The conversation around command and control (C^2) in 21st century warfare hinges on technology. Questions are repeatedly raised regarding how the Marine Corps can C^2 distributed forces. The focus on how is not wrong; such questions are good ones and need to be answered. Yet unquestioned, however, is what outside organizations such distributed and disaggregated forces are communicating with. The answer is more than just their higher headquarters and its staff. Do we have the appropriate types of staff to conduct C^2 of distributed forces? Does our C^2 system facilitate aggressive and high-tempo operations or hinder them? Is the military staff properly structured to operate on the modern battlefield? These questions go both unasked and unanswered because both question and answer are uncomfortable. The facts are that while the Marine Corps has made great strides in modernizing the technical means for C^2 and many of its procedures, the organizations that conduct C^2 are some of the least modern aspects of the Service. Current military staffs are modeled after those of the Napoleonic Era and operate on 19th-century organizational theory. Thus, the military units most focused on C^2 are veritable zombies that somehow continue into the 21st century long after they should have rotted and died. Luckily, there are exceptions and such modern military staffs offer the Marine Corps a model for modernization. But first, the vestigial units must be buried. As the Marine Corps continues to modernize, it must focus on its C^2 structure and the military staffs that operate within it.

Dawn of the Dead
The core of current C^2 structures are in the military staff and its organization. Military theorist Martin van Crevald wrote that command and its function is constant throughout time. Its nature is timeless, but its character changes based on three aspects: its organization, its procedures, and its technical means for communications. The organization of military C^2 today is essentially the same as that mastered by Napoleon. Due to the immense size of Napoleonic Era armies in comparison to previous conflicts, Napoleon had to codify and organize C^2 in a way that was never before necessary. The various staff organs of the Grand Armée were organized along familiar functions: administration, logistics, operations, intelligence, and so forth. The general staff integrated information from lower C^2 nodes at the corps and division levels. Napoleon’s system was designed during...
a time before modern communications existed, when troop movements and logistics were slow, and when the base maneuver unit was the corps. The internal procedures and technical means of modern staffs have drastically changed with technological progress but the external communications—the flow of orders down the chain and reports up the chain—is fundamentally the same. This is because militaries modified procedures and invested in modern means but failed to evolve new C² organizations. The recent rapid acquisition of a myriad of C² systems is a recognition of the need for change in Marine Corps C² as the Service has improved the communications means available to its staff. As for procedures, the Marine Corps Planning Process (MCPP) and the Rapid Response Planning Process (R³P²) are examples of modern procedures (designed to integrate staff functions) that improved the procedural aspects of the staff.

The need for modernization in the organizational aspect of our C² system is also clear but as yet unaddressed. Expeditionary Force 21 describes the need to integrate cyber and electronic warfare capabilities, utilize the sea as maneuver space for C², and even states that our “modern force … exploits innovative concepts and approaches.” So far, we have not done so. New capabilities and systems have simply been dumped on top of our legacy staff structures and organizations. We have modified procedures and technical means but not those organizations that utilize them.

Undead Scientific Management Principles

While modern C² has its roots in Napoleon’s way of warfare, the system was strengthened by the industrial warfare of World Wars I and II and the integration of industrial procedures into the military C² system. In the late 19th and early 20th century, industrial reformer Frederick Wilhelm Taylor developed a set of ideas on how to run a factory. The theory, scientific management, was later applied to a variety of organizations. It was first injected into the U.S. military by Secretary of War Elihu Root, and it was strengthened by a string of Secretaries of Defense with commercial background in the 1950s and 1960s, culminating in the tenure of Robert McNamara during the Vietnam War. McNamara was famous for running the war as a business that resulted in the highly criticized “body count” method of measuring military effectiveness.

Scientific management principles emphasize a strict division between managers (who think and plan) and laborers (who merely carry out instructions). Taylor’s system was based on three ideas:

first, [that] it was possible in principle to have near perfect information to be able to plan what to do; secondly, planners and doers should be separated; and third, there is one right way to do things.⁴

The system tolerated no decentralized decision making; both planning and decision making were imposed from the top. Only the educated leaders are capable of decision making, and the workers are simply manual labor. Employees are interchangeable and replaceable and, ideally, are frequently shuffled from one job to another. This interchangeability is enforced by training personnel only in specific, highly regimented tasks. Every aspect of labor is codified in step-by-step processes, and deviations are punished. Communications between departments or functional areas is discouraged; “stovepipes” of information and coordination are the ideal. Even at the higher levels, staff processes are inflexible, cross coordination is purposely disabled, and efficiency is the sole goal of any action. The majority of our personnel policies (frequent permanent change of station moves and assignment changes, inflexible specialization, and strictly codified personnel evaluation forms like fitness reports and proficiency/conduct marks) are all scientific management tools.

