


CHART B - HELICOPTER WEIGHING RECORD

Sheet 1 of 2

MODEL: AW139 S/N: 41528 REGISTRATION MARKS: N607SH

DATE: 4/14/2017 PLACE: Philadelphia PA SIGNATURE: 

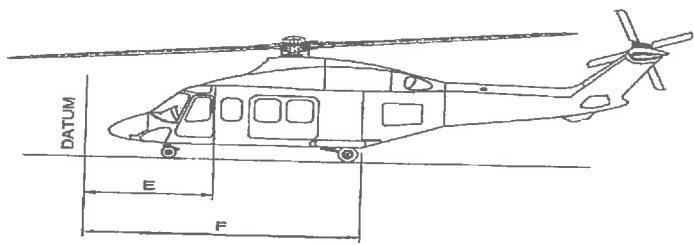
Reason for weighing: To find empty fuel weight and CG

Scale type: TieEff balance AWP1693

JACKPOINTS	SCALE READING	TARE	NET WEIGHT	STA	LONGITUDINAL MOMENT	BL	LATERAL MOMENT
				(1)		(2)	
	(Kg)	(Kg)	(Kg)	(mm)	(Kgmm)	(mm)	(Kgmm)
FORWARD	1739.5	13.5	1726.0	3160	5454160	0.0	0.0
LH AFTERWARD	1297.0	0.0	1297.0	6700	8689900	-905	-1173785
RH AFTERWARD	1383.5	0.0	1383.5	6700	9269450	905	1252068
TOTAL (AS WEIGHED) (to Sht .2 of 2)			4406.5	5313	23413510	17.77	78283

Note 1
 The forward lower Central Cabin is provided by two FWD jack points, only one FWD jack point is assured by using a proper tool which collect both jacking points.
 The Station Reference Datum (STA 0) is located 3160 mm forward the FWD jack points. Therefore the STA are positive.
 E = Distance from the reference datum (STA 0) to the FWD jackpoint Station of 3160 mm.
 F = Distance from the reference datum (STA 0) to the LH and RH aft jackpoints Station of 6700 mm.

Note 2
 The Buttock Line Reference Datum (BL 0) is located on the fuselage Center Line.
 Therefore the BL are negative on the Left Hand side and positive on the Right Hand side.



ICN-39-A-168000-A-0003-00029-A-01-1

CHART B - HELICOPTER WEIGHING RECORD						SHEET 2 OF 2
DESCRIPTION	NET WEIGHT	STA	LONG. MOMENT	BL	LAT. MOMENT	(Kgmm)
	(Kg)	(mm)	(Kgmm)	(mm)	(Kgmm)	
TOTAL (as weighed) (from Sht. 1 of 2)	4406.5	5313	23413510	17.77	78283	
SUBTRACT (from Tab. 1)	0	0	0	0	0	
ADD (from Tab. 2)	16	6206	99296	0	0	
BASIC AIRCRAFT (to Chart C)	4422.5	5317	23512806	17.70	78283	
TABLE 1 ITEMS WEIGHED BUT NOT PART OF THE BASIC WEIGHT						
DENOMINATION	WEIGHT	STA	LONG. MOMENT	BL	LAT. MOMENT	(Kgmm)
	(Kg)	(mm)	(Kgmm)	(mm)	(Kgmm)	
TOTAL	0	0	0	0	0	
TABLE 2 BASIC ITEMS NOT INSTALLED WHEN WEIGHED						
DENOMINATION	WEIGHT	STA	LONG. MOMENT	BL	LAT. MOMENT	(Kgmm)
	(Kg)	(mm)	(Kgmm)	(mm)	(Kgmm)	
Unusable Fuel	16	6206	99296	0	0	
TOTAL	16	6206	99296	0	0	
Reasons of the weighing: To obtain empty fuel weight						
Type Scales: Tieffe balance						
S/N 100003587						
CAL DUE: 02/MAR/2018						
NOTE: Lifeport litter STC SR02614NY installed (dual litter configuration). GoodrichSTC SR02624NY installed.						

For all pages of Chart A:

— V — Means installed on the helicopter

— O — Means not installed on the helicopter

CHART A - EQUIPMENT LIST
Annex Page

MODEL: AW139		REGISTRATION MARKS N607SH		SN 41528		RECORD OF CHECKING (Date and Signature)							
ITEM NUMBER	PIN	DENOMINATION	Q.ty	WEIGHT (Kg)	ARM (mm)	MOMENT (Kgmm)	Basic configuration	In helicopter					
								Chart C entry	In helicopter	Chart C entry	In helicopter		
1	3G5260A20611	PROTECTION PASSENGER STEP INSTL	1	REF	REF	REF	V						
2	4G2560F00113	KIT EMERGENCY LOCATOR TRANSMITER	1	REF	REF	REF	V						
3	4G2500F00611	KIT FURNISHING WITH FIBER PILOTS LINERS	1	REF	REF	REF	V						
*4	3G2510F00113	EXTENDED INTERSEAT CONSOLE LAFD	1	REF	REF	REF	V						
5	3G5330A01113	TIEDOWN INSTALLATION PASSENGER DOPR	1	REF	REF	REF	V						
6	4G2460F01014	KIT UTILITY SOCKET 115 VAC 60HZ	1	REF	REF	REF	V						
7	3G2150F00512	KIT AIR CONDITIONING	1	REF	REF	REF	V						
8	4G2500F00514	KIT SIMPLEX TANK PROVISION GUI	1	REF	REF	REF	V						
9	4G2820F00211	KIT CCR WITH ISO45 ADAPTER	1	REF	REF	REF	V						
10	4G2520F07412	KIT CUSTOMIZATION LAFD	1	REF	REF	REF	V						
11	4G2310F03012	KIT SATCOM SKYTRACK ISAT-200A	1	REF	REF	REF	V						
12	4G2460F02728	KIT AUX OVERHEAD PANEL INSTL	1	REF	REF	REF	V						
13	122000-103	STC SR02772CH INLET BARRIER FILTER	1	21.48	257	5827	V						
14	3A2591A00113	STC SR02654NY HOIST BREEZE (GOODRICH) LAFD											
-	44316-10-104	HOIST ASSY	1	46.80	4380	204984	V						
-	44316-7711786/788	HOIST ELECTRICAL HARNESS	1	1.40	4390	6132	V						
-	44316-46-104	FAIRING INTERFACE KIT	1	1.30	4380	5694	V						
-	49500-764	PENDANT COIL CORD	1	1.10	3900	4290	V						
-	49500-721/839	PENDANT	1	0.70	3900	2730	V						
-	49500-40	KIT LAMP INSTALLATION	1	0.70	4380	3066	V						

