STRATEGY RESEARCH PROJECT

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THE OBJECTIVE FORCE: ARE WE ON THE RIGHT TRACK?

BY

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ABSTRACT

AUTHOR: LTC John D. Norwood

TITLE: The Objective Force: Are We On the Right Track?

FORMAT: Strategy Research Project

DATE: 08 March 2001 PAGES: 31 CLASSIFICATION: Unclassified

On October 12, 1999 at the annual Association of the United States Army (AUSA) Convention, the Secretary of the Army, the Honorable Louis Caldera, and the Chief of Staff of the Army, General Eric K. Shinseki, unveiled a vision for a more strategically responsive Army in the 21st Century. Overall, they described an Army that is deployable, agile, versatile, lethal, survivable, sustainable and dominant at every point along the spectrum of operations. In order to achieve this vision, three axes of advance have been articulated – Recapitalization, the Interim Brigade Combat Team, and the Objective Force. The principle focus of Army Transformation is on the development and fielding of the Objective Force, yet questions remain as to the overall feasibility and executability of this effort. To be successful, the Objective Force development must have a strong analytical underpinning and a sound technological foundation. This paper considers whether the current development path of the Objective Force will eventually lead to the successful transformation of the Army.

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ACKNOWLEDGEMENTS

Several people were instrumental in the formulation of this paper. I wish to thank Dr. Douglas Johnson for his advice and insight into the formulation of this paper. I also wish to thank COL David Cripps for taking the time to review the paper several times and providing valuable feedback on both the form and content.

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THE OBJECTIVE FORCE: ARE WE ON THE RIGHT TRACK?

The future ain't what it used to be![1]

—Yogi Berra

On October 12, 1999 at the annual Association of the United States Army (AUSA) Convention, the Secretary of the Army, the Honorable Louis Caldera, and the Chief of Staff of the Army, General Eric K. Shinseki, unveiled a vision for a more strategically responsive Army in the 21st Century.[2] Overall, they described an Army that is deployable, agile, versatile, lethal, survivable, sustainable and dominant at every point along the spectrum of operations. To achieve this vision, three axes of advance have been articulated, as shown in Figure 1.

The first axis involves the creation and fielding of the Interim Brigade Combat Team (IBCT). The IBCT is a near-term brigade redesign accompanied by a reallocation of assets to field an enhanced medium-sized force. This force will fill shortfalls in current U.S. Army capabilities, which have been identified in recent deployments. IBCT units will be lighter and have a smaller footprint that will be deployable anywhere in the world in 96 hours.[3] The first IBCT unit is currently being organized and equipped at Fort Lewis, Washington. The second axis involves recapitalization of selected items of equipment from today's legacy force. Because legacy force equipment is aging and reaching the end of its design life, the Army has recognized an urgent need to recapitalize much of the force. This action is prudent is light of the U.S. role as the sole remaining superpower and our current National Military Strategy, which calls upon the Army to be prepared to fight two near-simultaneous Major Theater Wars (MTW). In order to retain combat overmatch against the

