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**WHY THE AIR FORCE CAN'T DO INFLUENCE OPERATIONS:
OVERCOMING CULTURAL BARRIERS TO IMPLEMENTING A
NON-TRADITIONAL MISSION**

by

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Abstract

The Air Force has articulated a robust mission set for Information Operations to include the subset operations designated as Influence Operations (IO). However, unlike the more developed elements of the IO triad – electronic Warfare Operations and Network Warfare Operations – it violates many cultural assumptions of the Air Force; thereby making its development as a functional operational area unlikely. This paper compares Air Force and IO cultural assumptions to assess threats to and opportunities for change and then makes recommendations on how best to make IFO a functional component of the Air Force arsenal. The recommendations include initiatives to promote harmonization of Air Force and IFO culture that include developing a common language, developing IFO pioneers that will speak Air Force while developing IFO consciousness within the service at large. This process will also create improved education, targeting, and procedures, as well as a linking up with other practitioners.

Chapter 1

Why does man not see things? He is himself standing in the way: he conceals things (Nietzsche, 1982, p. 199).

Introduction

Like fish in water, culture envelops the members of any organization. Thus, cultural norms are invisible because of their ubiquitous nature. They simply seem to be a fact of existence rather than structures developed over time; thus, most cultural norms remain unexamined. In this way, culture acts as an “invisible hand” to influence decision making. Indeed, organizational success relies on the nature of its culture and how leaders create and manage it.

This paper seeks to incite leaders to avoid wasteful cultural battles over Influence Operations (IFO) thereby allowing warfighters access to the best weapons – kinetic and non-kinetic. This requires a clear understanding of Air Force culture because the implementation of the doctrinally described IFO will violate culturally-based norms. Yet, hope of success exists, since the greater Air Force shares some cultural assumptions common to IFO. However, to make IFO a robust, operational mission will require a concerted effort to adapt it to the existing Air Force culture. Towards this end, this paper compares Air Force and IFO assumptions, delineates areas of risk and opportunity, and then makes recommendations for improved IFO implementation.

Chapter 2

Definitions

Distinct cultures exist and shape the development of human institutions of all types. Culture “is the form of things that people have in mind, their models for perceiving, relating, and otherwise interpreting them” (Goodenough, 1957, p. 39). Its power comes through shared assumptions that mutually reinforce one another (Schein, 1992). The broader US and military cultures underlie Air Force assumptions developed over its idiosyncratic history. These assumptions shape the identity, purpose, and missions of the Air Force (Schein, 1992; Diamond, 1993; Scott, 1995). Following Edgar Schein’s “levels of culture” construct, this paper outlines the bedrock assumptions of Air Force organizational culture by examining its cultural artifacts, espoused values, and standard practice (1992, p. 16).¹ These will then be evaluated using several models to analyze their nature, power, and effect on IFO development.

Within the interactive environment of culture, shared assumptions embody the values, norms, and philosophies of an organization. These assumptions came from solving internal and

¹ Identifying standard practices and cultural artifacts involves observation of actual practice rather than stated policies and written guidance, though these do provide a valid source of espoused values. Artifacts reflect the most obvious level of organizational culture. However, it is also the most difficult level to make clear connections to the deepest level – basic assumptions (Schein, 1992). For example, the use of wings and squadrons has historical links to both naval and cavalry warfare. The successes which made these organizational constructs fixtures of a modern Air Force are lost to all but a few historians, yet to question them assaults the sensibilities of most Air Force members as seen by the uproar generated by many of former Chief of Staff General Merrill McPeak’s reforms. To maintain coherence, organizations articulate ideals they believe to be vital to success. These “espoused values” may represent the “good” seen in past successes or the “bad” seen in past failures (Argyris and Schon, 1978; Schein, 1992). Where these values are acted upon, they represent basic assumptions in use. Where they are articulated but ignored, they suggest a discontinuity between the basic assumptions of the leaders and their subordinates (Argyris, 1982; 1987). Differences arise from this “social validation” when test of these basic assumptions come when assumptions no longer match the current environment (Schein, 1992). For example, when commanders articulate values that do not resonate within an organization, it suggests that other basic assumptions are at work that trump those reflected in the stated values.

external problems of the past “well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (Schein, 1992, p. 12). These assumptions then become the basis for future decisions and indoctrination of new members. Over time, they then generate practices that become unquestioned, even revered, but always defended.

Understanding this increases the odds of successfully implementing any program as it provides means to circumvent human resistance (Burke & Litwin, 1992). The “most central issue for leaders, therefore, is how to get at the deeper levels of a culture, how to assess the functionality of the assumptions made at each level, and how to deal with the anxiety that is unleashed when those levels are challenged” (Schein, 1992, p. 28). Rather than changing values, the appropriate use of the assumptions they inform can help minimize conflicts that arise during organizational adaptation. This allows the framing of issues so that dominant cultural assumptions promote rather than compete with adaptation (Dutton, Dukerich, & Harquail, 1994).

The very definition of Information Operations (IO) signals tension between it and Air Force culture, but the greatest conflict comes with IFO. Though *Air Force Doctrine Document (AFDD) 2-5, Information Operations*, declares IO to be “integral to all Air Force operations” that “may support, or be supported by, air and space operations” (2005, p. vii), its three capabilities – IFO, Electronic Warfare Operations (EWO), and Network Warfare Operations (NWO) – have very different levels of acceptance. The history and practice of each affect its perception; though IFO has little to commend itself as “integral” to the Air Force.

Since World War II, the Air Force has accepted EWO as a key component of air operations. Its effects were observable because it operated largely in the perceptible domains. Increased dependence over time has further deepened this acceptance. Few, if any, air plans

ignore EWO today. Though more recent, NWO has increasingly gained relevance within a military desperate to protect its vast array of electronic and computer systems. As computer access has grown exponentially, the need for defensive operations has increased superexponentially. Certainly, the creation of a Cyberspace Command signals a unique milestone in Air Force appreciation for this IO ability. Seen as a weapon within the electromagnetic “war-fighting domain,” the Air Force views cyberspace as a center of gravity for the nation thus upping its importance (Zimmerman, 2006). However, the final element of Air Force IO -- Influence Operations – lacks such luster.

AFDD 2-5 defines IFO as the integrated use of Psychological Operations (PSYOP), Military Deception (MILDEC), Operational Security (OPSEC), Counter-Intelligence (CI), and Public Affairs (PA) to affect “the perceptions and behaviors of leaders, groups, or entire populations” by employing “capabilities to affect behaviors, protect operations, communicate commander’s intent, and project accurate information to achieve desired effects across the cognitive domain” (2005, p. 5). Its aim is to change the “adversary’s decision cycle which aligns with the commander’s objectives” resulting in changed behavior (pp. 5, 9). It uses PA in the defensive “predicated on its ability to project truthful information to a variety of audiences” (p. 5). Finally, it seeks to secure friendly information.

