



Aero-Flite, Inc.

Procedures for Hot Loading Retardant on Q400 Airtanker

Introduction:

The Hot Loading of retardant onto airtankers has been a practiced procedure for the last two decades. The procedure to hot load means that retardant is loaded onto the airtanker while one or two engines are running on the airtanker **opposite** of the retardant loading. With a set of guidelines and procedures in place, well trained personnel, hot loading can be done safely as long as risks are mitigated. The procedure also ensures that retardant can be delivered to the fire incident in a safe and time saving manner, thus reducing costs and enhancing the safety of fire crews and protecting resources.

The following are procedures for Hot Loading Aero-Flite's Q400s. The procedures have been developed to mitigate those risks while engines are running during loading of retardant and personnel movement in and around the aircraft. These procedures will be placed in the aircraft's Standard Operating Procedures (SOPs).

Procedures:

1. The airtanker should be shut down for the first loading at an airtanker base from which this airtanker has not previously operated in the current season. At the discretion of the Base Manager, airtankers may be required to shut down as to train personnel unfamiliar with the aircraft or procedure of Hot Loading. Flight crews will review procedures and equipment specific to that aircraft with the retardant ramp personnel including and ramp manager.
2. All Aero-Flite, Inc. flight crews and base personnel will be briefed and trained on Hot Loading the Q400 before any operations will proceed. Aero-Flite, Inc. has prepared a Risk Assessment for Hot Loading of the Q400. The flight crew and associated Aero-Flite, Inc. ground crew(s) will be briefed on this assessment before starting any Hot Loading operations. AFI flight crews will not proceed with any loading of retardant (Hot load or with engines shut down) if there isn't a ramp manager present for the operation. Each airtanker crew will carry copies of written procedures and risk assessments for training purposes.
3. No personnel are to be involved in activities on the side of the aircraft adjacent to the operating engines. This might require preplanning at bases with wing tip to wing tip loading pits.
4. The flight crew will request an agency ramp manager supervise the entire operation. The ramp manager has full authority to stop the operation at any time because of safety/training or insufficient personnel concerns. Prior to the airtanker entering the



loading area(s), the pilot will contact the Parking Tender/Ramp Manager on the appropriate Airtanker Ramp Frequency for loading pit assignment.

5. If at any time, any personnel are unwilling to perform Hot Loading of retardant onto the Q400 that operation **will stop immediately**.
6. Minimum personnel should be in the Hot Loading area to minimize congestion and have better situational awareness of the operation.
7. There needs to be a communication link set between the ramp manager, flight crew and loading personnel. This can be visual and/or via radio. There may be hot-loading situations where radio communications between the Pilot and Parking tender cannot be established. Hot loading can be accomplished by the Parking Tender establishing eye contact with the Pilot and utilizing standardized hand signals. If the communications between the flight crews and the ramp manager/parking tender reverts to hand signals, a risk assessment must be made as to continue with this procedure if the situation continues.
8. With the airtanker positioned in the loading pit, the pilot places the turbo-prop engines in idle and/or in the feather position and still running, then shuts down the engine on the side from which the aircraft is being loaded.
9. Because the retardant loading and the engine running are on opposite sides of the aircraft, there should be no crossing of the aircraft centerline with any personnel. This procedure will eliminate congestion and keep situational awareness at a maximum.
10. Radio communications or eye-to-eye contact and hand signals between the pilot and Parking Tender/Ramp Manager will be maintained throughout the retardant loading operations. Communications is key to this procedure for loading.
11. The Parking Tender/Ramp Manager must establish that the area is clear and receive a positive signal from the pilot to begin loading. The Ramp Manager/Parking Tender obtains permission from the pilot to load when the aircraft is ready.
12. The Parking Tender/Ramp Manager will notify the pilot by radio or hand signal when the hose and loading crew are clear of the aircraft.
13. Once the operation is completed, all personnel loading the aircraft must remain on their side of the aircraft where retardant is being loaded. No personnel should cross the centerline of the aircraft (forward or aft of engine on the running side).
14. Per established base procedures, once personnel loading the retardant are clear and the ramp manger assures the ramp is clear, then and only then will flight crew start remaining engines per the ramp manager's instructions.