



File Code: 5700
Route To:

Date: April 19, 2022

Subject: Airtanker Overfilling or Overloading Direction

To: Regional Aviation Officers, Regional Airtanker Base Specialists, Regional Fixed Wing Operations Specialists, Airtanker Base Managers, and Airtanker Contracting Officer Representatives

This letter replaces the July 8, 2020, Airtanker Overfilling or Overloading Direction letter.

Airtanker Base Managers are ultimately responsible for the oversight of all retardant operations. Due to the variation in the weight of retardants, there have been several incidents of overloading or overfilling airtankers. The following updated direction is intended to mitigate this issue going forward. For awareness, **Overloading** refers to an airtanker being loaded over the payload approved **weight** as described in the flight manual and/or contract specification. **Overfilling** refers to an airtanker being loaded over the payload maximum dispensable **volume** as described in the flight manual and/or by the Interagency Airtanker Board.

Payload Limitations

Each airtanker make/model has payload limitations in their Supplemental Type Certificate, in the Interagency Airtanker Board approval, and in their respective contracts. The Supplemental Type Certificate can limit based on weight, volume, or both. The Interagency Airtanker Board limit is maximum dispensable volume while the contract limitation is weight. When a product is loaded into an airtanker, each specific make/model shall not be loaded beyond its limitations (FAA, Interagency Airtanker Board and/or contract). Retardant loading must cease once the first of either limit is reached. In any case where the below criteria (weight/volume) are exceeded (see Table 1, Current Limiting Factors with Limits Highlighted), this will be considered an “overloaded aircraft” and the difference beyond the allowable limits shall be removed from the airtanker prior to takeoff.

- Aero Air MD-87 Overfill/Overload limit is **3,000 gals and 27,000 lbs.**
- Neptune BAe-146 Overfill/Overload limit is **3,000 gals and 27,000 lbs.**
- Coulson C-130 and B-737 Overfill/Overload limits are **4,000 gals and 36,000 lbs.**
- Aero-Flite RJ-85 Overfill/Overload limit is **3,000 gals and 27,000 lbs.**
- 10 Tanker DC-10 Overfill/Overload limit is **9,400 gals and 84,600 lbs.**



Table 1-Current Limiting Factors with Limits Highlighted			
Product	Average Weight/Gal**	Volume	Weight
Aero Air MD-87			
MVP-FX	8.80	3,000 gals	26,400 lbs.
LC95A-R	9.00	3,000 gals	27,000 lbs.
LC95A-FX	9.01	2,997 gals	27,000 lbs.
LCE20-FX	8.87	3,000 gals	26,610 lbs.
Neptune BAe-146			
MVP-FX	8.80	3,000 gals	26,400 lbs.
LC95A-R	9.00	3,000 gals	27,000 lbs.
LC95A-FX	9.01	2,997 gals	27,000 lbs.
LCE20-FX	8.87	3,000 gals	26,610 lbs.
Coulson C-130 & B-737			
MVP-FX	8.80	4,000 gals	35,200 lbs.
LC95A-R	9.00	4,000 gals	36,000 lbs.
LC95A-FX	9.01	3,996 gals	36,000 lbs.
LCE20-FX	8.87	4,000 gals	35,480 lbs.
Aero-Flite RJ-85			
MVP-FX	8.80	3,000 gals	26,400 lbs.
LC95A-R	9.00	3,000 gals	27,000 lbs.
LC95A-FX	9.01	2,997 gals	27,000 lbs.
LCE20-FX	8.87	3,000 gals	26,610 lbs.
10 Tanker DC-10			
MVP-FX	8.80	9,400 gals	82,720 lbs.
LC95A-R	9.00	9,400 gals	84,600 lbs.
LC95A-FX	9.01	9,389 gals	84,600 lbs.
LCE20-FX	8.87	9,400 gals	83,378 lbs.

** Average weight of retardant based on Wildfire Chemical Systems Mix Factor Table-October 2021,

<https://www.fs.fed.us/rm/fire/wfcs/lot-acceptance-and-quality-assurance-program.php>

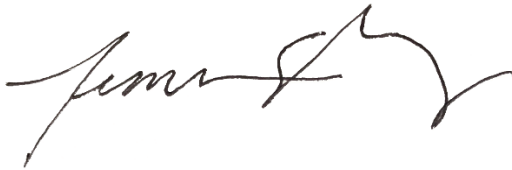
Quality Assurance

Each airtanker retardant load must be evaluated as per the U.S Department of Agriculture's, Forest Service National Technology Development Program's Lot Acceptance Quality Assurance Program. Mixed retardant must meet the Long-Term Fire Retardant Characteristics and Mix Factor table criteria for salt content (refractometer reading).

The Airtanker Base Manager is ultimately responsible for the oversight of all retardant operations at each base and needs to monitor the values of the retardant loads to ensure compliance. Before an airtanker clears the loading pit, the mass flow meter readout will be reviewed by the Aircraft Timekeeper. If any discrepancies are noted when compared to the values in the Mix Factor Table, the Aircraft Timekeeper shall immediately notify the Airtanker Base Manager and the Pilot-In-Command. The Airtanker Base Manager must troubleshoot the issue prior to allowing the airtanker to take off with the load.

Retardant with minor variance outside of recommended Lot Acceptance Quality Assurance specification may still provide a benefit to the incident. Prior to airtanker offload, the requesting incident should be consulted and allowed the decision to accept or reject the airtanker load.

If you have any questions please contact Leslie Casavan, National Airtanker Program Manager at (909) 289-4195, or Paul Linse, Assistant Director, Aviation at (202) 557-1545.

A handwritten signature in black ink, appearing to read 'Jerome Perez', with a stylized flourish at the end.

JEROME PEREZ
Director, Fire and Aviation Management

cc: Paul Linse, Jason Baldwin, John Nelson, Lori Clark, Heather Castillo, Dave Haston, Matthew Olson, Larry Robillard, Glen Claypool, Marty Buno, Matt Woodwick, Jerry Perez