



V Corps FECC

By Lieutenant Colonel Roy E. Perkins



"Eagle 3, this is Apache 6. There's nothing but SAMs [surface to air missiles] out here. We can't find the target. We're going 'Winchester' on cannon and 2.75-inch rockets doing self-SEAD [suppression of enemy air defenses] and near Bingo [out] on fuel. I've hit my abort criteria.

"We just lost a helicopter due to enemy ADA [air defense artillery] in addition to the one we lost to friendly fire as we crossed the FLOT [forward line of own troops]. You're coming in very weak and broken at this range. I sure hope you can hear me because we couldn't recover the helicopter crew.

AI [air interdiction] never hit the target, and the CAS [close air support] never showed. I don't think the leaflets got through because these guys still want to fight.

"Where are those EA-6B [Marine Prowler] jammers you promised? I never heard from the AWACS [Air Force airborne warning and control system] or ABCCC [Air Force airborne battlespace command and control center].

"Apache troop is SP [starting] on egress route Condor and hopes we can get 'wheels down' without anything else going wrong. Apache 6, out."

Although Apache 6 is not part of a real attack helicopter troop, this radio call shows how rapidly a combat mission can go from bad to worse—giving examples of the range of lethal and nonlethal effects that can be employed in an Army aviation attack. If Apache 6 had had an agency to manage and integrate all effects, he may not have encountered all these problems.

Such an organization exists, and its purpose is to manage all lethal and non-

lethal effects for decisive shaping operations in the corps fight. One of the newest of these organizations is the European Command (EUCOM)-based V Corps Fires and Effects Coordination Cell (FECC).

The V Corps FECC combines the traditional members of the deep operations coordination cell (DOCC) and other non-standard battlefield operating system (BOS) representatives under one roof and one leader. The traditional DOCC includes the corps main

fire support element (FSE), G3 air, air defense element (ADE), airspace command and control (A²C²), rescue coordination center (RCC) liaison, air liaison officer (ALO) along with the V Corps Artillery tactical operations center (TOC).

This article explains why V Corps implemented an FECC, what it looks like and how it functions, and what challenges we encountered transitioning from a DOCC to an FECC.

What was wrong with the DOCC?

After all, we finally got our maneuver brethren to accept it. The FECC is the next evolution of this concept of integrating assets, but the FECC is *not* just a bigger DOCC.

A DOCC focuses primarily on planning and executing deep fires. In a linear corps fight, this could extend from a division's forward boundary out to the corps' forward boundary. Historically, this range could be more than 150 kilometers.

What the maneuver commander needs—from brigade to corps or even above—is one central clearinghouse for planning, developing and executing effects-based targets wherever they are in his expanded battlespace. He must be able to visualize, synchronize and coordinate all aspects of his lethal and nonlethal actions. An FECC is charged with that responsibility.

In recent years, conflict has changed. Brigades fight in areas larger than Vietnam-era divisions. Divisions currently conduct operations that corps executed during Operation Desert Storm. The counterfire fight is no longer fought at the corps level. With the extended range of most indirect systems, the burden of counterfire has shifted to the division artillery or the reinforcing brigade TOC.

The corps fight has transitioned into employing long-range artillery fires, primarily the Army tactical missile system (ATACMS), as well as Army attack helicopters and joint fires: AI, Navy Tomahawk land-attack missiles (TLAMs), electronic warfare (EW) and CAS. Additionally, the corps plans and executes nonlethal effects, such as operational security (OPSEC), military deception, psychological operations (PSYOPS), special information operations (IO), information assurance, physical security, counterdeception, counter-PSYOPS, and counterintelligence. Public affairs and civil affairs also can help attain IO objectives. Finally, the corps fight includes providing logistic sup-