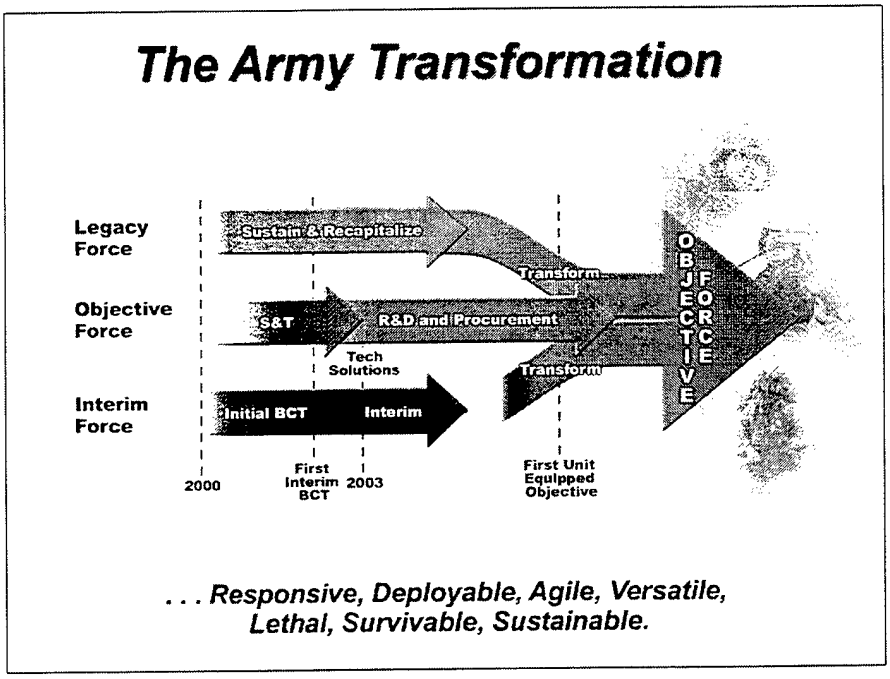

FIGURE 1: ARMY TRANSFORMATION

range of projected adversaries aging equipment must be updated. Specific systems that have been identified for recapitalization will either transition to the Objective Force or will fill an interim, shorter-term need. The third and final axis is the development of the Objective Force, which is the long-term focus of Army Transformation. The Objective Force will be designed and fielded with the capabilities required to meet the challenges anticipated by the Army in the 2020 timeframe. The Objective Force is the ultimate realization of the Army vision and is the mechanism through which the Army retains undisputed land force preeminence in the future.

In order to begin Transformation, the Army undertook an internal reallocation and reprogramming of resources for Fiscal Years 2000 and beyond. At the same time, the Army sought and received the support of Congress, which provided additional Research and Development (R&D) funds in Fiscal Year (FY) 2001 to the tune of $1.3 billion dollars.[4] Overall, Army Transformation has gained a substantial amount of momentum and has become the watchword and focus of the Army. Nearly every organization has identified some role in the current transformation, and the train is moving fast.

Yet, questions remain as to the overall feasibility and executability of Army Transformation. Are the three thrusts of Army Transformation simultaneously achievable? Obtaining and sustaining the major increases in resources needed to implement the current Army Transformation Campaign Plan appears to be a major challenge. Competition for resources within the Department of Defense (DOD) is fierce, because all of the Military Departments have similar problems with aging equipment, and all have identified a need to transform. This situation was created as a direct result of a *procurement holiday*, which DOD has experienced over the last decade.[5] During this period procurement budgets have been used to pay for current operations. This strategy was adopted deliberately in an effort to both balance the Federal Budget and to allocate more dollars for non-Defense programs. However, the procurement bills are now due, and without major increases in procurement accounts, DOD faces a major crisis in maintaining its equipment. Additionally, other priorities compete for the limited pool of resources, including military pay, TRICARE For Life, and the ever increasing Operations and Maintenance (O&M) bills which has a current backlog of over $2 billion. Given this situation, it is doubtful that Army Transformation will be affordable without major increases in the Defense top-line budget authority.

In light of this rather bleak funding situation, it is imperative that Transformation efforts are structured for success. Realistic tradeoffs are essential, and Transformation activities must be prioritized among the various axes. This paper will focus on the Objective Force axis and to

consider whether current development efforts are on a path which will eventually lead to the successful transformation of the Army.

CHANGING THE MINDSET

What risks will the U.S. face in 2020? The nature of warfare appears to be changing to the point where the ability of any nation to wage an industrial-age war is severely constrained or infeasible.[6] The centrality of information is having a profound effect on the way in which wars are fought. Overmatch in information operations may have already become the decisive element of combat power that renders 20th century warfare obsolete. If true, other elements of national power (diplomacy and economic means) may become the primary tools for advancing U.S. national interests. Yet, what will our national interests become in 2020 and who will threaten them? These are crucial questions, which must be addressed in order to assess the proposed technological developments for the Objective Force. Current global trends suggest that internal conflicts within nations will pose the most frequent threats to stability around the world and that interstate conflicts will become less frequent.[7] Additionally, with the recent change of administrations, the U.S. National Security Strategy (NSS) and the resulting National Military Strategy may also change. While, the nature of these changes has yet to surface, Republican campaign rhetoric prior to the election suggested that the U.S. might decrease its worldwide commitments and become more selective in the application of military force. The implications of a major refocusing of the NSS might have a profound (and unforeseen) impact on the capabilities required of the Objective Force.

It is clear that the challenges of the future are evolving and may become more focused on Smaller Scale Contingencies. However, current Objective Force planning still focuses on fighting Major Theater Wars against peer or near-peer regional threats. Proponents justify this approach, as addressing the worst case scenario, yet is this assumption justified? Recent experience has shown that our enemies are unwilling to engage the U.S. in this fashion. The fact that Iraq did not attack U.S. forces and allowed a six-month buildup of forces seems to attest to this fact. Saddam Hussein was content to strike at the periphery of coalition forces, by firing SCUD missiles rather than initiating a ground offensive against U.S. light forces. Again in Kosovo, the Serbs were not willing to engage in ground combat and quickly dispersed their forces, even after the U.S. had officially ruled out the possibility of a ground offensive. A final consideration is recent events in Chechnya, where rebel forces facing overwhelming Russian military superiority, forced combat into urban environments, effectively nullifying this advantage.