The problem is that scientific management has since been discredited. It is inherent in the idea of concentrating on efficiency to the exclusion of all other factors. The ideas worked in an industrial society that utilized unskilled laborers for mass production, but as economies transitioned to commercialization, scientific management died out. Except in the DOD.

Creeping Modernity

Fortunately, a way ahead is already mapped out before us through two examples: the existing MAGTF command element (CE) and the example of Joint Special Operations Command (JSOC). Both of these C² organizations are more modern in their conception and organization. Both organizations operate more on systems approach lines than scientific management lines. The systems approach holds that, “one cannot understand a part of a system without having at least a rudimentary understanding of the whole.”⁵ Such an approach encourages cross-communications, adaptability at all levels, and the fusion of information and action vice segregation. The MAGTF CE follows this approach by fusing information from the GCE, ACE, and LCE. The context of the whole, however, is not inherent at lower-level staffs.

The MAGTF CE at any level—whether MEU, MEB, or MEF—is a modern equivalent of Napoleon’s top-level general staff in the sense that it integrates coordination from across “stovepipes,” information from the GCE, ACE, and LCE meet at the CE. Whereas subordinate staffs focus on their sole function and feed information up the chain, the CE integrates everything. It is also modern in the sense that it is more of a model of a systems approach to coordination: the stovepipes inherent in GCE, ACE, and LCE chains. It is more robust and capable of integrating capabilities like fires, cyber, electronic warfare, and the logistics functions that underpin everything. It is also more capable of interfacing with external agencies like the Department of State and the Department of Justice.

The problem is that MAGTF CE is inherently duplicative. It has not replaced legacy staffs resident at regiments, battalions, squadrons, and wings. Internally, the CE resembles a systems approach to C², but externally, it exists in a chain organized along scientific management lines that foster top-down command but inhibit bottom-up refinement. The benefits of the more modern MAGTF CE are diluted because it is required to interface with a less modern structure that
chains it to its major subordinate elements. In Napoleon’s day, the general staff—armed only with maps, pens, and messengers—could not take over the C² functions at every level and so subordinate staffs were necessary. That is not the case today, and other military units are already noticing.

In Iraq in 2004, Army GEN Stanley McChrystal, then Commander, Joint Special Operations Command, recognized that the legacy staff processes based on scientific management principles were inhibiting the command’s ability to target insurgent leadership and achieve strategic effects on the battlefield. He completely reorganized the JSOC staff along systems approach lines, eliminating processes that inhibited information flow and fostered a cooperative team environment. This was successful because each team now had a view of the strategic context as well as their own specific function. For example, intelligence data was not segregated in the intelligence staff but was analyzed from the viewpoint of every staff function. McChrystal also embedded operators with logisticians and intelligence analysts and vice versa, breaking the stovepipes inherent in legacy organizations. This concept worked because JSOC directly interfaced as a staff with its “maneuver” elements—Ranger and SEAL teams—vice having to utilize a duplicative chain of command. Under this reform, JSOC went from executing 10 raids per month to 18 and, by 2006, 300 raids per month. This directly contributed to a decrease in insurgent violence in the country by 2007.

A systems approach to C² is the clear answer for the shortcomings of Marine Corps C² identified in Expeditionary Force 21. Both the MAGTF CE and the JSOC headquarters utilize a systems approach, but only the MAGTF CE is still beholden to an outdated legacy staff system. The tenants of maneuver warfare demand that decisions be made and action taken at the lowest level possible. The aggressiveness and tempo of Marine Corps tactics cannot be generated under the scientific management organizations that we still utilize. They are incompatible with both our own doctrine and the complexity and intensity of modern warfare.

Furthermore, the society for which the scientific management principles were designed no longer exists. Scientific management presumes that workers are unintelligent and unskilled and then compensates for that presumption by prescribing rigid, reductive processes that such laborers can understand. Such a paradigm is incompatible with the current enlisted Marine Corps, which is more professional and skilled than it has ever been. A study conducted by RAND on enlisted personnel management found a dramatic increase in the quality of enlisted recruits since 1981. Since 1988, the quality of military recruits has exceeded the quality of their civilian counterparts. What these trends mean is that the U.S. military has succeeded in fully professionalizing the enlisted corps. Gone are the days of the industrial era where incoming recruits were poorly educated and lacked opportunity, a situation that produced a “cannon fodder” view of the enlisted servicemember. Modern Marines are the best young people who America produces, and they deserve a more modern system.

