

# Transforming the Structure of the Military

## Combat Decisions—Rank, Responsibility, or Frontline Position?

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## Introduction

This case raises the questions of whether, in this day of advanced information networks, field grade military officers should be present at the scene of complex tactical battles and whether net-centric operations allow commanders to operate effectively from the front lines. Many have assumed that new information technologies lift the fog of war and therefore allow commanders to operate with clear vision from rear positions. This case examines the opposite postulate—that net-centric capabilities allow a commander to control operations and his own rear-based command staff from a forward-based position that enables him to watch the battle unfold firsthand.

Specifically, in this case a battalion commander (lieutenant colonel) was on-scene when a suicide bomber smashed into a convoy. After the action, the staff in the combat operations center were convinced his presence had made a critical difference in the outcome. Is that an anomaly, or is it time to take a critical look at the relationship between rank and responsibilities on the 21<sup>st</sup>-century battlefield?

The case is intended to facilitate discussion about the role of net-centric operations in combat and the impact that they might have on rank structure and associated responsibilities. The services differ markedly in what they expect officers of the same rank to do and where they should place themselves in battle. For instance, battalion commanders are expected to remain a good distance behind their companies when engaged. Squadron commanders of the same rank, however, lead their aircraft formations, while Navy commanders fight on their ships, making the most up-to-the-minute decisions during combat.

These differences are based on the technologies of World War II. Is it time now to recommend changes? Within the military, self-congratulations have swirled around the application of net-centricity on the battlefield. Today's troops are the most "wired" generation of warfighters the world has ever seen. Most dismounted infantrymen have handheld radios with an earplug and voice mike, and every Humvee has a PRC 119 or more advanced radio; connectivity from the point of contact to the battalion operations center is assured 99 percent of the time. Every battalion ops center is in contact with an air controller 24/7. Unmanned aerial vehicles (UAVs) are on-call to hover over any engagement area, with clear video downlinks to the ops center. All records and most decisions in ops centers are digitally stored on dozens of interconnected laptops. The mug shot, finger prints, and retina scan of an insurgent captured on the battlefield are beamed a few hours later to a dozen intelligence agencies around the globe. Senior officers in Washington, Tampa, Qatar, and Baghdad are in constant touch with one another via secure televideo.

Most of these technologies have accelerated their standard operating practices (SOPs), rather than transformed them. Infantry operations, for instance, proceed according to SOPs and processes that have changed little in decades. A WWII-era commander of a company, battalion, or division could return to his command after a brief on the role of

new information technology (IT) the chain of command works the same as it did in 1945, the rank structure is the same, and the duties associated with the ranks are the same. Sophisticated technology has been adapted to a structure that has not changed. There is a surfeit of qualified O-4s, O-5s, and O-6s who are assigned to staffs because there are few direct leadership billets in the current pyramidal structure.

In contrast, during the 1990s, technology centered on the ubiquitous computer transformed civilian corporations by radically altering the structure, pay, rank, and responsibilities of managers. In major corporations, the most radical change was the elimination of middle management, such as regional sales managers, because digital connectivity eliminated the need for managerial layers responsible for the orderly consolidation of micro data and daily reports.

This case study focuses on an example from the infantry, but the underlying problem of structural rigidity applies throughout the military. Although the IT revolution has flattened the command structures of corporations, the military has persisted with a pyramidal structure designed brilliantly by Napoleon within the limits of the command, control, and communications means available to him. There are underlying principles of war that recommend much of that structure, some of which predated Napoleon. The Roman legion, for example, was based on the *maniple*, a unit of 100 soldiers commanded by a centurion that could flex independently like the fingers of the hand or be gathered quickly into a fist. The *maniple* became a rifle company, which remains a fundamental component of the battalion.

Napoleon's organizational genius lay in organizing cavalry, artillery, supply, and infantry as separate commands united under his field command. At the lowest levels, he organized platoons and companies into a pyramid wherein which the breadth of each layer was determined by the span of control that could endure during battle. Small-unit commanders, for example, could command as far as their voices could reach over the din of battle. Subalterns had to be numerous, because one in every three or four commanders would be lost in a battle and had to be replaced immediately. Hence, the emphasis upon many small units with many leaders organized in a layer-cake pyramid that has persisted through today. Technology has radically extended the human voice and sight, yet the old organizations persist.