No nation today can face the awesome combat power embodied in the U.S. legacy force, and a recapitalized force will remain equally potent through 2020. The fact that the legacy force is not currently deployable today on abbreviated timelines does not alter this assertion. Any gaps in capability are in the seams between the deployability of a light force and the lethality of a heavy force. These gaps are currently being addressed by the IBCT axis of transformation. So, given the changing nature of warfare and the already executing thrusts of the IBCT and Recapitalization, what is the role of the Objective Force? If the primary threat to U.S. interests is asymmetric and there is no peer competitor on the horizon, how will the Objective Force respond to these threats? In order to structure Objective Force efforts for success, these fundamental questions must be answered at the outset. Otherwise, the Army faces a significant risk of fielding a technologically advanced force that is not relevant in the future.

In recent years, technology has become the *Holy Grail* of modern combat developments. Indeed, technological improvements have played a major role in establishing the Army's preeminence. However, there is a danger in relying too heavily on technology. Technology alone does not determine military effectiveness.[8] We must not forget that the Army's primary fighting system is not mechanical but human. The basic building block of the Army is its people, and all technological efforts must be directed at enhancing the ability of soldiers fighting as a combat team to accomplish their mission.

Prior to expending scarce resources on ill-defined technological requirements for the Objective Force, the Army must identify and evaluate the underlying assumptions that are driving this development. Currently, the Defense Advanced Research Projects Agency (DARPA) has been given the mission of defining the technology necessary for the Objective Force. This is being accomplished through four contracts with industry.[9] The ultimate goal of this effort is to recommend to the Army a Future Combat System (FCS) for procurement in the 2008 timeframe.[10] The FCS concept is a family of systems based on a common chassis which would replace many (if not all) of the legacy force systems.

While laudable and ambitious, one wonders about the advisability of these actions. Certainly, inaction and indecision must not paralyze the Army, but it appears that a *de facto* decision about the composition of the Objective Force has already been reached. Yet has anyone serious discussed and agreed upon the basic assumptions about combat in 2020? Much has been said about the need to develop a light, highly mobile, and equally lethal replacement for the M1Tank, but this assumes that future warfare still requires a tank-like system. This heretical statement tears at the basic fabric of Army culture, but it must be

addressed. If the very nature of warfare itself is changing, force-on-force engagements may be very different in 2020 and beyond.

It is possible to envision combat in the future where real-time intelligence, combined with robotic systems using largely non-lethal means could quickly and decisively render an industrial-age force combat ineffective. One could also imagine that this system of systems is controlled by a relatively small number of soldiers who are assisted by computer agents, that compress decision cycles to micro- or even nano-seconds. This scenario is certain plausible, yet without serious debate up front and early, it may never become feasible.

The Army is culturally a conservative organization, and for the most part this trait has served the Army well during the previous two centuries. Yet the world today is a very different place than that of 30 years ago when the last major redesign of the Army took place. This redesign was brought to fruition during the Reagan years with the development of the Army of Excellence and the fielding of the Big Five systems in the early 1980's.[11] These specific systems were chosen to allow the Army to implement a defined doctrine, which would enable success against the monolithic threat of the time – the Soviet Union. Yet these same systems also proved extremely successful in destroying the Iraqi army and winning a decisive victory in Desert Storm. This success was due in large part to the fact that the equipment and technology fielded at that time precisely complemented the Army's doctrine and warfighting concepts.

The Army of the 21st Century encounters a very different world. It finds a world that is increasingly interconnected and interdependent, a world in which the pace of change is accelerating, and a world that is without a monolithic threat. In order to remain relevant, the Objective Force must recognize these changes and endeavor to envision how a future force must organize and operate within this context. Traditional boundaries, systems, and *stovepipes* need to be reexamined to evaluate their relevance in information age warfare. The Army must overcome its cultural inertia in order to ensure that the Objective Force development remains relevant in the future.

This has been achieved to a limited degree by the decision to field the Interim Armored Vehicle (IAV). When first proposed, there was much dissention by those who perceived the introduction of a light, deployable, wheeled vehicle as the death knell for the tank.[12] While this scenario has not materialized, it highlights some assumptions that need to be seriously analyzed about future of armored vehicles on the battlefield. With the increasing lethality of anti-tank weapons, the ability of armor to stop penetration at reasonable weights has already been surpassed. The tank may be an industrial-age weapon system that has seen its day. All other battlefield operating systems from aviation to artillery must be similarly scrutinized to

determine how they will fit into combat operations in the future. All assumptions should be stated explicitly, and they must be examined closely and widely agreed upon before moving ahead with decisions on the development or procurement of specific systems.