Current planning places IFO in the cognitive domain and proposes to achieve effects by integrating efforts between the fields of PSYOP, MILDEC, PA, OPSEC, and Counterpropaganda. Thus, four operational areas in which few ever wittingly engage (PSYOP, MILDEC, CI, and Counterpropaganda) are linked with two practice areas that seldom rise above the noise level of military operations – PA and OPSEC. Advocates argue that merging these arcane and mundane functions with kinetic operations will provide Air Force “commanders with

unique options before and after hostilities occur...produc[ing] measurable effects in the form of observed human behaviors” (Astley, 2005, p. 10). Thus, a commander may exercise “flexible options to shape, influence, disrupt, corrupt, or usurp human decision making processes and behaviors while protecting friendly abilities to support national and theater objectives” (p. 10). Though a great aspiration, it ignores cultural and legal realities.

Another hurdle involves the nature of the area of operations – the cognitive domain. As part of the information environment it is “composed of separate minds and personalities” that influence through “societal norms, thus the cognitive domain is neither homogeneous nor continuous” (AFDD 2-5, 2005, p. 3). Joint Publication 3-13, *Joint Operations*, further develops the idea by defining this domain as one that

encompasses the mind of the decision maker and the target audience (TA)...the dimension in which people think, perceive, visualize, and decide. It is the most important of the three dimensions. This dimension is also affected by a commander’s orders, training, and other personal motivations. Battles and campaigns can be lost in the cognitive dimension. Factors such as leadership, morale, unit cohesion, emotion, state of mind, level of training, experience, situational awareness, as well as public opinion, perceptions, media, public information, and rumors influence this dimension” (p. I-2).

The cognitive domain crosses many boundaries and potentially threatens many interests, including legal boundaries. As the most important dimension, it cannot be ignored. However, as the most global and pervasive, it is difficult to establish clear parameters for action and effects. Thus, IFO threaten the broader US culture as well as subcultures and institutions within it. Finally, the expectations set for IFO include the generation of effects beyond the tactical and operational levels. Global, strategic effects have historically been the domain of nuclear weapons. Attributing them to non-kinetic effects with questionable controls and outcomes generates resistance by existing cultures.

Chapter 3

Cultural Underpinnings

Just as fish in a bowl would take little notice of water, most individuals have little experience examining their own environment. Yet, a lack of awareness does not preclude the presence of vital, albeit “invisible,” elements within that environment. Cultural assumptions direct decision making without conscious thought. Though the impact of this influence cannot be fully measured, experts have little disagreement – it is pervasive and persuasive. “Cultural control is the greatest factor in people’s lives today,” said Salvador Apud. “Its impact stretches across family, business, and government affairs” (2006). Given this, what cultural factors may impede or facilitate the rise of IFO in the Air Force? The first step in answering this question involves highlighting some relevant national assumptions. Next, relevant assumptions of the overarching military organization will be outlined followed by an examination of Air Force and IFO assumptions.

National Assumptions

Samuel Huntington captured many of America’s defense-related assumptions in his 1957 book, *The Soldier and the State*. In it, he argued that military thinking was shaped by distinct American cultural concepts that emphasized a “spirit of independence, little faith in governments, hostility to arbitrary power, reliance on individual initiative, and respect for the individuality of others” (p. 225). Historical evidence suggests that these cultural assumptions have shaped defense policy for much of the nation’s history. Other scholars have built on these.

This section examines these assumptions further because of their dramatic effect on defense policy at all levels. National-level, cultural assumptions have systemic consequences, since they not only inform the average American but also amongst the elites who direct the military.

American assumptions spring from the philosophy, conditions, and practices of America's earliest British settlements. Rooted in the 17th and 18th centuries, these assumptions were extended in the 19th and 20th centuries. Peter Haynes (1998) identifies many of these distinctive assumptions. Other assumptions common in the literature can be added to develop a list of cultural assumptions that undergird Air Force thinking, though no presumption of totality should be made. Beginning with a tendency to ignore history while clinging to a preference for moralistic battles between the "good" United States versus the latest "bad guy" that disagrees with it (Gray, 2005; Snow & Drew, 2000, Weigley, 1977). However, Americans are slow to identify enemies and even slower to feel sufficiently threatened before engaging in combat (Gray, 2005; Weigley, 1977). Finally, this assessment is tempered by individualistic determinations since the government and military are not to be trusted (Huntington, 1957; Weigley, 1977; Cushman, 1996; Snow & Drew, 2000).

Established by the end of the 1700s, these assumptions served as a foundation for further development of assumptions relevant to military operations in later centuries. Self-reliant and isolated over the next 240 years, a focus on the homeland and deterring the imposition of other nation's power became firmly fixed in the American psyche (Butterworth, 2001; Snow & Drew, 2000; Gray, 1996; Hoff, 1994). Problems were solved by perseverance and technology to include a growing fascination with military technology fueled by the popular media. Meanwhile, a managerial mindset took root that expected all processes to be subject to absolute control (Gray, 2005; Hofstede, 2003). However, these also added to an increasing aversion to casualties

(Morris, 2006; Gray, 2005). “With their faith and competence in technology, managerial and problem-solving skills, insularity, and unmatched industrial capacity, Americans were able to substitute both sheer quantities of assets and the power of machines for strategic skills and lives” (Haynes, 1998, p. 28). Finally, a growing demand for instant gratification and acceptance of cultural blindness completed American cultural insularity (Macedo, 2005; Okigbo, Martin & Amienyi, 2005; Beidler, 2004, Ward, 2002; Payne, 1998).

Military Assumptions

The US military mirrors its culture, thus the national cultural assumptions largely hold true within it, though the emphases may vary. Even the cultural aversion to the military remains evident in the military’s emphasis on civilian control. Huntington (1957) clearly outlines a military ethic rooted in the national value system but also distinctive in its adaptation. This normative foundation exhibits cognitive and behavioral components that generate homogeneity and conformity within its members, even though surface dress, language, and actions may vary (Abrahamsson, 1972; Janowitz, 1960). However, when other differences arise they often drive very different thinking and actions. This section first looks at some unique manifestation of assumptions within the military before moving to Air Force and IFO specifics.

According to Williamson Murray (2006), military culture “contributes to military organizations’ core, common understanding of the nature of war. Less easily studied than defined, its influence on military institutions is almost always the result of long-term factors rarely measurable and often obscure both to historians and to those actually serving in the institutions – obscure, that is, until war begins” (p. 1). However, it is not immutable, even when shaped by national assumptions, because crises force re-evaluation and modification.

At least three additional cultural assumptions permeate the military. They include the expectation of intense loyalty, the neglect of strategy, and a fragmented view of warfare (Booker, 1995; Gray, 1996; Finer, 2002). As former Chairman of the Joint Chiefs of Staff, General David Jones noted, “although most history books glorify our military accomplishments, a closer examination reveals a disconcerting pattern: unpreparedness at the start of a war; initial failures; reorganizing while fighting; cranking up our industrial base; and ultimately prevailing by wearing down the enemy – by being bigger, not smarter” (Barrett, 1983, p. xxiii).

