

Battalion Sustainment Planning Trends at JRTC

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Most battalions struggle to sustain themselves efficiently during rotations at the Joint Readiness Training Center (JRTC) at Fort Polk, LA. The individual problems manifest themselves differently (some units run out of water, some run out of fuel, some don't get construction materiel or ammunition on time), but there are three root causes observer-coach-trainers (OCTs) see in each case:

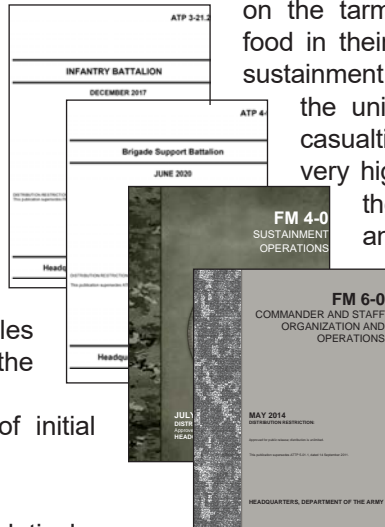
- A lack of clearly defined organizational roles and responsibilities between the S4 and the forward support company (FSC) leadership;
- The absence of bottom-up refinement of initial plans; and
- A lack of sustainment rehearsals.

The good news is that these trends are relatively easy to address with a well-practiced plans standard operating procedure (PSOP). This article offers insight into what successful sustainment planning looks like for a battalion S4 (logistics officer) from receipt of a mission through execution of the sustainment rehearsal.

Organizational Responsibilities during the Military Decision-Making Process (MDMP)

The first negative trend is that units come to JRTC without a strong understanding of "who" is responsible for "what" when creating the battalion sustainment plan during the MDMP. The lack of clarity between the battalion staff and the FSC leadership creates sustainment plans that are underdeveloped, inefficient, and lack the prioritization required for maneuver forces to effectively seize, retain, and exploit the initiative as described in Army Doctrine Publication (ADP) 3-0, *Operations*.

A recent airborne rotation encapsulated the real-world consequences of bad sustainment planning. The battalion staff's failure to prioritize water during a joint forced entry (JFE) created such significant safety issues that OCT intervention was required to prevent serious health and safety problems from dehydration and heat stroke. Battalion projections for water consumption didn't take environmental factors and high operational tempo into account when planning for the lag between P-hour and the opening of ground lines of communication (GLOC). As a result, each paratrooper was expected to make a single camelback last from pre-jump activities until the arrival of the ground force more than 36 hours after P-hour. The battalion had no way to top off water



on the tarmac, prioritized additional ammunition and food in their door bundles over water, and placed no sustainment assets on the airland echelon. As a result, the unit had an unusually high number of heat casualties while waiting to board the aircraft, a very high number of heat casualties while seizing the objective and expanding the lodgment, and a high number of heat casualties while combat power flowed into theater. The rush to think about "combat power" solely in terms of weapons, ammo, and paratroopers created a situation where disease/non-battle injuries (DNBI) from dehydration were significantly higher and more severe than casualties inflicted by the enemy (opposing force [OPFOR]).

One of the basic problems that battalions create for themselves is that they lack a clear and codified division of labor between the FSC commander and the battalion S4. The S4's primary focus during MDMP should be to create executable guidance for the FSC and line units through the creation of Annex F of the operations order (OPORD). This frees the FSC commander to focus on execution of sustainment and the rest of his/her command responsibilities (rehearsals, training, OPORDs, local security, Soldier health and welfare, property management, maintenance, etc). Following the detailed descriptions found in Army Techniques Publication (ATP) 3-21.20, *Infantry Battalion*, ATP 4-90, *Brigade Support Battalion*, Chapter 2 of Field Manual (FM) 6-0, *Commander and Staff Organization and Operations*, and FM 4-0, *Sustainment Operations*, would greatly reduce operational strife.