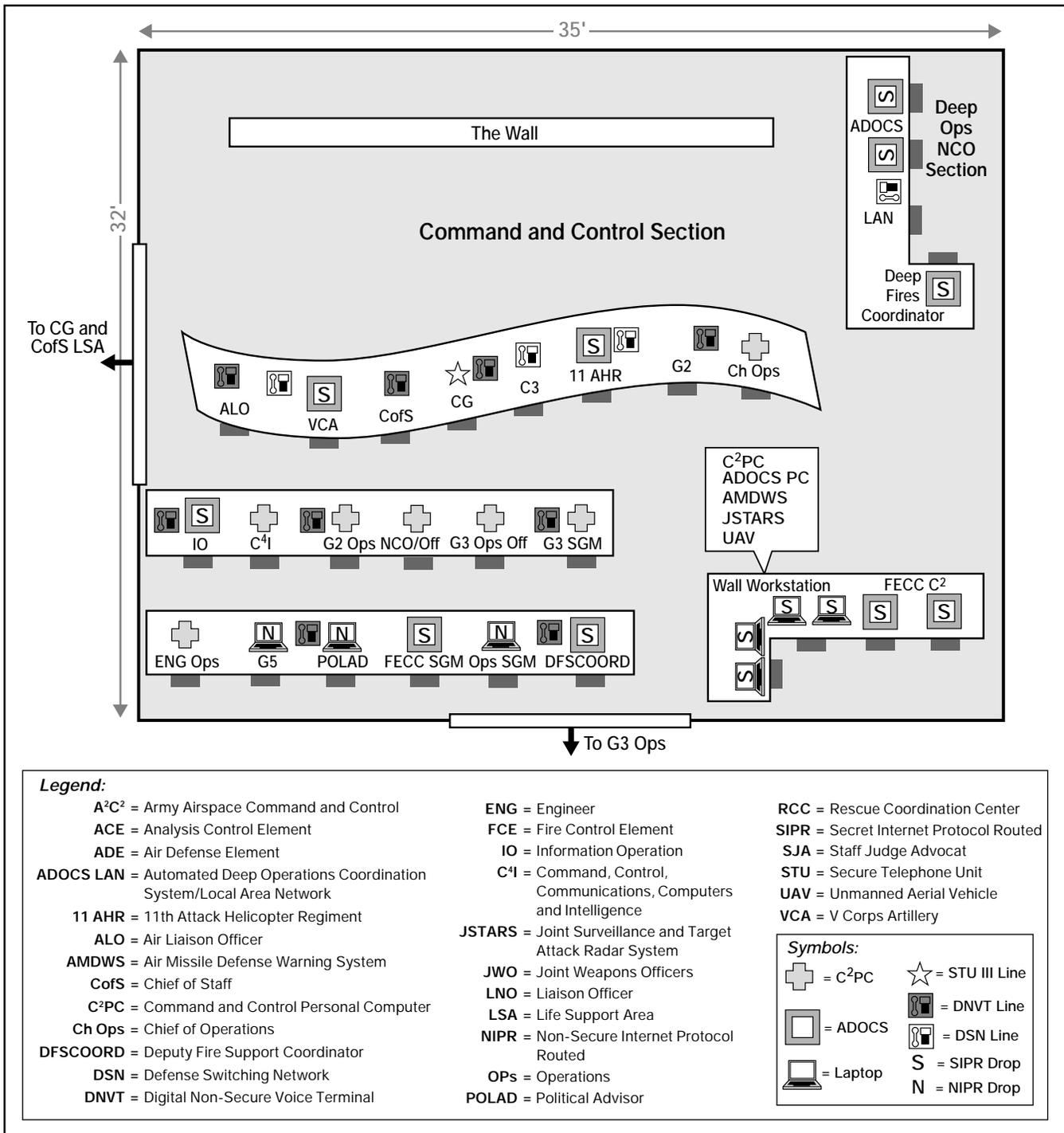


Figure 1: V Corps Integrated Main Command Post. This includes the Battle Command Center (BCC), Operations and the Fires and Effects Coordination Cell Command and Control (FECC C²).

port for additional artillery in the area of operations (AO).

