Subject: Sterile Cockpit and Airtanker Roll Times

Area of Concern: Flight Safety

Distribution: All Aviation Users

Discussion: Effective communication of mission essential information during critical phases of flight requires an environment that’s void of non-essential communication or other distractions and embodies the “ABCs” (Accurate, Bold and Concise). Large and Very Large Airtanker contracts require flight time to be calculated from takeoff roll to chocks. While the elapsed time is used for determining flight time and cost, communicating the roll time and other mission related information during critical phases of flight can impact a crew’s ability to operate safely.

We prescribe a sterile cockpit by FAA rules, agency policy, best practices, and plain common sense. A sterile cockpit does not refer to the cleanliness of the front of the aircraft, but to the limiting of non-essential tasks and communication in and out of the cockpit during those critical phases of flight, such as ground movement, takeoff, departure, approach phases and cruise below 10,000 feet AGL. These critical phases are ultimately at the discretion of the pilot-in-command (PIC), but the goal is to limit distractions, interruptions and preoccupations (DIP), with the focus of the aircrew limited to the safe operation of the aircraft.

Compliance with sterile cockpit rules is required by 14 CFR parts 121 and 135. These were put in place over 35 years ago after several accident reports identified lapses in pilot professional conduct that contributed to those accidents. The violations to these rules continue to contribute to fatal accidents as evidenced by noteworthy accidents such as Colgan Air Flight 3407.

Using sterile cockpit procedures, flight crews should only perform radio or cockpit communications directly related to the safe operation of the aircraft (2018 Red Book Ch 16, Page 329). Nonessential communication can impede the normal flow of checklists and procedures. They can block or interfere with communications with Air Traffic Control (ATC), Flight Service Stations, Unicom, or other aircraft with the intent of ensuring separation or complying with ATC requirements.

Communications with dispatch, air base timekeepers and ground support personnel is discouraged during critical phases of flight that require sterile cockpit conditions. Those communications should be limited to safety related issues or taxi/flight information only.
**Recommendations:** Airbase managers should review their procedures for communicating roll times to ensure they’re not interrupting the sterile cockpit environment. These items should be included in the airtanker base briefings as well as the preflight crew briefings. One solution to this issue is to have the airtanker base timekeeper monitor the frequencies to hear when the aircraft is cleared for takeoff or starts the takeoff roll.

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