

CONSTRUCTING A PLATOON FOB IN AFGHANISTAN

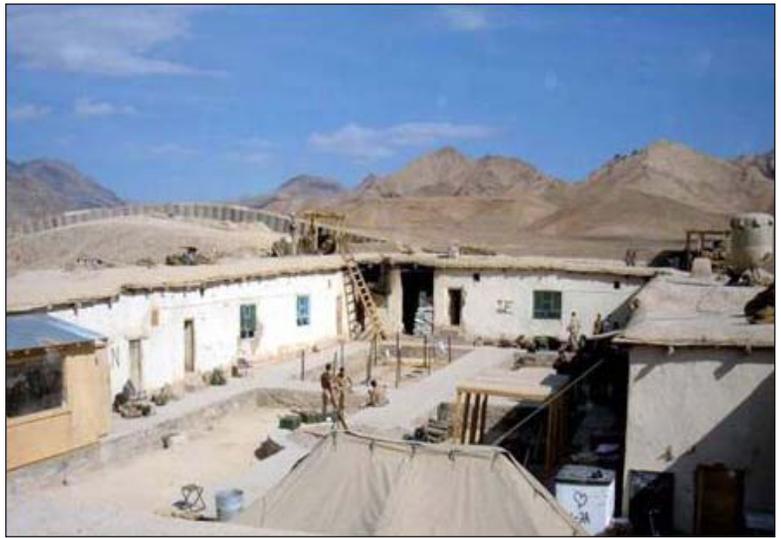
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During the spring and summer of 2005, Battle Company, 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, built and occupied three platoon-sized firebases in the mountains of Northern Zabul Province, Afghanistan. Each of these firebases was located at altitudes of more than 8,000 feet and at least 40 kilometers from the company and battalion headquarters. Ground travel was extremely dangerous or impossible, and aviation assets became increasingly scarce throughout the deployment. As the company's executive officer (XO), I was responsible for coordinating the construction and logistical supply throughout our deployment. By sharing my experiences, I hope to pass on some knowledge to the Infantry XO, S4, and forward operating base (FOB) NCOIC, assuming that they, like me, lack any prior background in the technical issues of FOB logistics and construction in remote areas.

Why Small Decentralized FOBs?

Constructing small (platoon-sized) firebases colocated with local nationals to provide foreign internal defense is nothing new in counterinsurgencies. Special Forces Soldiers have been doing it for decades. Our unit went into Operation Enduring Freedom VI planning to rotate one platoon at a time through a safe house at the district headquarters of Day Chopan — an area where the locals were still hostile to the U.S. and Afghan governments. The effectiveness of permanently keeping a small force with the district leadership and Afghan police was too good not to duplicate throughout our area of operations. Our company sent two more platoons to build their own FOBs in neighboring district headquarters. Colocating in population centers enabled us to deny the enemy access to the local population, influence and assist the local government, provide security, and to train local police and army units to provide their own unaided security. Each platoon leader owned his own battlespace (the district). The platoons could routinely conduct daily joint patrols within FM range; conduct longer overnight patrols with the support of the Afghan National Police (ANP) or Afghan National Army (ANA); and conduct long range air mobile operations after being picked up at their FOBs.

Over the course of nearly a year, the platoon leadership developed strong relationships with locals that allowed the leaders to maintain a constant "read" on the population and insurgents,



Author's photos

One option for creating a forward operating base was to move in with the indigenous population (usually mud hut police or government buildings).

providing the chain of command with bottom-up intelligence for the planning of missions and use of higher level assets. The longer the platoons were in sector, the more they integrated as a unit with the local national forces that were colocated with them. A platoon (minus) with a few squads of ANP or ANA Soldiers could move 20 kilometers through the mountains on foot, carrying only a fighting load, and have the local national forces drive their rucksacks and resupply with pickup trucks the next day. Over time, continuous dismantled patrolling denied formerly hostile areas to the enemy in a widening circle of space, while constant contact with the locals won over the support of the population. One of the most contentious areas in Afghanistan became an area where the Taliban feared local informants as much as U.S. firepower.