4/14/2017

41528

CHART C - BASIC WEIGHT AND BALANCE RECORD

Model: AW139 S/N: 41528 Registration: N607SH

DATE	Item No See Chart A	DESCRIPTION	WEIGHT CHANGE			ADDED (+) REMOVED (-)			TOTAL				SIGNATURE and/or VISAS
			Weight (kg.)	Arm (mm.)	Moment (Kgm.m.)	BL CG (MM)	Lateral Moment (kg mm)	Weight (kg.)	Moment (Kgm.m.)	C.G. (mm.)	Lateral Moment (kg mm)	BL CG (MM)	
5/28/2017		Transcribed from original weight and balance chart C Dated: 4/14/2017						4422.5	23812808	5317.00	78282.5	17.70	
5/28/2017	X	Kit Passenger Footsteps	-5.75	4755.0	-27941.3	0	0	4416.75	23485465	9317.38	78282.5	17.72	DT1R088K
5/28/2017	X	RT7000 Control Head	3.58	2600.0	9334.0	275	987.25	4420.34	23494799	9315.16	79269.8	17.93	DT1R088K
5/28/2017	X	RT7000 Control Head	3.58	2600.0	9334.0	275	987.25	4423.93	23504133	9312.95	80257.0	18.14	DT1R088K
5/28/2017	X	VHF UHF Antenna	1.27	2600.0	3302.0	355	460.85	4425.20	23507435	9312.17	80707.9	18.24	DT1R088K
5/28/2017	X	VHF UHF Antenna	1.27	6950.0	8826.5	-660	-838.2	4426.47	23516261	9312.64	79969.7	18.04	DT1R088K
5/28/2017	X	Motorola Antenna	0.91	10200.0	9282.0	0	0	4427.38	23525543	9313.65	79669.7	18.04	DT1R088K
5/28/2017	X	Motorola Antenna	0.91	8600.0	7735.0	-4.3	-3.813	4428.29	23533278	9314.30	79669.7	18.04	DT1R088K
5/28/2017	X	Logic Converter	0.73	10700.0	7811.0	254	185.42	4429.02	23541089	9315.19	80051.2	18.07	DT1R088K
5/28/2017	X	Logic Converter	0.73	7200.0	5256.0	432	315.36	4429.75	23546345	9315.50	80366.5	18.14	DT1R088K
5/28/2017	X	Antenna Switching Unit	0.18	7200.0	1296.0	330	99.4	4429.93	23547641	9315.58	80435.9	18.16	DT1R088K
5/28/2017	X	Antenna Switching Unit	0.18	7200.0	1296.0	609	109.62	4430.11	23548937	9315.66	80535.5	18.18	DT1R088K
5/28/2017	X	Polycorr Antenna	0.23	7200.0	1656.0	820	188.6	4430.34	23550593	9315.78	80724.1	18.22	DT1R088K
5/28/2017	X	ICS Cabin Equipment Rack/w Panels	1.60	2370.0	4286.0	-950	-1710	4432.14	23554899	9314.56	79014.1	17.93	DT1R088K
5/28/2017	X	Simplex step Provisions	2.80	5000.0	14000.0	1057	2959.6	4434.94	23568859	9314.36	81973.7	18.48	DT1R088K
5/28/2017	X	Simplex Tank Assembly Empty	234.90	4469.0	1049768.1	0	0	4669.84	24616627	9271.84	81973.7	17.95	DT1R088K
5/28/2017	X	Simplex Tank Assembly Empty	-234.90	4813.0	-1130573.7	0	0	4434.94	23488054	9296.14	81973.7	18.48	DT1R088K
5/28/2017	X	Aux Step Assembly (RH)	27.20	4813.0	130913.6	1152	31334.4	4462.14	23618967	9293.19	113308.1	25.39	DT1R088K
6/5/2017	X	Aux Step Assembly (RH)	-27.20	4813.0	-130913.6	1152	-31334.4	4434.94	23488054	9296.14	81973.7	18.48	DT1R088K
6/5/2017	X	Simplex Tank Assembly Empty	234.90	4469.0	1049768.1	0	0	4669.84	24537822	9254.53	81973.7	17.95	DT1R088K
6/18/2017	X	Simplex Tank Assembly Empty	-234.90	4469.0	-1049768.1	0	0	4434.94	23488054	9296.14	81973.7	18.48	DT1R088K
6/18/2017	X	Aux Step Assembly (RH)	27.20	4813.0	130913.6	1152	31334.4	4462.14	23618967	9293.19	113308.1	25.39	DT1R088K

C.G = Helicopter C.G. location IN = Installed Out = Removed
 Note 1 IN: = Installed component Note 2 Out: = Removed component
 Note 3: Weight of an installed component is positive (+) Weight of a removed component is negative (-).