When this division of labor isn't deeply ingrained through practice, the FSC commander is often drawn away from command responsibilities and into the battalion MDMP cycle. S4 positions in infantry battalions are coded for Infantry officers specifically because they are most familiar with the expenditures of all classes of supply required for specific tactical operations, not because they are technical experts in sustainment execution.

During a recent defense, the S4 took an overly broad interpretation of the line between execution and planning. The S4 felt that simply consolidating requests from the rifle companies and submitting the requests to brigade constituted sufficient planning for the defense. As a result, the FSC commander had to create almost the entire plan

as the situation developed, becoming heavily involved in determining priority of support for class IV, negotiating with the brigade support battalion and brigade S4 for any available construction material (battalion S4 never followed through on making sure that requests sent in routine logistics reports had been resourced), and coordinating all class IV drop-off points with line units. This resulted in the FSC running numerous unplanned convoys with fatigued drivers, inadequate rehearsals, and failure to provide maneuver forces maximum time to emplace obstacles. The OPFOR easily penetrated or bypassed all of the battalion's turning obstacles and exploited the brigade rear area, destroying the brigade headquarters in short order.

Unfortunately for a battalion S4 at the tactical level, the sustainment umbrella is extremely vast, and the doctrinal references cover a lot of material that is applicable mainly at the operational and strategic levels, with the expectation that personnel at the tactical level will be able to draw out and apply broad principles to their specific situation. Below are OCT observations on how sustainment planners can best apply FM 6-0, FM 4-0, and FM 4-95, *Logistics Operations*, at the tactical level. Once the battalion has begun the MDMP cycle, the S4 has four primary tasks to complete:

- Generate staff estimates for the battalion commander;
- Generate requests for information (RFIs);
- Generate requests for support (RFSS); and
- Generate Annex F with the battalion S1 and medical officer (MEDO).

Generate Staff Estimates — The staff estimate covers available combat power across the formation, on-hand stockage for the line units, distribution stocks and available capacity in the FSC, and critical class V/VIII expenditures based on the unit basic load, expected mission, and the timing of when resupply will arrive from higher for follow-on operations. The S4 develops this estimate first by updating all running estimates and confirming capabilities and feasibility with the FSC commander. This lets the battalion commander weigh the relative value of immediate action versus conditions setting and what their options will look like in the near future.

Generate Requests for Information — The creation of RFIs is sub-divided into two separate topics: external RFIs and internal RFIs.

External RFIs usually cover topics dealing with outside enablers. For example: What sustainment am I obligated to send with my detachments? What sustainment assets are coming with our attachments and who is responsible for their requests? If we decide to utilize something other than ground resupply, who is responsible for building and

loading those packages? Most importantly, this becomes critical when an armor package or engineer package is attached to a light infantry battalion. During one JRTC rotation, an infantry battalion had an entire engineer section attached to it, but the S4 failed to coordinate with the brigade engineer battalion (BEB) S4 and brigade support battalion (BSB) support operations officer (SPO) to clarify who was supporting that team. When it finally became apparent that the brigade intent was for the infantry battalion to provide fuel and wrecker support for the engineers, this more than doubled the FSC's fuel consumption in 24 hours, leading to additional convoys and delaying support missions to organic companies within the battalion.

Internal RFIs will help focus the S2 and battalion executive officer (XO) in the creation of battalion friendly forces information requirements (FFIRS) and RFIs to brigade. This will include enemy disposition and wide area security responsibilities behind the forward line of troops (FLOT) and terrain and road analysis for the large trucks used by the FSC; it will also generate named areas of interest (NAIs) that cover potential logistics release point (LRP) sites and ambush points along the main and alternate supply routes (MSRs/ASRs), and should seek to confirm or deny current assumptions about battlefield conditions. A recent rotation ran into numerous difficulties when many of the low water crossings and bridges in the battalion area were destroyed by OPFOR as they conducted a tactical withdrawal. The battalion S4, however, assumed that these choke points were still trafficable and didn't make confirmation of that assumption into a priority intelligence requirement for the battalion. While the blown bridges posed a small problem for the infantry, the medical and logistics assets were located



