



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

September 18, 2019

Attachment 19 – NTSB weight and balance calculation

OPERATIONAL FACTORS/HUMAN PERFORMANCE

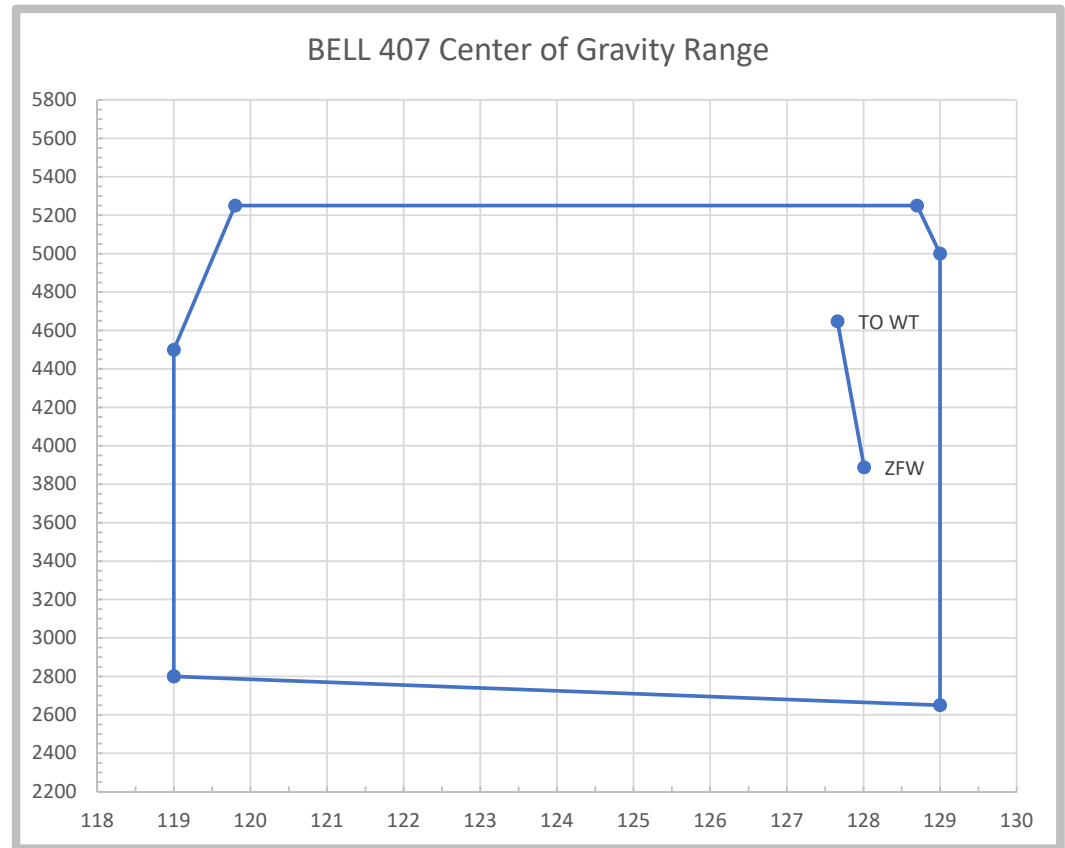
CEN19FA072

CEN19FA072
BELL 407, N191SF
Zaleski, OH
January 29, 2019

Weight and Balance Calculation

ITEM	WT	ARM	MOM
Empty Weight	3192.00	131.26	418981.44
Pilot	179.00	65.00	11635.00
Forward Passenger		65.00	0.00
Patient (S)		108.00	0.00
Mid Passenger (R)		91.00	0.00
Aft Passenger (L)	225.00	129.00	29025.00
Aft Passenger (Mid)		129.00	0.00
Aft Passenger (R)	120.00	129.00	15480.00
Cargo List	103.50	108.00	11178.00
Rear Baggage (173 lbs)	43.00	174.00	7482.00
Required Documents	17.00	174.00	2958.00
Adjustable Shelf (3 lbs)	3.00	81.00	243.00
Snow Baffles (5.2 lbs)	5.20	130.00	676.00
Fuel (869 lbs)	760.00	125.89	95673.36
TOTAL (MGW 5250 lbs)	4647.70	127.66	593331.80
TOTAL ZFW	3887.70	128.01	497658.44

Notes: Weight and balance based on occupant and fuel weights provided by the Survival Flight director of maintenance. All other weights are based off of the previous weight and balance dated 1-13-18 (SF DOM reported that the actual date was 1-13-19). Center of gravity range based on EASA TCDS for the BELL 407.