KEY ASSUMPTIONS

No one can predict the future. This fact has been proven out time and time again. However, insights may be garnered through the observation of trends and the examination of current world developments. It is particularly useful to identify the assumptions that drive our views of the future.

The noted futurists Alvin and Heidi Toffler in their book War and Anti-War paint a picture of a world where the consequences of globalization have come to fruition and information has become the basis for national wealth. In their view, information has become the basis for military dominance.[13] While not all the Toffler's predictions have or will come to pass, current military vision statements recognize information dominance as a key enabler in conducting full spectrum operations.[14] Thus, a primary underlying assumption is that information will be increasingly critical in military operations. Precision engagement will continue to figure prominently in the discussions of future capability requirements. Yet increasing reliance on information also creates new vulnerabilities that could be leveraged by future enemies. The continuing diffusion of technology globally will allow enemies to exploit the smallest vulnerabilities more quickly than in the past.

This leads to a second basic assumption that no peer competitor will arise in the foreseeable future (until after the 2020 timeframe) to challenge the preeminence of the United States. [15] This assumption, which is prevalent in current strategic thinking, is far-reaching in its impact on the development of the future force. Not only does it bound the spectrum of required capabilities, but it also creates an opportunity for reflection and experimentation with new ideas and concepts. With no peer competitor looming on the horizon, the United States could benefit from a *strategic pause* that was heretofore impossible. Most futurists agree that instability in the world will continue to rise and that asymmetric threats will arise to challenge the dominance of U.S. forces more and more often.[16] The recent attack on the U.S.S. Cole and the rise of non-state actors like Usama Bin Laden lends credence to this assumption. These threats attack the seams of U.S. strength and are extremely difficult to predict. Additionally, it is often not clear how to respond militarily to these threats. In many cases, clear proof of the identity of the perpetrators is not available and the range of available military options is often limited due to political considerations. The Army must focus on reducing our current vulnerabilities and

ensuring that any future developments are protected from disruption or defeat by a technologically savvy enemy.

Finally, the post-Cold War world, while more tightly interconnected, is not safer; it is only more uncertain. We cannot assume that any predictions made today will be valid 15 to 20 years in the future. We must assume that even the most reasoned predictions are in the final analysis only guesses. The pace of change is accelerating and the consequences of choosing the wrong path to the future could be devastating. Recognizing this fact, the Army must adopt an experimental methodology, which allows for failure and for efforts to be continually refined and refocused. Current plans call for adopting an Objective Force concept in 2003 with fielding beginning three to five years later. This approach risks building a force that may not be relevant in the future. In the absence of a defined threat, the Army must retain maximum flexibility prior to fielding. A process of prototyping and experimentation carried out over a long period of time (perhaps a decade or two) is preferable to investing in the wrong force. Until the Army is better able to predict the threats and see the uncertainty which clouds the future today, precipitous investment should avoided.

ENVISIONING THE FUTURE

Many advocates of Army Transformation point to a Revolution in Military Affairs (RMA), which will fuel the development of the Objective Force. Yet, there is debate in the literature about the existence and scope of this RMA. Most agree that the pace of change of technology within the Information Technology domain is truly revolutionary. However, other technologies, which are advocated for the Objective Force are maturing more slowly. Other critical technology categories, such as sensors, projectiles, propulsion and platforms are not projected to see revolutionary advances.[17] Many of the nascent concepts being considered for the Objective Force place heavy reliance on remote sensing and robotic platforms; however, neither of these technologies is currently on revolutionary timelines. This is not to say that advances are not being made. Figure 2, which characterizes the pace of development of several key technologies, shows many promising areas. The issue here is that the existence of one (or more) revolutionary technologies should not increase optimism in other areas. A good example is the field of robotics. Robotic systems have been commercially available for 20 years; however, the advances required to create fully functional, autonomous systems that operate in militarily demanding environments has proven illusive. Even the IT revolution can scarcely solve the intractable issues associated with navigation and obstacle avoidance for unmanned ground platforms.