Air Force Assumptions

Though the Air Force holds many assumptions in common with its sister services, the relationships have often proven to be something other than convivial. This is especially true of the Army from which it sprang. Essentially, the Air Force was a subculture within the Army that slipped its corporate bonds to establish an independent service and shaped most of its assumptions based on the promise of powered flight. Along the way, events and leaders have further shaped this unique culture (McClendon, 1996). In addition to the national and military assumptions already discussed, a number of unique assumptions can be identified as central to the current Air Force. These include “technological messianism” (Call, 1997, p. 252), occupational primacy, offensive imperative, strategic effect, flexibility trump, and corporate management.

1. Technological messianism. Beyond the American reliance on technology, the Air Force has worshipped at the “altar of technology” (Builder, 1987, p. 26). It, more than any other military service, relies on technology because it exists because of it. Powered flight gave impetus to air forces. With it came a promise of warfighting that could minimize bloodshed by operating in three dimensions and attacking national objectives – a dramatic shift in the way wars were fought (AFM 1-1, 1992). America demanded an independent Air Force because such a creation fulfilled its own desires of technologic salvation, reduced warfare, and rapid punishment of wrong-doers (Call, 1997). “There is a circle of faith here: If the Air Force fosters technology, then that inexhaustible fountain

of technology will ensure an open-ended future for flight (in airplanes and spacecraft); and that, in turn, will ensure the future of the Air Force” (Builder, 1987, p. 26).

2. Occupational primacy. Because of the importance of manned flight, another assumption underpins Air Force thinking. Probably more than any other service, the emphasis on occupationalism dominates the thinking and employment of the force. Technology demands technicians and technicians, by definition, tend towards specialization. Add to this a prioritization of technicians according to their perceived criticality to the organization based on support of air combat and the cultural hierarchy of the Air Force takes shape.

The emphasis on job identification over service identification has long been discussed. Commonly typified as a collection of many tribal organizations forced together by legal and occupational demands but often competing with one another, this focus has long impeded unified action. Some point to as many as 40 “tribes” rooted in the Air Force but exhibiting dramatically different orientations and loyalties (Margiotta, 1983). The systemic practice of acculturating members according to weapon system or specialty has made the Air Force the least cohesive of the military services (Smith, 1998). This lack of unity shocked many senior leaders in the post-Cold War era and led to a number of changes to include the formation of the Air and Space Basic Course, changes in basic training, the formulation of Air Force Core Values, the Expeditionary Air Force Concept. General Ronald Fogleman also moved the Air Force to emphasize airpower and instill a sense of airmanship in all its members (Mann, 1995; Trest, 1998). However, the change is far from complete. Whether pilots, lawyers, or security police, the long-nurtured tendency to associate with an occupational specialty over any corporate image of “Airmen”, especially when compared to sailors, soldiers, or Marines.

The origin of this phenomenon has received less discussion though a number of factors seem likely. As one researcher summarized,

a combination of factors have converged to create a sense of occupationalism rather than institutionalism with the Air Force: the lack of a unifying vision, extensive occupational specialization, an emphasis on individual versus group

skills, a remote view of war and danger, and the similarity of tasks between the Air Force and the civilian community (Vermillion, 1996, p. 38).

One way to harmonize these elements is to examine the traditional value placed on those “closest to the fight.” Historically, much of the Air Force remained home while a relative few flew to the fight and then returned. Despite the emphasis on every member as an “airman,” this assumption still holds sway. The closer one is to the process of employing kinetic weapons, the more critical they are to the primary mission of the Air Force. The nature of Air Force employment underscores this. Unlike the other services in which most members serve as active combatants, the Air Force sees only a small percentage of its total force as combatants, especially when the traditional sense of aerial combatants is used as a measure of “true” airmen. Two key assumptions developed from this tendency: an offensive imperative and a strategic mindset.

3. Offensive imperative. Airmen must seize and hold the initiative. The ability of air assets to ignore most ground units and attack key targets with fewer friendly casualties continues to underwrite offensive thinking (Lowe, 1994). Winning wars requires air dominance that requires offensive action (Futrell, 1974).

This assumption devalues defensive strategies. For example, Air Force thinking in the Cold War focused on forward employment of bombers and other air assets rather than developing the defense of US airspace. Though Congress and the President pushed defense, the degree of change was negligible (Call, 1997; Price, 1948; Kluckhohn, 1948). This orientation has continued with little change through 9/11. Because the Air Force sees itself as “the keeper and wielder of the decisive instruments of war—the technological marvels of flight” that demand offensive mindedness, other strategies remain neglected (Builder, 1987, p. 47).

Increasingly, this assumption looked to manned, kinetically-armed aircraft rather than the best use of technology. Missile technology was subordinated to the manned bomber despite unique attributes superior to manned aircraft (Builder, 1994). This undermined the original

unifying vision of using new technology to gain strategic advantage regardless of past practices. This is especially true of non-kinetic means. For example, airlift's ability to seize the initiative was ignored despite its success in the Berlin Airlift and the 1973 Arab-Israeli War (Harrington, 1996). The fight for space exhibited similar tendencies though civilian and military leaders forced a compromise (Kreisher, 1999, Holt, 2000). More recently, mission demands forced the Air Force leadership to embrace Unmanned Aerial Vehicles (UAVs) though they mitigated the threat by placing fighter and bomber pilots in control (Manhken, 2001). Slowly the Air Force is returning to its roots given the rise of non-kinetic weapons such as beam, electromagnetic, and particle.

4. Strategic effect. As a primarily offensive weapon, “air and space power is inherently a strategic force” (AFDD-1, 2003, p. ix). Airpower has shown remarkable ability to achieve strategic effects. Its ability to act decisively without the limitations faced by surface forces creates a unique mindset. Striking enemy centers of gravity in this way led to the development of Effects Based Operations as a means to articulate this thinking and to better plan for the use of this capability. Even planning for tactical employment of kinetic force by air often elicits discussion of strategic ends thanks to its ability to take the fight almost anywhere within a conventional battlespace.

5. Flexibility trump. Perhaps the most commonly uttered phrase in the USAF – “flexibility is the key to air power” – reflects the pervasiveness of this assumption. This oft-used phrase finds constant utterance in the Air Force, in virtually every situation from campaign planning to the failure of individuals to plan. Embodied in this corporate message is the cultural assumption that Air Force technology and people can overcome any challenge. Though it has a positive side, it also has a negative side that devalues planning, dismisses strategy, and avoids responsibility. This reinforces the first three cultural assumptions.

6. Corporate management. Unlike the other services, the Air Force was birthed in the heyday of scientific management. Its technology focus naturally led to management as a core concept. While the foundational doctrines of the other services emphasized leadership, the Air Force touted management. Even with recent changes, actions still trump words, especially when looking at the dominant subculture. Unlike other services who lead from the outset, the Air Force delays substantive leadership roles for fliers. In fact, for many fighter pilots, the first experience of direct command in a combatant organization that includes enlisted members comes as lieutenant colonels (Fischer, 2006). This assumption involves the desire to control human activity as one would a mechanism. Whereas leadership tends to emphasize motivation and team effort, management tends to

emphasize control and measurement (Rinehart, 2006; Johnson, 2002). When dealing with people and combat, this difference and focus can lead to less than optimal results.

