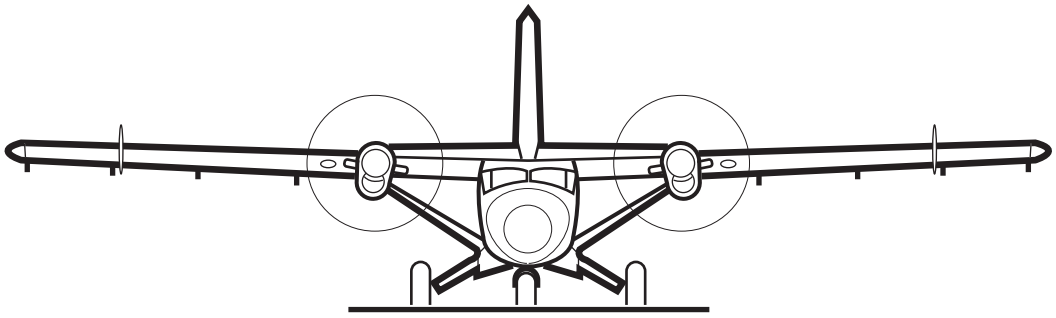
PSM 1-64-8



DHC-6 TWIN OTTER

SERIES 400

Weight & Balance

VIKING

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Issue 8 - 24 May. 2019

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January 31, 2006

Viking Air Limited
1959 De Havilland Way
Sidney, BC

Telephone: (250) 656-7227

Fax: (250) 656-0673
USA & Canada Toll Free:
1-(800) 663-8444

Email: technical.publications
@vikingair.com

May 24th, 2019

To: Distribution

Subject: PSM1-64-8 DHC-6 Twin Otter – Weight and Balance – Issue 8

PSM1-64-8 (M) DHC-6 Twin Otter – Metric Weight and Balance – Issue 7

Incorporate PSM 1-64-8 – Issue 8, dated May 24, 2019

Incorporate PSM 1-64-8 (M) – Issue 7, dated May 24, 2019

1. PSM 1-64-8 Issue 8 and PSM 1-64-8 (M) Issue 7 are complete rewrites of the manual. Change bars are applied only to changes incorporated in these issues.
2. Remove and replace the attached pages for both the Imperial and Metric Weight & Balance Manuals.

Reason for Issue:

1. Provided configuration layout and Personnel Table for 16 Passenger Optional Configuration (S.O.O. 6432).
2. Provided the updated Equipment Checklist, (Section 2) which includes all S.O.O.s and Modifications available at the current Issue date.
3. Provided an updated Supplement 2 – Ferry Fuel System (Turtle Pac Bladder) Weight and Balance Information.

Note: We recommend that this transmittal letter be kept for record purposes and inserted at the front of the manual.

Viking Air Limited
1959 De Havilland Way
Sidney, BC

Telephone: (250) 656-7227

Fax: (250) 656-0673
USA & Canada Toll Free:
1-(800) 663-8444

Email: technical.publications
@vikingair.com

January 29th, 2018

To: Distribution

Subject: PSM1-64-8 DHC-6 Twin Otter – Weight and Balance – Issue 7

PSM1-64-8 (M) DHC-6 Twin Otter – Metric Weight and Balance – Issue 6

Incorporate PSM1-64-8 – Issue 7, dated January 29, 2018

Incorporate PSM1-64-8 (M) – Issue 6, dated January 29, 2018

Reason for Issue:

1. Provided configuration layout and Personnel Table for 19 Seats Optional Configuration (S.O.O. 6407).
2. Provided the updated Equipment Checklist, (Section 2) which includes all S.O.O.s and Modifications available at the current Issue date.
3. Provided an updated title page for the Ferry Fuel System (Drum System) – Supplement 1.
4. Added new Supplement 2 – Ferry Fuel System (Turtle Pac Bladder) Weight and Balance Information.
5. Updated sample loading charts (for Metric Weight & Balance only).
6. Various grammatical changes and Figure renumbering.
7. Remove and replace the Title Page, dated January 29, 2018.
8. Remove and replace the attached changed pages for both the Imperial & Metric Weight & Balance sections of the manual.

Note: We recommend that this transmittal letter be kept for record purposes and inserted at the front of the manual.

Viking Air Limited
1959 De Havilland Way
Sidney, BC

Telephone: (250) 656-7227

Fax: (250) 656-0673
USA & Canada Toll Free:
1-(800) 663-8444

Email: technical.publications
@vikingair.com

January 7th, 2016

To: Distribution

Subject: PSM1-64-8 DHC-6 Twin Otter – Weight and Balance – Issue 6

PSM1-64-8 (M) DHC-6 Twin Otter – Metric Weight and Balance – Issue 5

Incorporate PSM1-64-8 – Issue 6, dated January 7, 2016

Incorporate PSM1-64-8 (M) – Issue 5, dated January 7, 2016

Reason for Issue:

To update Section 2 – Equipment Checklist, both Imperial and Metric versions.

1. Remove and replace the Title Page for both Imperial and Metric Weight and Balance.
2. Remove and replace Section 2 for both Imperial and Metric Weight and Balance.

Note: We recommend that this transmittal letter be kept for record purposes and inserted at the front of the manual.

Viking Air Limited
1959 De Havilland Way
Sidney, BC

Telephone: (250) 656-7227

Fax: (250) 656-0673
USA & Canada Toll Free:
1-(800) 663-8444

Email: technical.publications
@vikingair.com

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PSM1-64-8 (M) DHC-6 Twin Otter – Metric Weight and Balance – Issue 4

Incorporate PSM1-64-8 – Issue 5, dated July 11, 2014

Incorporate PSM1-64-8 (M) – Issue 4, dated July 11, 2014

Reason for Issue:

To update Section 2 – Equipment Checklist, both Imperial and Metric versions.

1. Remove and replace the Title Page for both Imperial and Metric Weight and Balance.
2. Remove and replace Section 2 for both Imperial and Metric Weight and Balance.

Note: We recommend that this transmittal letter be kept for record purposes and inserted at the front of the manual.

Viking Air Limited
1959 De Havilland Way
Sidney, BC
Canada V8L 5V5

Telephone: (250) 656-7227
Fax: (250) 656-0673
USA & Canada Toll Free:
1-(800) 663-8444

Email: technical.publications
@vikingair.com

September 4, 2013

To: Distribution

Subject: PSM1-64-8 DHC-6 Twin Otter – Weight and Balance – Issue 4

PSM 1-64-8 (M) Twin Otter – Metric Weight & Balance – Issue 3

Incorporate PSM 1-64-8 – Issue 4, dated September 4, 2013

Incorporate PSM1-64-8 (M) – Issue 3, dated September 4, 2013

Please Note:

Attached is a revision to Supplement 1 – Weight and Balance Information and Limitations – Ferry Fuel System, for both Imperial and Metric versions of the Series 400 Weight & Balance Manual.