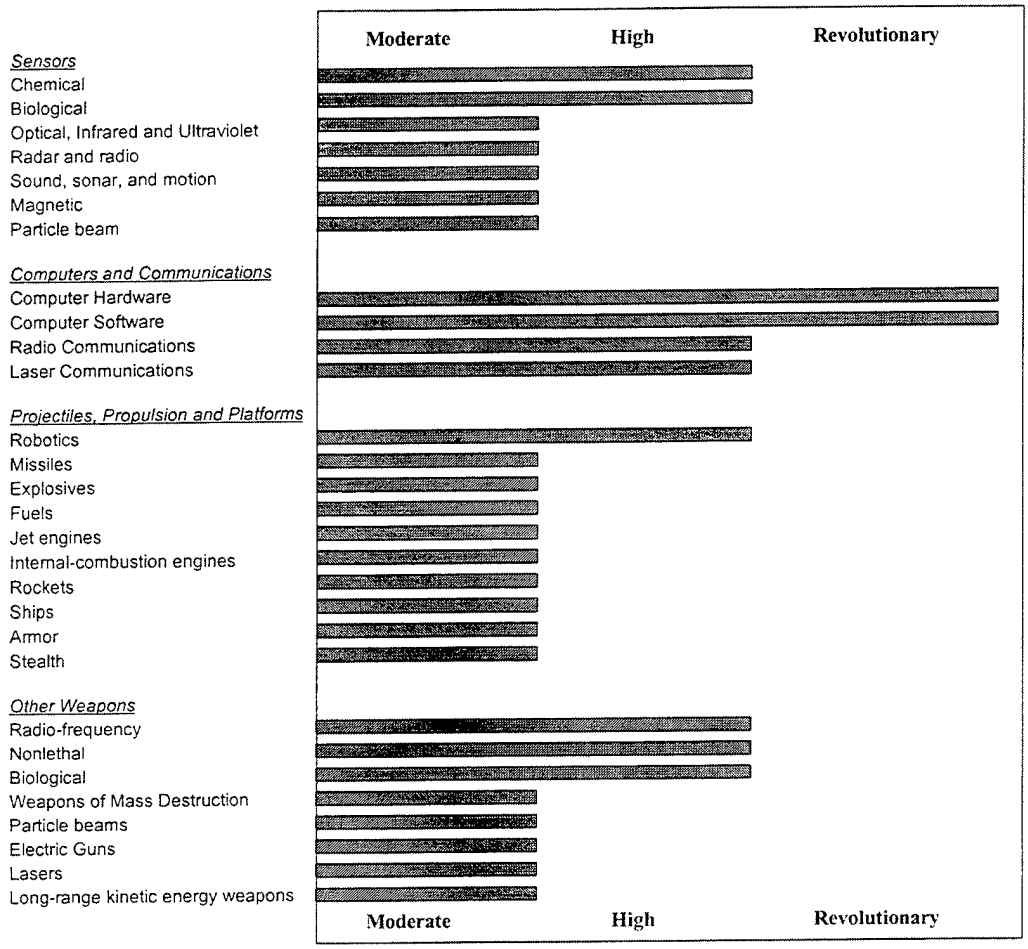

FIGURE 2: PROJECTED ADVANCES IN KEY MILITARY TECHNOLOGIES TO 2020[18]

The conceptual systems being proposed for the Objective Force seem to represent only incremental technological improvements over legacy systems. It is not enough to overlay new technology over old ideas. The ideas themselves need to be revisited. We cannot afford to pursue a path of one-for-one replacement of today's systems or existing capabilities without a well-defined doctrine and a concrete rationale stating how each piece of the puzzle fits together and interoperates. It is not clear that this conceptual underpinning has been developed. The Army has commissioned a series of wargames to investigate and prove out concepts of future warfare. These games are attempting to show that in the future, the capabilities of the Objective Force will rapidly overwhelm potential enemies. The first of these games – the Army Transformation Wargame (ATWG) – was held at the U.S. Army War College in May 2000 to investigate the proposed capabilities of the Objective Force.[19]

In the ATWG, a North African country has built a large industrial-age force that threatens regional security and United States' interests. The U.S. response is to rapidly deploy the Objective Force in its technological splendor. The Objective Force arrives quickly - achieving strategic surprise - and overwhelms the enemy with advanced, precision systems. This decisive

victory seems to endorse the notion that the Objective Force as currently envisioned meets the needs of a future military. However, this scenario assumes much about the nature of warfare in the future, which is not necessarily supported by current trends.

What if the enemy force possessed and threatened the use of weapons of mass destruction either regionally or against the U.S. homeland? Would this have countered the rapid deployment of the Objective Force? Would aggressive targeting of aerial ports of debarkation (APOD) and seaports of debarkation (SPOD) have negated the strategic surprise of this rapidly deployable force? The scenario appears to closely resemble Desert Storm with the difference that the Army is now able to deploy a force with greater combat power more quickly. Yet trends indicate that the majority of actions which the Army will encounter are Smaller Scale Contingencies (SSC). Additionally, the wargame postulates that platform-centric warfare will continue to be waged in the future, yet Joint Vision 2020 points to an environment where network-centric warfare predominates.[20] Simply because a potential enemy possesses an industrial-age force does not mean that it must necessarily be countered in a similar fashion. Nor does it require that a potential adversary employ an industrial-age force conventionally or predictably. Other concepts need to be explored quickly before our thinking about the Objective Force becomes only an incremental improvement in capability.

