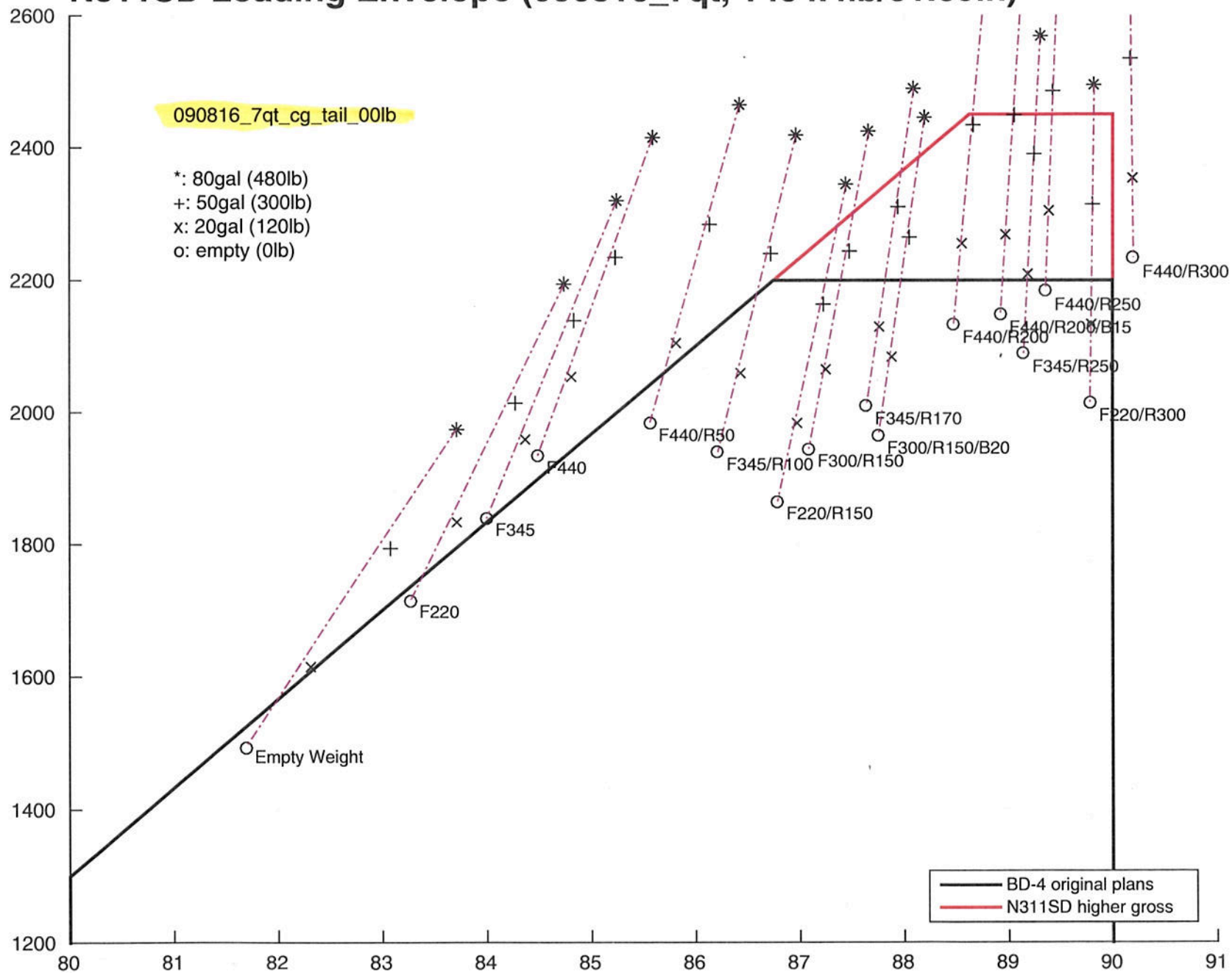


N311SD Loading Envelope (090816_7qt, 1494.4lb/81.69in)



N311SD Weight and Balance as of 9/8/2016

Reference W&B dated 3/27/2016

Conditions:

- Fuel tanks drained, all fuel sumps drained.
- Aircraft leveled per firewall at windshield (roll) and door rails (pitch).
- Seats in front-most position.
- No oil present in engine (removed in 3/27/16 calc)
- 15.0 pounds of ballast installed in tail.
- All interior panels installed.

Fairings added and weighed 8/2016:

Left weighed at 5lb, 7.3oz without ~1oz ea hardware, 2.5" aft of axle bolt.

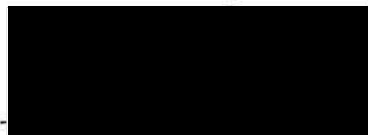
Left wheel cover weighed 12.5oz, centered at bolt, Each wing root fairing approx 8oz, approx axle cg location. Each wing root fairing at 74.875, 1lb.

Weight Point	Net Weight	Station	Moment/1000
3/27/16	1483.9	83.454	123.84
Wheel fairings	12.6	77.375	0.975
Wing root fairings	1	74.875	0.075
Total	1497.5	83.40	124.89
(7 qt oil@36")	1509.1	83.04	125.31

Configuration with 15 pound ballast removed:

Baseline (7qt)	1509.1	83.04	125.31
Ballast	-15	216.50	-3.248
Total (7qt)	1494.4	81.69	122.06

See example loading diagram with fuel burn for loading scenarios.



Owner/Builder

9/5/16

Date of weighing

WEIGHT + BALANCE

Estimated weights for
Passengers & Pilot - Actual weight for Baggage
Baggage Arm location unknown

	1494	81.69	122.06
Front	220	9.4	20.68
Rear	180	127	22.84
Fuel	390	90	27.0
Bag	187	153	

	<u>2194</u>	87.78	<u>192.6</u>	w/o Bags
Bags	<u>187</u>	157	<u>28.61</u>	w/ Bags
	2381	92.9	221.21	(all in Rear) Actual position unknown

	2194	87.78	192.6	
Bag Front	100	94.0	9.4	Actual position unknown
Bag Rear	<u>87</u>	153	<u>13.31</u>	
	2381	90.42	215.31	

N311SD Moment Arms

Front Seat (min aft):	94.0"
Front Seat (max aft):	99.5"
Rear Seat:	127.0"
Fuel (80 gal max):	90.0"
Rear Baggage (avg):	153"

Oil (8 qt max):	36.0"
Tail Ballast:	216.5"

100 lb Front
100 lb Seat