Photo by SGT Ezra Camarena

Soldiers with the 2nd Brigade Combat Team, 25th Infantry Division fill fuel cans during training at the Joint Readiness Training Center at Fort Polk, LA, on 16 October 2020.

on the far side of the destroyed bridges, which forced a long detour through another battalion's area to resupply troops and evacuate casualties. A simple RFI and confirmation with reconnaissance about the condition of a choke point for vehicles would have saved hours of extra driving and allowed the battalion to request engineer support to repair their internal lines of communication.

Generate Requests for Support — Requesting outside support requires immediate action because you have to work within the planning cycle of so many different units. The most common friction points are the need to request key types of ammunition and troop transport. While most ammunition requirements can be resourced internally to the brigade after bottom-up refinement occurs, the need for troop transportation must come from echelons above brigade (EAB) sustainment units because of the force re-design of brigade combat teams (BCTs) in the mid-2010s. The current force design places all troop transport capabilities and responsibilities into EAB sustainment units. While EAB units can theoretically meet the demand requirements for an entire BCT, this method requires a much higher level of synchronization with longer lead times to flatten the demand curve since EAB units often cannot fulfill both their division taskings and all of the brigade requirements simultaneously.

As soon as an initial requirement is determined, the battalion S4 needs to send up a transportation movement request (TMR) to brigade so that division sustainment planners can prioritize and allocate resources against requirements. TMRs get routed through brigade to division; then they are sent back down through the division sustainment brigade (DSB) to the division sustainment support battalion (DSSB), which tasks it to a transportation company and finally to a single truck platoon. Confirmation that the requests can/will be supported and any modifications to the request follow a similarly circuitous route. In one positive example, the battalion S4 submitted a TMR for troop transport as soon as the maneuver battalion received the warning order (WARNORD) that it would be conducting air assault operations since the unit would need to go by ground if weather conditions did not permit aerial entry. This allowed sustainment planners to know the maximum amount of ground transportation required if maneuver plans changed.

Once the TMR is sent up and support is confirmed, the battalion S4 also needs to confirm what the command or support relationship (as defined in ADP 3-0) will be. Infantry battalions often expect that units providing troop transportation will be placed under a command relationship (either tactical control [TACON] or operational control [OPCON]) for them until they are no longer needed, while EAB transportation units' default expectation is that support is being provided under the support relationships defined in ADP 3-0 (most commonly general support-reinforcing). This difference in expectations created a significant problem for one unit when the truck squad performed a troop drop-off at the specified location but then quickly left the area to return to base and carry out other missions. The infantry

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battalion had expected it to be readily available to pick them up and was greatly surprised to learn that transportation off of the objective was not included in the TMR, would not be supported since the request needed to be at least 96 hours out, and that it had no official authority over the supporting unit. The infantry battalion then had to dump cargo off of its own trucks and conduct the movement, which significantly hampered the battalion's ability to retain the initiative and exposed it to significant risk because internal assets were now committed to troop transportation.

Generate Annex F — FM 6-0 codifies the S4's ownership of all aspects of the sustainment plan, detailing that he/she creates Annex F, Appendix 1 "Logistics" (with the advice of the FSC commander) and incorporates the sub-sections, Appendix 2 (created by the S1) and Appendix 3 (created by the MEDO). Collecting the relevant information for Annex F, Appendix 2 from the battalion S1 and Annex F, Appendix 3 from the battalion MEDO is a small but overlooked part of staff organization. Since these are independent sections, the battalion XO must ensure that the information generated during MDMP (casualty estimates, battalion aid station [BAS] location, time distance analysis, and critical class VIII needed) is efficiently sent to the S4 and incorporated into Annex F. Prior to publication, the S4 needs to coordinate with the FSC commander to confirm feasibility of the plan.

