"Combat Ineffective"

*Ethical Influence*

*the broken-down, rusting vehicle of American power*

Abstract

*Combat effectiveness*, the readiness of a military unit to engage in combat based on behavioral, operational, and leadership considerations. *Combat effectiveness* measures the ability of a military force to accomplish its objective and is one component of overall military effectiveness.

By all measures, the ability of the USG as a whole, but especially the national security community are currently “Combat Ineffective” regarding their ability to employ large- or small-scale influence operations. Even as late as the Cold War, the US, in a leadership role was demonstrably effective at ethical influence. *Influence in today’s world is the battlefield, not terrain.* It is at the heart of every serious natsec challenge we now face. If we do not regain our former prowess our national security is at risk as is our global leadership and prominence.

A short review of the objectives in 3 of our most relevant natsec documents, the *NSS* (National Security Strategy), *NIU* (National Intelligence Strategy) and *NDS* (National Defense Strategy) demonstrate the critical role of influence in achieving the stated objectives of the docs. Eighteen of the noted 21 combined objectives in these 3 documents directly imply influence and the remaining 3, probably so, depending on interpretation.

During the Cold War, the US had the ability to influence in support of our national security objectives and did so collectively with a leadership role alongside allies and partners opposing Communism. *Our success was achieved through a combination of hard and soft power, with the emphasis on the soft.* We not only established partnerships and alliances but did the hard work to improve, sustain and grow relationships in order to acquire more influence. With those same partners we robustly executed campaigns to influence for democracy and against communism. We built resilience at home to prevent the seeds of communism from growing while simultaneously degrading the communist ideology of our adversaries. All of these things and many more are regarded as influence. We not only knew what to do but we energetically campaigned to achieve our objectives. It seems that we’ve either just plain forgotten how, lack the will or most likely, both.
This paper will discuss some of our most critical shortcomings and offer suggestions to remedy them. As that the scope of covering everything is prohibitive, I acknowledge from the outset that much will be missed. My focus will be on the “must do” critical areas which include countless implied tasks.

To my professional colleagues, please know that this is not just criticism but constructive criticism. Most in my profession will agree with what follows but unless they are in a position of senior leadership, will have little to no chance to change what must be changed. The required changes must come from courageous and visionary leaders with the support of professionals, academics and most of all, practitioners. Our deficits in influence are rarely due to a lack of innovative and brilliant talent but a failure for that talent to be heard and acted upon.

Every single adversary or competitor from China and Russia to a variety of extremists are literally dominating the US and our allies/partners at the moment in the realm of influence. If influence, not terrain is now the primary battlefield, ceding dominance literally means we have failed at national security. Let’s work together to fix this before it’s too late. Step one though, like any 12-step program worth its salt, is to stand up and say; “I have a problem”. This paper is just that, admitting publicly that we have a problem and offering some pragmatic solutions.

Introduction

A quick scan of the bullet points beneath this introduction and copied directly from the NSS, NDS and NIS do not require a great deal of imagination to see that they are about influence in some form or another. Some of the points even say overtly, “to influence” or “promote” while others hint at such or imply a task that supports influence. You will also note that there are no direct references to “going to war”, continuing war in a combat zone etc. Yet… though some points indicate “building or strengthening the force” or “bolstering innovation”, there is nothing to suggest that we will build and innovate for being successful at influence. In fact, the current and 2021 budget assessment is replete with misaligned priorities to our current threats.

“At a macro level, the FY 2020 FYDP appears to be inconsistent with the NDS in several respects. Despite the NDS calling for a rebalancing of capabilities to focus more on great power competition and the threats posed by Russia and China, the acquisition budget does not reflect such a shift.”

- Analysis of the FY 2020 Defense Budget and Its Implications for FY 2021 and Beyond, CSIS 2/20

A brief survey of our current, prioritized threats such as China, Russia, Iran, N. Korea and extremism shows that we are not actually at war with any of them other than a CT effort against Islamist extremists in a variety of regions with the outlier being Afghanistan. As of this writing, Afghanistan, by every indication, is winding down in the next few months. Even Afghanistan is no longer a conventional war and as many would argue, myself included, it never has been nor should have been.

Influence is literally at the core of every major US natsec threat. Competition with Russia and China for example is largely via what is termed GCP, great power competition. Simply put, they intend to erode our position of preeminent influence in many regions and nations. The reason that we are leveraging
economic sanctions against Iran is influence and also, the on again/off again issues with N. Korea are a test of wills and leverage, again influence. Of course, building more ships, planes and tanks is deterrence which is its own form of influence but that is not enough as evidenced by Russia’s continuing assault on the US through malign influence that is most often associated with our elections. China leverages their economy and partnerships via their Belt and Road Initiative, (BRI) supported by an aggressive military build-up, yes, you guessed it, more influence.

It would seem that the US natsec community, especially DOD seems to believe that simply being the most powerful military in the world is enough influence via deterrence. If this were true, we would not be impacted by Chinese ascendency which targets regional domination by 2035 and global by 2049. If Russia were deterred, they would halt meddling in our domestic affairs and our elections. Iran would stop supplying Hezbollah and supporting Assad in Syria. Extremists would stop executing terrorist attacks and using propaganda to recruit. None of these things are occurring so by default, the gap between the natsec communities' stated positions is demonstrably inconsistent with their actions. It also clearly demonstrates that using only one form of influence, deterrence is inadequate.

So, when considering the above thoughts, why is there an apparent and dangerous disconnect between our intended NSS and the natsec community’s ability to effectively act? The answer is that we long ago lost our former prowess for being able to ethically influence in support of our objectives. We built and expensively sustain a defense architecture geared towards big ticket items and do not invest in the tools, resources, knowledge and infrastructure to accomplish influence. The paradigm is all wrong and everyone with even a modicum of experience in natsec knows it. The problem is that it’s just too hard to change… or so our leadership believes.

What follows is a discussion of our most significant deficiencies, some recommendations and a call to action for those entrusted with the sacred duty to protect our nation. Again, this is constructive criticism intended to chart a course that is effective, responsive and sustainable in modern warfare that is best characterized as a competition of wills rather than big ticket military hardware.