Create New Package

Package name:

[Brush] AIR AMBULANCE/ SAR EQUIP

Include/Exclude Package

Station	Weight (kg)	Arm (mm)	Moment (kg*mm)	ArmLat (mm)	MomentLat (kg*mm)	
1: Bauman bag & backboard	19.50	6200.00	120900.00	-300.00	-5850.00	✓
2: Hoist bag	24.90	7600.00	189240.00	0.00	0.00	✓
3: Capture/Gunner/Screamer/Orca.	7.70	6200.00	47740.00	0.00	0.00	✓
4: Black Medical Bag	12.70	6200.00	78740.00	300.00	3810.00	✓
5: Red Medical Bag (row 3 seat N)	10.00	5600.00	56000.00	-737.00	-7370.00	✓
6: Green O2 Bag	6.80	6200.00	42160.00	-300.00	-2040.00	✓
7: Orange Splint bag	4.10	6200.00	25420.00	300.00	1230.00	✓
8: Ped's Immobilize splint (Papus)	5.00	6200.00	31000.00	-300.00	-1500.00	✓
9: Dog rescue Harness	1.40	6200.00	8680.00	-300.00	-420.00	✓
10: Rescue Triangle Bag	2.30	6200.00	14260.00	-300.00	-690.00	✓
11: Ped's Restraint Seat Belt	1.40	6200.00	8680.00	-300.00	-420.00	✓

Packages Total:

410.20

5208.87

2136679.50

-32.30

-13248.10

Create New Package



12: KED	3.60	8400.00	30240.00	0.00	0.00	✓
13: Hair Traction Splint	2.70	8400.00	22680.00	0.00	0.00	✓
14: Body Bag	2.70	8400.00	22680.00	0.00	0.00	✓
15: Decon Kit	1.40	8400.00	11760.00	0.00	0.00	✓
16: OB Kit	2.30	8400.00	19320.00	0.00	0.00	✓
17: Cardboard Splints	1.40	8400.00	11760.00	0.00	0.00	✓
18: Life Raft (row seat D)	8.60	3415.00	29369.00	-737.00	-6338.20	✓
19: Spare O2 Bottle	3.20	6200.00	19840.00	300.00	960.00	✓
20: HEED's Bottles	4.10	8400.00	34440.00	0.00	0.00	✓
21: Life Pack Defib (row 1 seat P)	12.70	3415.00	43370.50	0.00	0.00	✓
22: Life Port Trolley & med deck	22.70	4651.00	105577.70	-300.00	-6810.00	✗

Add Station

Package Total 138.50 6269.17 868279.50 -134.50 -18628.20

Packages Total: 410.20 5208.87 2136679.50 -32.30 -13248.10



Create New Package

Add Station

Package Total	15.90	8400.00	133560.00	0.00	0.00
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Package name:

Include/Exclude Package

Station	Weight (kg)	Arm (mm)	Moment (kg*mm)	ArmLat (mm)	MomentLat (kg*mm)	
48: Brush Rack (row 3 seat I)	7.30	5600.00	40880.00	737.00	5380.10	<input checked="" type="checkbox"/>
49: Four - 2 1/2 " Hose Sections	50.80	5600.00	284480.00	737.00	37439.60	<input type="checkbox"/>
50: Hose Fittings Box (row 2 seat E)	24.10	4789.00	115414.90	737.00	17761.70	<input type="checkbox"/>
51: Gleason Valve	18.10	7600.00	137560.00	0.00	0.00	<input type="checkbox"/>

Add Station

Package Total	7.30	5600.00	40880.00	737.00	5380.10
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Package name:

Include/Exclude Package

Packages Total:	410.20	5208.87	2136679.50	-32.30	-13248.10
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Create New Package

Add Station

Package Total 14.00 6701.25 93817.50 0.00 0.00

Package name: Fixed Mission

Include/Exclude Package ✓

Station	Weight (kg)	Arm (mm)	Moment (kg*mm)	ArmLat (mm)	MomentLat (kg*mm)	
30: Simplex Water Tank (Empty)	234.50	4265.00	1000142.50	0.00	0.00	✓
31: Simplex Aux Hoist Step	28.10	4593.00	129063.30	1152.00	32371.20	✗
32: Hoist	127.90	4375.00	559562.50	1585.00	202721.50	✗
33: SX16 Night sun	34.00	3618.00	123012.00	-1422.00	-48348.00	✗
34: Cargo Hook	15.90	5300.00	84270.00	13.52	214.97	✗
35: Lifeport Base Plate	21.30	4789.00	102005.70	0.00	0.00	✗

Add Station

Package Total 234.50 4265.00 1000142.50 0.00 0.00

Packages Total: 410.20 5208.87 2136679.50 -32.30 -13248.10



Create New Package

Add Station

Package Total 234.50 4265.00 1000142.50 0.00 0.00

Package name: Loose Mission Equip

Include/Exclude Package ✓

Station	Weight (kg)	Arm (mm)	Moment (kg*mm)	ArmLat (mm)	MomentLat (kg*mm)	
39: Mid Storage Rack	24.50	6200.00	151900.00	-300.00	-7350.00	✗
40: Rear Baggage Rack	15.90	8400.00	133560.00	0.00	0.00	✓
41: Airborne TF Basket with equip	181.80	4651.00	845551.81	0.00	0.00	✗
42: 2nd Lifeport Trolley & Med	22.70	4651.00	105577.70	0.00	0.00	✗
43: USCG Basket	16.80	6200.00	104160.00	-300.00	-5040.00	✗
44: Hover Pump (row 2 seat G)	33.60	4789.00	160910.41	-254.00	-8534.40	✗