To conduct continuous operations, these austere firebases were resupplied by helicopter about once a week — at best. Our commander set a goal for our platoon FOBs early: Soldiers had to be able to live comfortably with high morale and be able to function at least six weeks before rotating teams to the larger FOB where the company and battalion headquarters were located. Considering that their starting point was unsanitary, hostile and crude, this was no small task.

Initial Planning and Contracting

We had two options for building our FOBs. The first option was to move in with the indigenous population (usually mud hut police stations or government buildings). The second option was to build FOBs from scratch. The advantages of the using the mud hut FOBs were that our Soldiers could have more direct contact with the local government, the locals identified U.S. Soldiers with the emerging Afghan government (and vice versa), and the construction itself was less intensive. No engineers, other than the sapper squad attached to the company, were needed to make the FOB livable. There were many disadvantages of using the mud huts. The Soldiers were thrown into extremely unsanitary conditions until they made improvements. Untrustworthy local officials could easily tip off the enemy to outgoing patrols with a cell phone call. We could not choose to build where the terrain was best suited for defense. Populated areas are usually in valleys,

meaning the FOBs ended up with high ground on multiple sides. By contrast, building a FOB from scratch allowed us to design it exactly where and how we wanted, but it was much more resource intensive. To make a single FOB defensible and livable, we needed to conduct a 30-vehicle convoy through dangerous terrain (we lost two route clearance vehicles in the process); our entire sapper squad and the host platoon and other battalion assets were out of the fight for more than two weeks; and, afterwards, the platoon was forced to spend more time making improvements than patrolling. Additionally, building a new FOB from scratch meant dealing with the locals' claim to the land we were building on, and because it was built outside of small arms range from the population, there was much less contact with the local population and government. By the end of our year of deployment, our company ended up with two mud hut FOBs, Baylough and Khakeran, and one built from scratch, FOB Aktar.

My recommendation to any unit thinking about building a FOB is to allow at least a month of planning and preparation before beginning construction. We allowed three weeks of planning and preparation time when we built FOB Aktar from scratch, and even then, it was not enough. The most important time consideration for every arrangement I and the S-4 section made, was that even at war, administrative and logistical requests work on a business schedule and take time. It can easily take up to a month to write an operational needs statement, get bids from contractors, get contracts awarded, draw money, and be ready to start work.

Before developing FOB Aktar, the S-4 section and I drew on experiences from developing Baylough and Khakeran to prioritize our three weeks of planning and preparation. One of the first things I did was to request that the FOB be placed on the aviation resupply ring route so that we would not have to rely on nonstandard resupplies once the Soldiers settled in. The S-4 shop attempted to modify the existing "jingle" truck contracts so that the truck companies could drive supplies to the FOBs unescorted (this did not work, escorts were required). We used two types of trucks: 20-foot jingle trucks and smaller dump trucks. In the mountainous terrain, the dump trucks were much more successful. While that was taking place, I contacted the MWR

representative, in the office of CJTF-76, to start ordering a satellite internet/phone system and limited gym equipment. Even after getting in the queue early, we waited months for a satellite phone/internet system. Additionally, I began looking for contractors to carry out the needed labor requirements. Wherever we went, the population was very hesitant to work for Coalition forces. We had to find contractors from outside the area and provide escorted transportation for them. We found contractors to dig wells and to fill HESKO barriers, and we hired an excavator.

Finally, I made adjacent unit coordination with the support platoon to conduct one large convoy to the site. This convoy consisted of 20 trucks of supplies, eight fuel trucks, and two trucks carrying a Bobcat, SEE, and the excavator. Without a good recon, we learned the hard way that the 20-ft jingle trucks and route clearance vehicles were too large for the tight mountain roads, and we ended up losing critical supplies when some trucks rolled over.

While these arrangements were being made, I worked with my sapper squad leader to design a concept sketch for our new FOB. We based the design on our experience and a local Special Forces FOB. This concept sketch allowed us to break down the planning of the FOB into four areas: Force Protection, Quarters, Utilities and Storage, and MWR/Soldier welfare.