**NSS objectives:**

1. First, our fundamental responsibility is to protect the American people, the homeland, and the American way of life. We will strengthen control of our borders and reform our immigration system. We will protect our critical infrastructure and go after malicious cyber actors.
2. Second, we will promote American prosperity. We will rejuvenate the American economy for the benefit of American workers and companies. We will insist upon fair and reciprocal economic relationships to address trade imbalances.
3. Third, we will preserve peace through strength by rebuilding our military so that it remains preeminent, deters our adversaries, and if necessary, is able to fight and win. We will compete with all tools of national power to ensure that regions of the world are not dominated by one power
4. Fourth, we will advance American influence because a world that supports American interests and reflects our values makes America more secure and prosperous. We will
compete and lead in multilateral organizations so that American interests and principles are protected.

**NDS objectives:**
1. Defending the homeland from attack;
2. Sustaining Joint Force military advantages, both globally and in key regions;
3. Deterring adversaries from aggression against our vital interests;
4. Enabling U.S. interagency counterparts to advance U.S. influence and interests;
5. Maintaining favorable regional balances of power in the Indo-Pacific, Europe, the Middle East, and the Western Hemisphere;
6. Defending allies from military aggression and bolstering partners against coercion, and fairly sharing responsibilities for common defense;
7. Dissuading, preventing, or deterring state adversaries and non-state actors from acquiring, proliferating, or using weapons of mass destruction;
8. Preventing terrorists from directing or supporting external operations against the United States homeland and our citizens, allies, and partners overseas;
9. Ensuring common domains remain open and free
10. Continuously delivering performance with affordability and speed as we change
11. Departmental mindset, culture, and management systems; and

**NIS objectives or “must dos”:**
1. Increase integration and coordination of our intelligence activities to achieve best effect and value in executing our mission,
2. Bolster innovation to constantly improve our work,
3. Better leverage strong, unique, and valuable partnerships to support and enable national security outcomes, and
4. Increase transparency while protecting national security information to enhance accountability and public trust.

**Influence; What is it?**

*And its role in National Security Strategy*

The premise of this paper is that, we, the US, along with allies and partners, have insufficient natsec architecture, will and available knowledge to ethically and effectively influence in support of our natsec objectives. So, what is this mysterious thing called “influence”?

The Merriam-Webster Dictionary’s #1 definition is: “**Definition of influence**

1: “the power or capacity of causing an effect in indirect or intangible ways”
My version of a definition for influence relative to this paper: “Influence, done well is achieved by a complex and intricate choreography of sustained actions, words and related activities wrapped around a core narrative that continually modifies behavior in a manner supportive of natsec objectives.”

The NWC, National War College/NDU, National Defense University primer states in the overview in chapter 1 that:

“Fundamentally, national security strategy entails the design and application of ideas for employment of means as well as the orchestration of institutions and instruments of national power (diplomatic, informational, military, and economic) to achieve viable ends that protect or advance national interests. National security strategy bridges the gap from a less-desirable current state of affairs or condition to a more desirable future state of affairs or condition. National security strategy can apply broadly, organizing or guiding nearly all aspects of a state’s policy, or more narrowly regarding a specific situation. Conceptually, national security generally entails the competitive search for advantage over a foreign nation, group of nations, or non-state actor; a favorable foreign relations position; and/or a defense posture capable of successfully deterring hostile action.”

Though less succinct than the dictionary definition, the NWC primer speaks directly to influence as the primary tool of US national security strategy. Notable also is that it says directly that such influence is the “orchestration of institutions and instruments of national power (diplomatic, informational, military, and economic)”. The key word in this key phrase is “orchestration” and still, nearly 4 decades after the fall of the Soviet Union and when the US and our allies/partners effectively participated in such orchestration, the US no longer has a natsec architecture capable of achieving effective influence. Did we assume that influence would become akin to bows and arrows, muskets etc.? Did we believe that leading a unipolar world would only require demonstrable military power and the world’s largest economy? These and a host of other pertinent questions are at the heart of our problem. The common expression that many would recognize in their daily lives is that we became not only complacent but inattentive.

Who does Influence activities for the US?

This topic is a complicated one and for a variety of reasons. The short answer is… everyone, every agency or entity does this, but in theory only. The reason that this is “theory only is that orchestration is effectively non-existent. The long answer is much more difficult and takes some explaining.

First and foremost, we must know what we are influencing in support of. The NSS articulates this but in actuality, it is currently up to disparate elements of the USG to decide on their own how or if they can or will support it.

Inside the Beltway, DOS, Department of State and within the leadership of their regional bureaus, public policy agendas are discussed for implementation. DOD does much the same via the Pentagon and GCCs, Global Combatant Commands such as CENTCOM or AFRICOM, etc. Both DOS and DOD along with other USG entities attend an endless array of meetings to discuss influence strategy and execution. The hard truth though is that despite all of these coordinating entities and meetings, the amount of
actual campaigning that is derived from these meetings is negligible at best, ineffective at worst. This isn’t because there is an absence of talent and intelligence but largely due to the oppressive weight of bureaucracy, risk averse leadership and an absence of an effective coordinating mechanism that can act on those decisions and has what is called “tasking authority”. Tasking authority simply means that someone is in charge that has the authority to tell others what to do.

Although DOS and DOD are the first to come to mind when discussing influence strategy, they are hardly the only two worth discussing. Nearly every single US agency in some way or other also has connectivity with those outside US borders. As I often explained to commanders when deployed and executing influence campaigns, “anyone or anything that engages with my target audience is capable of influencing them”.

The Department of Agriculture for example has the FAS, Foreign Agricultural Service whose primary task is to engage foreign nations regarding markets and food security. This agency by default has excellent influence with foreign nations due to what is stated in their mission statement.

The Department of Education has the Bureau of Educational and Cultural Affairs which “provides an avenue for students to foster long-lasting ties with people around the globe, promote mutual understanding, develop leadership skills, and enhance educational achievements.” It would be difficult to interpret this intent as anything but influence.

The Departments of Agriculture and Education examples are but two of countless USG engagements with the outside world and every single one is an opportunity to support our NSS objectives but… they are very rarely if ever incorporated into natsec planning and execution. The operative question here is “why”. We will get around to answering this question a bit later in this paper.

During the Cold War, the US had the USIA, US Information Agency which largely was responsible for coordinating USG efforts to combat the influence of the USSR and promote US democratic values. Many of the other agencies of the US government played a role in our wide-spectrum anti-communism campaigning, verbally and by actions. While not perfect it did provide a mechanism for coordinating US influence. With its demise in the late 1990s, we no longer have any such mechanism.