Reason for Issue:

To update Operating Weight and Balance Limitations.

1. Remove and replace the Title Page for both Imperial and Metric Weight and Balance.
2. Remove and replace Supplement 1 for both Imperial and Metric Weight and Balance.

Note: We recommend that this transmittal letter be kept for record purposes and inserted at the front of the manual.

SECTION 1

GENERAL WEIGHT AND BALANCE DATA

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SECTION 1 – GENERAL WEIGHT AND BALANCE DATA

TABLE OF CONTENTS PAGE

1.1 Weight and Balance Limitations 5
1.1.1 Take-off Weight Limitations 5
1.1.2 Landing Weight Limitations 5

1.2 Weight Definitions 5
1.2.1 Standard Basic Weight 5
1.2.2 Basic Weight 5
1.2.3 Operational Load 5
1.2.4 Payload 5
1.2.5 All-up Weight (A.U.W.) 5
1.2.6 Horizontal Arm 6

1.3 Aircraft Weight and Balance Data 6

1.4 Preparation for Flight 6

1.5 Center of Gravity (C.G.) 6

1.6 Freight Loading 6

1.7 Compartment Definitions 7
1.7.1 Front Baggage Compartment 7
1.7.2 Flight Compartment 7
1.7.3 Cabin Compartment 7
1.7.4 Rear Baggage Compartment 7

1.8 Reweighing Aircraft 7

1.9 To Check Aircraft Loading 8

1.10 Loading Calculations 8

List of Figures

Page

1-1 Sample Worksheet 9
1-2 Sample Worksheet 10
1-3 Sample Worksheet 11
1-4 Sample Worksheet 12
1-5 Balance Diagram 13
1-6 Cabin Seating Configurations 14
1-7 Cargo Nets (S.O.O. 6274) 16
1-8 Combi Configuration Layouts 17
1-9 Floor Loading and Tie-down Locations 20
1-10 Personnel Table – 14 or 19 Passenger Seating 23
1-11 Personnel Table – 19 Passenger Optional Configuration Seating (S.O.O. 6407) 24
1-12 Personnel Table – 16 Passenger Optional Configuration Seating (S.O.O. 6432) 25
1-13 Baggage Compartment Table 26
1-14 Cargo Compartment Freight Table 27
1-15 Usable Fuel Table 28
1-16 Wing Long Range Fuel Table 29
1-17 CG Limits – Landplane 29
1-18 Safe Moments Table – Landplane and Wheel-skiplane 30

1.1 Weight and Balance Limitations

The design gross weight of the aircraft is 12,500 pounds (5,670 kg). In the interests of airworthiness it is essential that the weight and balance limits for the aircraft be adhered to in accordance with the recommendations and information given in the following paragraphs, tables and diagrams.

1.1.1 Take-off Weight Limitations

The all-up weight must not exceed the figures stated below for the various configurations.

1 Landplane – The take-off weight must not exceed 12,500 pounds (5,670 kg).

2 Floatplane – The take-off weight must not exceed 12,500 pounds (5,670 kg).

3 Wheel-Skiplane – The take-off weight must not exceed 12,500 pounds (5,670 kg).

1.1.2 Landing Weight Limitations

1 Landplane – The landing weight must not exceed 12,300 pounds (5,579 kg).

2 Floatplane – The landing weight must not exceed 12,500 pounds (5,670 kg).

3 Wheel-Skiplane – The landing weight must not exceed 12,300 pounds (5,579 kg).

1.2 Weight Definitions

1.2.1 Standard Basic Weight

The Standard Basic Weight is the weight of the aircraft including all standard equipment supplied with the aircraft. This weight is used for reference purposes only and is not generally representative of an operational aircraft, which would have avionics and possibly special order equipment installed. Trapped and unusable fuel and full oil are included in the Standard Basic Weight. Standard Basic Weight will always be considered as the landplane configuration, other forms of alighting gear being considered as special order equipment. See Basic Weight below.

1.2.2 Basic Weight

Basic Weight is the Standard Basic Weight as defined above plus all other equipment, both fixed and removable, which is additional to the standard configuration, for example, avionics, airframe and propeller de-icing, complete external paint etc. Such equipment is identified for the subject aircraft by a check mark on the Equipment Check List.

1.2.3 Operational Load

The Operational Load comprises crew, fuel and payload weights.

1.2.4 Payload

Payload consists only of passengers, baggage and cargo. The aircraft payload capabilities will obviously vary with flight range requirements.

1.2.5 All-up Weight (A.U.W.)

The all-up weight is the sum of the basic weight plus operational load and must not exceed the limits stated in Para 1.1 for the applicable aircraft configuration.

1.2.6 Horizontal Arm

This term for the Twin Otter is synonymous with the Aircraft Station. Horizontal Arm 0 or Aircraft Station 0 is located 109.32 inches forward of the fuselage jig points, which are marked on either side of the fuselage. With the standard extended nose Station 0 is approximately 21 inches aft of the tip of the nose fairing.

1.3 Aircraft Weight and Balance Data

This data consists of an Equipment Check List, Weighing Record and a Basic Weight Change Record. The Equipment Check List indicates with a check mark in the appropriate column, the equipment that was in the aircraft in the "As Weighed" and "Basic Weight" configurations. If the equipment is changed then the basic weight changes also.

All equipment changes to the aircraft should be recorded on the Basic Weight Change Record, so that an up-to-date record of the weight is available at all times. Similarly if the configuration of the aircraft is altered at any time, for example, changing from wheel landing gear to floats, such alterations must be recorded in the Basic Weight Change Record. The obligation that all changes must be recorded also applies to modifications of all types, for example, repair to damage suffered in service. In these cases all parts removed from or added to the aircraft must be separately weighed and their locations measured so that the Basic Weight Change Record can be correctly updated.

The Balance Diagram Figure 1-5 may be used to determine the approximate arms of any equipment, or modifications not listed on the Equipment Check List. When Viking Air Ltd. modifications are incorporated, the Weight & Balance Change will be found on the appropriate Modification Bulletin.

1.4 Preparation for Flight

The all-up weight should be computed for the conditions at the beginning and end of the flight, using the current Basic Weight from the Basic Weight Change Record, and the Operational Load Diagrams. The resulting A.U.W. and Total Moment must fall within the limits shown on the appropriate chart for the aircraft configuration. To arrive at the condition at the end of the flight subtract from the all up weight and total moment, the weights and moments of fuel used during the flight, to ensure that the aircraft center of gravity (represented by the Safe Moments Table Figure 1-18) does not fall outside the prescribed limits. (See also Para 1.1 and Para 1.10)

1.5 Center of Gravity (C.G.)

For center of gravity Limits, see Figure 1-17. The limiting center of gravity locations are shown both as Aircraft Horizontal Stations and as percentages of the Mean Aerodynamic Chord.