The corps now focuses more on bridging the tactical and operational levels of war, a role once reserved for numbered Armies and Army service component commands. An FECC recognizes this change and provides the organizational structure to support it.

Why do we need an FECC in V Corps? After all, the interim brigade

combat team (IBCT) is testing the concept at Fort Lewis, Washington. The IBCT FECC is focused on brigade operations and integrating new systems while V Corps is a tank-heavy unit that will fight primarily with legacy equipment and older doctrine. So what gives?

After Operation Allied Force (Kosovo Air Campaign), V Corps undertook a formidable challenge. It reshaped itself into a lighter, more deployable and syn-

chronized command post (CP) with a rapid strike capability in line with the Chief of Staff of the Army's (CSA's) vision of transformation.

We examined emerging doctrine from the Field Artillery School at Fort Sill, Oklahoma, and evolving examples from the XVIII Airborne Corps at Fort Bragg, North Carolina; Eighth Army DOCC in Korea; and III Corps at Fort Hood, Texas. Then the V Corps Artillery

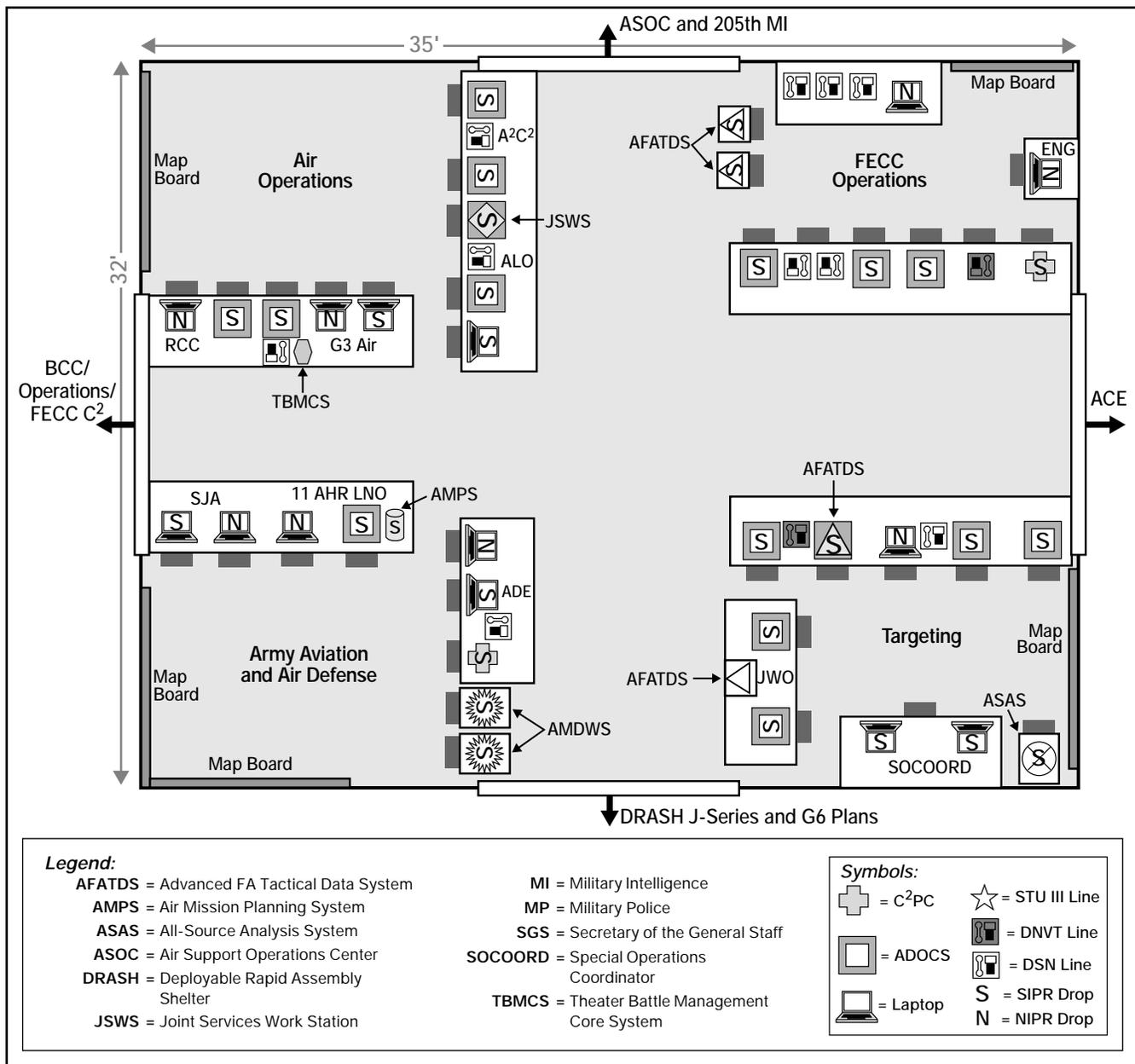


Figure 2: Fires and Effects Coordination Cell (FECC)

(VCA) commander made some tough decisions to transition from a DOCC into a FECC.

The ideas in this article were extracted from our research. What is new is the timing and integration of this concept to a redesigned V Corps CP that has been commended by Army and joint organizations worldwide.

Because of limited manning and, therefore, skill sets, the corps artillery commander consolidated the V Corps TOC with his main CP, in effect built an FECC. V Corps Artillery, like most other non-divisional units, is manned at significantly reduced levels. The headquarters is filled to 60 percent strength for artillery field grade officers and less

than 50 percent strength for company grade officers.

More importantly, inbound personnel have very limited or no experience with integrating multi-branch, multi-service and national-level targeting and weapons systems. This type of targeting applies only to corps, numbered Armies and joint staffs. Those officers and NCOs trained at the division level or below have little knowledge of how to plan and use many of these systems. Because of these deficiencies, the V Corps Artillery commander integrated his TOC with the corps main CP, which built a *fires* (VCA TOC) and *effects* (V Corps main CP and DOCC) *coordination cell*—an FECC. (See Figure 1.)