Add Station

Package Total 15.90 8400.00 133560.00 0.00 0.00

Packages Total: 410.20 5208.87 2136679.50 -32.30 -13248.10

Create New Package

TRNG DECK

Add Station

Package Total 138.50 6269.17 868279.50 -134.50 -18628.20

Package name: Standard Equipment

Include/Exclude Package

Station Weight (kg)

Arm (mm)

Moment (kg*mm)

ArmLat (mm)

MomentLat (kg*mm)

25: Hand Radio/EPIRB/
Sat Phone

4.50

3115.00

14017.50

0.00

0.00

26: Brush Shelter

2.70

8400.00

22680.00

0.00

0.00

27: Head Set Box

6.80

8400.00

57120.00

0.00

0.00

Add Station

Package Total 14.00 6701.25 93817.50 0.00 0.00

Package name: Fixed Mission

Include/Exclude Package

Weight

Arm

Moment

ArmLat

MomentLat

Packages Total:

410.20

5208.87

2136679.50

-32.30

-13248.10

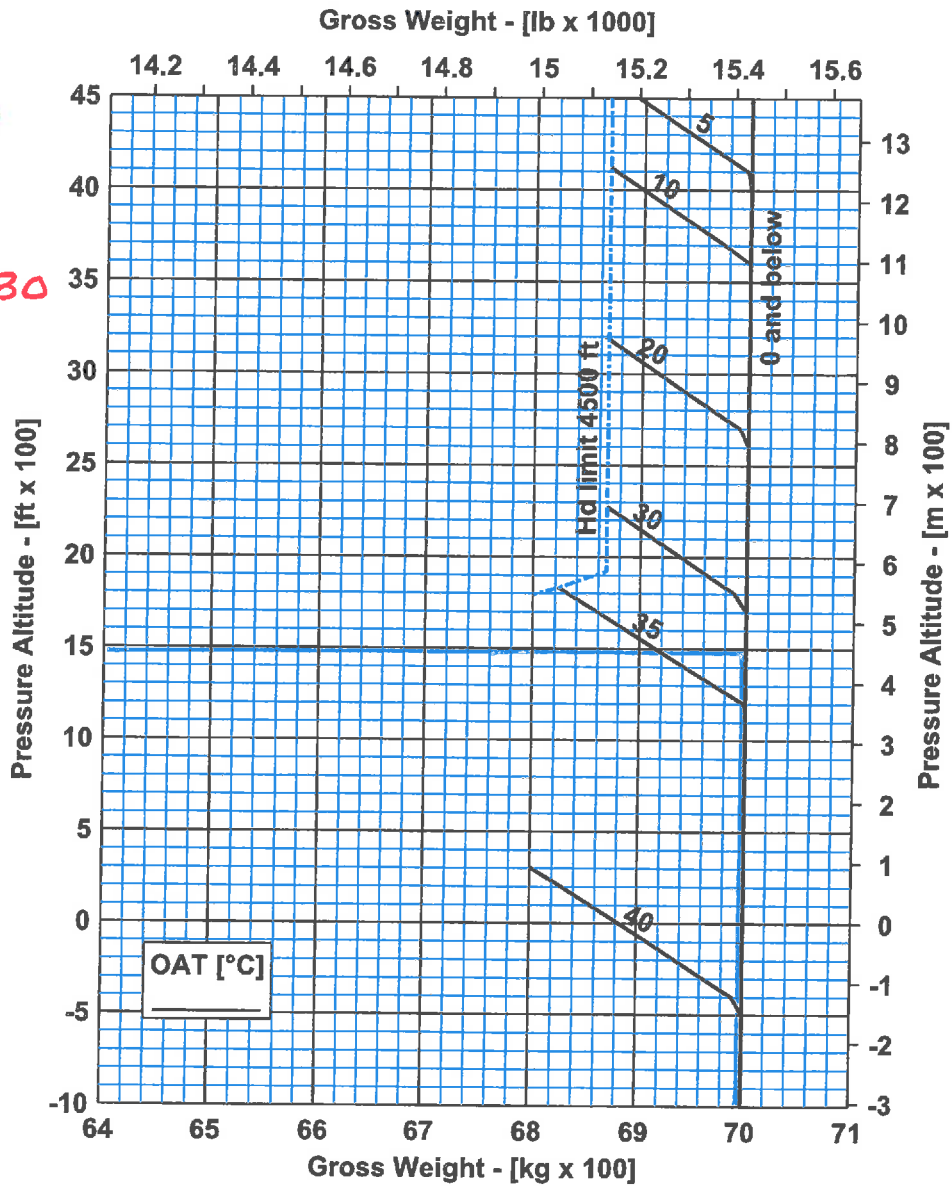
WEIGHT-ALTITUDE-TEMPERATURE Cat.B PROCEDURE

IBF installed
 NR=100%

AMBIENT TEMP:
 29°C

TIME: APPROX. 0930

PRESSURE ALT.:
 1490 FT.



139G1580A024 Rev. A

ICN-39-A-155090-G-A0126-10011-A-01-1

Figure 4-4 Weight Limitations for CAT B Procedure, IBF Installed

Load Manifest

Job ID: DAILY

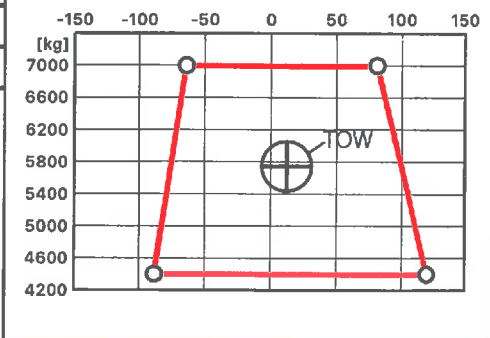
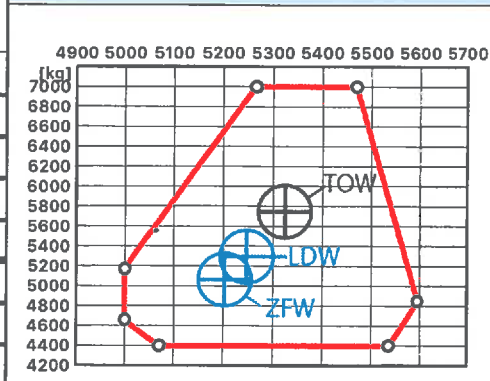
Los Angeles Fire Department
Air Ops



