

# D. MacArthur & Associates

ABN 69 317 590 696

11 Paradise Court, Clontarf. QLD. 4019

Phone (07) 3283 3817 Fax (07) 3319 6171 Mobile 0439 328 338



## AIRCRAFT WEIGHING SUMMARY

### REASON FOR REPORT

C of A

No. of Report Pages 9

These "Owners Copies" are supplied to ensure compliance with CAO 100.7 para 5.2(3), 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 210N		
Aircraft Registration	VH-TQC		
Aircraft Serial No.	21063325		
Owner or Operator			
Aircraft Datum	Fwd Face on Engine Firewall		
Place	Archerfield		
Scales Number	EFM 136-457		
Organisation	D. MacArthur & Associates		
Authority No.	AQ-45		
Work Order No.	WB-3917	Date	05-Jul-07

**OWNERS COPY**

### LOAD DATA SHEET



Issue No.  
**ONE**

Date of Expiry  
**INDEFINITE**

Empty Weight  
**1039.5 kg**

Arm  
**1050 mm**

Index Units  
**1091115 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.

Jack Point	First Weighing					Second Weighing					Average Weight
	Cell Colour	Scale Reading	Zero Set	Correction	Actual Weight	Cell Colour	Scale Reading	Zero Set	Correction	Actual Weight	
PORT	Red	356			356	Red	356			356	356.0
STBD	Yellow	355			355	Yellow	354			354	354.5
NOSE	Blue	326			326	Blue	326			326	326.0
TAIL											

First Weighing - Gross Total  kg

Second Weighing - Gross Total  kg

Average - Both Weighings  kg

## Deductions

<input type="text"/>	Moment Arm + or -	<input type="text"/>	<input type="text"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
Total Deductions			<input type="text"/> kg

## Additions

Drainable unusable fuel	Moment Arm + or -	<input type="text" value="584"/>	<input type="text" value="3.0"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
<input type="text"/>		<input type="text"/>	<input type="text"/> kg
Total Additions			<input type="text" value="3.0"/> kg

Gross Total (average of both weighings)  kg

Net Adjustment +/-  kg

Empty Weight of Aircraft  kg

Configuration at time of weighing (refer also to equipment list)  
UNUSABLE FUEL & FULL ENGINE OIL

### Remarks

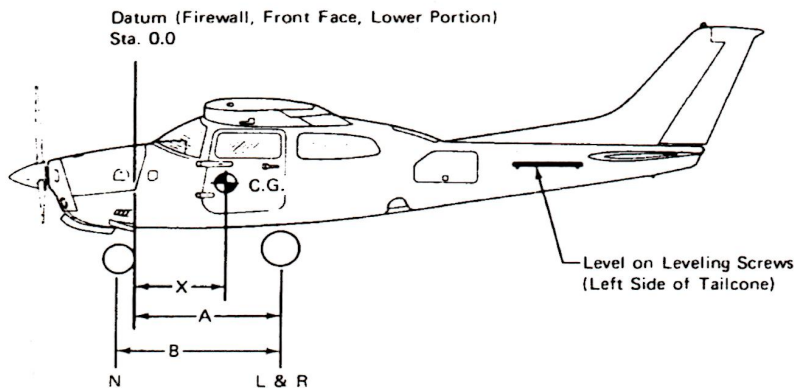
Aircraft stripped, repainted, radio upgrade.

Supervised by:  
Weight Control Officer



AQ45

Date



**Centre of Gravity Determination**

*Aircraft weighed on wheels using platforms*

	First Weighing	Second Weighing	Average
Horizontal distance from datum to jack point	1625 mm	1625 mm	1625 mm
Horizontal distance from datum to nose or tail jack point	-200 mm	-200 mm	-200 mm

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

Weight	Weight kg		Moment Arm +/- mm	Index Moment (kg.mm)	
	+	-		+	-
PORT	356.0		1625	578500	
STBD	354.5		1625	576063	
NOSE	326.0		-200		65200
TAIL					
Drainable unusable fuel	3.0		584	1752	
Moment Totals				1156315 (1)	65200 (2)
<b>Aircraft Empty Moment Index</b>				1091115 ((1) - (2))	

**Aircraft Empty Weight** (from page 2)  kg

**Aircraft Empty Weight C of G** (empty moment index)  mm AFT of datum  
 empty weight

Prepared by: D. MacArthur & Associates      Date: 05-Jul-07

Supervised by:  
 Weight Control Officer *[Signature]*      Date: 05-Jul-07  
 AQ45