1.6 Freight Loading

The cabin floor loading limit is 200 pounds per square foot (975 kg/m^2) overall; this is equivalent to 800 pounds per foot run (1,190 kg per linear meter). The front and rear baggage compartment floor loading must not exceed 100 pounds per square foot (488 kg/m^2). The maximum weights shown per compartment on Figure 1-14 are limited by the 200 pounds per square foot overall loading. Whether such quantities can actually be loaded into these compartments, for the configuration to be flown, can only be determined by individually checking the particular complete aircraft loading concerned. However, under no circumstances must the loads shown for the designated compartments be exceeded.

CAUTION **IF THERE IS ANY DOUBT THAT A CONCENTRATED LOAD MAY EXCEED THE 200 POUNDS PER SQUARE FOOT (975 KG/M^2) LIMIT, THEN SHORING SHOULD BE USED.**

1.7 Compartment Definitions

(See Figure 1-5 through Figure 1-9)

1.7.1 Front Baggage Compartment

Area forward of bulkhead Station 44. The load here should be limited to 285 pounds. An allowance of 15 pounds (7 kg) for the weight of the avionics equipment forward of station 44 has been made. (Refer to Figure 1-13)

1.7.2 Flight Compartment

From aircraft Station 60 to the sloping bulkhead at Station 111 approximately.

1.7.3 Cabin Compartment

From the sloping bulkhead aft to bulkhead Station 332. This area has been subdivided into eleven 20-inch (50 cm) sections designated C-1 to C-11. Limits of compartments C-1 to C-11 are marked on the lower air distribution ducts.

1.7.4 Rear Baggage Compartment

Area between cabin rear bulkhead Station 332 and aft bulkhead Station 376 with extension shelf from Station 376 to Station 406. The load on the shelf must not exceed 150 pounds (68 kg). The total weight in the baggage compartment must not exceed 500 pounds (227 kg). When a toilet or other special installation is installed in this compartment a weight restriction will be imposed. (Refer to Figure 1-13).

1.8 Reweighing Aircraft

Following a modification or a major repair that involves a change to the empty weight or centre of gravity of an aircraft, it is a requirement that the aircraft be reweighed. Local or military regulations may differ from those stated above. The actual method of weighing will be at the discretion of the operator or their agent; platform scales may be used beneath the wheels or electronic sensing devices at the fuselage jacking points. For locations of jacking points, jig points and stations of the standard nose and main wheels see Figure 1-5. Irrespective of the weighing method chosen, the following points should be noted.

1 The basic weight condition is established with flaps up, controls locked in the neutral position, all doors and hatches closed, full oil, trapped fuel only in the aircraft and the hydraulic system full.

2 The aircraft should be weighed with all fuel drained. Drain from the two tank drain points in the manifold fairing at approximately Station 185 and 214, with the aircraft level. Drain the collector tanks by attaching a one inch hose to the drain valves at Station 188 and 211 approximately.

3 The aircraft should NEVER be weighed with partially filled fuel tanks, since it is impossible to establish an accurate weight for the fuel aboard.

4 If it is impossible for the aircraft to be drained, a weighing with full fuel is permissible (though this is not advised). The tanks have been calibrated and their volume is known with some accuracy (Refer to Figure 1-15). If a weighing is made with full fuel then the specific gravity of the fuel must be measured at the time of weighing so that, knowing the volume, an accurate weight of fuel aboard can be established.

   Note Fuel Quantity Gauging System Indications are not accurate enough to be used when establishing the Aircraft Basic Weight.

5 On piston engine aircraft full oil is not normally included as part of the basic weight. However, for turboprop aircraft, the oil quantity is relatively small, and no appreciable amount is used during normal flights, thus

loading calculations etc. can be simplified by always considering full oil as part of the Aircraft Basic Weight for the Twin Otter.

6 For levelling the aircraft, prior to weighing, use an inclinometer and levelling bar laid on the extruded floor channels. Work through the open door, ensuring that no load is inadvertently applied during the levelling process. Aircraft attitude can be adjusted by varying nose and main tire pressures or nose gear strut pressure, if platform scales are being used.

1.9 To Check Aircraft Loading

Prior to flight all loadings of the aircraft must be checked to ensure that weight and CG locations do not fall outside the prescribed limits. A valid Weight and Balance Loading Form should be available for every loading flown. The Basic Weight and Basic Moment will be found on the Basic Weight Change Record.

1.9.1 Add to the Basic Weight and Basic Moment:

1. Pilot(s) and Passenger(s) }
2. Freight and Baggage } Weights and Moments
3. Fuel }

1.9.2 Make sure that:

1 The Take-off Weight, less any fuel consumed for warm-up and taxi, does not exceed the limits stated for the applicable configuration.

2 The Total Moment value is within the Safe Moment limits.

3 Available take-off distance permits take-off at this weight.

4 The landing weight does not exceed the applicable limits.

1.10 Loading Calculations

On the following pages will be found charts showing the weights and moments of crew, fuel and payload, permissible center of gravity limitations etc. Two sample loadings have been made for a high density passenger version and for a freight version using the weight and moment charts.

It is appreciated that for operational use this method though accurate is tedious, and loading trim sheets have been devised to speed the process of checking the loading. The same sample loadings are also shown on the trim sheets.