There are now plenty of ad hoc efforts or even officially designated entities but not one single one has either the political capital nor funding to achieve comprehensive effects.

DOS, Department of State

The lead for US foreign policy obviously is DOS. There are multiple entities within DOS that coordinate, analyze, and make recommendations for the implementation of US foreign policy. Each and every one has missions that somehow speak to influencing in support of US objectives, including the NSS. In theory, with so many bright professionals focused on successful implementation of US policy one would think that we would make more progress than the negligible amount we currently see. Like DoD and other agencies, the lack of progress is not for lack of talent, but something that you will read often in this paper, a lack of an effective mechanism across the spectrum of the USG for orchestrating policy.

DOS does though do the best they can to at least synchronize within themselves, despite limited resources. For example: “the Under Secretary for Public Diplomacy and Public Affairs serves as the lead policy maker for the Department’s overall public outreach and press strategies, whether conducted
This is the team that keeps US foreign policy messaging and support synchronized at least within DOS and with the intention of wider synchronization. The public affairs efforts here are key to ensuring that the decisions made by Ambassadors and other affiliated senior leaders are presented in a manner that supports the overarching US NSS and its regional and country specific outreach. Of course, this would be more effective with an overarching narrative strategy, not just at State but at even higher levels, which it doesn’t. Still, this office does the hard work of attempting to synchronize engagement with the outside world so that everyone both understands our intent and isn’t confused by it. The Bureau of Global Public Affairs, are the actual voices of that effort.

DOS, arguably a critical factor in the US’s ability to ethically influence, currently has problems just managing day to day business due to funding reductions, staffing issues and morale. The GEC, Global Engagement Center is charged with leading US strategic influence efforts both offensive and defensive but other than close relationships with other partners such as DOD, has few resources available. To be fair, the GEC’s primary function is to coordinate and synchronize but still, without a mechanism for effective operational control even their leadership is insufficient to address their mission. A key phrase in the vision portion of their mission statement is “proactively address” but again, if those sitting together with the GEC do not take a proactive approach, all the synchronizing, analysis and recommendations come to naught.

**CD/ Critical deficiencies at DOS**

DOS, specifically the Ambassador who is the president’s personal representative in a nation is literally the face of America in foreign countries. Nothing can occur via US agencies or companies without the Ambassador’s approval. The short version of why this is important is that relative to US strategic objectives, there must be focused coordination to ensure that any US entity working in a nation is working towards our strategic objectives which include those articulated in our NSS. The Amb. is literally the arbiter of US interests. In theory, this means that NSS is part of their portfolio. The Amb. and embassy staff must be well aware of and pursue through the Amb’s vision the tenets of our strategy. This is rarely an issue with career FSO’s (foreign service officers) but as with all administrations, political appointees often fail to see the whole picture.

In regards to direct influence, the GEC, Global Engagement Center at DOS is charged: “To direct, lead, synchronize, integrate, and coordinate efforts of the Federal Government to recognize, understand, expose, and counter foreign state and non-state propaganda and disinformation efforts aimed at undermining or influencing the policies, security, or stability of the United States, its allies, and partner nations.”

The GEC, as can be seen by their mission statement is at the heart of the fight regarding foreign influence targeting the US and partners. Like DoD and other US entities, the GEC is staffed by talented, forward thinkers. They interact with all of the primary participants in their mission efforts. They host excellent analysis and in fact share effectively with their partners. As for “leading”, they are hobbled, like everyone else by the weight of bureaucracy and lack of tasking authorities.

The primary problem when it comes to fighting foreign malign influence, is that one of the most effective approaches is resiliency. For an entity “leading” our efforts, they have little to no role at all in hardening targets within the US. Just sharing with our allies and partners isn’t enough. As demonstrated by our 2016 elections and continued foreign efforts, our population is the target most in need of “hardening”.
The other primary issue hobbling the GEC being effective is that those they partner with, and in particular DoD are risk averse, resource starved and fail to actually campaign with the knowledge shared at the GEC table.

Finally, considering the fine work done by analysts at the GEC and their partners, their public website is barren with information regarding that analysis. They, as the lead agency for protecting the US from malign foreign influence must make an unclassified version of analysis available to the public so that anyone searching their page could access that analysis. This would be especially helpful to organizations and local governments who cannot participate in briefings, VTCs or events. Again, knowledge is useless unless in the hands of those who need it and will actually put that knowledge to work. Foreign influence is a battlefield and must be treated as such. Just imagine what would happen if every military member in a combat zone didn’t have access to their weapons.

The bullets, quotes and linked reports below articulate better than I ever could some of the biggest challenges for success in the DOS mission:

- First and foremost, under the current administration, DOS has seen a 30% reduction in staff which hampers its potential to do anything more than merely keep up with its day to day tasks.
- Along with staff reductions have come significant funding decreases. USAID which is one of our long used and most effective tools for partnership and influence in partner nations has seen some of the most draconic cuts.

“On March 11, 2019, the Trump Administration proposed its FY2020 budget for the Department of State, Foreign Operations, and Related Programs (SFOPS) accounts, which fund U.S. diplomatic activities, cultural exchanges, development and security assistance, and U.S. participation in multilateral organizations, among other international activities”

- CRS report: Department of State, Foreign Operations, and Related Programs: FY2020 Budget and Appropriations Updated March 12, 2020

“State, Foreign Operations, and Related Programs (SFOPS) accounts, which fund U.S. diplomatic activities, cultural exchanges, development and security assistance, and U.S. participation in multilateral organizations, among other international activities was lower than any SFOPS funding level in the last decade”

-CRS report: Department of State, Foreign Operations, and Related Programs: FY2020 Budget and Appropriations Updated March 12, 2020

The State Department’s mission is compromised by “staff shortages, frequent turnover, poor leadership, and inexperienced and under trained staff,” the department’s inspector general warned in a new report.

“Workforce management issues are pervasive, affecting programs and operations domestically and overseas and across functional areas and geographic regions,” the watchdog reported Wednesday.
As always, let’s start with where we are now. First and foremost, DoD has long been uncomfortable with the word influence, preferring other doctrinal terms like IO, Information Operations or IW, Information Warfare. Regardless of what DoD calls their efforts, they are currently and have been for decades, best described as and the reason for the title to this paper; “Operationally Ineffective”. The Pentagon’s efforts at influence could easily be portrayed as a Rube Goldberg machine, something relatively famous in my youth. A Rube Goldberg machine is an intricate, overly complicated contraption capable of only carrying out a simple task.