N191SF

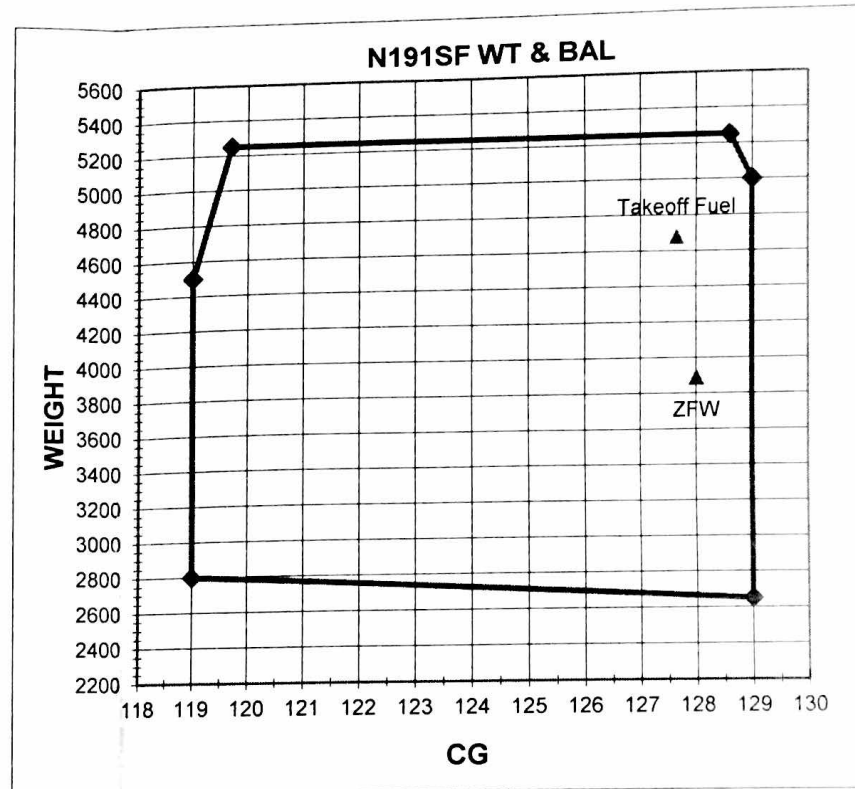
Flight crew signature below indicates having received passenger briefing per FAR:135.117(a-f) and reviewed, weight & balance, fuel quantity, WX conditions, medical O2, patient/rider maximum combined weight for the shift and aircraft to be used for transport

Jen Topper

Useful Load
572.30

ITEM	WT	ARM	MOM
Empty Weight	3192.00	131.26	418981.44
Pilot	179.00	65.00	11635.00
Forward Passenger		65.00	0.00
Patient (S)	0.00	108.00	0.00
Mid Passenger (R)	0.00	91.00	0.00
Aft Passenger (L)	225.00	129.00	29025.00
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Cargo List	103.50	108.00	11178.00
Rear Baggage (173 lbs)	43.00	174.00	7482.00
Required Documents	17.00	174.00	2958.00
Adjustable Shelf (3 lbs)	3.00	81.00	243.00
Snow Baffles (5.2 lbs)	5.20	130.00	676.00
Fuel (869 lbs)	790.00	125.89	99449.94
TOTAL (MGW 5250lbs)	4677.70	127.65	597108.38
TOTAL ZFW	3887.70	128.01	497658.44

Medic:	Bobby Schneider		1500
Nurse:	Rachel Cunningham		
Rider:	None		



Sunday, January 13, 2019

DO NOT HANDTYPE OR BELL
CREW WEIGHTS ON THIS FORM

This weight and balance from a previous flight was provided by the Survival Flight Director of Maintenance and was used as a basis for the NTSB weight and balance calculation. All weights other than the pilot, passenger, and fuel weights were extracted from this previous weight and balance. The DOM nted that although the pilot dated this form 1-13-18, it was actually submitted in 2019.

INCHES TO MM (INCHES X 25.4 = MM)
MM TO INCHES (MM X 0.0394 = INCHES)

Fuel Mins	Fuel Hrs
121.07	2.02
+ 20 min reserve	

Pilots Signature _____
Dated: 1.13.18