DHC-6—TWIN OTTER
WEIGHT & BALANCE LOADING MANIFEST

SERIAL NO:	REGISTRATION NO:	LOADING COMPUTED BY:
511	HB-LOM	MICHAEL MOORE

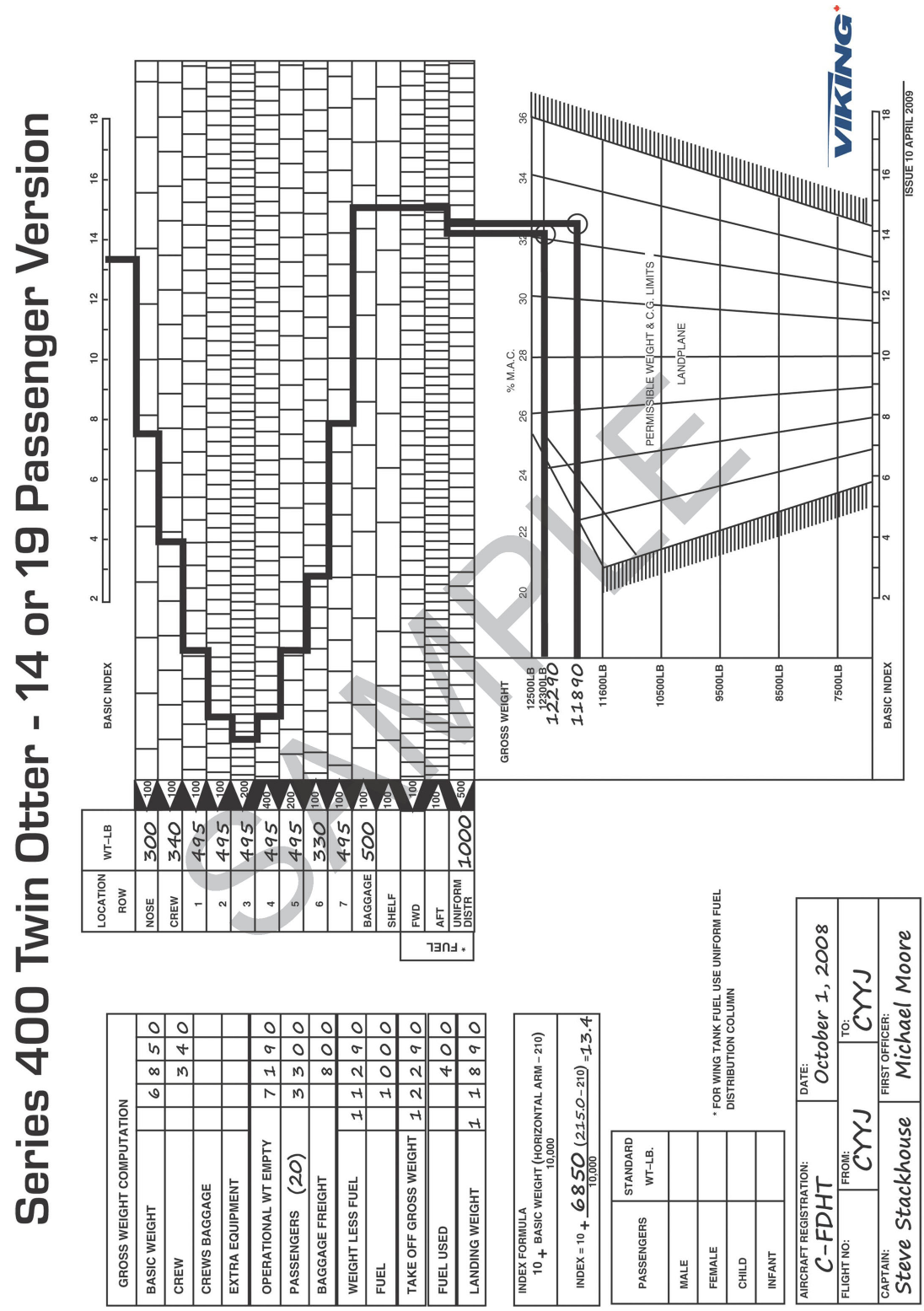
FLIGHT NO:	FROM / TO	PILOT'S SIGNATURE:	DATE:
RED-07	FROM LUENA TO KUITO	M. MOORE	MAR 29, 1991

LIMITATIONS: FOR WEIGHT & CG LIMITS SEE HANDBOOK PSM 1-64-8

REF	ITEM		WEIGHT LB	MOMENT / 100 LB IN.	
1	BASIC AIRPLANE (from Wt. Change Record)		6,850	14,728	
2	Crew No. 2		340	324	
3	OPERATIONAL WEIGHT EMPTY		7,190	15,052	
4	Fuel in Fwd Tank		500	875	
5	Fuel in Aft Tank		500	1,124	
6	GROSS WEIGHT LESS PAYLOAD		8,190	17,051	
7	Passengers Row 1	3	495	669	
8	Passengers Row 2	3	495	816	
9	Passengers Row 3	3	495	966	
10	Passengers Row 4	3	495	1,113	
11	Passengers Row 5	3	495	1,263	
12	Passengers Row 6	2	330	930	
13	Passengers Row 7	3	495	1,584	
14					
15					
16					
17	Fwd Baggage Compartment		300	75	
18	Aft Baggage Compartment		500	1,770	
19	Cargo Compartment C-1				
20	Cargo Compartment C-2				
21	Cargo Compartment C-3				
22	Cargo Compartment C-4				
23	Cargo Compartment C-5				
24	Cargo Compartment C-6				
25	Cargo Compartment C-7				
26	Cargo Compartment C-8				
27	Cargo Compartment C-9				
28	Cargo Compartment C-10				
29	Cargo Compartment C-11				
30	GROSS WEIGHT AT ENG. START-UP		12,290	26,237	
31	Fuel Consumed Warm-Up & Taxi				
32	GROSS WEIGHT AT TAKE-OFF		12,290	26237	
33	Position of CG at Take-Off in % MAC		32.4%		
34	Fuel Consumed During Flight		400	802	
35	ESTIMATED LANDING CONDITION		11,890	25,435	
36	Position of CG at Landing in % MAC		32.9%		