FORGING AHEAD

The discussion up to this point has centered on the underlying assumptions that are driving the development of the Objective Force and the dangers of attempting to overlay current methods of warfare on the future force. Is it possible to move ahead with confidence in the exploration of technologies and concepts? What actions should be initiated now to ensure that the dollars allocated for technology development are used to gain the best *bang for the buck*?

OVERCOMING INERTIA

Much has been done recently to *jump start* Army Transformation including, newspaper and magazine articles, television specials, and briefings to everyone who would listen. Overall, this discussion has been general in nature, clearly recognizing a need, yet omitting many of the implementation details. Much of this activity has been undertaken to overcome the inherent bureaucratic inertia of a large organization like the Army. Budgets are being redirected and organizations are reorganizing, yet are we moving forward? We need to ensure that we do not confuse activity with progress, and some would argue that we are simply running in place. The Defense budget, currently at $305 billion dollars, consumes approximately fifty percent of the

Federal Government's available *discretionary* spending.[21] Yet, proponents of Transformation are asking for more funding without offering substantial reductions in other areas. Not one major system has been scrapped as a result of Transformation. For the most part, the response has been to restructure ongoing programs, like the Advanced Field Artillery System (AFAS), and systems that were initially scrapped have been added back into the budget.[22] This is an expected response. Typically large, organizations tend to view any change through the lens of their existing paradigm. This creates a technological push for new weaponry which will be grafted onto preferred and preexisting ways of warfighting and doing business.[23] Such an approach is clearly not the path to a revolutionary Objective Force. We must exercise caution so that layers of well-meaning middle managers, who pursue only incremental improvements over the status quo, do not bog down the top-down push for real transformation. The bureaucratization of innovation will be the death knell of the Objective Force. One current author on military innovation argues that to sustain innovation the Army requires a select cadre of officers in the mainstream of their profession, some with the prospect of reaching the highest ranks, who have peer respect, and who are willing to take risks.[24] This route was taken by several nations in the 1930's between World War I and World War II, in which individuals, like the British visionary J.F.C. Fuller, had profound impacts on the revamping of their nation's armed forces. Creation of such a cadre might provide the Army with an intellectual testbed that could work to sustain transformation in the years ahead.

OPERATIONAL FOCUS

The U.S. Army Training and Doctrine Command Pamphlet (TRADOC Pam) 525-66 "Objective Force Capability" OFC is the capstone document that attempts to link Research and Development (R&D) efforts with force level capabilities required by the Objective Force.[25] This document complements two other TRADOC publications – TRADOC Pam 525-5 "Advanced Full Spectrum Operations" and the Objective Force Operations and Organizational (O&O) Plan. The overall purpose is to provide the Army's Science and Technology (S&T) community which a mechanism to focus their R&D investments. The document is currently only available in draft form and was recently withdrawn from public review while it is being restructured. So, commenting on the adequacy and utility of the pamphlet is not possible. However, several observations about this methodology can be made.

Capabilities are notoriously vague and hard to completely define. For example, stating that the Army must be more lethal only marginally defines a future combat competency. The verbiage begs a host of questions that can potentially arise in the minds of scientists and

engineers who are working to develop advanced state-of-the-art technologies. Thus, publishing a document like TRADOC Pam 525-66 can help to direct these efforts by further defining the capabilities in more descriptive terms. However, this approach may also be counterproductive. By defining a capability too closely, the document may unwittingly preclude research in areas that are absolutely vital to the ultimate realization of this very capability. It is a little known, but verifiable fact, that most truly revolutionary innovation is serendipitous, and some scholars believe that true innovation is almost always unplanned.[26] In fact, brilliant people who were allowed to pursue the *art-of-the-possible* have stumbled upon inventions that have enabled wondrous advances in our society. An applicable, albeit lighthearted, example of this is the discovery of the glue that enabled PostIt ™ notes. In an unsuccessful attempt to create a more effective glue, scientists at 3M Corporation unwittingly created a product that has become an office staple.[27] We risk missing potentially crucial discoveries by constraining our S&T investment too closely.

