

# D. MacArthur & Associates

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# AIRCRAFT WEIGHING SUMMARY

REASON FOR REPORT PERIODIC REWEIGH

No. of Report Pages 10

These "Owners Copies" are supplied to ensure compliance with CAO 100.7 para 5.2 (5) which requires that, "The owner or operator shall keep in a safe place on the ground, duplicate copies of all current approved loading data applicable to his aircraft."

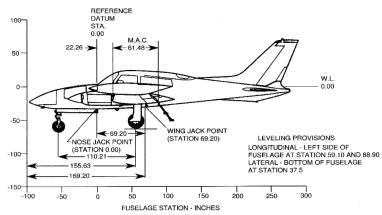
Aircraft Type	Cessna 310	R				
Aircraft Registration	VH-ULF					
Aircraft Serial No.	310R1429					
Owner or Operator	Redcliffe Ae	ro Club				
Aircraft Datum	Fwd Face F	use Bulkhea	d Fwd of	Rudder	Pedals	
Place	Caloundra					
Scales Number	DMA PT-1 /	Mantracourt	Wireless	s Module	es	
Calibration Due	24-Apr-18					
Organisation	D. MacArthu	ur & Associat	es			
Authority No.	AQ-45					
Work Order No.	WB-6411		Date	25-	Aug-17	
LOAD DATA SHE	ET			6411-	- 1 4 2 9 - AMS	
Issue No.		Date of E	xpiry			
FIFTEEN		24-Aug	-20			
Empty Weight		Arm			Moment	
1751.4	kg	890.9	mm		1560377	kg.mm

### **Determination of Empty Weight**

Note 1: The difference between the two gross weights must not exceed 0.2% or 10kg (whichever is the greater) otherwise further weighings must be carried out until two consecutive weighings agree within this tolerance.

Note 2: Readings should be made to the nearest 1kg.

		FIRST	WE	GHIN	G		SECON	D W	EIGHI	NG		THIRD	WEI	GHIN	G	
Jack Point	Cell	Scale Reading	Zero Set	Correct ion	Actual weight	Cell	Scale Reading	Zero Set	Correct ion	Actual weight	Cell	Scale Reading	Zero Set	Correct ion	Actual weight	Average Weight
PORT	1T2	386			386.0	1T3	384			384.0						385.00
STBD	1T3	494			494.0	1T4	496			496.0	172					495.00
NOSE	1T4	861			861.0	1T2	859		1	860.0	113					860.50
TAIL																
	<b>1st</b> 0.2%	Weigh 3.48		<b>1741</b> 1.00	kg	2nd	Weigh		1740 740.00 erage	kg Two	<b>3rd</b> Weig	<b>Weigh</b> hings		741.00 740.5	kg kg	
Deduction	าร									1			1.			
				-	Ν	lome	nt						kg kg			
						Arm + or ·							kg kg			
				- -									kg			
											Total	Deductio	ons			kg
Additions		oblo fuol		Tin				1	110 0			E 11	ka			
Drainable Drainable	unus	able fuel		Tip Aux		ment		1	118.0 194.0			5.44 2.72	kg			
Drainable	unus	able fuel		Wing Locker		rm or -		1	473.2			2.72	kg kg			
													kg			
											Total	Addition	S		10.88	kg
					Gross T	otal	(average	of T	aroo w	voighing	-)	1740.50	ka			
					01055 1	otai	average				-		- L			
								Net	Adjus	tment +/	-	10.88	kg			
							Emp	oty W	/eight	of Aircra	aft	1751.38	kg			
Configuratio						equip	ment list)									
Remarks																
Supervise Weight Co	-	Officer		D. WE	<b>1. 7</b> Снт сом	V/oc	OFFICER	AQ45	/	Date	2	5-Aug-17	7			



#### **Centre of Gravity Determination**

	First Weighing	Second Weighing	Average
Horizontal distance from datum to jack point	1758.0 mm	1758.0 mm	1758.0 mm
Horizontal distance from datum to nose or tail jack point	0.0 mm	0.0 mm	0.0 mm

Note: Distances measured aft of the datum are positive (+). Distances measured forward of the datum are negative (-).