Registration	AC Type	Flight Type	Configuration		
N304FD	AW139	DAY / VFR	Brush		
Item	Mass kg	Arm Long. mm	Moment Long. kg.mm	Arm Lateral mm	Mom. Lateral kg.mm
BEM	4422.5	5316.6	23512806.0	17.7	78283.0
Pilot	99.79	2820.0	281411.59	550.0	54885.24
-					
Co-Pilot	90.0	2820.0	253800.0	-550.0	-49500.0
-					
Seat 1 Helitac	0.00	3415.0	0.00	-737.0	-0.00
Seat 2 Helitac	0.00	3415.0	0.00	737.0	0.00
Seat 3 Helitac	0.00	5600.0	0.00	0.0	0.00
Mid-Cargo	0.0	6200.0	0.0	0.0	0.0
Water Tank	0.0	0.0	0.0	0.0	0.0
Baggage	0.0	8200.0	0.0	0.0	0.0
Seats	43.5	4143.3	180235.0	0.0	0.0
Equipment	410.2	5208.9	2136679.5	0.0	-13248.1
ZFM	5066.0	5204.3	26364932.1	13.9	70420.1
Fuel	680.4	6214.1	4228017.0	0.0	0.0
TOM	5746.4	5323.9	30592949.0	12.3	70420.1
Ldg. Fuel	230.0	6210.2	1428340.0	0.0	0.0
LDM	5296.0	5248.0	27793272.0	13.3	70420.1

Flight Data	
Departure Date	09-02-2017
Departure Time	08:00 AM
Departure	KVNY
Destination	LCL
Remarks	

CG Envelope



CONDITION:

DEPART FROM VAN NUYS AIRPORT (KVNY) WITH MISSION FUEL AND ZERO GALLONS OF WATER.

Performance Data

OAT	29°C
Pressure Alt	1490 ft
Headwind	0 Kts
H/V Diagram	0kts: 124' 10kts: 77'
HIGE OEI 2.5min	6011 kg
HIGE OEI	5177 kg
WAT Clear Area	6800 kg
WAT Confined	6400 kg
HIGE TOP	6800 kg
HIGE TOP	6673 kg

[Redacted Signature]

Pilot's Signature

Load Manifest

Job ID: DAILY

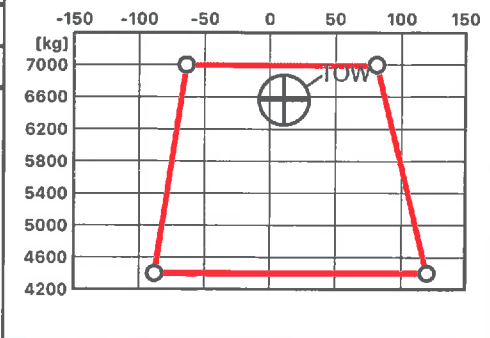
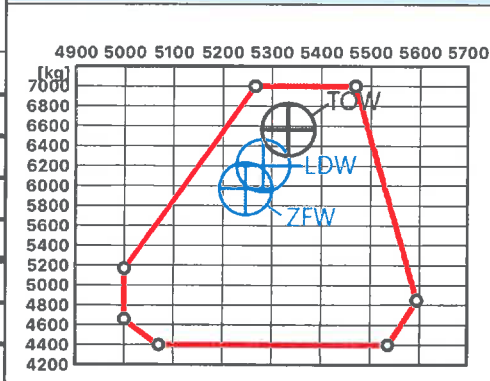
Los Angeles Fire Department
Air Ops



Registration	AC Type	Flight Type	Configuration			
N304FD	AW139	DAY / VFR	Brush			
Item	Mass kg	Arm Long. mm	Moment Long. kg.mm	Arm Lateral mm	Mom. Lateral kg.mm	
BEM	4422.5	5316.6	23512806.0	17.7	78283.0	
Pilot	99.79	2820.0	281411.59	550.0	54885.24	
Co-Pilot	90.0	2820.0	253800.0	-550.0	-49500.0	
Seat 1 Helitac	0.00	3415.0	0.00	-737.0	-0.00	
Seat 2 Helitac	0.00	3415.0	0.00	737.0	0.00	
Seat 3 Helitac	0.00	5600.0	0.00	0.0	0.00	
Mid-Cargo	0.0	6200.0	0.0	0.0	0.0	
Water Tank	909.0	5479.0	4980411.0	0.0	0.0	
Baggage	0.0	8200.0	0.0	0.0	0.0	
Seats	43.5	4143.3	180235.0	0.0	0.0	
Equipment	410.2	5208.9	2136679.5	0.0	-13248.1	
ZFM	5975.0	5246.1	31345343.1	11.8	70420.1	
Fuel	589.7	6212.6	3663420.0	0.0	0.0	
TOM	6564.7	5332.9	35008764.0	10.7	70420.1	
Ldg. Fuel	230.0	6210.2	1428340.0	0.0	0.0	
LDM	6205.0	5281.8	32773684.0	11.3	70420.1	

Flight Data	
Departure Date	09-02-2017
Departure Time	08:00 AM
Departure	KVNY
Destination	LCL
Remarks	

CG Envelope



CONDITION:
FIRST LANDING AT GREEN VERDUGO
HELISPOT FOR 1/2 TANK OF WATER.