ALLOCATING RESOURCES

The discussion above is not intended to suggest that we simply throw scarce investment funds willy-nilly to the R&D community and hope for the best. This method has unfortunately been used frequently in the past and has failed to provide conclusive results. However, it does point out the need for some unconstrained investment. Setting aside a certain percentage of the available funds for promising (albeit *hair-brained*) projects may pay larger than expected dividends in the long run. At the same time, we need to be skeptical of R&D projects that on paper seem to closely match a stated OFC. Research is often a long process, which develops slowly to a point where the results are easily demonstrable. Thus, there is a natural tendency for researchers and research organizations to desire to protect ongoing projects and activities, especially when it appears that funds may be lost or reallocated. Without some mechanism to ascertain the degree of alignment between the actual research and the stated OFC, we run the risk of misrepresenting progress toward technological goals and not achieving operational capabilities.

Additionally, it is usually very difficult to relate budgets to R&D results. By apportioning scarce resources to projects that are linked to an OFC, it would seem that we have only to wait for projects to complete on their firmly established timelines. However, in practice this is not the case. Most R&D project proponents tend to exaggerate the benefits and, not surprisingly, underestimate the costs of proposed research.[28] There is a saying among Program Managers that of the major program management variables of cost, schedule, and performance only two

are simultaneously achievable. While this may be an exaggeration, it points to the difficulty of managing overall program risk for R&D projects, which tend to be high in all categories. So, the difficulty in gaining acceptance and funding for R&D projects lies in convincing those in authority that the project is indeed executable. At the same time, since no one fully understands all of the risks or foresees all the potential, the stage is set for cost overruns, schedule delays, and less than desired project performance. The complexity of the resource allocation process is a major reason why innovative projects fail.[29] Thus, it is necessary for senior decision-makers to ensure that research proposals are funded for a sufficient length of time for results to begin to materialize. Too often the push for immediate success derails promising technological developments.

CONCLUSIONS

Is the Objective Force on the right track? While there have been some remarkable achievements in the Transformation effort, it does not appear that the Objective Force development has a sound foundation. So many constraints have been imposed on this program from the outset, that the likelihood of success seems remote. Many of these constraints, including the schedule, fail to appreciate the pace at which technology is developing. The General Accounting Office states in a recent draft report that technology may not mature quickly enough to match the Army's plans to begin fielding a Future Combat System this decade.[30] Relying too heavily on overly optimistic estimates is a sure recipe for disaster. In order to posture the Objective Force for success, it is imperative that the Army shape its Objective Force development by providing clear guidance, facilitating innovation, and structuring its efforts to provide maximum flexibility in an uncertain world environment.

GUIDANCE

The Army must provide clear and unambiguous guidance at the outset. While to date there has been an overwhelming number of briefing charts, direct written guidance has been lacking. Additionally, there is no evidence of a concerted look at potential alternate futures that may impact the Army in the future. Most of the available information on the Transformation simply assumes that a 20-Ton replacement for the Abrams tank will be required in the Objective Force. The underlying assumptions that are and will drive the Objective Force must be identified and agreed upon before serious work begins. By understanding the driving assumptions, the Army can better understand the future environment in which the Objective Force will operate. Current efforts appear to be disjointed with lots of good ideas but no clear

vision of the strategic environment in 2020 or the role of military forces within that context.[31] The direction is clear – the Army will transform. However, the mechanisms and motivations remain shrouded. The Army must take a step back and establish a clear path to the Objective Force. This should be done by first commissioning a detailed assessment of possible alternative futures. Procedures exist which futurists can use to project future scenarios with contain plausible branches and consider the impact of *wildcard* or unforeseen circumstances.[32] Once this is completed then the Army can begin the process of overlaying current and future technology developments on these scenarios. Technology development coupled with a robust ongoing process of experimentation can be used as triggers to guide future Army investments. In this way, the Army can hedge against constraining its range of system choices in the future.

Additionally, the Army should commission a White Paper for use in facilitating a public debate on Transformation. America's Army must ensure that it is responsive to the will of the American people. Heretofore, Transformation has been propelled from within. The Army must discern the needs of American foreign policy in the future and then address these challenges through a deliberate process of Transformation. Finally, Transformation must look outward. If we accept that warfare in the future will be Joint, then Transformation must be joint. The Army cannot implement Transformation in a vacuum. All Services must transform together to ensure the development of the best and most effective fighting force in the future. This process must begin immediately and will require direct oversight and involvement at the Department level.

FACILITATING INNOVATION

The Army must strike a balance between unconstrained R&D and micro-managing innovation. Current efforts to link R&D to Objective Force Capabilities are necessary, but must not be applied too stringently. Most innovation happens because a small group of individuals stumble across heretofore-unseen possibilities. DARPA is chartered with this mission for DOD, but here again they have been constrained by the Army's statement of the problem. Current FCS efforts are aimed at developing concepts around a 20-Ton replacement for the Abrams tank. This is exactly the wrong approach. Rather the Army and DARPA should be asking questions focused on establishing what is feasible technologically and how these technologies could be logically incorporated to support land combat. The Army must establish mechanisms whereby scientists and engineers can be given the freedom to innovate. Currently, the Army's Science and Technology Objectives (STO) are hindering this process, by demanding results on artificially constrained timelines.

