

Incorporating Technology Safely!

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Aviation, more than any other aspect of law enforcement, is dependent on technology to effectively and safely do its job. Any meaningful technological improvement for an aviation unit will generate a corresponding enhancement in unit capability. And this is not restricted to operations. New computer based maintenance and administration systems can improve equipment and/or crew availability, while weather monitoring services and all aspect/long range communications can improve management capability to support field operations in real time.

Crew safety equipment, such as flight suits and gloves, survival vests, flying boots, helmets, water survival equipment and training and specialized night lighting must become routine for a crew to stay safe in the air.

But even with all of the new safety-oriented technology, units should keep in mind a few things when they take to the skies.

New technology should primarily be used to increase safety in existing missions.

This advisory is aimed principally at operations. The temptation with new equipment is to immediately increase the mission mix of the unit or expand existing missions into areas or conditions previously avoided. Night vision goggles significantly enhance capability and safety for units already involved in night operations. GPS guidance systems and multi-function displays appreciably improve navigation and aircrew situational awareness under all conditions. Any enhancement of this awareness can and should be accomplished without immediately reducing existing operational constraints. Initially, whatever standards for ceiling, visibility and operating area existed before adding the new technology should remain in effect.

Technology should only be used to expand current operations after considerable thought and evaluation.

You shouldn't be entering into unexplored territory without knowing what you're doing. Whether you are reducing minimums, expanding the unit area of operations, initiating missions not previously performed or implementing new maintenance equipment and procedures, all changes must be carefully thought out with a plan for familiarity training. Standards must be developed that define minimums, operating conditions and aircrew currency/maintenance proficiency levels.

This is not to say that the thought and evaluation can't be performed before procurement. Although improved safety is a great argument in itself, there is definite value in describing improved operational capability or increased maintenance reliability and decreased hours when selling pricey procurement items to senior management.

In the vast majority of cases, yours will not be the first unit to implement specific equipment and new missions. Talk to units similar to yours who are currently operating the desired equipment. Find out which technical aspects and missions work well and, just as importantly, which don't. Formulate a plan based on their experience and use this in your procurement proposal.

Technology should be incorporated into unit operations in a structured manner to ensure complete familiarity on the part of all personnel involved.

Present day procurement costs, equipment/mission complexity and potential equipment/personnel losses have put all of us well past the days of "kick the tire, light the fire." Most new systems or equipment we add to our units will require defined plans for implementation and continuing programs to ensure proficiency. Personnel proficiency needs to be the goal each time new systems or equipment are placed in service.

Technology makes the day-to-day job of aircrew more demanding.

Maintaining familiarity with complex equipment and making sure that it is effectively used requires professionalism and effort on the part of crews. The lead pilot in any organization is not the "hot stick" of past years (although it never hurts to have good hands) but the professionally minded individual who makes the extra effort to be totally familiar with his or her equipment and operating environment.

Today's aircrew member will spend many more ground hours studying and improving their systems familiarization than flying.

Technology makes the job of management more complicated (and interesting).

Standards and procedures will need to be developed to ensure proper utilization of equipment. New maintenance procedures will need to be identified and practiced to familiarity. In both cases, outside professional training may be necessary and designation of in-house standards monitors will be required. All this does not happen by itself. Management involvement and continuous oversight is necessary.