The infantry of Napoleon consisted of many riflemen firing single-shot weapons and suffering high losses, commanded by officers from a different level of society. These factors substantially determined the ratio of officers to troops. Loss rates and firepower have changed dramatically since the end of the Napoleonic style of war, yet the structure, numbers, and command hierarchy of the infantry battalion are substantially unchanged.

A factor extraneous to the battlefield also bears on rank structure: currently, there is one officer for each nine enlisted, but there is only one high school graduate as a potential enlistee for each college graduate as a potential officer. So, at the same time that technologies suggest substantial alterations in structure, the trend toward higher education suggests it will become harder to maintain the traditional enlisted-to-officer

ratio. Together, these trends offer a compelling rationale for transforming military structure and the current assignment of numbers and ranks.

But how to do this? Only a bottom-up approach in each service will have the fidelity and expertise to be accepted as credible. What follows is an illustration. The case is intended to serve as a launch point for small group discussions. It deals with a set of complex decisions that had to be made immediately in the midst of a combat action. The case raises the question: can professional officers and non-commissioned officers (NCOs) design alternative command and control or "rank and responsibility" models that would change how our units are currently structured and commanded?

## The Setting

In May 2006, Ramadi was deemed "the most violent city in the world." Located on the Euphrates 70 miles west of Baghdad, Ramadi, in name, was the capital of Anbar Province, the fractious, sprawling, desert heartland of the Sunni insurgency.

In the late spring of 2003, Ramadi actually functioned economically and politically as the provincial capital. Back then, the highway through the center of the city of 400,000 residents and 40,000 buildings was clogged with cars, their rusted-out exhaust mufflers emitting clouds of noxious smoke. Crowds of Iraqis queued up outside the Government Center, seeking contracts, medical care, job interviews, resolution of disputes, and news of missing relatives. Inside, American soldiers sat alongside Iraqi office workers listening to complaints, offering reassurances, and entering data on computer spreadsheets. American diplomats in sport utility vehicles (SUVs) drove to work each day from their trailers at the nearby military base called Blue Diamond. The *souk*, an open-air market, was packed with men wandering idly amidst stalls selling meats, vegetables, clothes, and basic consumer goods. Real estate prices shot up 50 percent in one year.

However, prosperity and normalcy soon faded. When Fallujah was smashed and taken in November of 2004, extremist leaders like Abdullah Janabi, the "spiritual adviser" to Zarqawi, fled to Ramadi, 30 miles to the west. The local insurgents impulsively welcomed al Qaeda and the foreign fighters. Attacks against the American battalion in the city increased. But as the sheiks and local fighters began to lose control in 2005 to the outsiders, they decided that some accommodation with the occupying Marines might make sense. The American "Leadership Engagement" effort began to pay off, with the local leaders promising less violence in return for more control (and contracts).

Offering economic development as the path to a brighter future was a favored ploy of the American-led coalition. In 2005, the Marines wooed the city elders by proffering construction and repair contracts. Of the 47 local contractors who began projects inside the city, five were killed and 30 others fled the city. One contractor bid \$70,000 to fill a few pot holes. He explained he had to buy his own cement trucks because no one was willing to rent a truck headed for Ramadi. He had to hire guards and buy "licenses" from local officials, the major's office, the sheik in charge of the local tribe, and the insurgents

on each street where he was working. Plus, his crew insisted on driving back to Baghdad each day, resulting in a three-hour work day. Hence, it took \$70,000 to complete a \$5,000 job.

A breakthrough occurred in November of 2005, when, despite al Qaeda objections, the residents of Ramadi went to the polls. The extremists lashed back, publicizing a list of nine sheiks labeled as traitors. Within 3 weeks, seven were assassinated, beginning what the Marines called the murder and intimidation (M&I) campaign. When the leading tribes sent 200 of their sons to join the Iraqi Security Forces, with an understanding they would be stationed in Anbar, an al Qaeda suicide bomber joined the line of recruits and blew 60 of them to bits. That broke the spirit, never strong, of the tribes.