SAMPLE

Sample Worksheet
Figure 1-1



Sample Worksheet
Figure 1-2

DHC-6—TWIN OTTER
WEIGHT & BALANCE LOADING MANIFEST

SERIAL NO:	REGISTRATION NO:	LOADING COMPUTED BY:
845	C-FDHC	JEN SCHRIBER

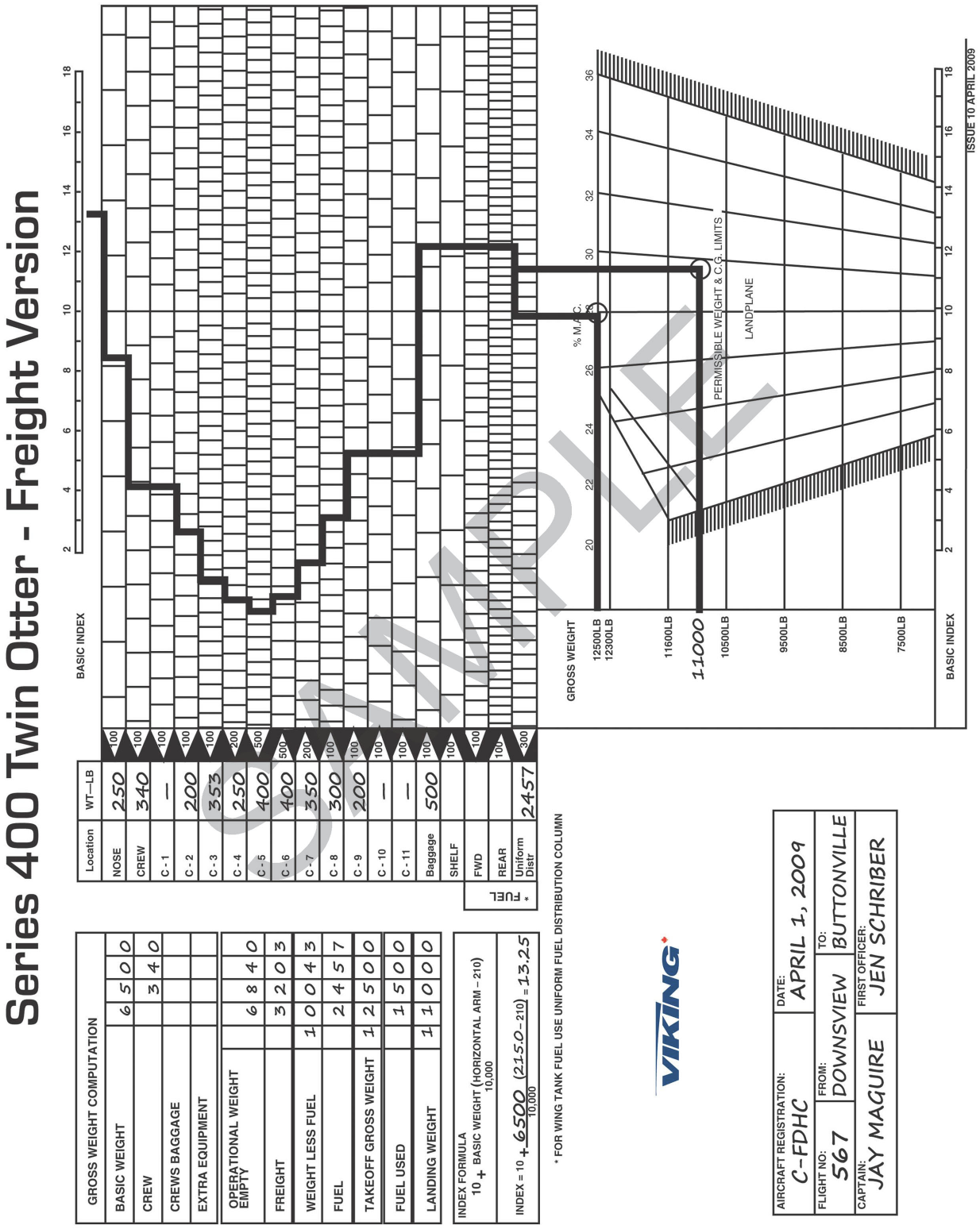
FLIGHT NO:	FROM / TO	PILOT'S SIGNATURE:	DATE:
567	FROM DOWNSVIEW TO BUTTONVILLE	JAY MAGUIRE	MAR 1, 2009

LIMITATIONS: FOR WEIGHT & CG LIMITS SEE HANDBOOK PSM 1-64-8

REF	ITEM	WEIGHT LB	MOMENT / 100 LB IN.	
1	BASIC AIRPLANE (from Wt. Change Record)	6,500	13,975	
2	Crew No. (2)	340	324	
3	OPERATIONAL WEIGHT EMPTY	6,840	14,299	
4	Fuel in Fwd Tank } FULL	2,457	4,985	
5	Fuel in Aft Tank }			
6	GROSS WEIGHT LESS PAYLOAD	9,297	19,284	
7	Passengers Row 1			
8	Passengers Row 2			
9	Passengers Row 3			
10	Passengers Row 4			
11	Passengers Row 5			
12	Passengers Row 6			
13	Passengers Row 7			
14				
15				
16				
17	Fwd Baggage Compartment	250	63	
18	Aft Baggage Compartment	500	1,770	
19	Cargo Compartment C-1			
20	Cargo Compartment C-2	200	244	
21	Cargo Compartment C-3	353	572	
22	Cargo Compartment C-4	250	455	
23	Cargo Compartment C-5	400	808	
24	Cargo Compartment C-6	400	888	
25	Cargo Compartment C-7	350	847	
26	Cargo Compartment C-8	300	786	
27	Cargo Compartment C-9	200	564	
28	Cargo Compartment C-10			
29	Cargo Compartment C-11			
30	GROSS WEIGHT AT ENG. START-UP	12,500	26,281	
31	Fuel Consumed Warm-Up & Taxi			
32	GROSS WEIGHT AT TAKE-OFF	12,500	26,281	
33	Position of CG at Take-Off in % MAC	28.2%		
34	Fuel Consumed During Flight	1,500	3,007	
35	ESTIMATED LANDING CONDITION	11,000	23,274	
36	Position of CG at Landing in % MAC	29.9%		