Due to the variety of subject matter experts resident in the MAGTF CE, it is the ideal organization to replicate the success of JSOC. However, it is hindered by the requirement to interact with a variety of subordinate staffs at lower levels. The ability of a maneuver unit to reach back and utilize the capabilities that the CE can leverage is slowed to a crawl because legacy staffs are inherently stovepiped and the processes inherently slow. Unsurprisingly, the chain of command designed for pre-Industrial Age warfare is insufficient for the demands of the modern battlefield.

**Breaking the Rust**

How can the Marine Corps unlock the potential of the MAGTF CE in modern expeditionary warfare? The answer is to break the accumulated rust of the legacy staffs along the chain of command by following the MAGTF concept to its logical conclusion: consolidating the functions of staffs at the CE and eliminating staff duplication at the lower levels. Essentially, Marine Corps C² has to get out of its own way.

The requirements of Expeditionary Force 21 can be achieved thusly. JSOC’s success can be attributed to GEN McChrystal’s concerted effort from 2004–06 to break down the institutional barriers to internal communications within the military staff—institutional barriers that are vestigial organs of the scientific management movement. McChrystal deliberately cross-pollinated the JSOC staff to the point where functional departments became almost meaningless and instead fostered a team environment, that he referred to as a “Team of Teams.” Additionally, JSOC integrated a number of liaison officers from a variety of external agencies.

The JSOC staff resembles the MAGTF CE more than it does a battalion or regimental staff. The CE has more access to liaison officers and inherently integrates more components of the Marine Corps than lower-level staffs, coordinating the actions of the GCE, ACE, and LCE. It offers greater support capabilities as well as the ability to reach back to both Marine Corps and external agencies.

The problem is that all communications between a unit “in the fight,” and the capabilities of the CE has to go through multiple layers of subordinate staffs that frequently offer little beyond pushing the request or information higher. Therefore, the Marine Corps should designate the MAGTF CEAs as the C² “main effort” and empower the CE to coordinate the majority of support for Marine Corps units in the field.

During operations, units operating “in the field” would directly interface
with the MAGTF CE (for explicative purposes, a MEU CE). An infantry company in the field would be under the tactical control of the MEU, and all requests for support would be sent to it. Under the legacy construct, a call for fire, for example, would need to be sent to an artillery fire direction center, but the approval would need to be routed through the battalion and then to the MEU fire support coordination center. If the battalion-level fire support coordination center was eliminated, the process would be streamlined, and the artillery support would be more responsive. If a full MEF was present, a request for support from a squad could conceivably have to travel through six layers of C². By designating the MEF CE as the main effort of C² and eliminating the duplicative layers, the squad’s request would need to travel through only two layers: the company and the MEF CE itself. In distributed or disaggregated operations, modern warfare simply does not afford the Marine Corps the luxury of a robust C² chain with detailed procedural work done at every level. The chain must be truncated.

To be sure, this does not mean the complete elimination of legacy staffs. There is still a role for battalion, regiment, squadron, and wing commanders and reduced staffs. In recent years, however, the size of staffs at every level has grown at a rapid rate. This bloat is the result of attempting to give every level a slice of every capability. This is unsustainable and denies the opportunity for the Marine Corps to streamline its C² system in accordance with Expeditionary Force 21. The Marine Corps must consolidate these capabilities at the appropriate level—the MAGTF CE—and relieve the burden on lower-level staffs. This will initially cause the number of personnel on staff at the MAGTF CE to increase but will allow the Service to eliminate staff positions at the lower levels, thus freeing up commanders to fight their units rather than fight the staff processes.

While this will result in a vast increase in the number of incoming requests and requirements on the CE, this is simply a function of the size of an operation. If the amount of coordination required exceeds the capabilities of a MEU CE that is an indication that the operation demands a MEB or MEF CE, regardless of the size or number of units under its control.

Essentially, to meet the goals of Expeditionary Force 21 and increase the flexibility, speed, and responsiveness of Marine units in combat, the Marine Corps should streamline its chain of command for combat, utilizing a robust MAGTF CE staff and minimal staffs at lower levels.

**Doctrinal Trends**

This is not as drastic a change as it seems. The advanced base force as envisioned by LtCol Pete Ellis in the early 20th century—from which the structure of the modern Marine Corps and the MAGTF concept is derived—utilized a task-organized landing force that was commanded and controlled from the ship during the initial phases of an amphibious assault. He even recommended that standing headquarters above the company level be temporary in nature only except for peacetime training.

Our own doctrine also already reflects the MAGTF CE’s ability to act as the sole C² agency. During the early phases of an amphibious operation, the first combat units ashore are under the control of the CE working out of the landing force operations center and the supporting arms control center aboard naval shipping. Numerous experiments have been conducted by the Marine Corps Warfighting Lab for the company landing team concept, most recently Ground Warrior 2015. These have validated the ability of units ashore to operate under a CE umbrella without intervening staff organizations.