Beginning in 2006, most of the city leaders and middle class fled to Baghdad or Jordan. The bottom fell out of the real estate market as families just packed up and moved out, leaving behind empty houses that were occupied by itinerant insurgent gangs and eventually were smashed in gunfights. The hard-core insurgents controlled the streets. Every American patrol took sniper fire within 2 hours of leaving base. Improvised explosive devices (IEDs) were strewn along all the main streets. On an average day, the operations center of the 800-man American battalion patrolling the city would be tracking 85 suspected IED locations. Explosive ordnance demolition (EOD) teams averaged seven detonations per day. Economics favored the insurgents. Unemployed youths were given \$40 to implant an IED, while the EOD teams were complaining that the trigger men, frustrated when the IEDs were located, were blowing up robots that cost \$170,000 apiece.

By the spring of 2006, nine U.S. battalions had rotated through Ramadi, where in 30 months four governors had been killed, kidnapped, or forced from office. The Government Center was a fortified wreck, its only inhabitants a platoon of Marines manning sandbagged firing posts. No Westerner would make it five blocks down the main street in a civilian SUV, let alone survive in the *souk*. The population had decreased by half, and traffic jams were a long-ago dream of normal times. Ramadi, a battered shell of its former self, bore the scars of repeated battle—shuttered storefronts, shell-pocked buildings, burnt-out cars, and raw, black splotches in the pavements from explosions. Marines on patrol ran across the open spots and ducked in and out of doorways. Insurgents hiding in plain sight among civilians watched, chose their time and place, and opened fire.

The 3rd Battalion of the 8th Marine Regiment operated in western Ramadi and the 2nd Battalion of the 506th Army Regiment—a successor to the "Band of Brothers" of the 101st Air Assault Division—operated to the east. Iraqi officials feared that the Arab press would portray a full attack as "another Fallujah," yet the same officials would not send sufficient Iraqi troops to take back the city block by block. Until they did, the Americans held the dike and kept control of the Government Center as the battered glimmer of future stability.

## The Event

On April 17, 2006, the insurgents challenged the Marines to an open fight for control of a platoon reinforced observation post, a former Iraqi Veteran's Administrative building, known as OP VA. The day was overcast and drizzling, with a steady wind blowing clouds of dust that grounded the helicopters. Attacking while the Americans lacked air, the insurgents employed mortars, rocket-propelled grenades (RPGs) and machinegun fire to pin down the sentries, while maneuvering a cement truck filled with explosives through the serpentine entry to a main outpost a few hundred meters east of the Government Center. Despite being buffeted, the sentries returned fire from their sandbagged posts. After they killed the driver, the truck exploded in a blast that wrecked half the building and threw one sentry out of his tower. He scrambled back to his post and shot another insurgent before an RPG round hit the sandbags and spilled him out a second time. Again, he climbed back behind his machinegun and resumed firing. Luckily, not one Marine was killed, while the insurgents lost about a dozen men.

The last, thin thread of Iraqi government presence was Governor Mahmoon Sami Rashid, who had curious political associations. On the one hand, he boasted that he was on good terms with the "resistance." On the other hand, he had survived, by his count, 29 assassination attempts and, after a particularly close call, had muttered to the Marines: "Worst thing I ever did was invite in foreigners." While he seemed to have an understanding with some local insurgents, al Qaeda and the most fervent jihadists were determined to kill him.

Two of his predecessors had been killed and two others forced to resign after kidnappings. His deputy and the chairman of the provincial council had been assassinated; his secretary had been beheaded. To keep Mahmoon alive, the Marines picked him up each morning at his fortified compound and escorted him two kilometers to the Government Center, where he shuffled papers or talked on the phone, if it were working, while the Marines manned the machineguns. After a few hours, the Marines would escort him back home.

LtCol Stephen Neary, USMC, the Commanding Officer of 3/8, routinely took out the security detail that guarded the governor. "That way," Neary said, "I was not saddling the companies with another task that would throw off their day's schedule. The governor always ran late and invariably asked for something extra. I could get him moving and refuse his requests for extra goodies, or bargain with him. We got along and I'd get some good scoop."