This improved situational awareness for the VCA TOC. With a separate TOC, the VCA staff knew little more than its part of the mission and could not understand how the lethal effects of fires integrated into the complete corps fight.

So, what does the V Corps FECC look like? It includes the following sections: command and control (C²), operations, targeting, joint weapons officer (JWO), G3 air, automated deep operations coordination system (ADOCS) local area network (LAN) and 11th Attack Helicopter Regiment (AHR) S3 plans. (See Figure 2.)

C² Section. This used to be the corps main CP FSE and is the primary coordi-

nator of effects operations. It is in this section that the VCA commander and corps chief of staff develop the corps targeting guidance and objectives. This cell is the primary integrator of battlefield visualization that gives the corps main CP an unprecedented ability to see the current effects-based execution of targets as it applies to friendly units, enemy forces and the terrain.

Operations Section. This section came from the old VCA G3 and fire control element (FCE). It is the artillery backbone of the FECC. The operations section manages the effects and delivery of rocket and missile-based lethal fires. It develops fire plans; executes the high-payoff target list (HPTL), attack guidance matrix (AGM) and target selection standards (TSS); prosecutes targets; and deconflicts and manages artillery airspace.

The operations section also manages artillery resources with the VCA administrative logistics center (ALOC) and coordinates fire support coordination measures (FSCM). The corps tactical CP (TAC) FSE and main CP current operations FSE report to this section. This operations section also is the main point of contact for subordinate fire support organizations.

Targeting Section. The old VCA G2, counterfire cell and the corps targeting officer comprise this section. Its primary purpose is to synchronize the corps targeting effort between the V Corps G2 and executing agencies. The section is a primary planning center for enemy

artillery target development. The targeting section focuses the employment of lethal and nonlethal assets in conjunction with the corps G2. It builds the HPTL and AGM and, with the corps G2, determines the TSS.