Additionally, technology alone cannot be the ultimate objective of the Objective Force development. History is replete with examples where audacious soldiers using ordinary (and perhaps outdated) equipment have proven victorious in battle. Equal attention must be given to developing innovative new organizational designs, doctrines, and training techniques. The focus should be on the individual soldier and the small unit teams that are the mainstay and heart of Army operations. Where is the experimentation plan that accompanies the Objective Force developments? The Army should clearly specify the processes that will allow decision-makers to examine and choose systems for incorporation into the Objective Force. Unless this process is conducted in a deliberate, robust, and open fashion, confidence in the ultimate choices will be eroded. Much work remains to position the Objective Force for success.

WHERE DO WE GO FROM HERE?

Currently the Army is following a three pronged approach to Transformation. This approach has resulted in a certain amount of turmoil across the force with everything changing at once. Additionally, it does not appear that even with the new administration that the necessary funds will materialize to facilitate this approach. The Army must make a realistic and searching assessment as to what is fiscally achievable. The Transformation Campaign Plan looks to a point in 2003, where decisions will be made as to the composition of the Objective Force. This is remarkably out of sync with DARPA efforts to neck down FCS concepts, which will not come to fruition until 2006. Also, the 2003 timeline is unrealistic in that few R&D efforts commissioned now will bear fruit by then. Much has been tied to the promise of the RMA, but it remains unclear just what the revolution holds and what impact it will have on the development of the Objective Force. In fact, it may not even be possible for DOD to implement truly revolutionary change, given its ongoing national security responsibilities and the external bureaucracies and political forces with which it must contend.[33] Historically, most advances in military technology have been evolutionary rather than revolutionary. The military has consistently shown a reluctance to quickly adopt revolutionary concepts and systems without war as forcing function. It is unrealistic to expect that sweeping technological changes will be readily accepted into the peacetime military without strong advocates within the Army or without significant outside pressure from either the President or Congress.

The unpopular conclusion is to slow down the Objective Force development. The two axes of the IBCT and Recapitalization currently appear achievable and have strong support from Congress. With the advent of the IBCT, the Army will have a rapidly deployable, medium force, which complements its existing heavy and light capabilities. Additionally, the IBCT can

serve as a test bed for Objective Force organizational, doctrinal and potentially technology development. It is simply too early to charge down a path of Objective Force development without establishing a better-defined basis for the development.

A different approach is needed. The Army should initiate a formal and cross-disciplinary look at potential alternative future environments. In this way, the Army can analyze the future world environment and overlay a realistic assessment of what technology can and should provide to a future force. This process should then be linked with a robust program of experimentation that assesses the potential impacts and warfighting benefits of a wide variety of new developments. This can only be done after the Army has developed and communicated a viable vision of future combat that has been vetted against America's projected foreign policy needs. Unfortunately, this process may take some time to accomplish, since development efforts would be focused to address several alternate future, rather than concentrating on a single path. Such an approach reduces the risk of being exactly wrong and increases the range of availability technological solutions once a clear and realistic threat is identified.

Overall, the Army should focus its available resources on the IBCT and Recapitalization axes and slow down Objective Force developments to focus on the underlying conceptual fabric. Technology in and of itself will not make the Objective Force viable in the future. In an environment of broad technological diffusion, nonmaterial elements of military power – strategy, doctrine, and training – will become increasingly important.[34] The Army must focus on these elements to determine the role of an Objective Force in 2020 prior to committing to a single development path.

FINAL THOUGHTS

This paper has focused on current efforts to define and develop the Objective Force. The purpose was not to throw stones at the efforts undertaken to date, but rather to bring to light some observations that may have been overlooked in the fervor to transform. Will we have the same Army in 2020 that we have today? Absolutely not! However the risk of proceeding too quickly on a development path might mean that we field the wrong force in 2020. This paper proposes a more deliberate path to the Objective Force, which allows time for the necessary precursor steps to solidify prior to expending precious resources on dubious efforts. The Army today is the preeminent land force on the planet and will remain so for the foreseeable future. The other transformation efforts (IBCT and Recapitalization) will flesh out the force capabilities making the Army lighter, more deployable and more lethal than today. By delaying the

Objective Force and focusing on the basics, the Army can ensure that the Objective Force is brought to fruition at the proper time to fully face the challenges of the future.

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