IO doctrinal changes and considerations over the past decade or so have been overwhelmingly focused on tinkering with the machinery of their IO Rube Goldberg machine rather than finding a way to actually make it more effective and do more than a simple task.

As the only entity within the USG with an allegedly organized system capable of influence across the spectrum of activities required in my definition above, is DOD. As this is my personal area of expertise, I will offer more insight here.

The format for what follows regarding DoD will be, first to understand what IO looks like and then to take a look at critical deficiencies, which will be in bold and underlined.
What is IO?

IO, the acronym for Information Operations which is evolving into IW, Information Warfare doctrinally is primarily where influence is nested at DoD. It is part of operations and its mission, architecture etc. is laid out in JOINT PUB, 3-13. Although this publication is being re-written, here’s the DoD definition of record; “the integrated employment, during military operations, of information-related capabilities in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision making of adversaries and potential adversaries while protecting our own”.

From a lay perspective most are wondering just “what in the hell does this mean”? As a longtime member of this community, I have often wondered the same. Scrolling through the 80 + pages of J 3-13, I doubt that any reader not well-versed in military doctrine will understand the relationship of the doctrine to influencing in support of natsec objectives. In an era where DoD supports natsec in operations far from kinetic battlefields and in conjunction with partner forces, civilian agencies and more, simple, clearly articulated concepts are more important than doctrine written by and for those who do so. To be fair, most who write IO doctrine are some of the best and brightest but are also victims of a system that speaks more to itself than to users.

This is a good time in this paper to advance what many consider a radical concept; “Influence is not part of operations, it is operations.” Even in the heat of a pitched battle between adversaries, the intent is to influence the other side to give up, alter their strategy in a manner beneficial to your side or a variety of other effects. Overwhelming force is convincing but so is deception, undermining the morale of the opponent, confusing opposing commanders to your strength and position etc. No matter what the military does, there is at least one intended effect that can be best accomplished by doing multiple things or not, simultaneously. To do this well, doctrine must be much more focused, streamlined, integrated and easily explained. The current hieroglyphics of IO doctrine is not capable of this.

In my days as an IO practitioner in uniform, I never used IO doctrinal language to brief a commander that I was seeking approval from to execute influence. I had learned early on that busy commanders whether in tactical, operational or strategic roles didn’t have time to decipher what IO doctrinal language means. They simply wanted to know in basic terms if it could be done, was it legal and could I demonstrate that it worked? The IO community, mistakenly assumed to be versed in influence had failed the first rule, “they failed to understand their audience” when staffing.

For any organization to be able to influence, it must be as practiced, trained and agile as our finest special operations forces. It must be able to adapt in real-time as well as it does long range planning and execution. It must interact with partners responsibly. Simply put, it must be as influential as it is lethal.

The next portion of this paper will be to address what I consider to be the five most critical deficiencies within DoD regarding being effective in influence. Were there time, there could be at least 50 but for the purpose of making the salient points as succinctly as possible, we’ll stick with 5.
CD/ Critical deficiencies at DoD

1st CD: coordination, staffing and tasking authority

In the past three decades, the US has relied far too heavily on the US military to do its bidding in engagement outside our borders regarding influence. Someone in uniform has all too often been the only or most prominent face of America during times when our influence has been most needed. This is not to say that other agencies/entities have not participated, because they most certainly have. The problem though in places like the Middle East, all parts of Asia, Africa, South America, Europe etc. is that there has been no effective method for synchronizing the efforts of our instruments of national power when they were participating. To this point, JDN (JOINT Doctrine Note) 1-18 on page II 8, describes the importance of and the requirement for the means but does not identify such. The lack of ability to identify the means for orchestration is a gap that is cavernous and the first aspect of the DoD portion of this paper that we will take a look at.

Per the earlier definition that I use for influence, DoD is the only USG entity that can control multiple elements capable of exerting it at one time… or can they? For this reason, outside US borders DoD is often seen as the lead department. In combat zones and/ or failed states, this is often a responsible and pragmatic answer. The problem is, in current form, it is not capable.

“Influence, done well is achieved by a complex and intricate choreography of sustained actions, words and related activities wrapped around a core narrative that continually modifies behavior in a manner supportive of natsec objectives.”

Before proceeding, it is important for non-military readers to understand that like many nations, the US military operates on three different levels; strategic, operational and tactical. There are multiple layers of staffing at each level.

DoD is organized in a byzantine manner that creates “fiefdoms” called GCCs, Global Combatant Commands. Each commander, much like a feudal lord has enormous power on their own turf. One of the problems though is that most of our prominent threats span multiple or all GCCs such as dealing with China and her global ascendency. If we are to effectively coordinate influence activities as part of a NSS-centric strategy, such coordination becomes overly difficult. Commanders in a sense “own” the resources and assets assigned to them. Often, there is not enough to go around and each CDR has to be willing and able to relinquish resources. This is not always practical or doable. The Pentagon in the past handful of years has tinkered with new concepts to improve on this but to date, nothing of value has come from any such effort.

To make matters worse, each command and supporting command has their own layers of staff and resources assigned. Coordination between the top, down to individual commands is best portrayed as the childhood game of playing “telephone”. By the time plans, products and ideas go up and down the different levels of staffing, they often are dramatically different than the original. As an example, let’s say that a local commander in Somalia has a PSYOP team with a great idea; that idea filters up through
every layer of staffing locally and then back to the US where it also goes through multiple layers of staffing. By the time a response comes back down to the original team, it has been edited, hacked at, chopped on watered down to be almost ineffective or obsolete due to the time it took to staff.

Anecdotally, as an IO practitioner in Afghanistan working for a Special Operations TF (task force), if I used US influence tools, which are called ‘capabilities”, there were very few times that I received timely and locally relevant support. If I walked across the road and used local NATO support, I had exactly what I wanted and nearly always within a day. It wasn’t that my US providers weren’t good at their job but due to staffing requirements and too many “edits”/ suggestions, products became watered down and were absent the local insights required to be effective. Often, the length of time it took to even receive these made those products irrelevant because of the long development/ staffing time.

At the strategic level, coordination between the Pentagon and the GCCs is even worse and rarely produces anything of value to either. The Pentagon who is primarily responsible for strategic influence, is also the home to our next critical deficiency; STRATCOMS.