All of these items (staff estimates, RFIs, RFSs) need to go into the initial Annex F of the WARNORD published by the battalion so that companies have good information for conducting bottom-up refinement.

Refine Sustainment Projections

Once the battalion has published initial estimates through the WARNORD, the line companies should begin conducting bottom-up refinement and integration of the tactical plan and the sustainment plan. For the company XO and first sergeant (1SG), this includes the timing of resupply of basic commodities (class I/III/IV/VIII), troop transportation, and specific analysis of medical planning and class V consumption. While most companies conduct refinement of the medical plan, refinement of the class V requirements is often not discussed thoroughly.

Enemy activity makes class V consumption highly variable, but companies can use their mission set, S2 estimates of enemy strength, training proficiency, and company SOPs to project consumption of key types of ammunition. This helps the company and the battalion S4 develop realistic criteria for an “emergency resupply” and begin resourcing shortfalls. Again, any requests for support that are external to the battalion must be sent up as early as possible. The box below is an example of a delta company XO refining class V expenditures for an assault on the village of Sangari and refining resupply trigger points to pass back to the battalion S4.

Conduct Sustainment Rehearsals

It's an enduring trend that once a unit starts a rotation there is a significant decline in diligence about conducting the four rehearsals covered in Chapter 12 of FM 6-0. Deliberate sustainment rehearsals are often the first items skipped. There are a wide variety of excuses, but the most common ones are “no time to conduct one” and “don't need one because we did the combined arms rehearsal” (CAR). While this practice may work in the short term, taking a haphazard approach to sustainment rehearsals will rob a commander of operational reach and deny friendly forces freedom of

Example of a Delta Company XO Refining Class V Expenditures and Resupply Trigger Points

The battalion commander's intent for Delta Company is to isolate Sangari. S2 estimates that there are five BMPs with explosive reactive armor (ERA) in the vicinity of Batoor Village that will attempt to reinforce Sangari Village once the attack begins and another 2xBMPs and 4xT-80s at Dara Lam Village that will arrive for counterattack four to six hours after we've seized Sangari. S2 also stated that it's equally likely that the OPFOR will approach from the north (MSR Steel) or from the low water crossings to the east. The company commander wants 1st Platoon to cover the approach from the north and 3rd Platoon to cover the approach from the east. The ERA on the BMPs mean that we'll have to take at least two shots to get a mobility or catastrophic kill on each BMP. The crews from 1st Platoon guarding that northern route took double their allotted ammo when they conducted gunnery last month so I doubt they've improved their first round hit probability that much more in three weeks. I'd say that we will need 12-16 TOW shots at either location to destroy all enemy armor coming from Batoor.

Since the S2 estimate is that the enemy reserve force available for immediate counterattack consists of 2xBMPs and 4xT-80s with ERA, we will need 22 TOW shots to meet that threat at either location.

Each platoon has 20 TOW shots on hand, and I have another 20 in reserve in the company supply truck. If it takes 16 shots to destroy the first set of reinforcements, resupplying from the company trains gives me enough to defeat the counterattack and conduct resupply afterwards. Delta Company will require emergency resupply on the objective if we shoot more than 16 TOWs during the initial attack.

The initial estimate from the S4 was that we would be filled to our basic load on TOWs this afternoon but not receive any additional star clusters and flares. I need to request 10 additional green and 10 red star clusters, since our company uses green stars to signal contact and red stars to signal the need for reinforcements. Also

our company SOP is that each platoon place trip flares out from their overwatch positions on likely avenues of approach so I'll need to request six more of those to cover all of the avenues for both 1st and 3rd Platoons.

Once the battalion S4 has received the bottom-up refinement from each company and specialty platoon, he/she can prepare the full Annex F and finalize priority of support by phase of the operation, along with defining trigger points for emergency resupply. This will be published in the OPORD and confirmed at the sustainment rehearsal. Below is an example Paragraph 4 for the OPORD with full details and sustainment overlay located in Annex F.