Performance Data

OAT	29°C
Pressure Alt	1490 ft
Headwind	0 Kts
H/V Diagram	0kts: 153' 10kts: 92'
HIGE OEI 2.5min	6011 kg
HIGE OEI	5177 kg
WAT Clear Area	6800 kg
WAT Confined	6400 kg
HIGE TOP	6800 kg
HIGE TOP	6673 kg

[Redacted Signature]

Pilot's Signature

Load Manifest

Los Angeles Fire Department
Air Ops



Job ID: DAILY

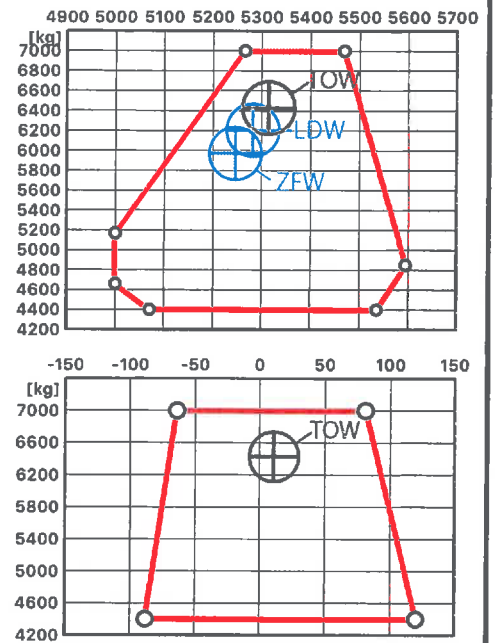
Registration **N304FD** AC Type **AW139** Flight Type **DAY / VFR** Configuration **Brush**

Flight Data

Departure Date **09-02-2017** Departure Time **08:00 AM**
 Departure **KVNY**
 Destination **LCL**
 Remarks

Item	Mass kg	Arm Long. mm	Moment Long. kg.mm	Arm Lateral mm	Mom. Lateral kg.mm
BEM	4422.5	5316.6	23512806.0	17.7	78283.0
Pilot	99.79	2820.0	281411.59	550.0	54885.24
Co-Pilot	90.0	2820.0	253800.0	-550.0	-49500.0
Seat 1 Helitac	0.00	3415.0	0.00	-737.0	-0.00
Seat 2 Helitac	0.00	3415.0	0.00	737.0	0.00
Seat 3 Helitac	0.00	5600.0	0.00	0.0	0.00
Mid-Cargo	0.0	6200.0	0.0	0.0	0.0
Water Tank	909.0	5479.0	4980411.0	0.0	0.0
Baggage	0.0	8200.0	0.0	0.0	0.0
Seats	43.5	4143.3	180235.0	0.0	0.0
Equipment	410.2	5208.9	2136679.5	0.0	-13248.1
ZFM	5975.0	5246.1	31345343.1	11.8	70420.1
Fuel	453.6	6211.1	2817330.2	0.0	0.0
TOM	6428.6	5314.2	34162674.2	11.0	70420.1
Ldg. Fuel	230.0	6210.2	1428340.0	0.0	0.0
LDM	6205.0	5281.8	32773684.0	11.3	70420.1

CG Envelope



CONDITION!

FIRST FUEL CYCLE AT GREEN VERDUGO HELISPOT. 1000 LBS. TOTAL FUEL INDICATED AND 1/2 TANK OF WATER.

Performance Data

OAT 29°C
 Pressure Alt 1490 ft
 Headwind 0 Kts
 H/V Diagram 0kts: 129' 10kts: 80'
 HIGE OEI 2.5min 6011 kg
 HOGE OEI 5177 kg
 WAT Clear Area 6800 kg
 WAT Confined 6400 kg
 HIGE TOP 6800 kg
 HOGE TOP 6673 kg

[Redacted Signature]

Pilot's Signature

Load Manifest

Los Angeles Fire Department
Air Ops

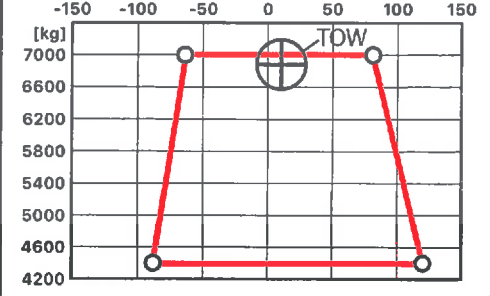
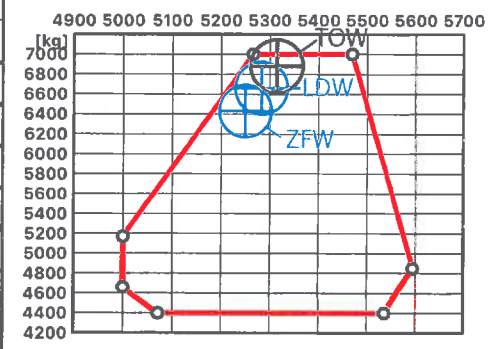