Finally, under this topic the most serious coordination issue is that IO/ IW doesn’t own any resources or assets. It is literally a “mother, may I?” situation where commanders cannot control/ task what needs to be done to support their mission. It’s up to the IO planners to get everyone together, create a plan and then hope that all of the required tools (IRC) will commit what is required, in the manner requested and at the time needed.

The daunting conclusion to this section is that the architecture of IO is maddeningly over-complicated, confusing, not practiced the same everywhere and in desperate need of a full overhaul.

As a visual example of just how confusing IO doctrine can be are the two graphics below. As a practitioner, they still baffle me.
Figure I-4. Application of Information-Related Capabilities to Achieve Influence
2nd CD: Little or no Strategic Communications

First, let’s get a couple of definitions in place before we wade into this topic. I want to also note that while this particular discussion is under the DoD heading, much also applies to the rest of the USG as well, particularly at the most senior levels.

What is SC, Strategic Communications? There are several definitions on this term, some succinct and some overly involved. As an example of a sound non-military version, I like Chatham House’s version: “A systematic series of sustained and coherent activities, conducted across strategic, operational and tactical levels, that enables understanding of target audiences and, identifies effective conduits to promote and sustain particular types of behaviour.” (Please note the similarities here to my articulated definition of influence above)

NATO uses the term “STRATCOM” and it is slightly different but in important ways for military applications. It is defined as: “There are many definitions that define Strategic Communications. The current NATO approved definition of Strategic Communications says that Strategic Communication is the coordinated and appropriate use of NATO communications activities and capabilities - Public Diplomacy, Public Affairs, Military Public Affairs, Information Operations and Psychological Operations, as appropriate - in support of Alliance policies, operations and activities, and in order to advance NATO’s aims.”

DoD: Strategic Communication Joint Integrating Concept. Strategic communication is the alignment of multiple lines of operation (e.g., policy implementation, public affairs, force movement, information operations etc.) that together generate effects to support national objectives. Strategic communication essentially means sharing meaning (i.e., communicating) in support of national objectives (i.e., strategically). This involves listening as much as transmitting and applies not only to information, but also physical communication—action that conveys meaning.

What is far more important here than arguing the wordsmithing of definitions is the absence of STRACOMS from the USG and especially at DoD. In 2012, DoD abandoned SC and wove their job into Public Affairs and other functions such as IO where none of those functions are accomplishing the SC mission. Truth be told, DoD is best suited in a supporting role for SC but the USG as a whole, other than the GEC and a handful of PAOs and senior leaders is disconnected and lacks both a synchronizing mechanism and a robust effort.

For the sake of simplicity, let’s assume SC should be the virtual backbone of the USG’s efforts to communicate the meaning of our words and actions around the globe via narrative-centric outreach. Meaning is crucial so that allies, partners and adversaries are not confused about US intentions. The result is chaos, indecision and distrust. No paper that discusses DoD would be complete without a Sun Tzu quote and this one applies here: “there is opportunity in chaos”. This may be true for those skilled in strategy, well-organized and with sound leadership but this is not the current case within DoD when it comes to SC, IO or anything else, influence related. The only influence tool with the potential to resolve chaos in influence campaigns is narrative.
3rd CD: A near complete lack of understanding regarding narrative

The problem within DoD, like most USG public communications groups is that most don’t actually understand what narrative is. This makes it nearly impossible to develop and execute a narrative-centric influence campaign, even if an effective organization existed.

War is a contest for influence. This contest occurs in narrative space that contains terrain and has morphology. Organizations, nonstate actors and states operate throughout the narrative space to influence partners and opponents to accomplish their interests.

-Brian Steed

Narrative strategy is critical as the core of any influence campaign because it confers meaning on what audiences see, hear and experience. If we don’t offer a meaning, our adversaries most certainly will. Once a narrative is established, it is exceptionally difficult to defeat. The only thing that beats an existing, established narrative is a more compelling, alternative narrative. Counter-narratives alone do not work but are valuable in a complete strategy that includes both offensive and defensive narratives.

At the moment, the truth is that we are engaged in narrative warfare with Russia, China, extremists and many more, not Information Warfare.

We are not engaged in an information war; we are engaged in a war over the meaning of information.

-Dr. Ajit Maan

Let’s start with the basics and build from there; What is narrative?

Narrative is as natural to human beings as breathing. We are meaning-seeking animals and our primary means of meaning-making is narrative. Narrative is the way we create, transmit, and in some cases, negotiate meaning. Without narrative, life would be experienced as an unconnected and overwhelming series of random events. We organize, prioritize, and order our experiences through narratives that we usually inherit. What’s more, we understand not only the world around us, but also ourselves, through the narratives we live by; our personal narratives inform our personal identities, our tribal/familial narratives inform our tribal/familial identities, and our national narratives inform our national identity.

-Dr. Ajit Maan 2018

Our Think/Do Tank, Narrative Strategies, uses the following equation when instructing natsec community members about narrative:

The primary construct of narrative: NARRATIVE = Meaning + Identity + Content + Structure ©

Meaning: Narratives do not necessarily tell the truth, they give meaning to a succession of events, facts (real or otherwise). That does not necessarily imply that narratives involve patent dishonesty although
they may. It does though mean that when narrative is presented based on the art and science of narrative it does not allow the audience to derive their own meaning. The narrator (s) control this.

**Identity:** Literally, who someone or some group is. All people and groups, families, tribes, clubs, nations, religious entities etc. have specific identities unique to them. Within a group, not all are precisely the same but have shared “layers” of identity.

**Content:** The facts, pieces of information (true or not) the story/narrative is built around. Remember, narrative gives meaning to the information included in the story.

**Structure:** The way the content is told is the form or structure of the narrative. The most recognized Western structure is the one outlined by Aristotle, that which has a beginning, a middle, and an end. Not all cultures share this structure, particularly outside the Western world.

Every single TA, target audience has its own unique NI, narrative identity. Each TA also communicates in their own unique way structurally. Whatever the meaning intended to be communicated and based on the content must take NI and structure into consideration or risk ending up with a confused TA. For experienced open source analysts, it’s far more common than not to see that our allies and partners, as well as our adversaries are more confused than less by US statements and actions. Speeches, PRs, press releases are not enough unless they are built on narrative principles and are used to actively and persistently engage each unique audience. In other words, we must campaign by keeping narrative principles at the core of every effort, without exception.