**DETERMINE BASIC WEIGHT**

ITEM	WEIGHT	ARM	INDEX	MOMENT
<b>EMPTY WEIGHT</b>	<b>1039.50</b>	<b>1050</b>		<b>1091115</b>
<b>BASIC WEIGHT</b>	<b>1039.5</b>	<b>1050</b>		<b>1091115</b>

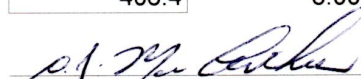
BASIC WEIGHT:

**DETERMINE INDEX**

**DETERMINE MAX & MINIMUM EMPTY C of G AND ARM FOR REWEIGH**

0.5% or 10kg which ever is greater = 0.5% +/- empty weight  
 MTOW = 9.00  
 Max Take Off weight kg =   kg

2% or 5mm which ever is the greater = 2% +/- mm C of G  
 C of G = 8.00  
 Max C of G range mm =   mm

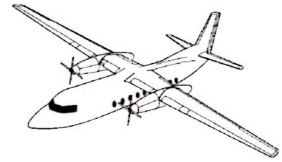
  
 Weight Control Officer AQ45

Date 05-Jul-07

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

# LOAD DATA SHEET

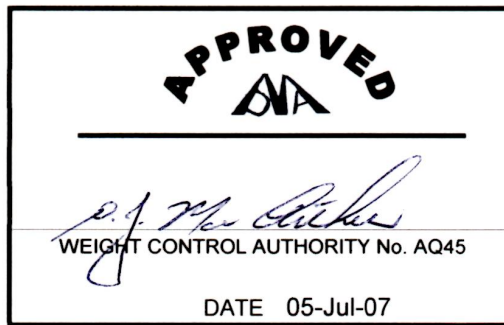
D. MacArthur & Associates  
 (NAME OF ORGANISATION)



Aircraft Type Cessna 210N S/N 21063325 Aircraft Reg VH-TQC

Approved Loading System Cessna 210N Pilots Operating Handbook Section 6

AUTHORISED	DATE	DATE OF EXPIRY	ISSUE
D. J. MacArthur	05-Jul-07	<b>INDEFINITE</b> SUBJECT TO C.A.O. 100.7	ONE




ITEM	WEIGHT Kg	ARM mm	MOMENT	INDEX * (IU)	CONFIGURATION (ALSO SEE EQUIPMENT LIST)
EMPTY WEIGHT	1039.5	1050	1091115		SIX SEATS TOTAL
<b>IMPERIAL</b>					
	WEIGHT Lbs	ARM Inches	MOMENT		SIX SEATS TOTAL
EMPTY WEIGHT	2291.7	41.3	94705		

**THE ABOVE WEIGHTS INCLUDE:**  
 EMPTY WEIGHT: UNUSABLE FUEL & FULL ENGINE OIL

**LOAD SYSTEM**

1) REFER TO FLIGHT MANUAL & SUPPLEMENTS FOR LOAD LIMITATIONS.

  
 3917-63325

WORK ORDER WB-3917	<b>DATUM</b> Fwd Face on Engine Firewall
-----------------------	--





**LOADING CHECK**

	A/C Weight	Arm	Moment	Moment	Arm	Weight	FWD	AFT
<b>PLOT # 1</b>	1039.5			1091115	1050	1039.5	OK	OK
Pilot	86	940	80840	1171955	1041	1125.5	OK	OK
Pax Front	86	940	80840	1252795	1034	1211.5	OK	OK
Row 2	172	1803	310116	1562911	1130	1383.5	OK	OK
Row 3	120	2565	307800	1870711	1244	1503.5	OK	OK
Wheelwell	30	2972	89160	1959871	1278	1533.5	OK	OK
Aft Bag	30	3505	105150	2065021	1321	1563.5	OK	OK
Fuel 236Kg	159.0	1092	173628	2238649	1300	1722.5	OK	OK
				2238649	1300	1722.5	OK	OK
TAUW	1722.5							
MTOW	1723							

	A/C Weight	Arm	Moment	Moment	Arm	Weight	FWD	AFT
<b>PLOT # 2</b>	1039.5			1091115	1050	1039.5	OK	OK
Pilot	86	940	80840	1171955	1041	1125.5	OK	OK
Pax Front	86	940	80840	1252795	1034	1211.5	OK	OK
Row 2	172	1803	310116	1562911	1130	1383.5	OK	OK
Row 3		2565		1562911	1130	1383.5	OK	OK
Wheelwell	68	2972	202096	1765007	1216	1451.5	OK	OK
Aft Bag	56	3505	196280	1961287	1301	1507.5	OK	OK
Fuel	215.0	1092	234780	2196067	1275	1722.5	OK	OK
TAUW	1722.5							
MTOW	1723							

