siders terrain, target locations, FISTV location and triggers, at a minimum.

6. Complete the plan. Based on the reconnaissance, the FSO makes the appropriate changes to the plan, including new guidance by the company commander and his other changes.

Next, the FSO briefs his company commander in a clear and concise manner, explaining how fires will support the scheme of maneuver. The instructors of the FA Officer Basic Course at the FA School, Fort Sill, Oklahoma, use the format shown in Figure 2 to teach lieutenants how to brief their commanders.

Although the format appears that the briefing will be rather lengthy, the FSO should be able to brief his company commander using this format in about 20 minutes. In a time-sensitive environment, the format can be prioritized and modified based on the time available.

7. Issue the order. Next, the FSO forwards the plan to the battalion/TF FSO for approval and briefs his FIST. He briefs the fire support portion of the company OPORD according to the unit SOP. The information is in the FSO's briefing to the company commander, specifically the scheme of fires and observation plan.

8. Supervise. The FSO next focuses on tracking and completing the PCCs and PCIs initiated in Step 1. The TF FSO ensures the FSO receives all the changes and (or) updates to the plan through constant communications.

The FSO supervises subordinates on completing their tasks in the fire support plan. He gives them a reasonable time to execute the orders and then checks them by a combination of back briefs, inspections and rehearsals.

The most important thing the FSO does before executing a fire plan is to rehearse. Rehearsals improve the total comprehension of the plan at all levels. Participants who are unclear on specific portions of the plan gain answers through the repetitiveness of rehearsals.

At the company-level, the FSO ensures the fire support plan is rehearsed in conjunction with the maneuver rehearsal, if possible. If the company commander doesn't conduct a rehearsal, the FSO should conduct a fire support rehearsal of his own. The rehearsal includes, at a minimum, all members of the FIST and the fire support assets. FSOs use the target list and execution matrix to "walk through" the operation. The FSO must determine a sleep plan for his soldiers in 24-hour operations or executing fires will suffer due to fatigue.

The company FSO is an important asset to the company, TF and brigade. He gathers information and works with his company commander to plan and execute fires to win the brigade fight.

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Hasty Astro: Taking the Needle Out of the Equation

The Joint Readiness Training Center (JRTC), Fort Polk, Louisiana, has witnessed a trend over the last several years in units' abilities to conduct hasty survey. Field Artillery batteries generally don't know how to perform hasty astro techniques, which is the second best means of getting survey data. The leaders in the batteries have had no institutional training on the tasks, and hasty astro procedures are not referenceable in the manuals common to the FA cannon battery leaders.

Batteries typically deploy initially into an area of operations at the JRTC without survey support. This forces the battery commander to decide what method of lay he will use to establish directional control for his battery location. In many cases, the battery commander elects to lay the safe by grid azimuth-which should be the last resort. The grid-azimuth method can lead to fratricide because of the error that magnetic attractions can introduce into the data.

FM 6-2 Tactics, Techniques and Procedures [TTP] for Field Artillery Survey with Change 1, Chapters 7, 10 and 13, contains the procedures for conducting hasty astro, but most platoon leaders/executive officers (XOs), chiefs of firing battery (CFBs) and gunnery sergeants (GSGs) don't have this manual. Instead, they use *FM 6-50 TTP for the Field Artillery Cannon Battery* and *ST 6-50-20 Battery Executive Officer's/Platoon Leader's Handbook* as references, but these publications don't cover the hasty astro procedures. In addition, hasty astro procedures aren't taught in the advanced NCO course (ANCOC), and lieutenants in the officer basic course (OBC) only get a limited exposure to the survey method. So a baseline knowledge of hastry astro isn't prevalent. As a result, leaders don't have confidence in hasty astro.

A firing unit can obtain directional control day or night (weather permitting), using a celestial body to an accuracy of plus or minus two mils with the forward entry device (FED), hand-held terminal unit (HTU) and precision lightweight global positioning system receiver (PLGR). This is not the Polaris-Kochab or Polaris-2 methods, which are time-consuming or obsolete. When trained on hasty astros, the Big Three (XO, CFB and GSG) can perform a hasty astro as quickly as they can "float the needle" to use the grid azimuth method.

Hasty astro is a proven survey technique that eliminates the error associated with the magnetic attraction inherent in laying by grid. It is a simple and quick method, more accurate than grid azimuth but requires training so leaders are proficient in its use. If the FA introduces the technique to our battery-level leaders at the schoolhouse, a baseline knowledge will be established. Next, we recommend the FA School update *FM 6-50* and *ST 6-50-20* to include the procedures so users can readily reference the technique. In the interim, FA units should develop and execute a training plan to raise the abilities and confidence of FA users to perform the hasty astro, using *FM 6-2,* Chapters 7, 10 and 13.

If properly trained, leaders can competently use the hasty astro method the next time survey is unavailable and "take the needle out of the equation."

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