To build and orchestrate a narrative-centric influence campaign requires forms of INTEL collection and analysis outside of existing disciplines. None of the existing INTEL disciplines collect in the categories noted in the equation; N=M+I+C+S. It is only logical that if you do not learn to collect and analyze the required information, you cannot develop an effective narrative-centric campaign.

Another significant and long-recognized/unaddressed deficiency is the ability to effectively assess the success of failure of influence campaigns. Again, types of collection represent the primary obstacle. In a country that has Madison Avenue, synonymous with modern advertising, it is almost unfathomable that DoD cannot tap into the expertise for assessing the effectiveness of campaigns.

To put things into a summarized perspective from this critical deficiency please think long and hard on the following;

If we accept the premise that influence is; “is achieved by a complex and intricate choreography of sustained actions, words and related activities wrapped around a core narrative that continually modifies behavior in a manner supportive of natsec objectives” then by default, explaining the meaning of those words and actions is the critical piece of our strategy. As noted, if we don’t explain our meaning, our adversaries will and if they are first and convincing, it’s nearly impossible to alter that narrative. Furthermore, without transmitting meaning both our adversaries and our allies will be confused to our intent, a fatal flaw.

**Narrative,** done well and built on solid narrative principles is the only mechanism of influence that transmits meaning simply because that is how humans have always conferred meaning. It’s literally in our DNA.

One overarching narrative is not enough. A narrative-centric strategy requires a what we call a FON, family of narratives that incorporate the full spectrum of offensive and defensive narratives.
Understanding the principles of narrative and their practical “how to” applications falls into the category of training and tradecraft which will be our next CD, critical deficiency.

4th CD, antiquated and ineffective training and tradecraft

In regards to training and tradecraft, DoD, the only entity with an alleged system for influence is overwhelming deficient. In an extensive RAND 2012 study of IO and related activities in Afghanistan, Dr. Arturo Munoz and Erin Dick “concluded that there was a disconnect between the doctrine and practice of information operations (IO) in the field that was counterproductive to effective and efficient operations.”

Key Finding from this report:

While there have been some tactical IO successes in Afghanistan, little progress has been made in the area of doctrine integration and harmonization and the establishment of measures of effectiveness in the five years since the previous study period ended (2010).

This deficiency will have an even greater negative impact as the United States continues to reduce the number of troops in theater and as resources to combat the enemy's propaganda offence remain limited.

In a report released in conjunction with the RAND IO analysis listed above, RAND issued a report on PSYOP effectiveness in Afghanistan that was also far less than favorable. The highlights are as follow:

Key findings:

- Efforts to win the support of the Afghan population for U.S. and allied military operations have had mixed success.
- The most successful initiatives were those involving face-to-face communication.
- The most notable shortcoming was the inability to effectively counter Taliban propaganda against U.S. and NATO forces regarding civilian casualties.
- Inadequate coordination, long response times for message approval, and an inability to exploit informal, oral communication were among the most significant problems with these initiatives.

Graphic from the RAND report:
To further the point that connects training to effectiveness, Dr. Montgomery McFate writes:

“Socio-cultural analysis shops, such as the Strategic Studies Detachment of 4th Psychological Operations Group and the Behavioral Influences Analysis Division of the National Air and Space Intelligence Center, are underfunded, marginalized, and dispersed. Because they lack resources, their information base is often out of date.”

Dr. Thomas Johnson, of Naval Postgraduate School and author of *Taliban Narratives* is more pointed regarding the failure of the US generally and the IO/PSYOP community to effectively integrate culture into their campaigns, writing;

*IO efforts were examined using the U.S. PSYOP Book from 2009. The analyses concluded with the notion that the U.S. had to basically surrender to Taliban dominance in narratives and associated stories. The U.S. efforts basically refused to accept Afghan cultural reality*

In the *voluminous PSYOP handbook* an attempt to search it will reveal that the word culture is referenced 31 times and yet, as we have seen in the RAND study and other comments, this is still one of the organization's most significant flaws. For an influence organization that operates outside US borders, this is not only a deficit but a fatal flaw.

I will add that, in my long experience as a practitioner with more than a handful of deployments, Cultural intelligence across the spectrum of DoD and other entities operating in combat zones is generally poor. There are exceptions such as within certain SOF, Special Operations Forces communities but I repeat, these are the exceptions. I spent part of each year for 5 successive years (2009-2013) in Afghanistan as an IO officer. It wasn’t until after the first and the only deployment attempting to employ doctrinal approaches, that I found success. *Success came in the form of pragmatism and most of all, putting local culture at the core of my efforts.* Doctrine and process didn’t work then and sadly, still doesn’t.

An issue that DoD absolutely must address and goes to the heart of the failure to influence is the concept of the person responsible for making influence happen, the “IO Planner”. IO is seen exclusively by DoD as a staff job whose purpose is to bring together doctrinal pieces/tools called *IRCs (information related capabilities)* and work towards a plan that synchronizes the tools that the IRCs can bring to bear. These
tools are narrowly defined by doctrine and often not “owned” by the local commander. In short, the experts get together and pose suggestions of what their respective IRCs can do and then have to go back and ask if those that own the resources can and will participate in the manner recommended. To say this system is unwieldy and unproductive would be far too kind.

Whether it’s the Army’s IO “school-house” or the JOINT Staff College version of the IO course, “doing” and understanding influence is not even remotely part of the curriculum focus. All IO courses largely focus on planning expertise and staff functions. This is the military version of teaching architects only how to draw and to schedule sub-contractors for work but never teaching them about the house they are going to build.

IO Planners must be taught to become IO “doers”. IRCs must be owned and at the disposal of commanders. The “mother may I” aspect of asking rather than tasking renders nearly every single so-called campaign at the mercy of those sitting all too often far away. To make matters worse, with limited tools available, just asking doesn’t mean getting. This would never happen to an Infantry brigade where the commander has control of their resources and can maneuver with resources under their control.

Finally on the topic of “IO Planning”, DoD must build, train and deploy teams that represent all IRCs and that have control of the requisite resources. Every single member of these teams, much like SOF (Special Operations Forces ODAs) (Operational Team Alphas) would have practitioner skills in addition to planning skills while cross-training on the skills of their teammates.

As it applies to this CD, this issue of tradecraft, or how we go about influence either overtly or in a covert manner, the skills are best described as “lost to history”. The last time we employed such tradecraft in scale was during the Cold War. A tiny fraction either inside or outside of DoD actually teach the skills now and in fact, are not taught at all by any doctrinal discipline. Having knowledge is one thing but that knowledge is irrelevant without use.

