Due to the widespread use of buckets, the majority of the foam injection systems are used in conjunction with buckets. Some foam injection systems are employed with fixed tanks. When foam is loaded into a foam reservoir on a helicopter for firefighting operations, helicopter managers/agency personnel must ensure the weight of the foam is included on the load calculation. Foam can be loaded into the reservoir and not used for a long period of time. Some helicopters are capable of carrying up to 600 pounds of foam. The best way to account for the weight of the foam on the interagency load calculation form is to add the weight in block 14 (Passengers/Cargo Manifest), this will ensure it is accounted for and the aircraft actual payload can be calculated.

Additionally managers must understand the foam reservoir capacities verses the foam reservoir structural limits. Some tanked aircraft have a foam reservoir built inside the water tank, with a capacity of 70 gallons, which is approximately 609 pounds of foam. That same foam reservoir has a structural limit of only 474 pounds, which equates to only 54 gallons of foam. In this example if the foam reservoir is filled to the capacity limit of 70 gallons instead of the structural limit of 54 gallons, it results in the foam reservoir being 135 pounds over the structural limit of the foam reservoir.

Managers assigned to an aircraft with a foam reservoir, should be asking the crew chief and/or pilot if there is residual foam in the system. In addition, helicopter managers must familiarize themselves with the STC that references the foam reservoir (most likely the water tank STC) to determine the foam reservoir’s limitations, and stay within those limits.

ASTAT and Contract Compliance teams should check aircraft with foam tanks and educate agency personnel on the concerns addressed in this bulletin as required. Unaccounted for weight or overloaded foam reservoirs must be documented with the CO or their representative.

Please contact the appropriate Helicopter Inspector Pilot if you have any questions.

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