Lastly, many aspects of this proposal are already used in training and in real-world operations. During Exercise Bold Alligator 2014, 2d MEB exercised direct tactical control of its major subordinate elements. That exercise also validated the fly-in integrated command element, another systems approach method to C². During Exercise Ssang Yong 2014, 3d MEB established a combined watch floor with elements from the expeditionary strike group, the MEB, and Republic of Korea command elements. This mirrors the success of JSOC in integrating external agencies into a combined staff to enhance C². Finally, recent special purpose MAGTF operations in Africa have necessitated the deployment of infantry companies thousands of miles away from the special purpose MAGTF headquarters and under its control, vice the control of the company’s parent battalion. The Marine Corps must realize that this is not an aberration but the new normal.

**The Walking Dead**

This is not to say that there is not a place for the legacy staff structures. The U.S. Army recently eliminated their equivalent of artillery regiments and instead placed artillery battalions directly under maneuver brigades as part of the brigade combat team concept. This led to a precipitous drop in the readiness of the artillery battalions as they lacked a higher headquarters with the expertise and purview to enforce training and readiness standards.

To avoid this, legacy staffs should be maintained but should be refocused as force providers—responsible for the formation, training, education, supply, and maintenance of combat formations. This offers an opportunity to reduce the burden on staffs in the continental United States as they can refocus on training and readiness of units that will then deploy and fall under a MAGTF CE. This is already a proven method as various combat arms units operate effectively under a battalion landing team because they have been trained and certified as ready by a stateside higher headquarters. This system would also continue to offer command and staff opportunities for the development of personnel while allowing the Marine Corps to deploy more combat power by reducing deployed staff personnel.

The legacy headquarters may also need to be utilized in the event of a large-scale, sustained conventional war. The inherent redundancy of duplicative staffs is a strength when losses must be mitigated in high intensity conflict or against peer competitors that have
The Marine Corps needs to consolidate staff functions at the CE level and eliminate lower echelon staffs. (Photo by Cpl Samuel J. Nieves.)

electronic and cyber warfare capabilities. For smaller scale contingencies, and once major combat operations cease, a sole MAGTF CE scaled for the specific situation is sufficient. It will also be more flexible and responsive when units need support and can send requests directly to the CE that then coordinates the support. For example, a full-scale effort with redundant C2 was necessary for Operation Iraqi Freedom 1 and the march up to Baghdad. Thereafter, a consolidated CE was sufficient and would have been more efficient in terms of requiring fewer personnel at the staff level, allowing the Marine Corps to deploy more tooth and less tail.

Lastly, this concept would assume some risk when it comes to electronic and cyber warfare. If only one C2 node exists and it is degraded or denied due to enemy action, maneuver, air, and logistics units operating underneath it would then be cut loose. However, the Marine Corps is well poised to continue to operate on commander’s intent in accordance with our capstone doctrine, MCDP-1, Warfighting. (Washington, DC: HQMC, 1997). The risk—especially against non-state actors in limited contingencies—is minimal.

Conclusion

The Marine Corps has made great progress when it comes to the procedures and the communications means available to its C2 structure. It has not, however, made commensurate progress when it comes to its organizations. While the Napoleonic Era C2 system still has its uses, it is increasingly insufficient for modern warfare. Yet, outmoded ideas like scientific management and the methods that it produced lumber through our organization well after they died. The fact that the Marine Corps has already developed a more modern structure is testament to that fact even if the legacy structures remain. While JSOC performs a different function than the Marine Corps, its success offers lessons that the Marine Corps can utilize to become more agile and flexible while gaining efficiencies. For example, the regimental headquarters that are deployed to a C2 a single special purpose MAGTF—crisis response battalion is overkill. A MEU or MEU (forward) CE is more appropriate and sufficient.

The Marine Corps and the military as a whole has held on to vestigial, but discredited, staff organizations because it is easy. No new doctrine must be written, no new procedures must be worked out, and no new ideas need be evaluated. No new billets must be created, and no old billets discarded. The current budget stresses, however, are an opportunity as well as a threat. Rethinking C2 and military staffs and integrating modern ideas where applicable requires no money and no budget programming. In its adherence to principles designed for efficiency and its quest to secure funding for modernization, the Marine Corps has missed an opportunity to improve future efficiency by modernizing those aspects of the organization that require no funds to do so. The investment is simply innovative thought and advanced ideas. It is simultaneously an investment that is long overdue and whose time has come.

Notes

2. Ibid., 10.