The predecessor to the CIA, the OSS had a structured approach to influence in support of the WWII war effort, which both taught and employed tradecraft. The OSS’s Office of Morale, or MO for short was a largely successful enterprise. Follow-on efforts by the CIA continued but post the Cold War, for a long list of reasons, the efforts diminished substantially. For reasons of classification we’ll just leave this as described as “not up to the old standards and scale”.

DoD, rarely delved into this arena post-Cold War and even then on a very limited basis. Today, the efforts can be found only in niche areas and again, as with the IC, not at all on a scale that will make an impact strategically. The bottom line is that there is a critical gap of tradecraft that must be part and parcel of any effort to restore US influence capabilities.

5CD: failure to campaign:
The DoD definition of “campaign” is: “A series of related operations aimed at achieving strategic and operational objectives within a given time and space”

**My single biggest frustration with DoD when it comes to influence is their failure to campaign.** Once again, looking at my definition for influence: “influence is achieved by a complex and intricate choreography of sustained actions, words and related activities wrapped around a core narrative that continually modifies behavior in a manner supportive of natsec objectives” we can see that large or supporting influence campaigns, like their kinetic brothers require multiple things occurring in sync and often simultaneously. On a daily basis with few exceptions, this does not occur within DoD. CENTCOM being the exception and largely because they have received the lions’ share of resources over the past few decades due to actually being involved in “shooting wars”. Urgency is always good for innovation and being proactive.

All too often, much of DoD in their respective AOs, areas of operation, have little or nothing going on in the IO realm. They may have some military operation ongoing but there is a paltry amount of effort that amplifies and exploits the activity. PSYOP campaigns as a rule take months to put together. In our modern world, events come fast and furious and there is virtually no method to participate in real-time for nearly all units/commands.

As that influence is dimensional thinking and most military planning is linear in nature, sometimes an example works better to illustrate a point.

Let’s try a simple example using INDOPACOM as an example. In the example that follows, we’ll look at the broad-brush focus of INDOPACOM and see what it would look like if they were doing multiple things simultaneously.

Before beginning, I want to make it clear that I’m not singling out INDOPACOM and that they are merely an example. In fact, the overworked and understaffed professionals responsible for the efforts do their best with what they have and a DoD bureaucracy that weighs them down in administrivia.

**Per a statement from the SECDEF (Secretary of Defense) last June, this is the broad-brush focus of the command:**

- **Preparedness** – Achieving peace through strength and employing effective deterrence requires a Joint Force that is prepared to win any conflict from its onset. The Department, alongside our Allies and partners, will ensure our combat-credible forces are forward-postured in the region. Furthermore, the Joint Force will prioritize investments that ensure lethality against high-end adversaries.
- **Partnerships** – Our unique network of Allies and partners is a force multiplier to achieve peace, deterrence, and interoperable warfighting capability. The Department is reinforcing its commitment to established Alliances and Partnerships, while also expanding and deepening relationships with new partners who share our respect for sovereignty, fair and reciprocal trade, and the rule of law.
- **Promotion of a Networked Region** – The Department is strengthening and evolving U.S. Alliances and Partnerships into a networked security architecture to uphold the international rules-based order. The Department also continues to cultivate intra-Asian security relationships capable of deterring aggression, maintaining stability, and ensuring free access to common domains.

Currently DoD focuses almost exclusively on big, demonstrable force-posturing to message their intent, occasionally highlighted but not amplified press releases of key leader engagements and
exercises. There is very little PSYOP activity outside of some CT efforts and not in a focus region relatable to the points above. On a case by case basis use of other IRCs can be seen. Public Affairs doesn’t fall under the IO effort and so is somewhat disjointed from the command’s NSS efforts.

On any given day, the USG in some fashion is involved all over the INDOPACOM region, whether it be DOS, DoD or the myriad of other USG entities that engage with regional nations. Every J39, the GCC individual in charge of IO should have every day, a spreadsheet in front of them that shows multiple activities by different IRCs executing their strategy in a multitude of locations if we are to start competing.

The command’s tasking as seen in the 3 bullets from the SECDEF are not mutually exclusive. Multiple IRCs and engagement with other USG entities doing something on behalf of the USG and the noted objectives could be doing something nearly every day to promote those objectives. This harkens back to our discussion earlier about narrative.

Here are just a few suggestions to make the point of campaigning rather than over-staffing individual events and efforts:

- Just doing FONs (Freedom of Navigation Ops) sends a message to our adversaries’ military structure but does almost nothing for the other regional audiences. A persistently employed supporting narrative would explain to all relative audiences via print, SM (social media), TV and personal engagement the meaning of those FONs.
- **Aggressive engagement with narrative-centric messages** about a FON op across the region would fortify the belief of nations at risk of Chinese dominance that the US is a reliable security partner.
- Narrative-centric and aggressive messaging about a prominent commercial agreement between the US or a US corporation across the region demonstrates that the US is investing for the long term.
- Narrative-centric PSYOP and CA, Civil Affairs team campaigns to reach a variety of target audiences in the region that are critical to the overall US strategy and that are fully or partially isolated from regular media.

For centuries, Civil Affairs (CA) has long been called upon to facilitate stable and secure transitions from military to civilian control and from conflict to peace. Recently, CA is helping to bring together whole-of-nation elements to engage partners and mitigate conflict. In short, CA is a major national strategic capability that helps end and prevent wars. This capability along with Military Information Support (formerly Psychological Operations) and Foreign Area Officers, comprises the only part of the Joint Force specifically suited for Peace & Stability Operations as well as Engagement.

*Holshek 2015*

- The US, especially via SOF, trains militaries around the world and all over the INDOPACOM region but we rarely are told the bigger picture of “why”, just that they did it for security cooperation. This isn’t enough, PSYOP, PA and outreach to the media needs to show that security cooperation is the US’s way of investing in and looking towards a long future relationship. Again, this is the whole point of narrative, to give meaning to what audiences see, read, hear or otherwise.
- The old adage about how long it takes to build trust is relevant here. Building trust, not just with foreign militaries or through diplomatic channels is not enough. Popular understanding
by local audiences of reliability must be built as well. In some cases, this is even more important than high-profile diplomatic efforts because local politicians/leaders need to fully and accurately understand our intent as well.