The Field Artillery intelligence officer (FAIO) reports to the targeting section but works inside the corps analysis and collection element (ACE) and provides real-time target information to the operations section for prosecution.

The targeting section includes engineer, IO, staff judge advocate (SJA) and other BOS representatives to help develop targets.

JWO Section. This is a new section designed to manage air support requests (ASR) and air tasking order (ATO) distribution and management. The JWO section is responsible for target updates and target validations and leads the corps target prioritization process for ATO nominations.

The JWO section is both a planning and executing agency and works in conjunction with the targeting section. It manages all joint effects requests, both lethal and nonlethal.

G3 Air Section. In addition to G3 air, this section includes the A²C², air defense element (ADE), air liaison officer (ALO) and other unit liaison officers who perform their traditional DOCC roles but in close coordination with other BOS reps.

The additional impact that a corps FECC brings is the close proximity of

the air support operations center (ASOC) and military intelligence brigade TOC. These elements are adjacent to the FECC and work closely with the G3 air section, providing rapid access for CAS integration as well as Guard Rail source feeds and long-range surveillance (LRS) target information.

This section also provides Army input into joint personnel recovery (JPRG) and combat search and rescue (CSAR) operations through the RCC liaison officer from the corps general support (GS) aviation brigade.

ADOCs LAN Manager. V Corps Artillery uses ADOCs to manage its battlefield functional systems. The ADOCs LAN manager, who is the deep operations NCO, also serves as a fire support NCO in the FECC C² (Figure 1) when required.

11th AHR S3 Plans Section. This section is inside the FECC and provides route-planning, mission-processing and battle-tracking functions.

How does the V Corps FECC function? Making the V Corps FECC work is more than just putting these agencies together in one tent. By working closely, the FECC agencies can conduct target development, target prosecution or airspace management and implement tactics, techniques and procedures (TTPs) that provide a more rapid and cohesive engagement of target sets.

The consolidated layout facilitates coordinating and engaging the right target with the appropriate effects desired,