Priority of support for this operation during Phase 1 is BN Mortars, D Co, then B Co, C Co, A Co, and Scouts. Phase 2 — No change. Phase 3 is D Co, Scouts, B Co, BN Mortars, A Co, C Co. All units will be filled to their basic load no later than D-1. Emergency criteria for resupply is Mortars reaching 50% UBL (unit basic load) on HE (high explosive) or 30% WP (white phosphorus), D Co firing more than 16 TOW missiles during phase 1, B Co reaching 20% UBL on 7.62 link. Emergency class V resupply to the company LRP's will be held by the distro platoon in the FSC. Release authority for emergency resupply is the BN S3 or BN XO. Emergency LRP grids for each element to follow: Mortars — VQ 1234 5678; D CO — VQ 1256 5634; B Co — VQ 1289 5693.

Medical priority of support during Phase 1 is BN Mortars, D Co, then B Co, C Co, A Co, and Scouts. Phase 2 — No change. Phase 3 is D Co, Scouts, B Co, BN Mortars, A Co, C Co. MASCAL (mass casualty) criteria are any unit taking more than 16 urgent/surgical cases or 32 urgent cases in less than 1 hour. Release authority for the BN CASEVAC (casualty evacuation) package is the BN S3 or BN XO. AXP (ambulance exchange point) grids for each element to follow: Mortars — VQ 1234 5678; D Co — VQ 1256 5634; A and C Co — VQ 1289 5693; Scouts — VQ 1256 5634. Based on the feedback from B Co, their AXP will be located at VQ 1299 5680.



Photo by SGT Michelle U. Blesam

The 1st Brigade Combat Team, 82nd Airborne Division staff take part in a combined arms rehearsal during decisive action rotation 19-08.5 at Fort Polk on 24 July 2019. FM 4-0 recommends that the sustainment rehearsal be conducted immediately after the CAR.

action, especially when the maneuver plan literally creates barriers along the unit's lines of communication, like it did during a recent defense. For this battalion, one company decided to orient the kill zone for its company linear ambush directly towards the battalion role 1 and combat trains command post (CTCP) (which were well within the surface danger zones [SDZs] for the company's weapon systems). Simultaneously, the battalion emplaced anti-tank ditches and 11 row obstacles along the only viable medical evacuation (MEDEVAC) routes, effectively cutting off the troops at the front from medical support above the line medic. None of this was effectively briefed at the CAR, and the unit skipped the sustainment rehearsal. As a result, no company had a solid mitigation for the fact that ground medical evacuation would be almost impossible once the defense started and obstacles were closed.

FM 6-0 outlines the four types of rehearsals that a unit needs to conduct before operations: backbrief, CAR, support rehearsals, and battle drill/SOP rehearsal. FM 6-0 also specifies the XO as the unit rehearsal director. "Support rehearsals" is an umbrella term for rehearsals of the specifics of the warfighting functions. FM 4-0 recommends that the sustainment rehearsal be conducted immediately

after the CAR. The reason for setting it after the CAR and the fires rehearsal is so that any changes to the fires and maneuver plans can be immediately acknowledged by the FSC and S4. The sustainment rehearsal should not become a planning session. While there is no doctrinal length of time, anecdotal observation reveals that effective sustainment rehearsals take about 30-60 minutes. The box on next page is a suggested sustainment rehearsal script, formatted for easy inclusion into a unit planning SOP. If the sustainment rehearsal is conducted immediately following the CAR or fires rehearsal, the battalion assistant S3 briefing can be omitted, although they should remain in the audience per FM 4-0 to provide any clarification needed about overall battalion scheme of maneuver.

Conclusion

Getting logistics right is challenging, but units can improve their chance at success with practice in three key areas:

- Codify the responsibilities, inputs, and outputs of the S4 during MDMP;
- Enforce bottom-up refinement of the sustainment plan; and
- Conduct a detailed sustainment rehearsal.