Job ID: DAILY

Registration	AC Type	Flight Type	Configuration			
N304FD	AW139	DAY / VFR	Brush			
Item	Mass kg	Arm Long. mm	Moment Long. kg.mm	Arm Lateral mm	Mom. Lateral kg.mm	
BEM	4422.5	5316.6	23512806.0	17.7	78283.0	
Pilot	99.79	2820.0	281411.59	550.0	54885.24	
-						
Co-Pilot	90.0	2820.0	253800.0	-550.0	-49500.0	
-						
Seat 1 Helitac	0.00	3415.0	0.00	-737.0	-0.00	
Seat 2 Helitac	0.00	3415.0	0.00	737.0	0.00	
Seat 3 Helitac	0.00	5600.0	0.00	0.0	0.00	
Mid-Cargo	0.0	6200.0	0.0	0.0	0.0	
Water Tank	1364.0	5423.0	7396972.0	0.0	0.0	
Baggage	0.0	8200.0	0.0	0.0	0.0	
Seats	43.5	4143.3	180235.0	0.0	0.0	
Equipment	410.2	5208.9	2136679.5	0.0	-13248.1	
ZFM	6430.0	5250.7	33761904.1	11.0	70420.1	
Fuel	453.6	6211.1	2817330.2	0.0	0.0	
TOM	6883.6	5314.0	36579234.2	10.2	70420.1	
Ldg. Fuel	230.0	6210.2	1428340.0	0.0	0.0	
LDM	6660.0	5283.8	35190244.0	10.6	70420.1	

Flight Data	
Departure Date	Departure Time
09-02-2017	08:00 AM
Departure	
KVNY	
Destination	
LCL	
Remarks	

CG Envelope



"WORST CASE SCENARIO"

- FIRST FUEL CYCLE : 1000lbs
- 3/4 TANK OF WATER

Performance Data

OAT	29°C
Pressure Alt	1490 ft
Headwind	0 Kts
H/V Diagram	Okts: 194' 10kts: 112'
HIGE OEI 2.5min	6011 kg
HIGE OEI	5177 kg
WAT Clear Area	6800 kg
WAT Confined	6400 kg
HIGE TOP	6800 kg
HIGE TOP	6673 kg

[Handwritten Signature]
Pilot's Signature

Load Manifest

Job ID: DAILY

Los Angeles Fire Department
Air Ops



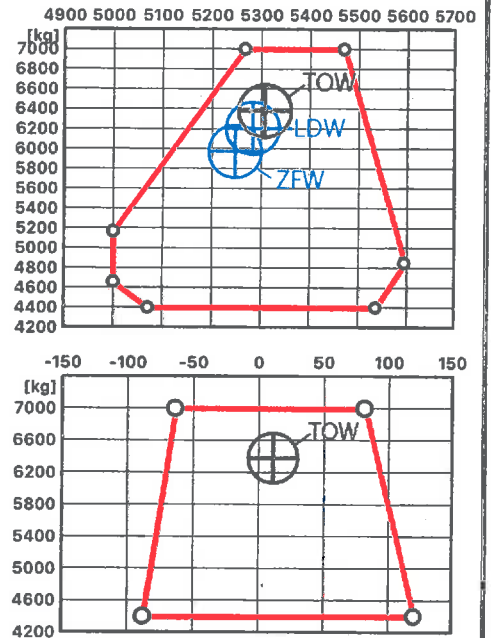
Registration **N304FD** AC Type **AW139** Flight Type **DAY / VFR** Configuration **Brush**

Flight Data

Departure Date **09-02-2017** Departure Time **08:00 AM**
 Departure **KVNY**
 Destination **LCL**
 Remarks

Item	Mass kg	Arm Long. mm	Moment Long. kg.mm	Arm Lateral mm	Mom. Lateral kg.mm
BEM	4422.5	5316.6	23512806.0	17.7	78283.0
Pilot	99.79	2820.0	281411.59	550.0	54885.24
Co-Pilot	90.0	2820.0	253800.0	-550.0	-49500.0
Seat 1 Helitac	0.00	3415.0	0.00	-737.0	-0.00
Seat 2 Helitac	0.00	3415.0	0.00	737.0	0.00
Seat 3 Helitac	0.00	5600.0	0.00	0.0	0.00
Mid-Cargo	0.0	6200.0	0.0	0.0	0.0
Water Tank	909.0	5479.0	4980411.0	0.0	0.0
Baggage	0.0	8200.0	0.0	0.0	0.0
Seats	43.5	4143.3	180235.0	0.0	0.0
Equipment	410.2	5208.9	2136679.5	0.0	-13248.1
ZFM	5975.0	5246.1	31345343.1	11.8	70420.1
Fuel	403.7	6211.0	2507392.8	0.0	0.0
TOM	6378.7	5307.2	33852736.8	11.0	70420.1
Ldg. Fuel	230.0	6210.2	1428340.0	0.0	0.0
LDM	6205.0	5281.8	32773684.0	11.3	70420.1

CG Envelope



*PRE IMPACT CONDITION WITH
1/2 TANK WATER.*

Performance Data

OAT 29°C
 Pressure Alt 1490 ft
 Headwind 0 Kts
 H/V Diagram Okts: 124' 10kts: 77'
 HIGE OEI 2.5min 6011 kg
 HOGE OEI 5177 kg
 WAT Clear Area 6800 kg
 WAT Confined 6400 kg
 HIGE TOP 6800 kg
 HOGE TOP 6673 kg

[Red signature]

Pilot's Signature

Load Manifest

Los Angeles Fire Department
Air Ops



Job ID: DAILY

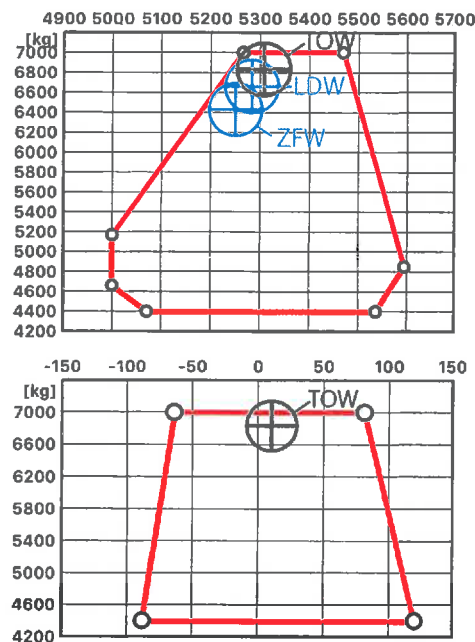
Registration **N304FD** AC Type **AW139** Flight Type **DAY / VFR** Configuration **Brush**

