



## **2014 TOPS Best Practices**

While conducting a scheduled 100/150 hour inspection on an EC 130 a crack was found in the tail boom/fenestron fin junction frame. There is an ASB and an AD for cracks on this ring but this area was not addressed in the ASB or AD. The operator passed on the discover to other operators of EC130s, possibly preventing a future accident. This action generated an emergency EASB 05A017 and an emergency AD 2014-12-51.

Use of iFly CG software for weight and balance.

The operator installed a Helicom V2 engine monitoring device on one of their EC130s. The device is Flight Data Monitoring & Transmission (FDMT), Utility Management System (UMS) and Helicopter Operations Monitoring Program (HOMP) compliant. The system has an optional satellite tracking system that will be utilized. If the system works to their needs, it will be installed on all aircraft.

SMS program has attained Level One ISBAO certification.

All helicopter refueling is done by trained personnel using safety equipment that includes goggles and gloves. In addition, maintenance personnel have and use hardhats and tie-offs if they are working at certain heights above the ground.

The tool control program is very sophisticated. It includes use of inventory checklists, shadowed toolboxes as well as a process that is known and used when a tool can't be found. The company also has a shadowed AStar field tool kit.

Daily pilot briefings include spot quiz questions on aircraft systems, regulations and TOPS provisions.

Each pilot has his or her own separate safety file that includes all information about any kind of safety training they have participated in.

The safety program is robust and apparent around the company. From monthly newsletters to base safety meetings to the reports of the overall safety committee, employees know about the safety program and see it actively in use at all levels of the operation. In order to help guide safety meetings, company headquarters sends out a few specific topics it wants discussed company-wide and then each base tailors the rest of the meeting to its own unique needs.

Early morning "quick & dirty" meetings that cover the day's weather conditions, any operational issues, a human factors topic and/or review of an emergency procedure.

Passenger handlers in noisy areas use whistles to help control the flow from the landing pads to the holding area. Many of the passengers do not speak English and there may be more than one aircraft running at a time. A whistle blast gets everyone's attention. There is no language barrier with a whistle.



# TOPS TOUR OPERATORS PROGRAM OF SAFETY

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Use of the flight simulator for tour pilot training allows for specialized emergency training, including extensive inadvertent IMC recovery training, and for early tour route training.

The company conducts regular drills for overdue aircraft and these drills are documented with input from management as to lessons learned.

Tour pilots wear Switlik life vests during the tour routes and through a company program, they acquire the vest after a year of employment.

Director of safety has put in place a PED (personal electronic device) policy prohibiting the use of PEDs by the pilots under specific circumstances.

The ground and dispatch crews make use of weather cancellation time to run scenario training discussions or drills.

Emergency landing areas on tour route are published and posted at the base. If there is a problem, the pilot just give name of area they are headed for and the base will know where they are.

The operator utilizes a third party monitoring company for redundancy in quality control in the maintenance department.

The company has special ordered a "Fly Away Kit" from SnapOn for use by mechanics when they need to go out in the field to work on an aircraft. This kit will have some standard tools that will be shadowed, plus an empty spot for specialized tools needed for the job.

Continued use of the tour DVD recordings for use as pilot performance review ensures that operational parameters continue to be followed, as well as the possibility for identifying hazards and risks.

The company's parts control program includes video monitoring of its parts room and mandatory sign out of parts. The quality control and quality assurance teams work together each day to ensure that all parts are accounted for.

The tool control program requires labels on the drawers of a toolbox in addition to shadowing its contents adds another level of control to the process.

The company's internal communication processes allows for daily contact between employees at all levels of the organization, providing the foundation for a well-run team. Management encourages this through regular company-wide training and social events, starting at the beginning of the season, with at least a couple more happening throughout the season to maintain the community and teamwork.

FOD bags attached to all workers on the hangar deck.

Shorter passenger briefings to ensure passengers pay attention instead of engaging in distracting behavior.



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Having a maintenance training manger assures that all technicians receive the required continuing education and it is tracked completely.

The Director of Safety has no other duties, and can devote full attention to being pro-active in the management of the safety program

The maintenance department has established 10-hour duty shifts for their technicians with allowances for a duty day to go to 12 hours to finish any required paper work.

Consistent ground procedures and training across bases, with local differences as needed. This allows personnel to go from one base to another with only a few operational differences.

The main maintenance group instituted a regular maintenance human factors refresher meeting where they informally discuss examples of human factors. For example, at one meeting they addressed the "dirty dozen" by identifying within their operation.

Ground personnel do all safety briefings in person. While the prerecorded DVDs are a terrific option, the ground personnel keep the attention of the passengers and make the tour very personal right from the start.

The maintenance department is in the process of developing a sophisticated quality control computer program that has potential for detailed performance tracking.

A full time director of safety whose sole function is working with the individual bases on the safety issues and be a direct line of communication from the company to the company's parent company, has resulted in more growth and attention to the safety program and its needs.

A notebook maintained with the daily pilot meeting topics, including text information, drawings about various procedures, weather, or any other safety/operational topic. Each pilot on duty that day must sign that they received the information.

The director of safety has implemented a mid-tour season safety survey of all company personnel, providing useful information for the risk assessment and management process.