Force Protection

Force protection at our platoon FOBs

was no different than at larger FOBs. The challenge posed by the terrain was moving the bulk class IV items required to emplace force protection. Again, because of IEDs, small arms attacks and rollovers, we accepted risk with every convoy we conducted. If we could have performed fewer convoys, we would have. The force protection planning factors were pretty significant. Delivering 1,000 meters of MIL-7 HESKO barriers required seven 20-ft jingle truck loads (or 14 dump truck loads). In the process of installing HESKO barriers at Baylough, we visited the Directorate of Public Works (DPW) and contractor managers at Kandahar Air Field. We received a packet of plans and planning factors for guard towers, B-huts, and barrier material, with the required class IV requests already prepared. The engineers at DPW taught us much about the basic engineering at FOBs. I recommend any XO or logistician visit the DPW at their nearest air base.

Filling the HESKOs was another concern for us. We tried hiring heavy equipment and hiring a contractor to use local labor. A front end loader or excavator cost \$25,000 to fill 1,000 meters of HESKO barrier. At a different FOB, local workers with shovels cost \$16,000 to complete the same job. Both accomplished their tasks in less than two weeks. The advantage of the heavy equipment was that, with coordination from the contracting office, it could be used for other tasks such as digging a berm for fuel blivets. The advantage of the local labor was that it put



Soldiers with the 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, fill sandbags at a forward operating base in Afghanistan.

money directly back into the local population.

The best form of force protection in the mountains did not come from the HESKO barriers, however. It came from observation posts (OPs) that were built on the surrounding hills and manned by Afghan police or ANA soldiers. To move the class IV items to the OPs, we coordinated a nonstandard resupply of three Chinook pallets of wood, concertina wire, sandbags, and fuel (for heaters) to the top of the mountains. Once we could maintain control of the high ground around our FOBs, our next biggest concern was protection from indirect fire.

Finally, one of the best things we did at our FOBs was have the security expert from KBR at Kandahar Airfield conduct his own security assessment. After he made his recommendations, and we made the few changes he suggested, KBR technicians were allowed to fly out to the FOBs to perform maintenance on generators, plumbing, and other FOB utilities. Again, the coordination for this took about a month.

Utilities and Storage

At 8,000 feet in the mountains, maintaining utilities such as electricity, fuel, and plumbing, was a continuous struggle and headache for the platoon sergeants and me. Few things can cause morale to drop faster on a FOB than losing electricity because of lack of fuel. In Afghanistan, we closely monitored fuel consumption on a daily basis, and I became very concerned anytime I saw that a platoon used more than 50 gallons of fuel in a single day, except in the winter when more was needed due to heating requirements. When our Soldiers moved into the mud hut FOBs, we began sending five-gallon fuel cans on CH-47 pallets and then graduated to 50-gallon drums. Later, we installed 20,000-gallon fuel blivets at the sites and filled them with locally contracted fuel trucks on one of the few escorted convoys we conducted. At all three FOBs, we attempted to put a five to six month supply of fuel in the blivets before the anticipated heavy winter began. The biggest problem we had was that, as infantrymen, we had no institutional knowledge of fuel blivets and their setup and accessories, nor did we have any fuel pumps for the blivets. The fuelers from the local aviation battalion were able to help us out with a few parts and our FSB lent us a small pump, but an additional complication was that none of the U.S. hoses or connectors fit into the Afghan trucks. The lesson learned was that we could not afford to be amateurs about fuel. If we could do it again, we would have designated an expert in each platoon to train on fuel storage and ordered at least two pumps per platoon (one as backup). The best pump to order is a military standard 125 gallons per minute pump. It is small enough to fit into the trunk of a HMMWV and is fairly reliable. One thing we did do right was to hire a local contractor to make an adapter to fit our hoses into an Afghan fuel truck.