Flight Data

Departure Date **09-02-2017** Departure Time **08:00 AM**
 Departure **KVNY**
 Destination **LCL**
 Remarks

Item	Mass kg	Arm Long. mm	Moment Long. kg.mm	Arm Lateral mm	Mom. Lateral kg.mm
BEM	4422.5	5316.6	23512806.0	17.7	78283.0
Pilot	99.79	2820.0	281411.59	550.0	54885.24
Co-Pilot	90.0	2820.0	253800.0	-550.0	-49500.0
Seat 1 Helitac	0.00	3415.0	0.00	-737.0	-0.00
Seat 2 Helitac	0.00	3415.0	0.00	737.0	0.00
Seat 3 Helitac	0.00	5600.0	0.00	0.0	0.00
Mid-Cargo	0.0	6200.0	0.0	0.0	0.0
Water Tank	1364.0	5423.0	7396972.0	0.0	0.0
Baggage	0.0	8200.0	0.0	0.0	0.0
Seats	43.5	4143.3	180235.0	0.0	0.0
Equipment	410.2	5208.9	2136679.5	0.0	-13248.1
ZFM	6430.0	5250.7	33761904.1	11.0	70420.1
Fuel	403.7	6211.0	2507392.8	0.0	0.0
TOM	6833.7	5307.4	36269296.8	10.3	70420.1
Ldg. Fuel	230.0	6210.2	1428340.0	0.0	0.0
LDM	6660.0	5283.8	35190244.0	10.6	70420.1

CG Envelope



"WORST CASE SCENARIO"
 PRE IMPACT WITH 3/4
 TANK WATER.

Performance Data

OAT 29°C
 Pressure Alt 1490 ft
 Headwind 0 Kts
 H/V Diagram Okts: 194' 10kts: 112'
 HIGE OEI 2.5min 6011 kg
 HOGE OEI 5177 kg
 WAT Clear Area 6800 kg
 WAT Confined 6400 kg
 HIGE TOP 6800 kg
 HOGE TOP 6673 kg

Pilot's Signature

Load Manifest

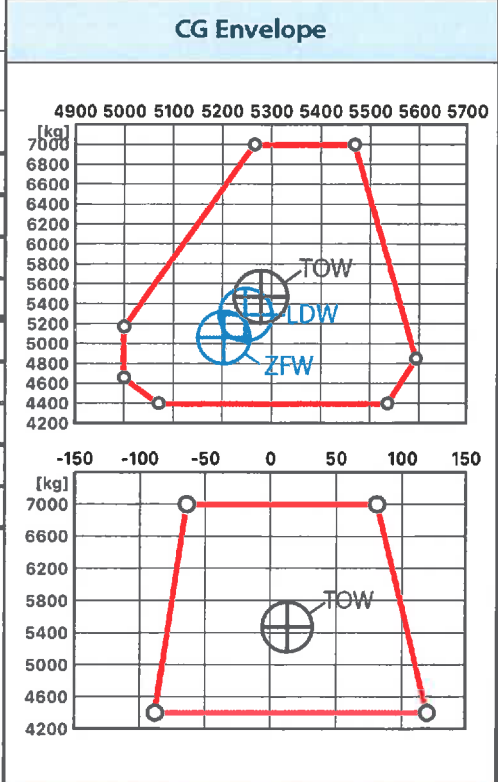
Los Angeles Fire Department
Air Ops



Job ID: DAILY

Registration	AC Type	Flight Type	Configuration		
N304FD	AW139	DAY / VFR	Brush		
Item	Mass kg	Arm Long. mm	Moment Long. kg.mm	Arm Lateral mm	Mom. Lateral kg.mm
BEM	4422.5	5316.6	23512806.0	17.7	78283.0
Pilot	99.79	2820.0	281411.59	550.0	54885.24
Co-Pilot	90.0	2820.0	253800.0	-550.0	-49500.0
Seat 1 Helitac	0.00	3415.0	0.00	-737.0	-0.00
Seat 2 Helitac	0.00	3415.0	0.00	737.0	0.00
Seat 3 Helitac	0.00	5600.0	0.00	0.0	0.00
Mid-Cargo	0.0	6200.0	0.0	0.0	0.0
Water Tank	0.0	0.0	0.0	0.0	0.0
Baggage	0.0	8200.0	0.0	0.0	0.0
Seats	43.5	4143.3	180235.0	0.0	0.0
Equipment	410.2	5208.9	2136679.5	0.0	-13248.1
ZFM	5066.0	5204.3	26364932.1	13.9	70420.1
Fuel	403.7	6211.0	2507392.8	0.0	0.0
TOM	5469.7	5278.6	28872324.8	12.9	70420.1
Ldg. Fuel	230.0	6210.2	1428340.0	0.0	0.0
LDM	5296.0	5248.0	27793272.0	13.3	70420.1

Flight Data	
Departure Date	Departure Time
09-02-2017	08:00 AM
Departure	
KVNY	
Destination	
LCL	
Remarks	



CONDITION:

TRISK CONTACT WITH
ZERO WATER.

Performance Data	
OAT	29°C
Pressure Alt	1490 ft
Headwind	0 Kts
H/V Diagram	0kts: 124' 10kts: 77'
HIGE OEI 2.5min	6011 kg
HIGE OEI	5177 kg
WAT Clear Area	6800 kg
WAT Confined	6400 kg
HIGE TOP	6800 kg
HIGE TOP	6673 kg

[Redacted Signature]

Pilot's Signature