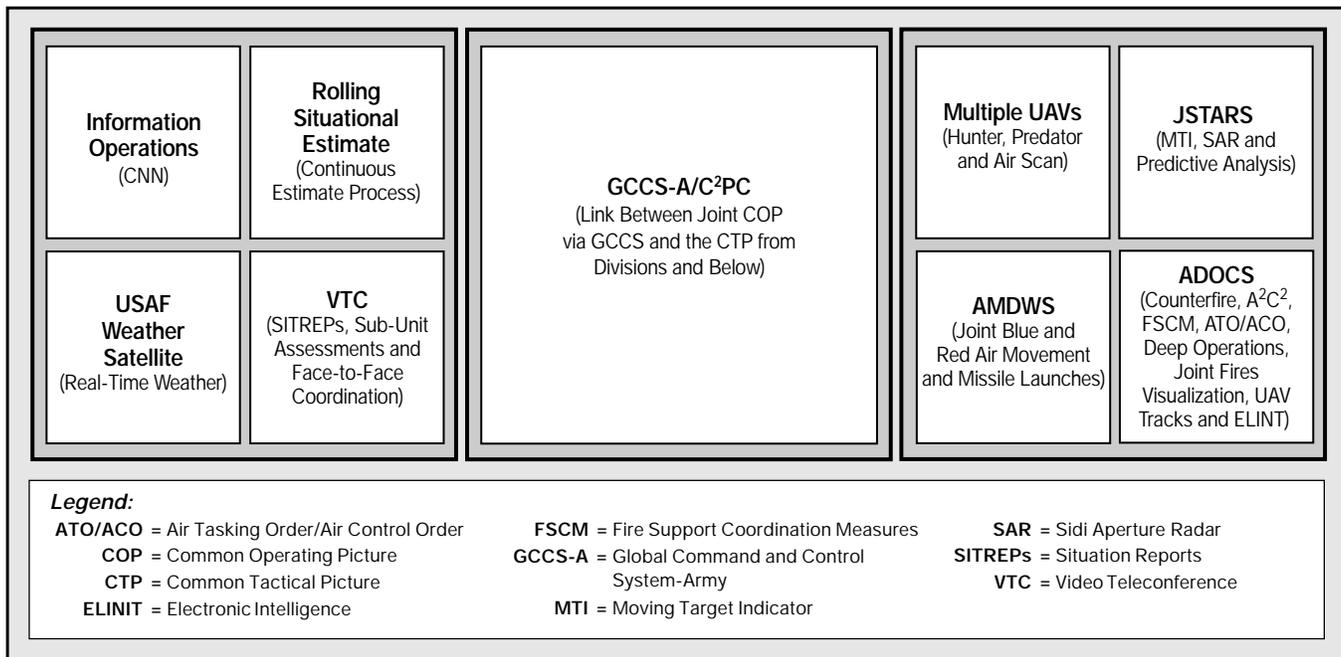


Figure 3: Joint Fires Visualization Screens

lethal or nonlethal. This is particularly important for airspace management and deconfliction. This also helps to link stove-piped staff organizations together to focus on common objectives.

Effects Coordinator (ECOORD). The FECC functions as one organization under one leadership for unity of effort. Because the VCA commander was already the corps fire support coordinator (FSCOORD), moving these agencies under one roof connected to the corps main CP naturally led to his role as the effects coordinator (ECOORD). All the cells inside the FECC report through the ECOORD.

The ECOORD chairs the targeting meetings, which address not only lethal requirements, but also nonlethal and IO. During the targeting meeting, all issues are surfaced and cross-walked to develop a cohesive application of the spectrum of effects. This guidance is then formalized and approved by the V Corps Chief of Staff during the targeting board. This process allows the corps to have a common view of visualizing and applying effects onto targets.

Common Operating Picture (COP). Today's buzzword for CPs is COP. A layman's definition of COP is the full situational awareness of all information sources integrated into one complete picture of the battlefield.

The FECC's COP connectivity is achieved in many ways. V Corps uses a combination of computer-based visualization tools to provide the corps CP a near real-time picture. (See Figure 3.)

Additionally, today's warfighter requires the ability to overlay multiple pictures and feeds into one common frame of reference. Specifically, the V Corps FECC uses ADOCS to horizontally integrate many automated Army battle command system (ABCS) feeds. These include the advanced FA data system (AFATDS), initial fire support automation system (IFSAS), all-source analysis system (ASAS), air missile defense warning system (AMDWS), air mission planning system (AMPS), global command and control system-Army (GCCS-A) as well as joint service feeds, such as the Air Force's theater battle management core system (TBMCS), joint surveillance and target attack radar system (JSTARS) and unmanned aerial vehicles (UAVs).

However, the most important connectivity has nothing to do with computers or message formats or even maps with acetate. Instead, maps and message