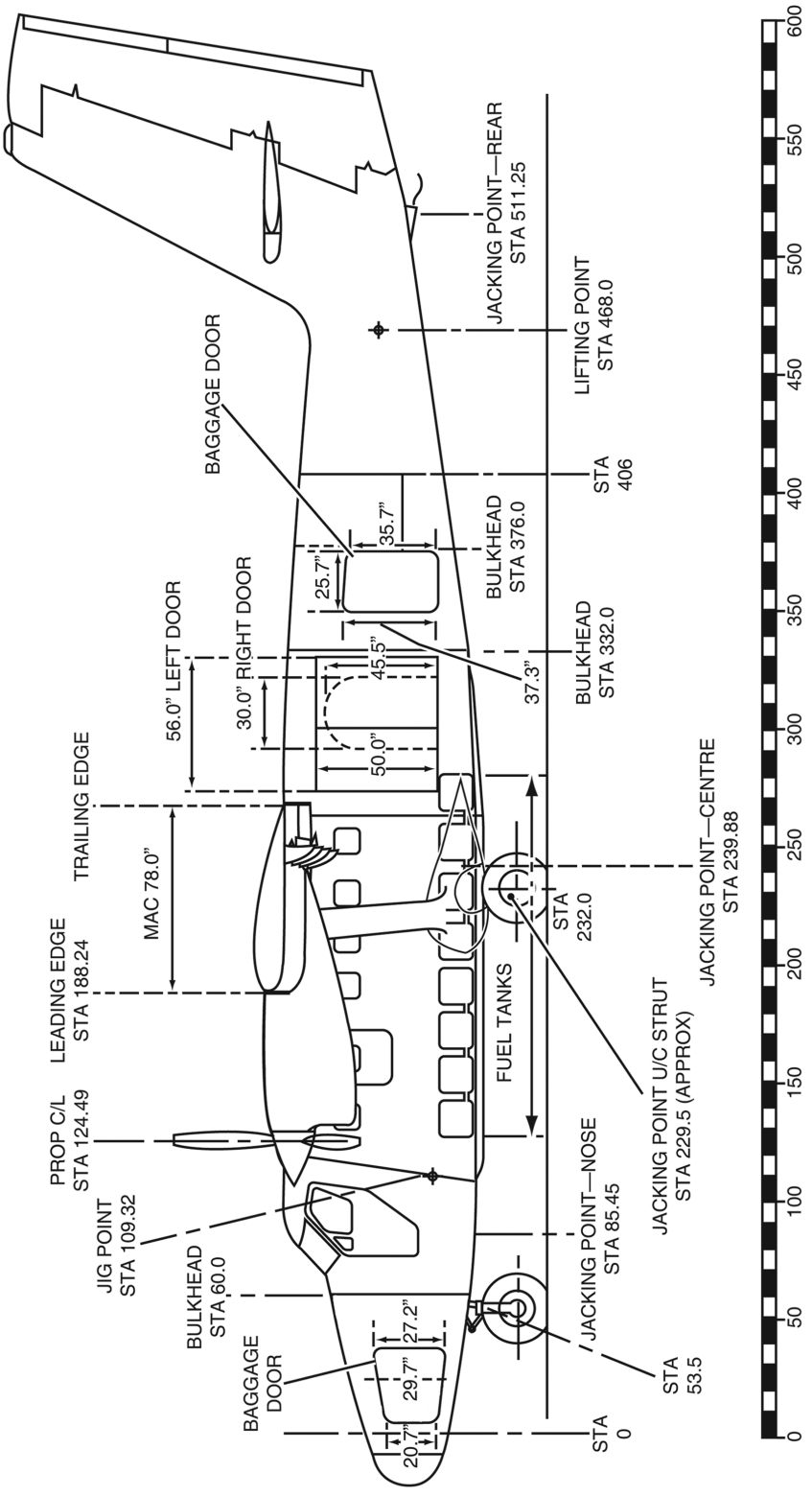
SAMPLE

Sample Worksheet
Figure 1-3

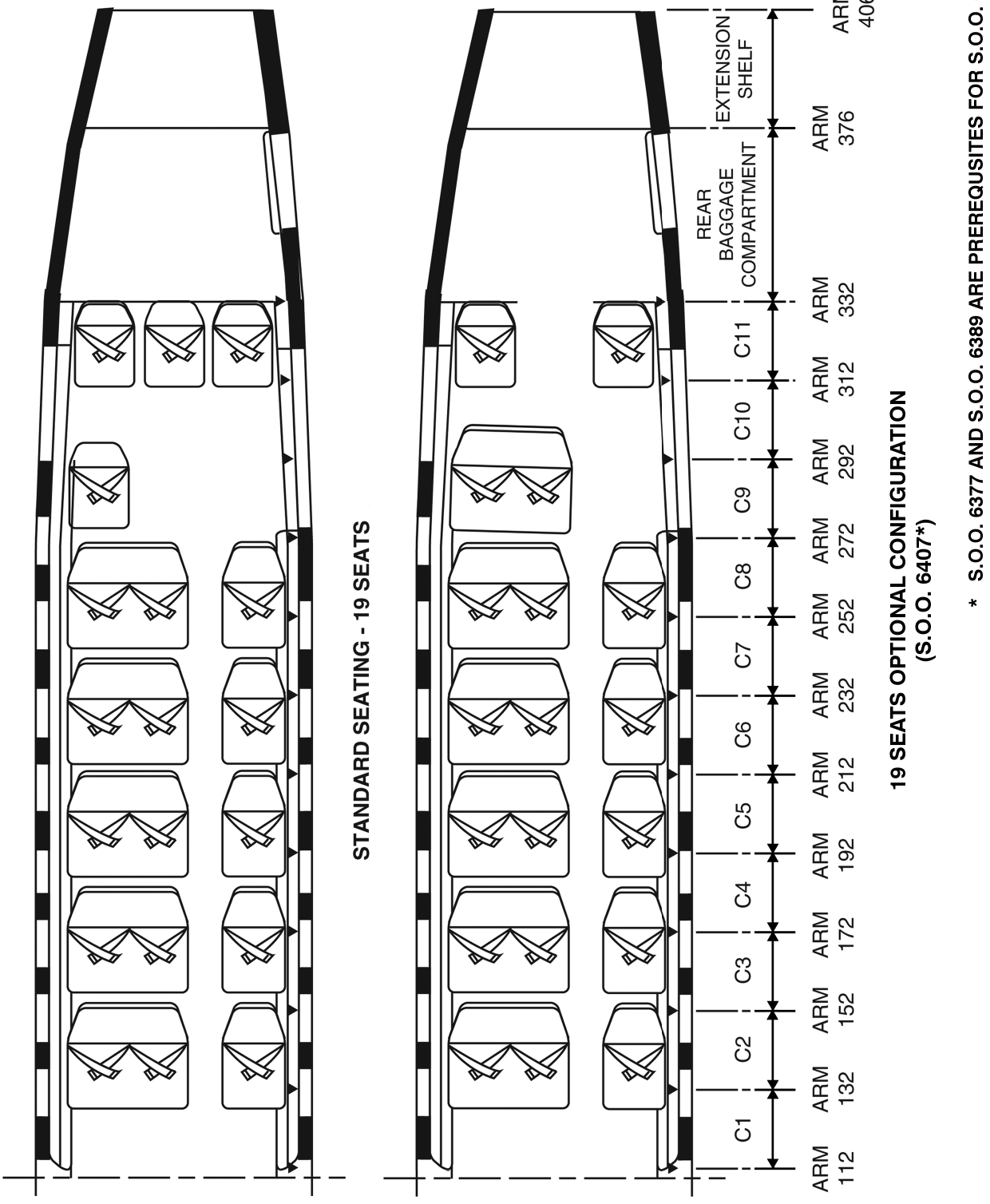


SAMPLE

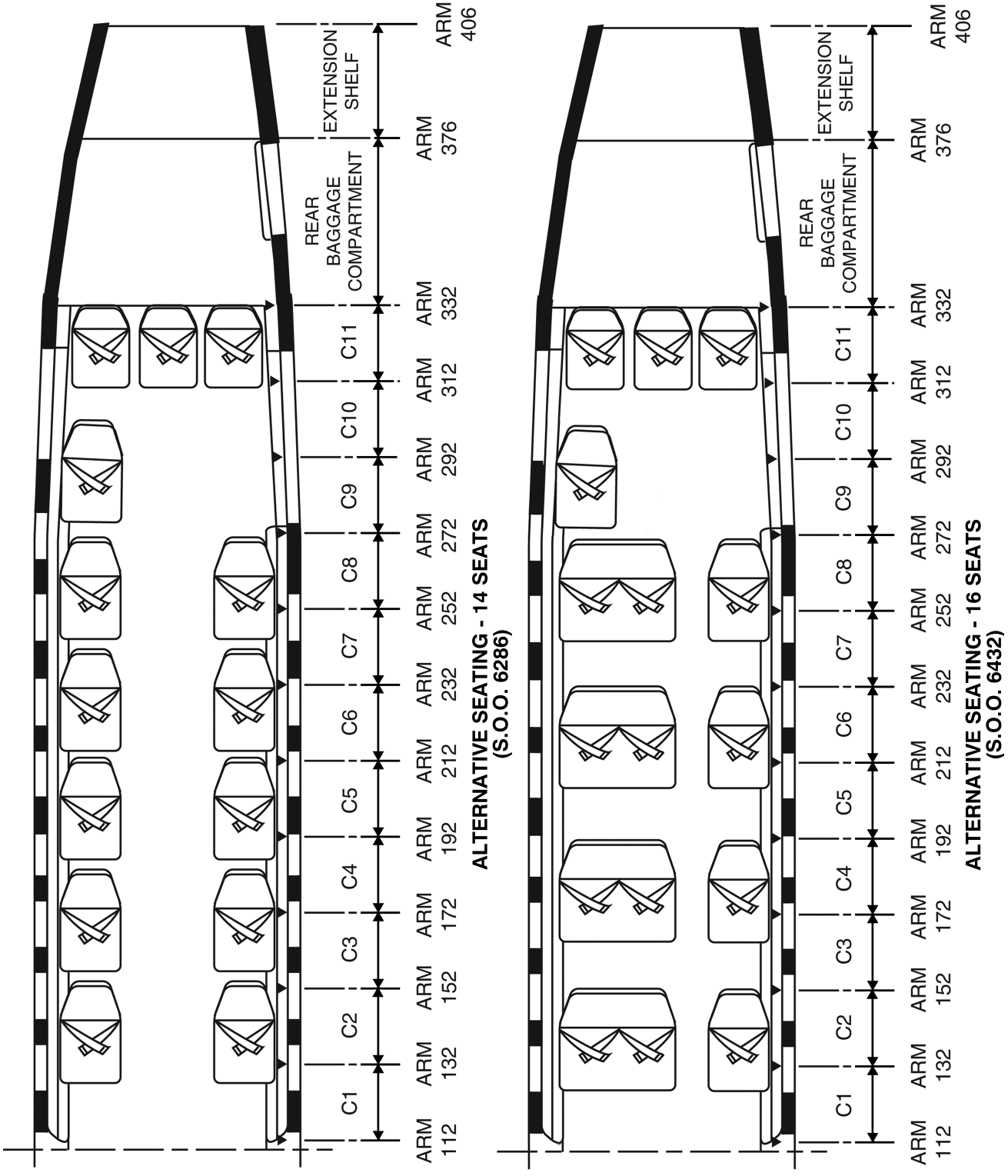
Sample Worksheet
Figure 1-4



Balance Diagram
Figure 1-5



Cabin Seating Configurations
Figure 1-6 (Sheet 1 of 2)



Cabin Seating Configurations
Figure 1-6 (Sheet 2 of 2)

WHEN S.O.O. 6274 IS INCORPORATED:

LOADING TABLE	
# OF TIE-DOWNS	ALLOWABLE LOAD (LBS)
4	880
5	1100
6	1320
7	1540
8	1760
9	1980
10	2200

NOTES:

LOAD CARGO UNDER NET FROM AFT PER THE FOLLOWING:

1) CONNECT DOUBLE STUD CARGO FITTINGS TO SEAT RAILS FORWARD OF WHERE CARGO WILL BE LOCATED. ENSURE A MINIMUM DISTANCE OF 35 INCHES IS MAINTAINED BETWEEN FORWARD BULKHEAD.