IFO Definitional Problems

Conflicts in definition and doctrine as well as the lack of a distinct IFO subculture pose problems for IFO implementation; however, even in its nascent state, evidence exists from which to develop operational assumptions of IFO as a proxy for mature cultural assumptions. The Air Force Doctrine Document (AFDD) 1 articulates a view of information superiority and warfare dominated by technology. Its authors even cite “information superiority” as the “first function of the Air Force” (2003, p. 78). Today, air and space assets, aided by computer and communication systems, serve as the tools, and increasingly the battleground, of information superiority. This technological focus largely excludes the human element. For example, the Dayton Accords are cited as an example of success because “information *technology*...directly or indirectly affect[ed] national or group leadership, population, and infrastructure, bypassing direct military confrontation” (ibid., emphasis added). AFDD-1 concludes that gaining information superiority must be a “primary task” of a commander in order to remain ahead of the OODA loop and defeat the enemy (p. 79). But, how does this relate to IFO?

As already noted IFO, unlike EWO and NWO, represents a relatively undefined and uncontrolled operational area. Its very nature is in debate. DOD definitions and focus do not match those of the Air Force. While Air Force IFO doctrine proposes a worldwide scope for a highly integrated set of skill sets, joint doctrine keeps them narrowly focused and separate to support traditional military operations.

Whereas AFDD 2-5 articulates the integrated use of PSYOP, MILDEC, OPSEC, CI, and PA in IFO to affect “the perceptions and behaviors of leaders, groups, or entire populations” by employing “capabilities to affect behaviors, protect operations, communicate commander’s

intent, and project accurate information to achieve desired effects across the cognitive domain” (2005, p. 5), the concept of IFO does not exist in joint doctrine.² Although joint publications do articulate the use of PSYOP, MILDEC, and OPSEC as core IO capabilities, each remains functionally isolated. CI is cited as supportive and PA is considered related. PA subsumes counterpropaganda (JP 3-13, 2006). Each receives more limited taskings and greater subordination to operational and tactical effects in joint doctrine (JP 3-13, 2006; JP 3-53, 2003; JP 3-54, 1997; JP 3-61, 1997; Chairman of the Joint Chiefs of Staff (CJCS) Instruction 3211.01A, 1998; CJCS Instruction 3211.01B, 2003; CJCS Instruction 3211.01C, 2002; DOD Directive S-3600.1, 1996).

These differences suggest at least two major hurdles to implementing IFO as articulated in AFDD 2-5. First, it seems unlikely that a joint body would form to advocate IFO. If a body did develop, it would likely promote assumptions drawn from the Army concepts of information operations that focus more on “information-in-warfare” rather than direct, independent operations, i.e. information warfare (Stein, 1996; Information Operations Primer, 2006). Thus, there appears little likelihood of IFO finding support from DOD. Therefore, overcoming internal hurdles to IFO implementation will be imperative.

Here arises the second hurdle. No IFO defined subculture exists within the Air Force. A number of factors go into the making of a viable subculture. According to Harrison Trice, those with distinct occupations within an organization are more likely to create distinct subcultures, e.g. the emphasis on pilots and their specific airframes. He identifies seven factors inherent to subcultures creation: a. esoteric knowledge/expertise, b. extreme/unusual demands, c. clear distinctives, d. pervasive effects, e. positive self-image and/or social value, f. primary reference

² The Air Force argues its articulation of IFO is consistent with Department of Defense Directive S-3600.1, 1996, though this has not been tested.

group, and g. abundant cultural forms (Trice, 1993). The difficulty of identifying the nature and role of IFO undercuts most of these prerequisites. Though IFO practitioners need esoteric knowledge and expertise, its nature demands a broad range of skills from multiple disciplines, unlike more distinct specialties such as flying. This means IFO lacks a primary reference group from which to model behavior. Anyone could become a practitioner given the unshaped nature of IFO, though the current lack of rewards would help keep the number low. This lack of specific prerequisites and the unlikelihood that practitioners will face unique or hazardous duty decreases the chance of a spontaneous genesis of a distinct IFO subculture. Finally, the lack of Air Force directed practices, uniforms, and other artifacts delays subculture formation.

IFO Operational Assumptions

Despite the problems of definition, doctrine, and subculture formation, some operational assumptions of IFO could be developed to facilitate an assessment of its compatibility with Air Force culture. Using official statements and the Proteus planes of influence, this section attempts to outline key operational assumptions of IFO. The Proteus Futures Academic Workshops articulated five planes of influence: terrestrial, space, spectral, virtual, and psychological (Waddell & Wimbish, 2006). The first deals with the traditional military battlefields in the physical domain as well as the elements of power related to them, i.e. lines of communication, resources, etc. Space involves the environment in which space platforms operate. The spectral plane involves EWO, non-space based sensing, and non-computer communications. The virtual plan involves the “global world of networks and connectivity” (p. 3). The final plane focuses on the media and information “conduits used to influence the hearts and minds of the people” (ibid.). Though IFO can work on all five planes, its stated focus places it primarily on the psychological plane. As such, it may affect every plane in which humans operate.

Though seemingly amorphous, this understanding helps establish parameters for IFO. First, it is not primarily kinetic. Second, as a contested arena it requires a diverse worldview and a varied skill set for success. Third, its inherent complexity dictates careful synchronization with multiple actors at all level – grand strategy to tactical operations. Fourth, it is pervasive but promises only minimal target discrimination or effect certainty. Fifth, it is highly politicized. Finally, it requires varying degrees of speed according to the actions chosen and results desired. Thus, the following operational assumptions seem evident:

1. Seldom kinetic. The primary mission of the Air Force involves the application of kinetic weapons. This includes any attack using “the forces and energy of moving bodies, including physical damage to or destruction of targets through use of bombs, missiles, bullets, and similar projectiles” (AFDD 1-2). In contrast, IFO focus on eliciting changes in thinking. Though it may use kinetic weapons, its primary weapons include language, images, and other means to address the human senses directly. In fact, kinetic attack could be counter-productive.

2. Contested arena. The human mind is bombarded with images and appeals throughout its waking hours. The more an individual is tied into the internet and other mediums, the more his thoughts will face a challenge. Further, entrenched assumptions and values minimize the likelihood of success to challenges while also increasing the odds of a backlash. Though this arena may be primarily targeted through mass media means, particularly in the West, it is far from the only means to affect change. In fact, some of the most potent contests may come through one-on-one interaction.

3. Diverse worldview. The diversity of human thought and experience demands the assumption that all successful IO require a variety of cultural, historical, language, gender, class, and professional expertise. This includes both academic training as well as practical experience that can aid in the development of campaigns aimed at target audiences. In many ways, this is akin to marketing and public relations efforts that use both in-house expertise, outside experts, and a sample of consumers via focus groups and other research methodologies. This supports better message formulation and reliability for targeted groups.

