

# Safety On The Flightline

By Jay Fuller, ALEA Safety Staff

**Those of us raised in a military aviation environment are used to (and spoiled by) the concept of a ground crew. These individuals perform most of the flight line and caretaking responsibilities on an aircraft.**

Ground crews take care of pre-flight handling, positioning aircraft for missions, securing them with appropriate chocks and/or tie downs, removing any covers or pins and accomplishing some systems inspections required prior to each flight. They may remain available to monitor the aircraft during engine start to assist in the event of fires or other start emergencies and to follow during the initial stage of taxi/hover prior to departure.

On return from a mission, ground crews monitor aircraft arrival, providing primary guidance via hand signals into the parking position. After engine shutdown, they fuel and prepare the aircraft for its next mission (or “put it to bed”) and reposition it as necessary out of the primary/alert parking area. In some instances, they will perform minor upkeep items to relieve the maintenance crew.

Depending on the size and complexity of the aircraft, the ground support function might be performed by one person or a dozen. For smaller, non-complex aircraft, a single individual can perform all ground functions, then board the aircraft and serve as an aircrew member. For larger aircraft, multiple personnel serve a variety of ground functions prior to flight, and then stay at home waiting on aircraft return. Ultimately, the concept is embodied by the crew chief, who may be the stand-alone performer or supervise a group. This individual “owns” the aircraft on the ground, while the aircrew “owns” it in the air. Significantly, in most military organizations these ground support personnel are assigned to the operations section of the aviation unit as opposed to maintenance. This places the emphasis of their activities on the mission side.

The safety enhancements of operating in this mode are obvious, particularly during complex, rapidly paced, high stress periods routinely encountered in law enforcement aviation. Multiple individuals must communicate and coordinate their actions, each with a defined task, each with a different perspective of, and observation point on, the activity, each with personal responsibility.

These factors significantly reduce the potential for ground incidents and for later airborne incidents resulting from inadequate pre-flight attention. And this does not take into consideration benefits such as power cart starts, which can be accomplished with ground crew support and can extend turbine engine health and life, or allowing pilots and other aircrew to focus on mission factors while not having to divert their attention entirely to the logistics of pre-flight activities. Ground support is highly desirable under all circumstances and is becoming necessary in the operation of complex aircraft. Unfortunately, few civil aviation units have the fiscal/staffing capability to duplicate military style procedures. Regardless, this is where we should set our goals.

Most of the larger law enforcement aviation units that I have visited utilize ground crew support in some form or another; however, by the standard described above, all can do better. If personnel are available, be they ops, maintenance or even janitorial, use them. Establish standardized policies and procedures for ground support operations and schedule staff so that coverage is consistent throughout all operational periods. All too often second or third shift staffing gets shorted, causing aircrew members to operate solo at a time when ground ops are further complicated by darkness and the deteriorating effect of fatigue.

As determined by the ALEA database, the predominant number of ALEA affiliated aviation units has six or fewer aircrew members and two or fewer aircraft.

Units this size are even further limited in staffing and budget compared to large units or the military, but they have the advantage of flexibility. Here are some suggestions for everyone:

- 1 First and foremost, regardless of your unit size, acknowledge the need for ground crew support and be prepared to take those steps necessary to make it happen.
- 2 If the unit flies multiple crewmembers, be they TFOs, paramedics, two pilots or whatever, establish policies and procedures wherein the non-flying crewmember acts as ground crew during aircraft preparation, positioning and start. If the unit uses flight helmets (as they should when operating in a tactical mode), it would even be possible to establish communication between an outside observer and pilot during engine start using a handheld radio and appropriate adapters.

- 3 Another suggestion for the small unit: if there are only one or two maintenance personnel assigned and two aircraft (or fewer), one of these individuals may feel sufficient “ownership” to act as crew chief during ground ops, if tasked. *Note: These last two suggestions ignore the separation that exists between operations, maintenance and ground crew. However, these lines tend to blur in smaller units where all members fulfill multiple roles and job descriptions encompassing a wide range of tasks.*
- 4 Better yet, employ an “all purpose” individual. This person could serve as ground crewmember but also be available to support maintenance, ops or even have janitorial responsibilities during non-flight periods. The appeal of law enforcement aviation may attract competent, motivated individuals even at a modest salary.
- 5 If your unit is located on an airfield, the local FBO may be able to provide ground support. If you buy fuel from them, it could come cheap, but be sure to conduct familiarity training for these personnel on your aircraft and procedures.
- 6 Lastly, don’t be afraid to think outside the box. The inventiveness and initiative demonstrated by some of our small (but typical) sized aviation units has never ceased to amaze me. Support personnel may be available from your own police agency. Or they may be available from explorer scouts or police auxiliary organizations. (Note: check with legal before using outside support personnel.)

Bottom line, any motivated, trained individual providing ground support is better than none. The more eyes, ears and brains we can apply to this situation the better.