Finding the right size generators for the FOBs was another difficult task. In Afghanistan, we could acquire 220 volt generators from KBR or local purchases, or laterally transfer 110v military generators from other units. Small to medium generators were hard to maintain and hard to obtain, so our unit did not have the luxury of being picky. We ended up with mixed voltages on the FOBs. A platoon FOB, running a satellite internet system, lights, computers, and battery chargers, required a total of 20 kilowatts of electricity and enough amperage to run multiple appliances. The best generators, in terms of output, reliability, and fuel

consumption, were the 13 kilowatt generators made by Olympian, and we supplemented them with smaller, locally bought generators.

In the winter, heating became a major concern for us. We planned in advance to place enough diesel-powered heaters in every tent and room of all of our FOBs, but we did not count on the fact that only 50 percent of them would work. Some of this was due to manufacturer defects, while dust and altitude contributed to further malfunctions. Because of the amperage required, we could not afford to use more than one or two electric heaters at each FOB.

While gray water plumbing was an easy issue to address, keeping clean water flowing was not. For toilets, we sent two porta-potties to each FOB, but since there were no emptying services available, each Soldier took a trash bag with him and used trash bags to cover the seat. When he was done, the tied-off trash bags were thrown into a burn pit outside the FOB walls. The only issue with this is that trash bags become a critical supply item. I could count on a platoon going through 40 trash bags a day. To keep clean water moving, we had to hire contractors to dig wells at our FOBs. The problem we had then was keeping enough water in our water tanks to maintain sufficient pressure in the pipes. We had a submersible pump installed in one well, but it was unreliable and broke frequently. Our platoons overcame this problem by hiring locals to pump water and constantly maintain our 300 gallon water tanks. We still had problems with frozen pipes in the winter, broken fixtures, and a host of issues that our sappers, or knowledgeable Soldiers, had to address constantly.

To store items, such as trash bags brought in by the regular resupply rings, the platoons required more storage than simple mud huts or tents could provide. We slung in empty connexes from Kandahar Airfield. Each platoon optimally required three connexes or shipping containers, to hold a 90-day supply of MREs, T-rations, bottled water, and other critical supplies. Watching the level of these supplies and having the discipline to limit consumption of them was a critical task of the platoon sergeant, no different from sending supply requests during missions.

Facilities

In terms of facilities, the most valuable thing we did was to ask KBR to expand on the practice of turning connexes into small offices. We had seen this done at Kandahar Airfield and had even installed one at FOB Baylough for the satellite internet system. After a discussion with the KBR security manager, I began working on designs with our battalion S-4 shop and some engineers at DPW in Kandahar, who then coordinated with a vertical construction team from the Hawaii National Guard to outfit a set of connexes into kitchens, bathrooms, and more offices. The idea was that the whole package, along with connexes for storage and a generator, would be modular and transportable so that when we wanted to leave, we could sling out the connexes as easily as we had slung them in. The kitchen connex was designed with a T-ration burner inside and included a sink large enough to cook and wash pots, as well as gas burners, counters, and cabinets. The wash connex included two showers, two sinks, and a washer and dryer machine. It had two 300-gallon water tanks on top of it, so that gravity maintained the water pressure. The office connex was wired with six internet connections, shelves, and a desk. One issue in making the design a reality was that the connexes had to



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come from somewhere. The U.S. government owns some connexes and pays rent on others. We could not just go cutting holes in good containers. At Kandahar Airfield, there was a large yard with connexes that had been used as bunkers, had bullet holes in them, or were otherwise unserviceable for shipping. This meant they were perfect for our purpose.

In terms of living space, B-huts were more advantageous than living in mud huts. One squad, sleeping on cots, could live much more comfortably in their own space. The plans for the B-huts came from DPW, and the amount of class IV required to build them was massive, which presented problems with transportation. At Aktar, we tried every conceivable method of delivering bulk class-IV: heavy air drops, CDS bundles, convoys, sling loads, and CH-47 pallets. No single method was successful, and the vertical engineers that were tasked to our battalion spent a lot of time waiting for supplies to arrive. At Baylough, we made more room for Soldiers by putting up two large fabric tents. One complete tent could fit on two helicopter pallets and was generally weatherproof. For the Soldiers who did live in mud huts, the platoon had to spend time reinforcing the roof with plastic to keep it from leaking and hiring locals to repair the roof after heavy snow.