Since the most effective information tools tend to apply the truth in its entirety, or at least as much truth as possible without undermining the central message, it necessitates a significant understanding of the target, its culture, history, and experience. On the face, this appears obvious. For example, an advertiser would likely formulate a sales message very differently for

an 18-year-old, African-American woman and a 42-year-old, white man. Further, demographic differences might also prove important to understand and apply such as economic status, political affiliation, regional differences, etc. However, too often military planners who are trained to deal with organizations assume far too much, especially in terms of potential targets of IFO. Certainly, this failure has been painfully driven home given the ethnic, familial, religious, and political influences, which have inflamed Iraq. However, the over reliance on simple summation of interest in planning efforts that being “the Iraqis will...” ignores this fundamental truth. Further, the target cannot be the sole focus of a message. Allies and enemies will also be recipients of that message in some form. Using an Iraqi example, any operation aimed at Shii targets may also reach Shii audiences in Iran and Bahrain as well as Arab audiences in Egypt and Muslim audiences in Indonesia. Further, Human Rights Watch members in Europe and member of the US Congress may also receive related messages.

4. Synchronization dependent. The complex nature of the psychological plane increases the importance of synchronization (Astley, 2005).³ Like kinetic warfare that requires “the arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time” so too IFO requires careful coordination of kinetic and non-kinetic efforts (JP 3-0, 2006, GL-30). Further, they require coordination of military and non-military efforts to ensure the best results because they targets involve more than most traditional military targets. In fact, the stated aim of the Air Force is to provide IFO that can generate global effects. By definition, this will involve every aspect of US national power as well as that of enemy and ally alike.

Successes and failures in Iraq have underscored the need for synchronization. Though locally managed efforts in Iraq have yielded tactical successes, the challenge of synchronization at the operational and strategic level of war have often brought failure (Paschall, 2004; Kelley, 2005; Morse, 2003). One of the most abortive efforts, DOD’s Office of Strategic Influence, failed primarily because of poor integration and the violation of many basic cultural assumptions

³ This Concept of Operations also cites the importance of interoperability and integration which are subsumed within synchronization for this argument.

(Schmitt & Dao, 2002). Often institutional actors seeking their own ends present the greatest challenge. For example, the active opposition of the Public Affairs community stymied development and delinked key players in a process that by nature can only succeed through integrated and synchronized effort. Yet other organizations have been created to fill this and other gaps, i.e. the White House's Office of Global Communications, the Defense Advance Research Projects Agency's Information Awareness Office, and the newly reactivated Counter-Disinformation/Misinformation Team (Center for Media & Democracy, 2006).

The diverse nature of IFO roles dictates a great deal of synchronization given it overlaps the six basic groups of joint operations – C2, intelligence, fires, movement and maneuver, protection, and sustainment. Joint doctrine recognizes this as a problem for all IO though they are far from fully integrated. “Information operations core, supporting, and related capabilities are applied across the joint functions and independently” (JP 3-0, p. xvi). The routine need for multi-tasking, i.e. humanitarian and kinetic ops will likely be single components of a plan, further compounds the problem. However, the failure to integrate within the synchronization process may also cause mission failure. Given the aim of information superiority to provide “decision cycle dominance”, the Air Force already recognizes the need to instill “speed of command, shared awareness, self-synchronization, and elimination of process and structural lines” (HQ USAF/XPXC, 2004, p. 53). Though the aim is to “allow friendly forces to act and react much more rapidly and effectively than any adversary who lacks these capabilities”, smaller or more homogeneous opponents may have the upper hand unless significant effort goes into synchronization (ibid.).

5. Pervasive effects. The nature of current information technology facilitates geometric increases in the dissemination rate of some messages and events. Though direct human interaction remains a primary vehicle for trusted communication, the rapid dissemination of information through electronic means increases the odds of reinforcement as well as

rebuttal given the value placed on it and the acceptability to target audience norms and assumptions.

6. Limited discrimination. Given the highly correlated nature of audiences on the psychological plane, it is difficult to predict second and subsequent order effects. Therefore, the likelihood of “collateral damage” to unintended targets must be considered a likely prospect in any IFO. Rapid spillover may reach unintended enemy, neutral, and friendly targets even in the most tightly focused efforts. The ability to accurately target, craft, and execute IFO will probably always lack a predictability associated with kinetic attack. However, estimates similar to circular error probability could be developed to estimate the range of possible spillover and blowback.

7. Minimal certainty. Assessment tools on the psychological plane are imprecise, idiosyncratic and of varying reliability. The odds of mission degradation or failure increase as the distance between the target and the IFO planners increases, in terms of culture and history. Individual idiosyncrasies add to the problem of accurately calculating the outcome. Effects may come in the form of over-response or under-response to IFO. Changing contextual factors may completely change the reception and interpretation of like messages. In one context, a target’s attention may be very focused and receptive to a message; it may be completely distracted in another. Advertisers face this problem constantly. Though the number of times a target is confronted with a message can be accurately tracked, the exact effect of each impression may vary wildly. Thus, repetition is used to increase the likelihood that the message will be addressed and processed. However, repetition itself can be a two-edged sword in terms of shaping the perception of a message once it is received.

8. Highly politicized. The essential nature of IFO dictate they operate in the political realm. First, these operations will not only seek to achieve US political objectives, but they will also seek to modify the political objectives of others. Further, the likelihood that messages or events related to IFO will spillover from the original target increases the odds of reception by others with related interests but not always shared politics. Therefore, secondary recipients will likely handle this information in a way consistent with their own political interests. Thus, secondary political interests will also be an active component of most IFO, whether or not it such thinking has entered in the planning.

9. Varying timelines. Though many communication mediums facilitate rapid interchange of information, rapidity does not become a hallmark of IFO by default. In fact, the care necessary to formulate successful IFO plans and operations may very well militate against speed as a primary tool. Much of this will be dictated by the focus of the operation. For example, counterpropaganda efforts require speed to short-circuit enemy propaganda before it spreads and becomes entrenched in the human mind. However, developing plans that undercut long-held assumptions dictate not only careful planning but careful execution. Such efforts may require careful integration and synchronization of word and deed to reinforce the primary effort.

Chapter 4

Analysis

This chapter compares the assumptions to identify potential cooperative or conflictual elements. As Table 4.1 highlights, the Air Force and IFO share many foundational assumptions. However, obvious divides are also evident. This section first looks at the differences and then examines the similarities.

Table 4.1

Comparison of Primary Air Force and IFO Assumptions			
Source	Assumption	AF	IFO
M	Loyalty First	Central	Central
M	Strategy Neglect	Central	Counter
M	Fragmented Warfare	Central	Counter
AF	Technological Messianism	Critical	Tertiary
AF	Occupational Primacy	Critical	Counter
AF	Offensive Imperative	Central	Central
AF	Strategic Effect	Central	Central
AF	Flexibility Trump	Central	Counter
AF	Corporate Management	Central	Central
IFO	Seldom Kinetic	Counter	Central
IFO	Contested Arena	Central	Central
IFO	Diverse Worldview	Counter	Central
IFO	Synchronization Dependent	Central	Central
IFO	Pervasive Effects	Varies	Central
IFO	Limited Discrimination	Counter	Central
IFO	Minimal Certainty	Counter	Central
IFO	Highly Politicized	Varies	Central
IFO	Varying Time	Somewhat counter	Central

Source denotes the primary source of the assumption: M = Military; AF = Air Force and IFO = Influence Operations. Three levels of assessment are used. Critical denotes a survival level interest. Central denotes an assumption that affects virtually all aspects of the organization. Tertiary denotes limited value to the organization but no evident negative consequences. The term counter is used for those assumptions that present negative consequences to the organization. These evaluations involve what exists for the Air Force rather than what might be preferable. Given the current nature of IFO, these evaluations reflect what should be.