Every other day, at least one Humvee in the battalion was hit by an IED. The Marines were very satisfied with the up-armor on the 1114 model Humvee they had recently received. The drivers were annoyed, though, because most IEDs that exploded shredded at least one tire costing \$275, damaged the axle, required a tow back to base, and took the Humvee off-line for 4 or 5 days. Neary wanted to be able to take a hit, leave a second Humvee behind for security and towing, and still proceed with the governor's large party.

On May 2, Neary rolled into the governor's compound with six Humvees, two more than usual. Mahmoon had persuaded several Iraqi officials to make an appearance at the Center with him, so Neary had decided to bulk up security. As was often the case, the sergeant major, Carl Gantt, was traveling in the same Humvee. Mahmoon's brother was in charge of the governor's Personal Security Detachment (PSD). After talking with Gantt, the convoy commander, CWO John Rabert placed the governor's three vehicles (four-door sedans) behind the PSD, an order of march he changed periodically.

All six Humvees had mounted radios tuned to a frequency that interfaced with PIRs, the handheld personal radios many of the Marines had strapped to their armored vests. Thus, all six Humvees shared good radio communications. The battalion commander, the convoy commander, and the sergeant major also had a PRC-119 radio in each of their three Humvees. The PRC 119 tuned to TAC-1, a frequency that connected them to the four fixed sites along Route Michigan, the main street, and to the ops center at the battalion's base two kilometers east.

It was a beautiful morning, the sun blazing down, temperature in the high 80s, not one warning of imminent danger, the governor in fine fettle, showing off a bit in front of his guests. Of 39 senior provincial officials, only one, called a deputy governor, had showed up to accompany him to work. At the last minute, Mahmoon impulsively shoved the official into his SUV to continue an animated conversation during the 10-minute drive.

Neary had outposts every several hundred meters on both sides of the road, plus a rifle company working a few blocks to the north. At 10a.m. the convoy was rolling down Route Michigan with a line of traffic in front and behind. As usual, small knots of men were loitering on the sidewalks, where others were repairing tires and working on cars decades past their prime. A Marine up-gunner on a 240 Golf 7.62mm machinegun turned on his camcorder to record the patrol. He wanted to send it home to show his parents why they shouldn't pay any attention to all that news about big, bad Ramadi. A shabby orange and white taxi moving fast out of a side street caught his eye and he focused in on it.

BAAM! The governor's sedan was engulfed in orange flames, a car door sailing up like a kite, followed by a wave of thick black smoke. The concussion wave shook Neary's Humvee, two vehicles ahead of the governor's car, but the thick glass absorbed much of the sound wave, and for a few seconds Neary thought it was just another IED—meaning, at worst, another Humvee towed back to the base. Then he looked back and saw flames leaping through the cloud of dust. “Damn,” he thought, “I've lost the governor.”

Legs, arms, sandals, torsos, and car chunks were scattered across the road. The devastation told Neary that the blast had been caused by a suicide vehicle improvised explosive device (SVIED), probably a couple of hundred pounds. Five or six civilian vehicles were blazing, the tires and gas tanks aflame. He saw the Humvee in front of him turn around and drive into the flames. That was CWO Rabert, the convoy commander, and he was headed to secure the far side of the ambush, protecting what was left of the Governor's convoy. However, communications were a problem. CWO Rabert's antennas



had been shot off his Humvee. Gunnery Sergeant Klezarus, the PSD platoon sergeant, headed straight for the governor, his first priority if they were hit.

"SVBIED!" Neary yelled over TAC-1, simultaneously alerting the sentries in fixed overwatch positions on Route Michigan, the platoon on guard at the Government Center, Kilo Company operating north of Route Michigan, and the battalion ops center. "Big blow! Multiple cas<sup>1</sup> on governor's convoy at Justice Center!"

Neary's Humvee drove back through the flames. He saw the Gunny's Humvee parked at right angles to the governor's shattered SUV. The Gunny was herding the shocked governor and one of his bodyguards into the Humvee.