Woight	Weight kg	Moment Arm	Index Moment (kg.mm	)
Weight	+ -	+/- mm	+	-
PORT	385.00	1758.0	676830.00	
STBD	495.00	1758.0	870210.00	
NOSE	860.50	0.0		
TAIL				
Drainable unusable fuel	5.44	1118.0	6081.92	
Drainable unusable fuel	2.72	1194.0	3247.68	
Drainable unusable fuel	2.72	1473.2	4007.10	
		Moment Totals	1560376.70 (1)	(2)
	Aircraft Em	oty Moment Index	1560377 ((1)-(2))	

Aircraft Empty Weight (from page 2)

1751.38 kg

Aircraft Empty Weight C of G (empty moment index) empty weight

Date

890.94 mm AFT of datum

Supervised by: Weight Control Officer

Date

D. MacArthur & Associates

Prepared by:

25-Aug-17

CONTROL OFFICER AQ45 WENGHT

25-Aug-17

Aircraft Registration		уре	Issue No.	Date
VH-ULF	Cessi	na 310R	FIFTEEN	25-Aug-17
Details of Configuration		SIX SEATS TOTAL	_	Work Order
				WB-6411
E <b>NGINES (Type)</b> Contential	IO-520	2	INDICATORS Airspeed	
Jontential	10-520	2	Cabin Rate of Cli	mb
PROPELLERS (Type)			Compressor RPM	
VicCauley 3	3 Blade	2	Directional Gyro	H.S.I.
			Exhaust Gas Ana	llyser
			Flight Hour	Dust
Magnetic Remote Indicating K	CS55A	1	Fuel Flow	Dual
Remote mulcating R	C355A	1	Gyro Horizon Stall Warning	
			Tachometer Non-	recording Dual
			Tachometer Reco	•
INSTRUMENTS			Trim Indicator	3
Altimeters		* 3	Turn & Bank	
Ammeter/Volt		1	Turn Co-ordinato	
Clocks	M800	1	Undercarriage Po	
Propeller Synchroniser		1	Vertical Speed (ra	
/oltmeters Propeller Amps		0	Wing Flap Positic Assigned Altitude	
			EFD	Aspen EFD 1000
			LIGHTS	
GAUGES			Anti-Collision	
Brake Pressure Engine Oil Pressure	Triplex	0	Instrument	
Fuel Contents	Dual	1	Landing Map reading	
Fuel Pressure	Duai	0	Navigation	
Hydraulic Oil Pressure		0	Signal	
Manifold Pressure	Dual	1	Taxi	
Dil Contents		0	White Strobe	
Oxygen Pressure		1	Ice Inspection	
Suction Pressure	Dual	1	Wing Courtesy	
Forque Meter		0		
			FLUID TANKS	
			Fuel, Main Fuel, Auxiliary	
			Fuel, Wing Locke	r
			Fuel, Other	•
THERMOMETERS				
Carburettor Air Temp.		0		
•	Triplex	2	RESTRAINT EQ	
Dil Temp.	Triplex	2		Cordage/Webbing
Dutside Air Temp.	Digital	1	Freight Restraint	
Furbine Temp.	ol/Ducl	0	Inertia Reels	3 Point
E.G.T. Digit	al/Dual	1	Lap-sash Assembles	nies
			Lap Assemblies	

#### RADIO FOLIPMENT (Type)

RADIO EQUIP	m⊑ni(iype)	
A.D.F. King	KR87/Collins ADF650	
Auto pilot	S-Tec 55X	
Cabin Speaker	rs	
D.M.E.		
Glide Slope Re	ec. Part of Nav	
Head Phones		
H.F	Codan HF 2000	
VAR		
V.H.F	GNS430/King KX155	
V.H.F. Nav.	GNS430/King KX155	
E.L.T.	Artex ME406	
Transponder	Garmin GTX330	
GPS	Garmin GNS430	
Audio	King KMA24H	
Encoder	ACK A-30	
Radar	Bendix RDS81	

1
1
1
0
1
0
1
0
2
2
1
1
1
1
1
1

7.6

1 

## FLUID QUANTITY Fuel, Main

Fuel, Auxiliary	Liters	3.8
Fuel, Other	Liters	3.8
Oil, Hydraulic		Full
Oil, Lubricating		Full

Liters

#### ELECTRICAL EQUIPMENT

ELECTRICAL EQUIPWENT.	
Alternators	2
Batteries	1
Generators	0
Starters	2
External Power	1

#### AGRICULTURAL EQUIPMENT



Weight Control Officer
Signature

Mar Chiller HT CONTROL OFFICER AQ45

Date

25-Aug-17

Yes
0
0
1
0
0 0
1
0
1
2

#### **DISPOSABLE LOAD LIST**

**MISCELLANEOUS EQUIPMENT** 

**Dual Controls De-icer Boots** Fire Ext. (engine) Fire Ext. (portable) Fixed Ballast Hydraulic Pumps L/G Warning Horn Oxygen Equipment Combustion Heater Vacuum Pumps

Crash Axe Flight Control Locks First Aid Outfits **Disposable Ballast** Signalling Apparatus Torch Flight Manual Carpet Cabin Carpet Nose Locker

