Infantry-Log Planning Application (IPAS-135)

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Picture this- you have a company of Marines (100-120 personnel) from an infantry battalion deployed to Northern Africa to support US Special Operations Forces (SOF) in country. Maybe it’s to provide base security, convoy assistance, whatever it may be. They came from a battalion with a logistics section that has prepped them for the first 20-30 days with planning and supplies. This company has a captain company commander and a first lieutenant company executive officer. Jump ahead. They’ve been in country for about two weeks, their initial supplies are at 25%. Communications aren’t working great and when they do, the company commander is using them for situation reports and briefs with his battalion commander. They have no logistics personnel with them organically and no access to planning publications due to no internet connectivity. The SOF team leader comes in to the company XO and says they are sending up an urgent supply drop request- what do you need? We need the information in 15 minutes. Now what?

The concept of the Infantry-Log Planning Application (IPAS-135) started back in July of 2016. I was deployed as the Assistant Logistics Officer for Battalion Landing Team 1/6 with the 22D MEU. I was serving in the role of Logistics Officer for the BLT 1/6 Detachment aboard the USS San Antonio. The two months prior, we had been doing deployment preparation exercises and actually began the deployment crossing the Atlantic. Our first planned exercise for the 2016 deployment was a Theater Security Cooperation (TSC) operation, Noble Shirley 2016, with the Israeli Defense Forces (IDF) in Israel. The planning called for a 3-5 day debarkation, training execution, and embarkation back aboard the USS San Antonio. Nested inside this simple concept were a myriad of logistic movements totaling moving 400 plus personnel and 30 vehicles over 500 miles, moving and airlifting stored US munitions out of the country, and concurrently providing ammunition, water, food, and mobility support for friendly forces throughout their training.

Up to this point I had done zero real world logistics planning. I had done maintenance management for the unit till about 45 days before we were going to execute Noble Shirley 2016.

That was where the IPAS-135 concept was born. I needed a way to quickly project supply requirements, equipment capabilities and limitations, and identify friction points that would hang us up in execution. A good portion of my maintenance management time was spent on Microsoft Excel analyzing data and narrowing down mass amounts of information into usable reports and numbers. So when faced with a real world event instead of maintenance schedules, I used the tools I knew how to operate. The 135 in the title comes from the key classes of supplies used in military training: Class 1- Chow/Water, Class 3- POLs (fuel), and Class 5- Ammunition. There are 10 supply classes but these are the primary ones used in infantry training/support. A good portion of logistics planning comes from knowing consumption rates of these classes of supply- specifically Class 1 and Class 3. Finding these requires going into countless publications, references, and after action reviews. Half of a logistician’s job is Googling information. Using formulas in Excel, I made sheets with MRE and water use projections based on personnel and temperature, different vehicle fuel consumption rates, and projections on resupply requirements for fuel based on vehicle use.

When it came to execution of Noble Shirley, it wasn’t pretty as a lot of our support came from the host nation which was…interesting. But our planning reduced self-inflicted risks like running out of fuel in the Israeli desert or not having water in the middle of July in the Middle East. Instead we were asking for help long before it was dire. Unfortunately the rest of our deployment was spent sitting off different coasts so I didn’t get to test my updates, but I continued to refine the Excel.

I had tried to share the Excel document after deployment with non-logistics Marines, but it wasn’t as user friendly as I hoped and in the military if your end user can’t use it your product easily, it gets replaced very quickly. The Logistics Innovation Challenge gave me the opportunity to take the concept another step forward. Instead of having a large clunky excel, having an app with built-in calculations, references, and projections, an end user can do all the planning from their phone. What took me 45-days to do, they can do in minutes. The big leap I’m hoping for with this app is you can take out the logistics planning middle man and the logistic “surprises” that happen when planning isn’t up to par. Instead you can have an inexperienced end user pick up their phone and plan out their requirements without the Googling, without the errors, and with zero knowledge on logistics support.

Back to our scenario. The company XO downloaded IPAS-135 to his tablet in the States before they deployed and used it with his logistics section. It’s fully functional for offline planning as all the publications are downloaded. He inputs the weather conditions, personnel totals, water containers on-hand, projected mileage totals he’s gotten from his company commander and total rounds on hand. He scribbles some notes in his notebook and tears out a page 14 minutes later and gives it to the SOF team leader. No logistics team, no internet, no formal training. A self-supported application that enables an end user to plan anywhere on the logistics spectrum from rapid, time sensitive planning to full blown TSC operation planning.