"Gunny, take him to the Government Center in Victor 6!" Neary said. Victor 6 had three flat tires and one Marine casualty. With Victor 4 as a guard vehicle, Victor 6 limped east the 300 meters to the Government Center. With the Convoy Commander off-scene, Neary became the prime decisionmaker.

Amidst the flames and screams, Neary could hear and see enemy machinegun fire impacting all around his vehicle, mortar rounds landing across the street as well as RPGs being launched from both north and south of MSR Michigan at the ambush site. The enemy was on both sides of him. Smoke was billowing around him, swirling with the wind, obstructing his view. He listened for a moment. The firing was increasing. He got back on TAC-1 and contacted Lima Company to the north.

"Weapons tight, Lima," Neary said. "Send a platoon to close on my pos, but do not fire without PID [Positive Identification]. And even then, I want to hear only short, aimed bursts. I don't want any friendly fire down here."

A few weeks earlier, along the same stretch of highway, about 60 insurgents had attacked with mortars, RPGs, AKs, and a suicide bomber in a dump truck. Neary didn't know what to expect, but he decided the risk from a second SVBIED was higher than that of an effective ground attack from the adjoining buildings. Besides, he had a Marine squad at an observation post on the roof of OP VA only a few meters away on the northern side of the street. They could provide firepower.

"I want units to seal off this area at a distance of about five blocks to disrupt the enemy mortar teams. Cut off the escape routes! Don't send the QRF [quick reaction force] until I tell you," he told the Ops Center. "Have the gates open at the Government Center to receive casualties, but don't send any vehicles here."

Sergeant Major Carl Gantt was organizing the evacuation of the governor's PSD, loading them into a high-back Humvee. Screaming men and women were rushing forward with wounds gushing blood, scrambling for seats. Most were innocent civilians with

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<sup>1</sup> Casualties

blackened skin and ripped clothes, desperate for aid, instinctively knowing their best chance lay in pushing their way onto the Humvee. There was no accurate Iraqi manifest.

The governor was in the habit of including hangers-on at the last minute when he was leaving his compound. Because he knew most of them by sight, Gantt was able to sort out the wounded bodyguards and drove slowly to the Government Center.

Neary remained behind amidst the screaming, the blood and the flames, trying to spot the deputy governor. His dazed wife was standing on the sidewalk near her undamaged car. Neary assumed her husband was nearby. Then he remembered seeing the governor grab his deputy and tug him into his sedan to continue their conversation. Neary saw his charred corpse lying in the shattered sedan. When he looked back, the wife was being escorted into the Justice Center.

Once all of the governor's party were cleared from the scene, Neary drove back to the Government Center and patiently constructed a personnel list with the governor. Of the 11 in his party, one was dead, along with two civilians. Another 30 Iraqis were injured. One Marine and one Iraqi bodyguard were en route to Charlie Med. Neary called the Deputy Commanding General, gave him a brief update, and rushed back to the scene of the explosion.

Once back on scene, he took out the personnel list, gathered all remaining members of the governor's party, and checked off each name. Twenty minutes after the explosion, Neary had accounted for all 11 who had been traveling with the governor. The enemy had broken contact. Six cars were still burning. To Neary, the primary mission became checking the dozens of parked and abandoned cars in the vicinity of the Justice Center, lest one or more be rigged with explosives. Neary called forward the EOD to inspect the cars left on-scene. An AT-4 blew up one that looked suspicious, but it turned out not to contain explosives.

Two hours after the initial explosion, Neary called the location secure, and combat trains rolled in to wash away the blood and drag seven wrecked cars from the road. They were stacked next to one another alongside a shot-out building. Neary drove back to base to conduct an after-action debrief.

## **After-Action Discussion**

Once back at the based called Hurricane Point, the battalion commander gathered his key staff in the small ops center. "Let's review where we stand," the battalion commander said. "We get hit every time we go downtown. Most is small stuff—the usual IEDs and snipers. But occasionally those knuckleheads put together a coordinated attack, day or night. If we lose this governor...well, I don't have to tell you we'll be the bug under the division's microscope. The gunner did an outstanding job and saved the governor's bacon. But we were stretched out there today. So, let's all put our egos to one side. All options are on the table. Do we change how we do things?"