MWR

MWR at our FOBs was a critical component. The psychological effects of not being in contact with loved ones, not being able to work out, and having no way to “vent” the stress of continuous operations could be seen in the beginning of the building of all three FOBs. A satellite phone and internet system was the single most valuable piece of equipment we installed

on the platoon-sized FOBs. We obtained the systems by going through the CJ-1 MWR center in Bagram. The satellite Voice Over Internet Protocol system is a non-portable contracted service through a company called Broadband IVS. The company sent a local technician with the six-foot dish and about one CH-47 pallet worth of gear to each of our small FOBs to install the service, and on occasion,

sent a technician to fix the system when it went down. It is important to note that this system requires 17 amps of 220 volt power. I cannot understate the boost in morale to our Soldiers at each of their FOBs when they were able to call and e-mail their friends and family. FOB Aktar was on the wait list for a system for almost five months. Our next best substitute for this FOB was an Iridium phone system that allowed the Soldiers to call home without worrying about running out of minutes (compared to a Thuraya phone). The other important item that CJ-1 in Bagram provided was an Armed Forces Network (AFN) dish and decoder for each of our FOBs. To get the dishes operational, we had to coordinate with CJ-1 to receive training in the setup of the satellite dishes.

Gym equipment was another commonly requested item. A platoon does not need much to be able to work out. A few exercise bikes or stairmasters (that do not require electricity), a flat and incline bench press, a pull-up/dip rack, and an assortment of dumbbells were sufficient. If I could have obtained more, the platoons would gladly have accepted it. When the 10th Mountain Division relieved us, each platoon brought dumbbells and weights in its platoon ISUs, which was great foresight.

Finally, I was always impressed with the creativity and resourcefulness our paratroopers. At times when we were unable to provide anything else MWR related, as long as I could get an abundant supply of class IV items and tools, the Soldiers built whatever they chose in their own time. One of our platoons used extra plywood to build a dojo for combatives’ training during the winter, while another platoon built decks and porches for each of their squad tents. FOB improvements were

a positive outlet that not only made their homes more hospitable, but also gave the Soldiers something to do between constant patrolling and missions.

Final Thoughts

Operating a company in a decentralized manner in severely restrictive terrain was not easy for the Soldiers or for the logisticians supporting them. The principal proponent that made them successful was that each platoon sought to be self-sufficient in every way possible. They rotated fire teams back to Qalat, each of which had a vested interest in building and pushing pallets of supplies of exactly what their platoons needed and representing their platoon at company planning meetings. The result was a high number of E-4s and E-5s conducting business well above their pay grade. They assisted with planning air and ground logistics, coordinated supplies and people coming into and out of Qalat, conducted coordination with attachments, and regularly worked with the battalion staff to ensure that their FOB was being taken care of. Each platoon had a host of smart “handymen” capable of addressing minor maintenance issues on the FOB and who could be cross-trained for such things as operating MKT (mobile kitchen trailer) burners, repairing generators and heaters, or installing AFN equipment. Because the platoons pushed so hard to be self-sufficient, there was more time available for me to make necessary coordinations for FOB development described above. As an XO, there was no way I could have supported the development of three platoon FOBs if I had to worry about maintaining them on a daily basis. With the transformation to brigade combat teams, many of the problems my company encountered will be taken out of the hands of the infantrymen and placed in the forward support company. As welcome as these changes are, one thing that will not change is the basic requirement for successful FOB development thorough planning and Soldier initiative.

At the time this article was written, **CPT Chris O'Brien** was attending the Maneuver Captains Career Course at Fort Benning, Georgia. He is currently serving as a troop commander with the 6-8 Cavalry Squadron, 4th Brigade Combat Team, 3rd Infantry Division in Arab Jabour, Iraq. CPT O'Brien is a graduate of Cornell University and has previously served as a platoon leader and executive officer with the 173rd Airborne Brigade.