	A/C Weight	Arm	Moment	Moment	Arm	Weight	FWD	AFT
<b>PLOT # 3</b>	1039.5			1091115	1050	1039.5	OK	OK
Pilot	86	940	80840	1171955	1041	1125.5	OK	OK
Pax Front		940		1171955	1041	1125.5	OK	OK
Row 2		1803		1171955	1041	1125.5	OK	OK
Row 3		2565		1171955	1041	1125.5	OK	OK
Wheelwell		2972		1171955	1041	1125.5	OK	OK
Aft Bag		3505		1171955	1041	1125.5	OK	OK
Fuel	236.0	1092	257712	1429667	1050	1361.5	OK	OK
TAUW	1361.5							
MTOW	1723							

  
Weight Control Officer AQ45

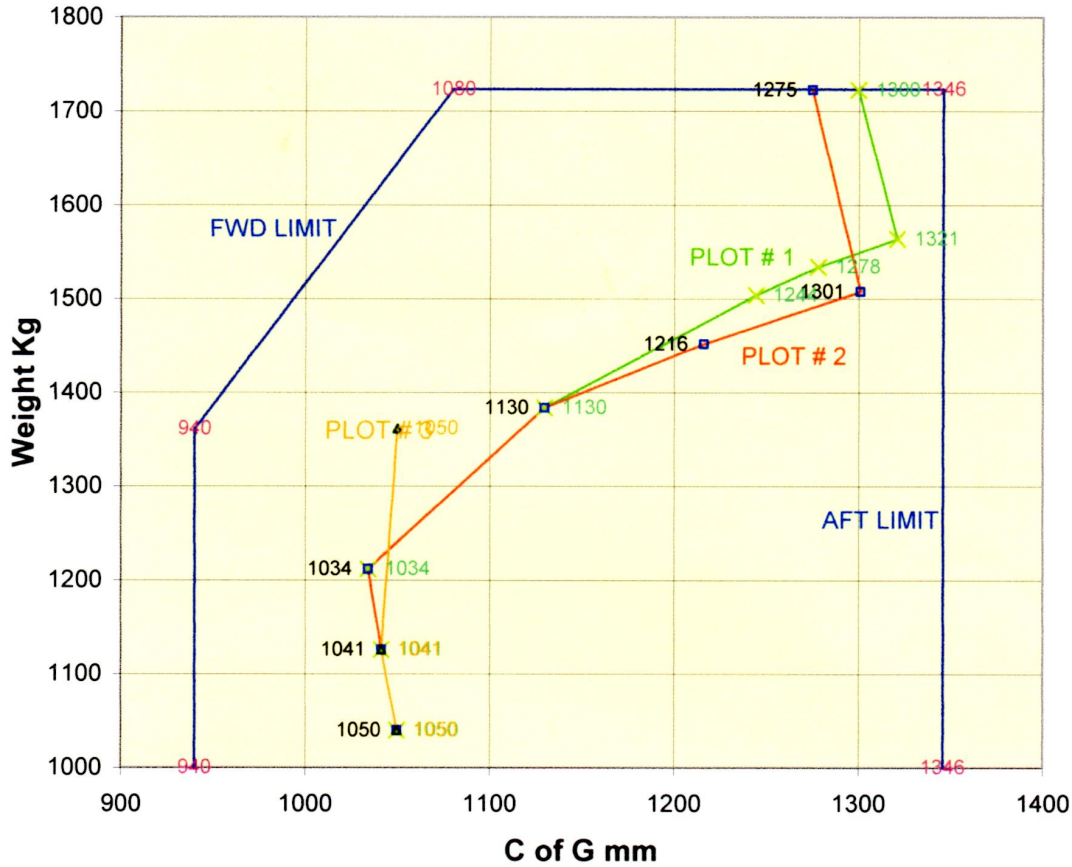
Date 05-Jul-07



Cessna 210N

Work Order  
WB-3917

VH-TQC



**PLOT # 1** FULL OCCUPANTS 4 @ 86Kg EACH, ROW 3 60Kg EACH, 60Kg BAGGAGE FUEL TO ALL UP WEIGHT.

**PLOT # 2** FOUR OCCUPANTS @ 86Kg EACH, NIL PAXS ROW 3, BAGGAGE 68Kg (wheelwell) 56Kg (Rear) FUEL TO ALL UP WEIGHT

**PLOT # 3** PILOT ONLY @ 86Kg, FULL FUEL

Weigh Control Officer AQ45

Date 05-Jul-07