The battalion commander stood back and waited. The Chief Warrant Officer who ran the ops center looked around and then spoke up. "Comm was fine. We could hear everything on our net. We had a UAV on station in 15 mikes and counted every hummer. With the muj, it was the usual. A couple of guys running from one building to another. No solid targets." The S-3 nodded in agreement. "We were in support-mode only," he said. "Back here, we were picking up nothing that could make us pro-active. We monitored and responded. Here's what was critical." Glancing at a notebook in his left hand, he wrote down a series of points on a clean space on the status board:

1006. Notification over TAC-1: SVBIED hit the governor's convoy. (Heard in all fixed posts, the ops center and all other units monitoring that frequency)

1014 Convoy Cdr in Victor 6 exits with governor.

1020 Bn Cdr orders weapons tight for Lima Company to the north.

1022 Bn Cdr orders ops center to dispatch units to seal off area.

1024 Bn Cdr orders ops center not to send the QRF, due to fear of a second SVBIED.

1035 Bn Cdr reports all of governor's party evacuated to Govt Center

1045 Bn Cdr reports to Deputy General that he has drawn up a personnel list with governor. No important official is missing. One dead. One Marine and one Iraqi official evaced to Charlie Med. Many civilians dead and wounded.

1050 Bn Cdr orders QRF come forward to clear out traffic at scene of bombing; orders two EOD teams forward to inspect all cars remaining at scene.

1100 Deputy Commanding General arrives on-scene via helo.

"OK, I have four questions," the battalion commander said.

"First, if I had been here in the Ops Center, I would have heard everything that was going on, and could vector a UAV to provide real-time video. *So is there anything we're missing in the ops center that technology can provide?*"

"Second, had I been back here today and the gunner as convoy commander had to choose between protecting the governor or remaining on-scene, *which of those decisions the S-3 wrote on the board might have fallen apart?*

"Let me put this in geek-talk. Does the concept of *coup d'oeil*—the commander forward watching the battle—have renewed relevance today? Look, we have this Research and Development (R&D) project called Command Post of the Future (CPOF). What's that all about? Delivering more info to the commander *who is in the rear and not on the*

*battlefield*. Why isn't he up front, the way Alexander, Caesar, and Napoleon were? Because he needs to know what's going on with different units he can't see?

"The CP in the rear was a fixture in World War II. And when you look at the Coalition Forces Land Component Command (CFLCC) today—whoa! That's 200 computers and 20 video screens. Hell, here in Ramdi we have two video screens and 20 computers. So staffs have all this new info, or at least much more data.

"Maybe we're going at this from the wrong end. Why do I have to be back here, if the ops center staff can feed me the required info while I am forward at the critical point of the battle? Would things have gone better if I had been in the ops center, or would they have been more mixed up?"

"Third, do we need to expand senior staff and ask division to send us some more majors who can pitch in if the action escalates? We are short-handed. The XO and the S-3 have to swap off 12 and 12 to run things back here in order to free me up to get out."

"Fourth, how do we decide who can make what decisions? Maybe we don't need more majors; maybe we have the talent right here. We're on our own out here. Division and brigade aren't telling us how to cut the grass. We can task organize as we decide. So do we designate a set of—let's call them Task Force commanders—who don't get in the way of ordinary ops, but who are on-call to be pushed forward?

"We want skilled, knowledgeable people at the scene of tactical battles. Do those skills correlate with rank? *How do we decide who can make what decisions, regardless of rank?*"

## Instructors Guide for Transforming the Structure of the Military

The potential conclusions from this case are counter intuitive. Most would assume that, with excellent communications, the commander does not need to be up front, because he can monitor all, understand the situation, and give orders from his command post in the rear. The conclusion of this case seems to be the opposite: that with networked capabilities, there is a case to be made that senior commanders need to be out front; or that whoever is out front needs the authority to make decisions. In that sense it seems to conclude that net-centric capabilities do not yield adequate operational understanding and situational awareness to give a rear-based commander the basis for solid decisions.