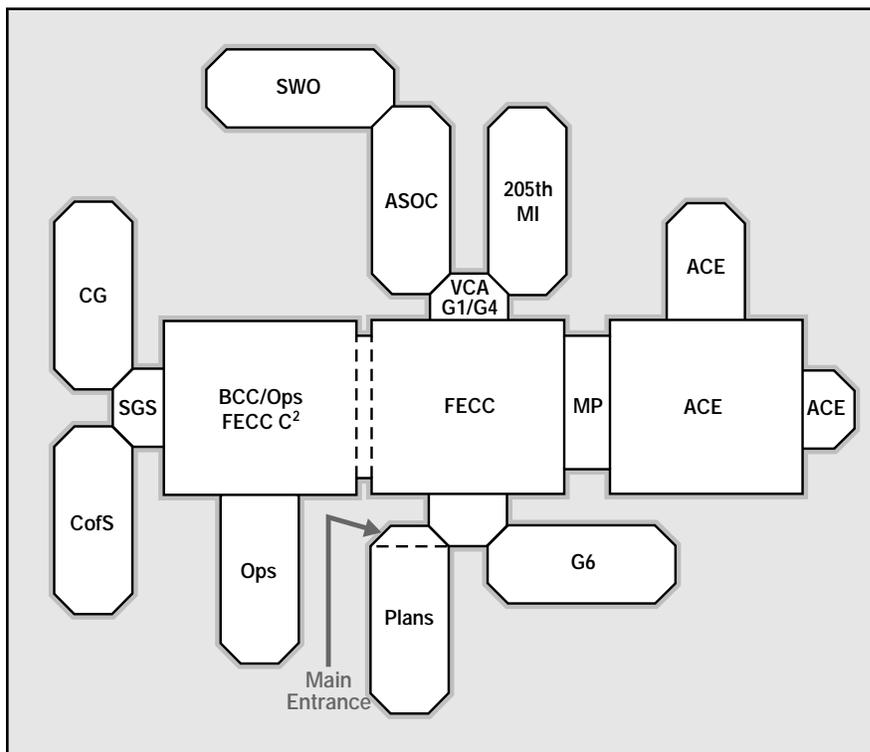


Figure 4: V Corps Strike Command Post

boards are placed against the outside walls of the FECC. Operators sit facing out from the wall looking at the other sections. All sections can cross talk with each other, significantly improving coordination. This set up allows all sections access to the HPTL/AGM/TSS matrix and empowers them to execute many decisions at much lower levels than previously required.

Corps Strike CP. The FECC is the logical cornerstone of any contingency deployment. It is not only a major component of the newly designed corps main CP, but also forms the basis of the corps Strike CP, which provides limited combat operations support. (See Figure 4.) From the FECC, officers and NCOs have rapid access to the corps ACE, ASOC, military intelligence brigade TOC, current operations cell and battle command center (BCC) where the corps commanding general fights. Being "under one roof" allows for better cross talk among sections inside and outside the FECC.

This concept works strictly because of new tent products on the market that use large, modular systems with cavernous main tents and smaller connecting tents.

The organization also provides a highly improved link with corps plans. The plans battle staff actively participates in the targeting process, integrating the extended, joint planning requirements

with contingency plans being developed.

Finally, because the FECC uses the existing corps CP LAN and communications backbone, its sections maintain high visibility of all fragmentary orders (FRAGOs) and changes. It also experiences minimal system down time due to the rapid responses of both the corps and VCA G6 sections.

What were the challenges of transitioning from a DOCC to FECC? As rosy as this picture sounds, we had problems transitioning to an FECC organization. Most challenging was the mismatch of the personnel and equipment in our modified table of organization and equipment (MTOE) and our doctrine and training with the newly identified joint requirements.

Organizational Changes. These are needed to sustain the FECC concept. Critical positions must be coded via an additional skill identifier (ASI) to reflect the required joint weapons training, and the NCOs who have gained the skills must be managed for appropriate assignment.

Because the ACE is the central agency for collecting and processing targeting information, critical billets and military occupational specialties (MOS) must adapt. We must continue to develop our warrant officers, 131A Targeting Technicians, in the grades of WO3 or higher

to ensure they are trained and developed to serve as targeting officers at the corps level. Their duties require they work closely with G2 ACE personnel. We also should process 131As automatically for Top Secret clearances upon selection for the MOS.

Traditional DOCC operations use only one or two FAIOs, primarily to relay target information. As the ACE targeting team generates target cards from either single-source or all-source data, the target cards are passed to the FAIO, who only validates them, and then passes these targets to the DOCC for execution. It is in the DOCC that the target is finally analyzed for relevance and then integrated into targeting objectives.

However, the V Corps FECC uses a more robust FAIO section with NCOs and soldiers processing target cards, thereby freeing the FAIO to use his targeting training for visualizing targeting priorities and prosecution.

