admiral Michael G. Mullen, U.S. Navy, Chief of Naval Operations, as Keynote Address: *A Global Network of Nations for a Free and Secure Maritime Commons* at 17th International Seapower Symposium. Naval War College, Newport:RI. 2005. http://www.usnwc.edu/getattachment/a56bf61f-f637-4391-a9d1-7e261146b3ed/ROP-17th.aspx
(Peters, 1991) – Peters, Thomas, *Thriving on Chaos – Handbook for a Management Revolution*. Alfred A. Knopf, Inc., New York:NY. 1987, 1991.
(QDR, 2006) – Rumsfeld, Donald, *Department of Defense Quadrennial Defense Review Report*. Department of Defense, Washington:DC. 2006.
(Raymond, 2012) – Raymond, Mark, *"The Internet as a Global Commons?" Governing the Internet: Caos, Control or Consensus?* The Center for International Governance Innovation (CIGI), 57 Erb Street West, Waterloo, ON Canada N2L 6C2, 26 Oct 2012. http://www.cigionline.org/publications/2012/10/internet-global-commons
(Schelling, 1966) – Schelling, Thomas C., *Arms and Influence*. Yale University, New London:CT. 1966.
(Schnoll, 1996) – Schnoll, Joseph H., *Introduction to Defense Acquisition Management*. Defense Systems Management College (DSMC), Ft. Belvoir:VA. 1996.
(SCMR, 2013) – Hagel, Chuck, *Statement on Strategic Choices and Management Review* as Delivered by Secretary of Defense Chuck Hagel. Department of Defense, Washington:DC. 2013. http://www.defense.gov/speeches/speech.aspx?speechid=1798
(UNEP, 2013) – United Nations Environment Programme, Division of Environmental Law and Conventions. Accessed Dec 2013. http://www.unep.org/delc/GlobalCommons/tabid/54404/Default.aspx
(Warner, 1954, 1972) – Warner, Rex, translation of *History of the Peloponnesian War* by Thucydides. Penguin Books USA Inc., New York:NY. 1954, 1972.
(Welch & Byrne, 2001) – Welch, Jack with John A. Byrne, *Jack – Straight from the Gut*. Warner Business Books, Warner Books, Inc., New York:NY. 2001.
(Weisgerber, 2013) – Weisgerber, Marcus, *Hagel: DoD Must 'Fundamentally Reshape' Itself*. Defense News.com, Gannett Government Media Corp, Springfiled:VA. 2013. http://www.defensenews.com/article/20130722/DEFREG02/307220025/Hagel-DoD-Must-Fundamentally-Reshape-Itself

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