0
1
0
0
0
0
1
Partial
•
Partial

#### SPECIAL PURPOSE EQUIP STC SA5668NM

Vortex Kit

Yes	





#### DETERMINE BASIC WEIGHT

ITEM	WEIGHT	ARM	INDEX	MOMENT
EMPTY WEIGHT	1751.38	890.94		1560376.70
EMPTY WEIGHT	1751.38	890.90		1560376.70

#### **DETERMINE INDEX**

<b>DETERMINE MAX &amp; MINIMUM</b> 0.5% or 10kg which ever is great		<b>ND ARM FOR RE</b> = 0.5% MTOW	EWEIGH +/- empty weight
Max Take Off weight kg =	2576	12.88	12.9 kg
2% or 5mm which ever is the gro	eater	= 2% C of G	+/- mm C of G
Max C of G range mm =	294.64	5.89	5.9 mm
	Verght control o	FFICER AQ45	Date 25-Aug-17

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#### DETERMINE BASIC WEIGHT

ITEM	WEIGHT	ARM	INDEX	MOMENT
EMPTY WEIGHT	1751.38	890.90		1560376.70
Remove Row 3 Seats	-15.30	2591.00		-39642.30
EMPTY WEIGHT # 1	1736.08	876.00		1520734.40

D. J. Mon arthur. WEIGHT CONTROL OFFICER AQ45

Date 25-Aug-17

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11 PARADISE COURT CLONTARF QLD. AUSTRALIA 4019 Phone : (07) 3283 3817 Fax: (07) 3319 6171 Mobile 0439 328 338

# LOAD DATA SHEET

D. MacArthur & Associates (NAME OF ORGANISATION)



Aircraft Type Cessna 310R

S/N 310R1429 Aircraft Reg VH-ULF

Approved Loading System

Load Chart BC/C310R/3

AUTHORISED	DATE	DATE OF EXPIRY	ISSUE
D. J. MacArthur	25-Aug-17	24-Aug-20 or at the First Maintenance Release Inspection following that date.	FIFTEEN



ITEM	WEIGHT Kg	ARM mm	MOMENT INDEX * (IU)		MOMENT		CONFIGURATION (ALSO SEE EQUIPMENT LIST)	
EMPTY WEIGHT	1751	891	1560377		SIX SEATS TOTAL			
BASIC WEIGHT # 1	1736	876	1520734		FOUR SEATS TOTAL			
THE ABOVE WEIGHTS INCLUDE: EMPTY WEIGHT: UNUSABLE FUEL & FULL ENGINE OIL   LOAD SYSTEM   1) REFER TO FLIGHT MANUAL & SUPPLEMENTS FOR LOAD LIMITATIONS.   2) LOAD DATA SHEET PAGE 3 ISSUE 12 REMAINS CURRENT ( use of Chart instructions)								
VORTEX KIT & GROSS WEIGHT PER STC SA5668NM.								
6 4 1 1 - 1 4 2 9 - AMS								
WORK ORDER WB-6411	DAT	DATUM Fwd Face Fuse Bulkhead Fwd of Rudder Pedals						

#### Aircraft Registration VH-ULF



#### Work Order WB-6411

#### LOADING CHECK

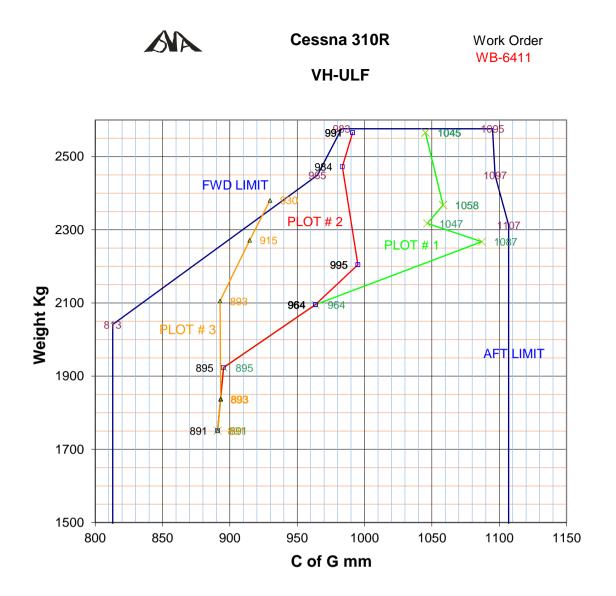
	A/C							
	Weight	Arm	Moment	Moment	Arm	Weight		
PLOT # 1							FWD	AFT
	1751.4			1560377	891	1751.4	OK	OK
Crew	172	940	161680	1722057	895	1923.4	OK	OK
Row 2	172	1727	297044	2019101	964	2095.4	OK	OK
Row 3	172	2591	445652	2464753	1087	2267.4	OK	OK
Nose Bag	50	-787	-39350	2425403	1047	2317.4	OK	OK
Nac Bag	50	1600	80000	2505403	1058	2367.4	OK	OK
Aft Bag				2505403	1058	2367.4	OK	OK
Fuel Tip	198	889	176022	2681425	1045	2565.4	OK	OK
Fuel		1194		2681425	1045	2565.4	OK	OK
Fuel Wing Locker		1245		2681425	1045	2565.4	OK	OK
TAUW	2565.4							
MTOW	2576							