An organizational change should reflect this increased presence inside the ACE, and positions should be coded for Top Secret clearances.

Equipment Changes. In addition to organizational changes, equipping corps-level FECCs demands changes. V Corps deployed its MTOE-based TOC of five-ton expandable vans to Hungary in 1996 as the Implementation Force (IFOR) and to Albania in 1999 for Operation Allied Force. Because of size restrictions, these vehicles must move by strategic assets only (rail, ship or strategic airlift). These deployments were deliberate, slow processes—not in line with the CSA's transformation initiative.

Similar to initiatives in III Corps and the XVIII Airborne Corps, V Corps has developed new corps main and Strike CPs that are fully deployable via EUCOM-based C-130 aircraft. The MTOE does not reflect these changes.

Headquarters and Headquarters Battery of V Corps Artillery still maintains a fleet of vans. While never used, these vans require maintenance, drivers and supply operations. The base TOE for corps should remove these vans and replace them with lighter, C-130-deployable vehicles.

V Corps has a greater ability to see, understand and operate on today's battlefield, but situational awareness is not the only automation requirement for the decision-maker. Commanders and staffs now want rapid prototyping; graphic user interfaces (GUI); web-

based, easy instructions; and responsive support staffs.

The business world demands its software adapt to the changing user requirements at a more rapid pace and the US Army should be no different. As with all modern CPs, the V Corps FECC is developing new TTP to handle a variety of new missions. Software must be able to handle a more varied set of missions and target identifications.

Today's missions no longer fit into the traditional counterfire against a target described by the old tactical fire direction system (TACFIRE) as "HEAVY RKT/MSL" (heavy force rocket/mis- sile). Instead, commanders want software that identifies a specific unit ("Republican Guards Division") with a specific AGM applied to that unit ("counterfire against 2S-19s but not D-30s").

Program managers, advanced concept development teams (ACDTs), battle labs, Training and Doctrine Command (TRADOC) system managers (TSMs), branch proponent schools and contractors must recognize this need and continue to promulgate this increasing situational awareness capability to all units. This is especially important for those units that will deploy first in near-term contingency operations—those units that quickly will be on the front line.

Doctrine and Training Revised. In addition to organization and equipment changes, doctrine and institutional training should be revised. The current *FM 100-15 Corps Operations* does not reflect the missions or orientation most corps currently are executing. More discussions of joint targeting, joint fires execution, joint planning, battle rhythm development and information operations should be included in the new manual.

The definitions of AO and area of responsibility (AOR) should reflect the larger vision of battlespace and not be limited to a geographical area. Internet attacks by Serbian sympathizers against continental US (CONUS)-based defense computers during Operation Allied Force proved that conflicts no longer remain regional. These attacks and the defense mounted against them must be integrated as part of corps IO and are a version of nonlethal targeting.

Doctrine and institutional training also must reflect that corps operations are joint and that even the most "green" corps training exercises must include joint operations and joint training audiences. An example might be to reexam-

ine using the Battle Command Training Program (BCTP) Operations Groups A and B for corps-level Warfighter exercises. Most corps Warfighters are conducted in the "purple-halo" of other joint exercises, as opposed to as a true joint exercise. An expansion of Operations Group D into this joint role or including Operations Group-D-type expertise is required for Operations Groups A and B.

V Corps and V Corps Artillery serve as the US Army Europe and Seventh Army component for fires within EUCOM. The V Corps FECC is the primary user of services provided by the 4th Battlefield Coordination Detachment (BCD) located with United States Air Force, Europe (USAFE) at Ramstein AFB, Germany. It also was the principal author for the joint TTPs being staffed and executed in draft form in EUCOM.

The face of corps operations has changed. V Corps realized it was time to move to an effects-based CP organization and structure. We did that by dissolving the V Corps Artillery TOC as a separate entity and reorganizing its functionality inside the corps main CP. Although challenges remain, this move paid dividends in both efficiency and improved communications.



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