2) CONNECT SNAP HOOKS ON CARGO NET TO FORWARD DOUBLE STUD CARGO FITTINGS.

3) LOAD CARGO UNDER NET IN ACCORDANCE WITH WEIGHT AND BALANCE MANUAL.

NOTE: NET MUST COMPLETELY COVER TOP AND BOTH SIDES OF CARGO.

4) ATTACH DOUBLE LUG CARGO FITTINGS TO SEAT RAILS AFT OF CARGO.

5) CONNECT STRAPS TO APPROPRIATE D-RINGS ON CARGO NET.

6) SECURE OTHER ENDS OF STRAPS TO AFT DOUBLE LUG CARGO FITTINGS.

7) TIGHTEN STRAPS OVER CARGO.

8) USE ADDITIONAL STRAPS AND DOUBLE STUD CARGO FITTINGS AS REQUIRED.

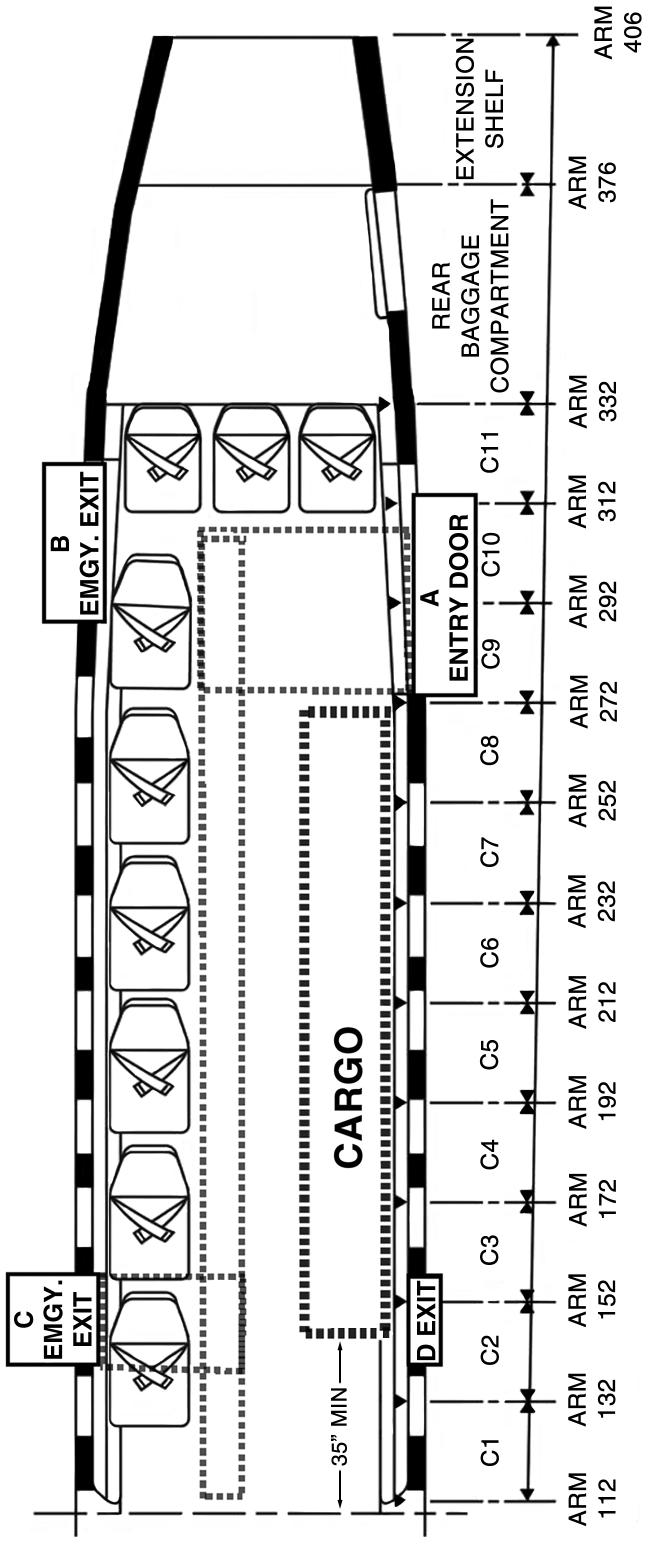
NOTE: MINIMUM 1 LATERAL STRAP FOR EACH 660 LBS (IF USING FLOOR RAIL FITTINGS) OR 330 LBS (IF USING A SIDE WALL FITTING) OF LOAD WHEN USED IN COMBI CONFIGURATIONS.