So the issue is also, for what should the network be used? Consider two cases. In one case, the commander in the rear relies on net-centric communications to understand the situation and then gives orders. In the second case, the front line commander does not rely on net-centric systems to understand the battlefield situation—he is there. But he relies on net-centric capabilities to implement his orders more efficiently. The case that you think most accurately reflects reality leads to different conclusions about the overall command structure.

To put this in IT terms, if net-centric capabilities flatten lines of authority and "shift power to the edge," who has to be at the edge to use that power effectively?

These are two very different models. You might highlight this difference more and tie everything back into the traditional command structure, which as you? Who? point out is now based on the Roman and Napoleonic models (where local span of control was key). How do these conclusions regarding net-centric usefulness affect that span of control and hence command structure arrangements?

Put aside the particulars of this case and address the general questions: Should parts of the military command and rank structure be modified, given the new technologies? What is a practical process for structural transformation, or is such transformation inadvisable?

*Issue 1:* "Is there anything we're missing in the ops center that technology can provide?"

*Guideline:* The Defense budget is badly under-funded. To add anything will require take-aways. This opens the issue to the question of funding for "near competitor" contingency that favors Air Force and Navy versus "long war" that favors Army/Marines.

*Issue 2:* "Does the concept of *coup d'oeil*—the commander forward watching the battle—have added relevance today? Had I been back here today and the Gunner as convoy commander had to choose between protecting the governor or remaining on-scene, *which of those decisions the S-3 wrote on the board might have fallen apart?*"

*Guideline Part A:* The four decisions listed below would have been contentious:

1020 Bn Cdr orders weapons tight for Lima Company to the north.

1022 Bn Cdr orders ops center to dispatch units to seal off area.

1024 Bn Cdr orders ops center not to send the QRF, due to fear of a second SVBIED.

1050 Bn Cdr orders QRF come forward to clear out traffic at scene of bombing; orders two EOD teams forward to inspect all cars remaining at scene.

*Part B:* So, should the battalion Commanding Officer be forward, or in the rear? The potential conclusions are counter-intuitive.

Most would assume that with excellent communications, the commander does not need to be up front because he can monitor all, understand the situation from the rear, and give orders from his command post. The conclusion of this case seems to be the opposite, that with networked capabilities, there is a case to be made that senior commanders need to be up front; or that whoever is up front needs the authority to make decisions of very wide latitude.

**Key point to discuss:** Do net-centric capabilities provide situational awareness best applied by a commander who stays in the op center in the rear, or are they better used by allowing the commander to move forward? (Do not allow the students to duck the discussion by saying both opinions are correct!)

Look at two cases. In Case A, the commander in the rear relies on net-centric communications to understand the situation and then he gives orders.

In Case B, the front line commander does not rely on net-centric systems to understand the battlefield situation—he is there. But he relies on net-centric capabilities to implement his orders more efficiently.

The case that you think more accurately reflects reality leads to different conclusions about the overall command structure.

*Issue 3:* "Do we need to expand senior staff and ask division to send us some more majors who can pitch in if the action escalates? We are short-handed."

*Guideline:* This will provoke lively debate. Cite the National Football League (NFL)—the number of coaches per team has expanded from an average of five to 16 in seven years. Marv Levy argues technology has complicated work, while Joe Gibbs is trying to bring in a coach for every member of the team!

*Issue 4:* "Maybe we don't need more majors; maybe we have the talent right here in the battalion. We want skilled, knowledgeable people at the scene of tactical battles. Do those skills correlate with rank? *How do we decide who can make what decisions, regardless of rank?*"

*Guideline:* This opens up the issue of changing the pyramid structure. Every officer will have a strong opinion.

1. Are we deluding ourselves? Why has the military appended new technologies to an existing pyramid structure when those technologies have changed and flattened the structure in civilian corporations?
2. The Roman and Napoleonic models of the steep pyramid were based on the necessity of highly localized spans of control. So how do net-centric advances affect that span of control—do they flatten the span, or leave it unchanged?

If net-centric capabilities flatten the lines of authority and "shift power to the edge," who has to be at the edge to use that power effectively —the "strategic corporal" or the battalion commander? (Please don't claim it is both!)