The bottom line to this handful of suggestions is that robust influence campaigns are virtually absent from DoD operations.

For those that are still struggling to get the point, here’s another analogy. Now that we are in election season, we are bombarded with ads, appearances, personal engagement, canvassers knocking on doors, flyers, tweets and so on. These happen all day/every day. If you don’t campaign the risk is losing your audience to a competitor. China follows the US campaign model meticulously. There is no event, idea or otherwise that they don’t use every tool or IRC in their toolbox to influence. We are literally “bringing a knife to a gunfight”. We’re not just overmatched by resources but willingness to compete.

Summary

As this long white paper edges towards its conclusion, a gentle reminder seems appropriate regarding my opening comments. This stark assessment and discussion of the inability to influence in support of our NSS objectives has been a labor of love, albeit, “tough love”. It’s never easy to lay heavy criticism on colleagues and the profession that you have a passion for, no matter how well-informed. Still, there is too much at stake to not speak truth to power.

At some point we have to be honest with ourselves that exclusively building big ticket defense tools such as planes, ships and tanks are not enough to keep us safe and relevant on the world stage. We’re being challenged and beaten at every turn in the one primary area demonstrably the most important and based on our highest national security documents… influence.

Senior leadership over the past couple of decades has relatively ignored the obvious or been unwilling to address the critical vulnerability of having no effective influence architecture. As we can see from our primary threats such as Russia, China, Iran, N. Korea, extremists etc. we’re losing ground. The reason we’re losing ground is because we’ve either forgotten or ignored something that we were not only good at, but were good at leading others with… influence.

Our complacency and yes, some arrogance that as a unipolar power for the last two decades was the only influence, we needed has put us far behind the power curve and at a time when we can least afford it. Now, not tomorrow is the time to change direction and correct our mistakes.

The issues and critical deficiencies discussed here are the minimum, “must dos” to change course but they are merely band aids meant to stop the bleeding in our current losses. A complete overhaul across the spectrum of the USG is the ultimate goal for serious professionals that focus on facts, not stove-piped visions.
In order to regain our former prowess, we must start from the ground up and train professional influencers and employ them in teams that include the specialists of the many disciplines and who have access to the tools and resources required. This isn’t just an IC or DoD thing. These teams, belonging to an influence organisation must be from across the spectrum of the USG. That organization must have tasking authority and be time responsive in order to operate in the moment, next month and for the long-term.

In order for influence professionals to be on target, we need to develop whole new training methodologies and curriculums and that includes a special addition of intelligence professionals that meet the unique collection, analysis and assessment needs of the influence community.

With the legal complexities, there must also be a legal team that focuses on the ethical but not risk-averse campaigning required to influence successfully. Protecting our rights and protecting the nation are not mutually exclusive.

I reemphasize that this paper merely scratches the surface but it’s a start and the minimum requirement for our current security needs. We can do this. While the reformation will be hard, it’s still far easier than putting a man on the moon or curing polio and other diseases. It only requires the courage to do so and historically, this is something that isn’t in short supply for our nation. It only needs to be woken up.

**Conclusion**

This white paper, has been put off for years too long and I accept that responsibility. Our national security environment now, more than at any time in modern US history is not up to its challenges. To be blunt, we’re living out the old saying in the natsec community of “planning for the last war”. Frankly, we’re not even up to our current ones. This is not from a lack of resources and talent but the inability to acknowledge our true deficits and act decisively on the knowledge.

As we go down the road of attempting to effectively pursue our national security strategy, we’re traveling with blinders on and married to risk averse and antiquated thinking. I personally believe that this is because it’s just too hard to acknowledge the truth of the changes demanded by our threats. We can do as we did just prior to WWI or WWII and put our head in the sand and wait to adapt after it’s too late or… we can use our knowledge and prepare and execute intelligently. Failing to prepare for the challenge at hand has historically cost us dearly. I personally am not a fan of that option, so at risk of angering many in my profession, this paper was dedicated to “speaking truth to power”.

Every one of our stated natsec challenges is influence-centric. Strategists and reputable think tanks have been saying this now for a decade or so. Of course, the terms they often have used are like, “hybrid warfare”, “conflict in the grey zone” or operations beneath the threshold of war. In the natsec community it would seem as if there is an allergic reaction to using the word influence but I’m old school and prefer to get to the bottom line. **We are in an era where influence is the battlefield, not terrain.**

The contents of this paper, even at 20 plus pages barely scratches the surface of deficiencies, opportunities and analysis required to bring the natsec community up to speed. As you can see from the linked websites, manuals, policy papers etc. a full review and set of recommendations would well exceed 1000 pages. Though this topic is deserving of that number of pages, our threats are far too severe to not act on the bare minimum deficiencies articulated here.

In order to achieve a modicum of proficiency in the deficiencies discussed, change must become the objective of every senior member of the relevant agencies and entities. It will take courage, political
capital and persistence, but for those who hold their oaths of office and/ or service sacred, the requisite changes are your obligation, not your choice.

We have entered the age of mass customization of messaging, narrative, and persuasion. We need a strategy to counter Russian, as well as others, information operations and prepare the United States organizationally for long-term IO competition with a constantly changing set of adversaries large and small. It is said that where there is a will, there is a way. At this point, ways are available. The question is, do we have the will to use them?

-Waltzman 2017

I am not suggesting that my thoughts are exclusively “right” and am always open to input from well informed challengers. If you disagree, please do so and let’s elevate the discussion of innovation to those with the power to change things. In fact, I would be so bold as to suggest that principle leaders take a week together (virtually, in wake of the COVID 19 crisis) and hammer out a way forward on at least the handful of critical deficiencies discussed here. That meeting needs to have proactive outcomes that put the changes to work immediately if not sooner. Our adversaries are light years ahead. We don’t have time for those entities involved to get bogged down in the USG bureaucratic norm of “paralysis by analysis”.

Finally, thank you to the colleagues and other professionals who have worked tirelessly to lead and mentor me throughout my career. I have no doubt that those mentors will well receive this “tough love” because they planted the seeds long ago. This may be my voice on these pages but it speaks for the very best and brightest in our field and I suspect, also for the overwhelming majority of others.

Godspeed to those senior leaders who will take up the challenge of this desperately needed natsec reform and I’ll leave you this final quote:

If not now, when? If not you, who?

-Hillel the Elder

1st Century Rabbinic scholar

Bibliography