Treating sustainment as an afterthought that gets taken care of by magic means that Soldiers will have heatstroke while marching to the objective, run out of ammunition while fighting the enemy, or bleed out and die before they could get transported because no one checked to see if the road was actually passable for an ambulance.

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Example Sustainment Rehearsal Script

a. Preparation. Per FM 6-0, the XO is the battalion rehearsal director. The S4 will coordinate and lead the rehearsal, but validation of the company sustainment plans is the responsibility of the battalion XO.

b. Agenda

BN S4: "THE PURPOSE OF THIS REHEARSAL IS TO ENSURE THAT SUSTAINMENT REQUIREMENTS ARE UNDERSTOOD AND SYNCHRONIZED ACROSS THE OPERATION. THIS REHEARSAL COVERS PHASE Y (D+/-X ; H+/-X) through PHASE Z (D+/-X ; H+/-X)"

- (1) (BN AS3) Tactical overview of battalion scheme of maneuver
- (2) (BN S4) Key sustainment nodes applicable to the BN
- (3) (BN S4) BN place in BDE priorities of support (L-COP)
- (4) (BN S4) Execution by Phase (completed for each phase; discuss only changes)
 - a. BN priority of support by unit
 - b. BN priority of supply by class
 - c. Emergency resupply triggers
 - d. Transportation Plan — Include when external troop transport will conduct link up, pick-up and drop-off sites, C2 relationship, equipment limitations
- (5) (FSC CDR) Distribution Plan — LRP locations and any change in expected on-hand quantity
 - a. Sustain: CL I, water, ice, CL IV, CL IX and trash backhaul (location or actions)
 - b. Fuel: CL III(B) (location or actions)
 - c. Arm: CL V (location or actions)
 - d. Fix — Maintenance and recovery nodes (location or actions)
 - e. Arrival/departure airfield control group (A/DACG) operations (if required)
 - f. FLE (forward logistics element) operations (if required — discuss composition and task/purpose of FLE)
- (6) (MEDO/BN PA) Concept of support overview for phase
 - a. (BN S1) Casualty estimates, by phase, for the BN.
 - b. Medical coverage plan (MEDEVAC/CASEVAC) from ambulance exchange point (AXP) to Role 1 to higher care

- c. 9-Line MEDEVAC request PACE plan
- (7) (CO XO or 1SG) — Medical coverage plan (MEDEVAC/CASEVAC) from POI (point of injury) to BAS (Role 1) Current chemical, biological, radiological, nuclear, explosives (CBRNE) threat, primary and alternate decontamination (DECON) site setup with clean and dirty routes, water requirements for DECON of vehicles and personnel
- (8) (CO XO) CO concept of support (in order by task organization)

- a. Locations of CO HQ, CO trains, CO casualty collection points (CCPs)
- b. Current headcount, logistics status (LOGSTAT) and total available capacity.
- c. Log estimate for next 24, 48, and 72 hours for the following commodities: CL I, water, CL IIIB, CL IV, CL V, CL VII (losses), CL VIII, CL IX, trash backhaul and field sanitation requirements
- d. Field feeding plan
- e. Maintenance, recovery, and field dispatching plan (QA/QC)
- f. Anticipated personnel losses and replacement operations

(9) (BN S1) Services: Mortuary affairs operations plan and (Chaplain) religious support plan and external religious support

(10) (BN XO) closing remarks and due outs

c. Attendees:

- BN XO
- BN S4
- BN S1
- BN S2/AS2
- BN AS3 (Plans)
- BN S6
- Company XOs
- Company 1SGs
- HHC commander
- FSC commander
- Maintenance PL and PSG
- Distro PL and Distro PSG
- MEDO
- Chaplain
- CBRNE officer
- External enablers (engineers, troop transportation, etc.) as required