Assumption Conflicts

When comparing these assumptions, a vast gulf becomes apparent though some bright spots of agreement exist. In terms of military assumptions, loyalty first, strategy neglect, and fragmented warfare all pose potential barriers to implementing IFO. Though the AF and IFO both require loyalty for success, undue loyalty to the existing culture may preclude adaptation and advancement in IFO given the risks faced by “non-team players.” The example of Air Force strategist Col. John Boyd highlights this. A neglect of strategy development also permeates the services. Certainly, the Air Force has spawned few notable strategists in recent decades. Yet, effective strategy development will be critical for IFO given the necessity of long-term planning development and synchronized effort across the spectrum of operations. Finally, the long-held view that each service should operate in its own domain still works for the Air Force, though congested airspace and increasing jointness have forced change. However, IFO must work across service, and perhaps interagency and international, lines. Thus demands a constant awareness across these boundaries to ensure successful engagements (Astley, 2005).

Most Air Force assumptions run counter to those of IFO. For example, occupational primacy, militates against effective IFO since many IFO leaders will require exceptional language and culture skills as well as technical expertise. Further, the person and product must predominate over the platform for successful IFO. IFO leaders will also have to fight the flexibility trump that commonly excuses poor results for efforts outside normal mission parameters. This is not to say that IFO cannot be flexible. By its very nature, IFO must be flexible in order to handle the changing context and nature of operations. However, successful IFO dictates careful study and planning that cannot be supported when the flexibility trump remains acceptable. The complexity of modern air warfare is not to be minimized. However,

IFO cannot excuse away failures to assess culture, history, political interests, and other elements that dictate success or failure on the psychological plane. Smoking craters spell IFO success. Even in cases that dictate physical destruction, integrated and synchronized efforts requires continued analysis, adaptive planning, and intentional flexibility.

This touches on several other points of conflict between the larger Air Force and IFO. Fundamentally, the worldviews and control requirements vary dramatically. As noted earlier, the worldview of the Air Force is rather narrow. In contrast, the worldview of IFO professionals must be diverse. Air Force assumptions hold that conflict can be scientifically managed. It demands a clear assessment of effects, careful target discrimination, high levels of certainty, and clear evidence of effect. However, this view is as much imagined as real. For example, the destruction of a military facility can be carefully planned and executed via kinetic means. Using the Air Operations Center, precision weapons, “Bugsplat,”⁴ procedures, timing and other tools, Air Force planners can normally minimize physical collateral damage to the desired level. Follow-up imagery can usually show unequivocal evidence of physical destruction. However, this focus exists in isolation from the world of perception and feeling. Just because one kind identifies a structure with military capacity, it does not follow that all of its value is military. Mistakes such as the Al Firdos bunker bombing underscore the negative consequences of what can happen when a structure has other uses. Further, a structure may have some additional meaning to the populace apart from its primary use. Even the way in which a target is engaged may generate collateral damage in the cognitive domain. The kinetic may achieve clear physical results, but it typically ignores other results. Thus, kinetic attack and IFO may not be that far

⁴ Bugsplat software is a staple in AOC operations. It provides tools that provide attack models to match mission requirements and restraints. It allows for weather, terrain, munitions type, target type, and many other factors to estimate the nature of the effect and likelihood of collateral damage.

apart when more than the physical domain is considered. However, this will be a hard sell to those acculturated in the world of kinetic attack.

The highly politicized nature of warfare is often ignored within the broader Air Force context. Even though classic theorists, such as Clausewitz, are taught in the service's professional military education programs, the view that war is politics by other means does not permeate the service. Though many senior members may have a cognitive grasp of this, it may not drive their thinking. Further, it is not a prime assumption for the rank and file (Darley, 2006). However, IFO practitioners will be ill-prepared for action if they do not understand and reconcile this fundamental fact.

Time requirements also pose a problem. Long lead time and extended follow-up required of IFO run counter to cultural assumptions. Though it may produce more pervasive and less expensive results, the American desire to see immediate results will cause conflict and make many IFO missions unsuitable for Air Force oversight. Further, it begs the question as to what agency could successfully prosecute long-term IFO.

Assumption Compatibility

Though technological messianism and its emphasis on kinetic solutions largely put it at odds with the generally non-kinetic nature of IFO, they are not wholly incompatible. IFO does acknowledge the value of kinetic attack when integrated into a broader scheme of operations. This provides some ground for the formation of an IFO subculture, if operators can see even a modicum of value in IFO. The shared assumptions of offensive imperative, strategic mindset, synchronization dependence, and corporate management stand out as points of compatibility. Though practical aspects of each may differ, the fundamental assumptions show clear linkages between the Air Force and IFO.

Both value the offensive. Arguably, both see a good defense as reliant on a good offense. Both see their weapons as capable of causing strategic effects. Both see the value of synchronized effort. These provide a basis for shared operations. Further, despite its problems, the shared notions of corporate management may also prove useful. In fact, such an assumption may be more useful to IFO than by will likely need a more civilianized labor pool.

The Air Force has demonstrated an interest in expanding its IO capabilities, and despite the cultural differences, continues to articulate a role for IFO. Within its three-pronged IO approach, the Air Force has continued to develop its ISR and Cyberspace. Meanwhile, IFO remains largely undefined. Air Force interest in this arena continues to be expressed in official documents, though the practical implementation still remains linked to individual Information Warfare Flights (IWFs) and the units to which these flights are attached (Astley, 2005). Where run by psychologists these flights take on a different focus than those run by warriors raised in the kinetic warfare tradition. Even standard practices vary between weapons systems, i.e. the AOCs. Given this, is it reasonable to expect growth in Air Force IFO? If so, in what way?

Common Ground and the Way Ahead

Shared assumptions provide critical links to operational employment. Likely, the global and potentially messy nature of IFO will impede its development. Nevertheless, these commonalities offer hope of incremental growth at the operational and tactical. This tactical orientation is further emphasized in the way IWFs are integrated into AOCs (Astley, 2005). Such development remains consistent with the Air Force assumption of strategic effect at all levels, while also increasing the odds of successful IFO execution since the synchronization and integration burdens will be somewhat lighter here. However, to understand the change process, the state of these competing cultures must also be considered.

While the Air Force has reached organizational maturity, according to Kilmann's cultural growth matrix, IFO is only in the birth stage (Kilmann, Saxton, & Serpa, 1986) (See Table 4.2).