	A/C Weight	Arm	Moment	Moment	Arm	Weight		
<b>PLOT # 2</b>	U U					Ū	FWD	AFT
	1751.4			1560377	891	1751.4	OK	OK
Crew	172	940	161680	1722057	895	1923.4	OK	OK
Row 2	172	1727	297044	2019101	964	2095.4	OK	OK
Row 3		2591		2019101	964	2095.4	OK	OK
Nose Bag		-787		2019101	964	2095.4	OK	OK
Nac Bag	109	1600	174400	2193501	995	2204.4	OK	OK
Aft Bag				2193501	995	2204.4	OK	OK
Fuel Tip	268	889	238252	2431753	984	2472.4	OK	OK
Fuel	93	1194	111042	2542795	991	2565.4	OK	OK
Fuel Wing Locker		1245		2542795	991	2565.4	OK	OK
TAUW	2565.4							
MTOW	2576							

	A/C							
	Weight	Arm	Moment	Moment	Arm	Weight		
PLOT # 3							FWD	AFT
	1751.4			1560377	891	1751.4	OK	OK
Crew	86	940	80840	1641217	893	1837.4	OK	OK
Row 2		1727		1641217	893	1837.4	OK	OK
Row 3		2591		1641217	893	1837.4	OK	OK
Nose Bag		-787		1641217	893	1837.4	OK	OK
Nac Bag		1600		1641217	893	1837.4	OK	OK
Aft Bag				1641217	893	1837.4	OK	OK
Fuel Tip	268	889	238252	1879469	893	2105.4	OK	OK
Fuel	166	1194	198204	2077673	915	2271.4	OK	OK
Fuel Wing Locker	109	1245	135705	2213378	930	2380.4 (	OUT FWD	OK
TAUW	2271.4							
MTOW	2576							

D. J. Mor arthur. WERCHT CONTROL OFFICER AQ45

Date 25-Aug-17



- PLOT #1 FULL OCCUPANTS @ 86Kg, BAGGAGE NOSE 50kg, NACELLE 50kg AND FUEL TO ALL UP WEIGHT
- PLOT # 2 FOUR OCCUPANTS @ 86Kg, BAGGAGE NACELLE 109Kg AND FUEL TO ALL UP WEIGHT
- PLOT # 3 PILOT ONLY @ 86Kg AND FULL FUEL.

Note: 'OUT FWD'

D. J. Mar Control. Werdent control officer aq45

Date 25-Aug-17

Port A Woight	& Balance Maintenance Data					RD				24-Aug-20 Inspection following
		Weight and Balance		-			Empty Weigh	t and Empty W		
D. J. MACAF		Centre of Gravity Position (CC		Configuratio	on:				-	05 4 47
11 PARADIS CLONTARF			,	J				Reweigh	Dated	25-Aug-17
AUSTRALIA		LONGITUDINAL	-					Weight (kg)		Moment
					SEATS TO			1751.4	890.9	1560376.7
PHONE: (07		measured AFT	of datum							
	) 3319 6171				ENGINE OI	L		-		pty Weight CG when calculated
		Aircraft Longitudinal Datum					running totals	•		
		-					ranning totalo		Weight (kg)	Arm (mm)
	Mon Inthes. CONTROL OFFICER AQ45	Fwd Face Fuse Bulkhea Rudder Pedals						MORE THAN		896.8
								or LESS THAN	1738.5	885.0
Date	25-Aug-17									
Part B - Record	of Empty Weight and Balance	e (the person co-ordinating m	naintenance shal	l ensure that Pa					-	
		Moment Arm		Weight and Balance Change		Running Total of Empty Weight				
Date	Descrip	otion of Alteration	from Datum	Adde	. ,	Remo Weight (kg)	ved (-)		and Empty Wei	-
25-Aug-17			(mm)	Weight (kg)	Moment	weight (kg)	Moment	Weight (kg) 1751.4	Arm (mm) 890.9	Moment 1560376.7
25-Aug-17			1				<b>I</b>	1751.4	090.9	1300370.7
Organisation	D.	MacArthur & Associates		Aircraft Type	Cessna 310	R	Registration	VH-	ULF	Page 1 of 1

WEIGHT AND BALANCE RECORD