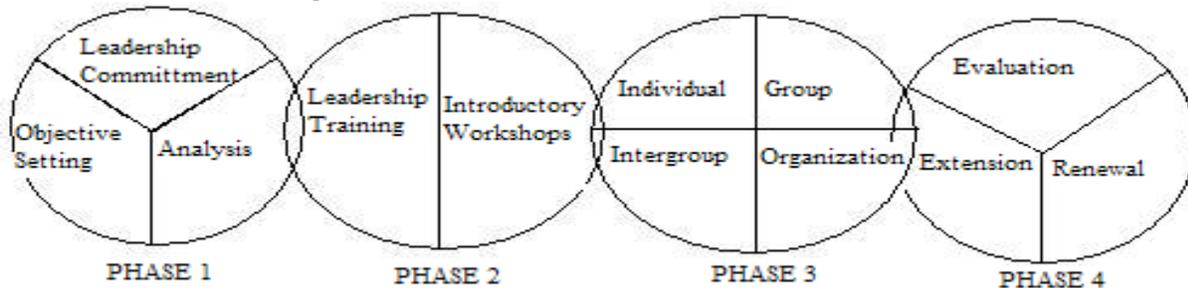
Table 4.2
Cultural Growth and Change Matrix

Growth Stage	Function of Culture	Mechanism of Change
Birth and Early Growth	Culture provides identity and holds the group together.	Incremental change internally or revolutionary change imposed from outside.
Organizational Mid-life	Cultural integration wanes thus inspiring subcultures. Struggles begin over identity, common values, and assumptions.	Planned adaptation tempered by an increasing reliance on technology.
Organizational Maturity	Glories of the past dictate the constraint of new ideas and change.	Change requires coercion. New demands dictate reorganization to avoid marginalization.

(Source: Ralph Kilmann, Mary Saxton, and Roy Serpa, *Gaining Control of the Corporate Culture* (San Francisco: Jossey-Bass Publishers, 1986, pp. 28-29.)

Focused on its past successes, the Air Force tends to constrain innovation, unless moved by outside forces. In contrast, IFO depends on external forces as the most likely source of change. The current war has provided an external nudge and the rise of state competition should also add to it. However, this is just the beginning. These follow a four-step process that moves from initial commitment to final evaluation and adaptation of new ideas (See Figure 4.1).

Figure 4.1
Phases of Cultural Change



(Source: Kilmann, et al., 1986, p. 337.)

Of the three IO components, only ISR has reached Phase 4. NWO has now moved into Phase 3. However, IFO still exists within Phase 1. Leadership statements show a distinct

interest and even early commitment. However, objective setting and analysis are limited at best. More internal development or external pressure will be required before IFO moves beyond this stage. Thus, it becomes clear that the only sure way to further the development of IFO is to develop internal conditions and practices that promote its growth.

To relate this to the rise of the airpower, it was very difficult to convince the Army that it should buy aircraft in 1907 (Grey, 1998). Though many possible uses were articulated, the airplane was an uncertain system without clear and immediate utility to a resource-strapped service. Few airplanes were purchased and non-fliers were given charge. Only the coercive nature of WWI forced dramatic innovation. Only time will tell whether sufficient impetus arises for IFO to break through cultural resistance and bureaucratic inertia to become a clearly defined operational field, though success in other two legs of the IO triad gives hope.

If necessity dictates continuing movement towards IFO, another key requirement for change will be the action of paradigm pioneers who lead the way despite the costs involved. Such pioneers need intuition to recognize the key ideas and integrate them. Further, they need courage to act against popular opinion while also having the necessary commitment to see changes through (Dunivin, 1997). This is imperative to overcome the entrenched powers forces within the iron triangle that benefit from the status quo (Mahnken, 2001). Currently, no pioneers of sufficient stature have appeared to challenge these forces, though it is obvious that IFO supporters exist within the system.

Chapter 5

The more unpopular an opinion is, the more necessary it is that the holder should be somewhat punctilious in his observance of conventionalities generally (Butler, 1912/2005, p. 16).

Recommendations

The dominant culture will continue to minimize conflict generated by IFO implementation by restricting its reach and maximizing controls over it. Though these efforts will likely be articulated as good stewardship aimed at minimizing errors in operation, the fundamental logic goes back to maintaining the culture built by past successes. IFO's nature as a non-technological, non-kinetic methodology with pervasive effects but limited discrimination and certainty threaten to undermine these successes. However, means exist to minimize this.

As education and practical experience create more awareness of IFO, cultural conflict may increase as seen in the reining in of space advocates. This is consistent with organizational psychology that sees the rise of conflict to be consistent with the rise of specialized knowledge (Hague, 1974). The key to change will be the willingness of both the kinetic and IFO communities to understand the differences and to work around them. "It is less a matter that one person is right and the others wrong than that each is sensitive to different types of issues and has divergent agendas and priorities" (Klausner and Groves, 1994, p. 361). However, conflicts will arise as the context makes differences more salient (Trice & Beyer, 1992).

Properly handled, organizational conflict can spur innovation that causes either positive or negative organizational changes (Klausner & Groves, 1994). Either new norms are created or

elements of an existing subculture will be reinforced, thereby reemphasizing the survival imperative to members of the losing subculture. This typically creates a situation where inter-group differences are exaggerated and intra-group differences are downplayed (Gibson, Ivancevich & Donnelly, 1991). This often impacts morale and coordination negatively. This may, in fact, generate a preference for a more authoritarian leadership style by the dominant subculture members seeking to keep down a challenger subculture (ibid.). Who has dominance will be the central fight (Gruber, 1987). This may be true even if it threatens national security (Stephenson, 1999). Political actors will also impose “high effectiveness costs” and “wrong constraints” (Gruber, 1987, p. 164).

Finally, a better delineation of roles and missions will be necessary to minimize conflict, to establish responsibility, and to apply resources more effectively. Just as the struggle to define IO was delayed implementation, the lack of clarity in IFO limits its potential. Clear explication of responsibilities and tools will be necessary to employ IFO in an effective and integrated fashion. A positive starting point could be the delineation of influence effects from influence capabilities (Robinson, 2005). Many things, from B-52s to pens, can provide influence capabilities. However, their use will likely generate very different effects. Using this construct could help bring IFO in line with kinetic operations since it is a staple of current Air Force culture. Following this course also preempts the logic trap that IO embodies everything. Though every influence capability may be used to generate influence and every action does cause some effect, neither must, by definition, always be considered IFOs. Deliberate intent, careful planning, and synchronized execution must serve as the hallmark of IFO. This helps minimize conflict between Air Force tribes, thereby facilitating greater mission effectiveness (Copeland & Provancha, 2005). This understanding leads to a number of recommendations:

1. **Develop terminology.** As Kilmann's Phases suggest, leadership commitment is a critical first step to culture change. However, indeterminate or conflictual terminology militates against leadership buy-in. IFO desperately needs a unified set of terms and definitions that explain mission elements without giving direct offense to the greater Air Force cultural sensibilities.
2. **Speak Air Force; act IFO.** Even with paradigm pioneers and external pressure to force change, IFO practitioners must span both worlds without generating undue resistance. They must understand the majority culture. They must be able to talk and act in a way that is acceptable while serving as a change agent for the nascent IFO movement. The key message must be the extension of Air Force capabilities rather than the replacement of legacy systems. For example, the movement towards non-kinetic methods simply fills in where standard munitions cannot reach.
3. **Develop targets.** The cognitive domain opens a vast array of targets. However, few of these match the technologic/kinetic assumptions implicit in most Air Force planning. IFO actions at the strategic level have the greatest effect, but will likely present the least productive source of targets acceptable Air Force operators. Therefore, specific targets at the tactical level and area targets at the operational level will provide the target sets most acceptable to all parties. This will force IFO practitioners to articulate the reasoning for the targets as well as the specific means to reach them to minimize the areas of contention with the broader culture.
4. **Advocate education.** Both formal and informal education channels must be created to develop the methods of IFO as well as a supportive cadre who understand these methods. This will help move IFO into Phase 2. The Air Force has established itself as a leader with its creation of the first, military IO school. However, the next step must be to differentiate this from the other two legs of the IO triad. While the IO courses available at Air University provide a common basis, IFO needs follow on training to develop further skills. This will be a highly iterative process in which practice and procedures are developed in tandem with education but will also speed IFO maturation.
5. **Develop procedures.** The difficulty level increases dramatically at this step. Because parallels exist between this process and the early development of bombing, it seems reasonable to assume a number of challenges will arise. Many legal, political, and cultural hurdles lie ahead. The perceived lack of control, effect, and reliability will also add to the difficulty factor. However, the development of understandable models for a core of IFO efforts will be a tremendous step forward. Some of this already exists, but more can be done to bring in models and techniques already pioneered in the commercial sector. The greatest challenge will likely come in the evaluative phase. If clear evidence could be presented that the effect sought was the effect gained, the conversion rate of kinetic operators to IFO fans would undoubtedly spike. However, this is unlikely. Practice in and out of the military has struggled in this regard. For example, the intelligence assets needed to assess fully the effect of an effort will likely be prohibitive. Thus, the development of suitable measurement methodology, that provides an acceptable level of return at a reasonable cost, will be imperative.

6. **Link up.** Air Force IO efforts have had an unfortunate tendency to be done in isolation. If interest in IFO is to grow, the greatest source of help will likely come from outside agencies with interest, expertise, and resources to facilitate efforts compatible to their mission. The White House Strategic Communication Initiative is one of many such agencies stood up to gain influence in the cognitive domain. These could provide role models and a sense of Air Force position within the national effort. However, these also pose a threat. Such efforts must be done carefully to avoid any appearance of violating Air Force expectations of loyalty. Too much involvement with outside agencies might lead to curtailment of IFO. If this can be avoided, IFO will begin moving into Kilmann's Phase 3 given the development of increased awareness, group identification, and clarity in organizational place.
7. **Press change.** Effective IFO will require long-term, organizational changes. Failure to move beyond the current state of affairs will doom IFO to insignificance within Air Force operations. First, efforts must advance a unique core of practitioners with unique skills. Second, the current employment of IFO within the AOC must be developed. Though this may not be the best way to employ IFO, it is the only way to do so within the existing structure. It will be necessary to do so in order to show relevance and develop operational skills for IFO practitioners. Such efforts will move IFO squarely into Phase 3. Combat testing of these efforts will move IFO into Phase 4. In Phase 4, further extension of IFO into non-AOC roles needs consideration. For example, the development of IFO "plug-n-play" capability that allows some or all of IFO assets to be used independently or chopped to inter-agency operations. This should offer some useful tools to the JFC or civilian leadership. It will also move IFO into an arena in which strategic targets might be engaged.

These suggestions are neither exhaustive nor perfect. However, certain realities must be accepted. Though IFO purists may demand more, compromises must be made to integrate it into the current culture of the Air Force. Certainly, small advances are better than no advances. Human nature dictates that an incremental approach will be the best way to develop Air Force appreciation of IFO value. Each step forward then permits increased integration of the IO triad into normal operations, to include IFO. It is here that mission successes may elicit more willingness to develop IFO on the part of Air Force leadership. Despite the urge to succumb to the expectation of immediate gratification, IFO must ascribe to its own operational assumptions. Specifically, its acceptance depends on a well-thought out plan that understands and employs cultural understanding to achieve long-term, strategic success.

Chapter 6

It is out of culture that the substance of real revolutions is made... Without a favorable culture political schemes are a mere imposition. They will not work without a people to work them
(Lippmann, 1913, p. 244).

Conclusion

The EWO and NWO legs of the Air Force IO triad show clear signs of maturation. The EWO community already shows evidence of sub-culture development. The cyberspace initiative is moving that community in a similar direction. Yet, the IFO leg lags behind. It lags for reasons of definition, reasons of culture, and reasons of practice. In terms of definition, the Air Force's definition of IFO is disconnected from its own traditional practices and those of DOD. Further, its area of operation lacks clear parameters for operation. In many ways, military concepts of clearly defined tactical, operational, and strategic operations do not readily fit when discussing IFO. Finally, the nature of its capabilities and effects lacks clarity. If faster maturation of IFO is desired, these issues need rapid rectification.

IFO shares several assumptions with Air Force culture. These provide a basis for development if the dominant culture sees increased value and/or limited risk to the power status quo. Numerous challenges to rectifying these two cultures lie ahead; therefore, incremental change that understands this will be imperative. Education and experience in IFO will serve as the key means to acculturate more Air Force members into the domain of IFO. Such acculturation can then lead to further, more substantive adaptation.

In terms of practice, intentional use of IFO on a broad scale lies well in the future. First, Air Force commanders who may be familiar with the doctrine will likely find the uncertainty of targeting and analysis too great a cultural hurdle to make safely. The risk of failure will simply be too great for most. Barring a major success by paradigm pioneers or demands by outside powers, such efforts will likely take more than a decade to realize. Second, joint force commanders (JFCs) will likely take even longer to accept and use IFO capabilities proffered by the Air Force. Unlike the Air Force commanders, JFCs will have neither joint doctrine nor parent service doctrine to serve as a guide. Though an entrepreneur might arise that would be willing to experiment, IFO are counter to many military assumptions. For example, PSYSOP should generate little resistance from a JFC drawn from the Army, but IFO schemes that involve non-traditional use of PSYOP assets would likely spur resistance. Thus, other services will have to learn from Air Force successes or be coerced by outside agents to adopt IFO. In the meantime, the lack of a DOD advocate of IFO will limit its integration into joint operations.

Many cultural battles lie ahead. Though they may appear to be arise over definitions, resources, and organizations, cultural assumptions will be the source. Changes in the way in which IFO is viewed and performed will be necessary at every step of its development. Focused initiatives will help promote harmonization of Air Force and IFO cultures beginning with a set of definitions and terms that mesh Air Force and IFO culture. Pioneers in IFO will need to speak Air Force while learning to act in way that is IFO conscious. Along the way, clear targets, improved education, and reliable procedures must be developed. Opportunities to link up with other practitioners will also prove invaluable because long-term success relies more on people and time than on money and technology.

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