Cargo Nets (S.O.O. 6274)
Figure 1-7

1. SEATS
   A. SEATS MUST BE MOUNTED IN APPROVED LOCATIONS. (REFER TO PSM 1-64-2, CHAPTER 25, SECTION 25-20-00, CABIN COMPARTMENT – COMMUTER).
   B. COMBI IS MAXIMUM 9 PASSENGER.
   C. ALL OCCUPIED SEATS MUST BE ABLE TO SEE THE PASSENGER INFORMATION SIGNS.
2. AISLE
   A. ONE CONTINUOUS AISLE IS REQUIRED FROM THE ENTRY DOOR (A) TO ANY SEATS OR EXITS REQUIRED.
   B. THE AISLE MUST BE 13 INCHES WIDE FROM THE FLOOR UP TO 25 INCHES ABOVE THE FOOR AND 15 INCHES WIDE ABOVE 25 INCHES FROM THE FLOOR.
3. EMERGENCY EXITS
   A. ACCESS TO EITHER EXITS B OR C MUST BE CLEAR OF OBSTRUCTION BY ANY CARGO FROM FLOOR TO CEILING.
   B. SEATS MOUNTED ADJACENT TO AN EXIT AND IN THEIR APPROVED LOCATION ARE ACCEPTABLE.
4. CARGO MUST BE RESTRAINED USING APPROVED NETS AND STRAPS.
   A. MAXIMUM CARGO NET STATIC LOAD CAPACITY IS 2200 LBS.
5. FOR COMBI CONFIGURATION WITH CARGO ONLY IN A FREIGHT COMPARTMENT ZONE:
   A. MAXIMUM PERMISSABLE FREIGHT COMPARTMENT LOADS (ZONES C1 THRU C11 INCLUSIVE) ARE 660 LBS EACH.
6. FOR COMBI COMBINATIONS WITH COMBINED PASSENGER SEAT(S) AND CARGO IN SAME FREIGHT COMPARTMENT ZONE:
   A. MAXIMUM PERMISSABLE FREIGHT COMPARTMENT LOADS (ZONES C1 THRU C11 INCLUSIVE) ARE 330 LBS EACH.

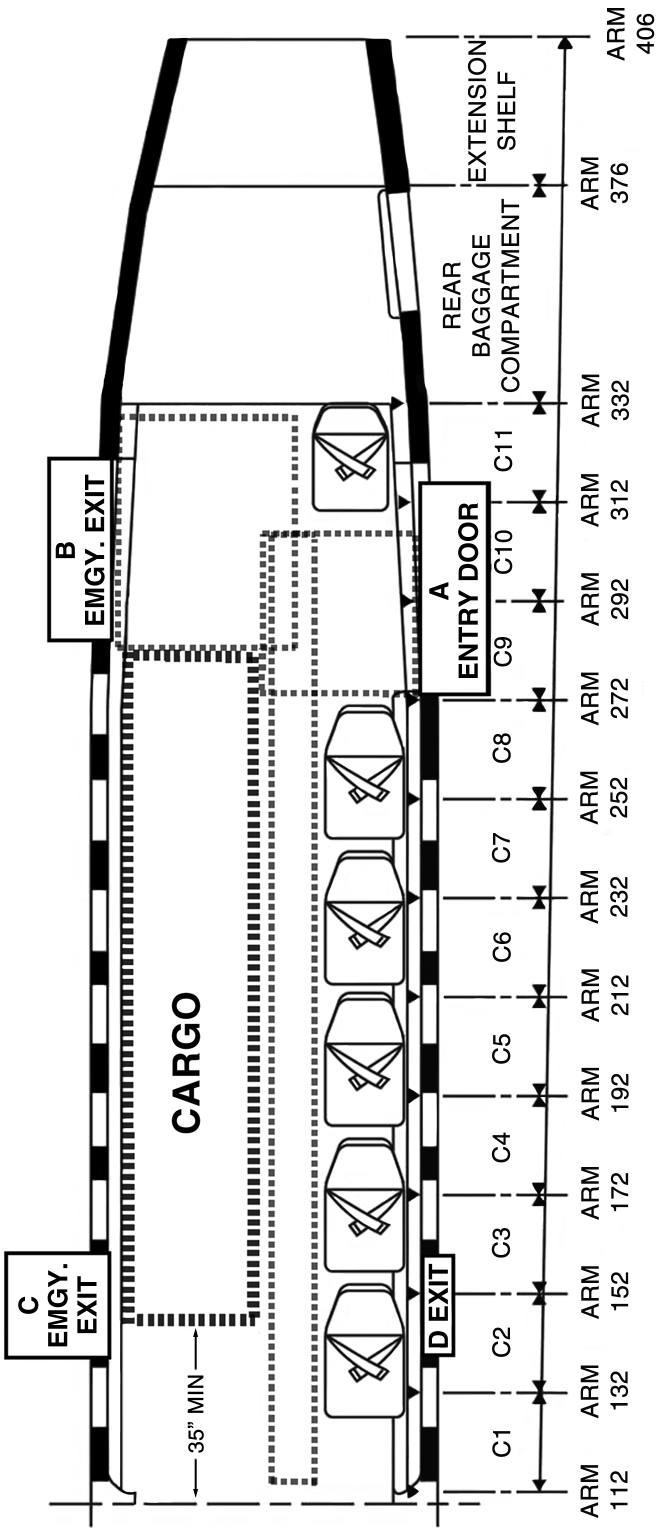
COMBI CONFIGURATION LAYOUT
9 OR LESS PASSENGERS

Combi Configuration Layouts
Figure 1-8 (Sheet 1 of 3)

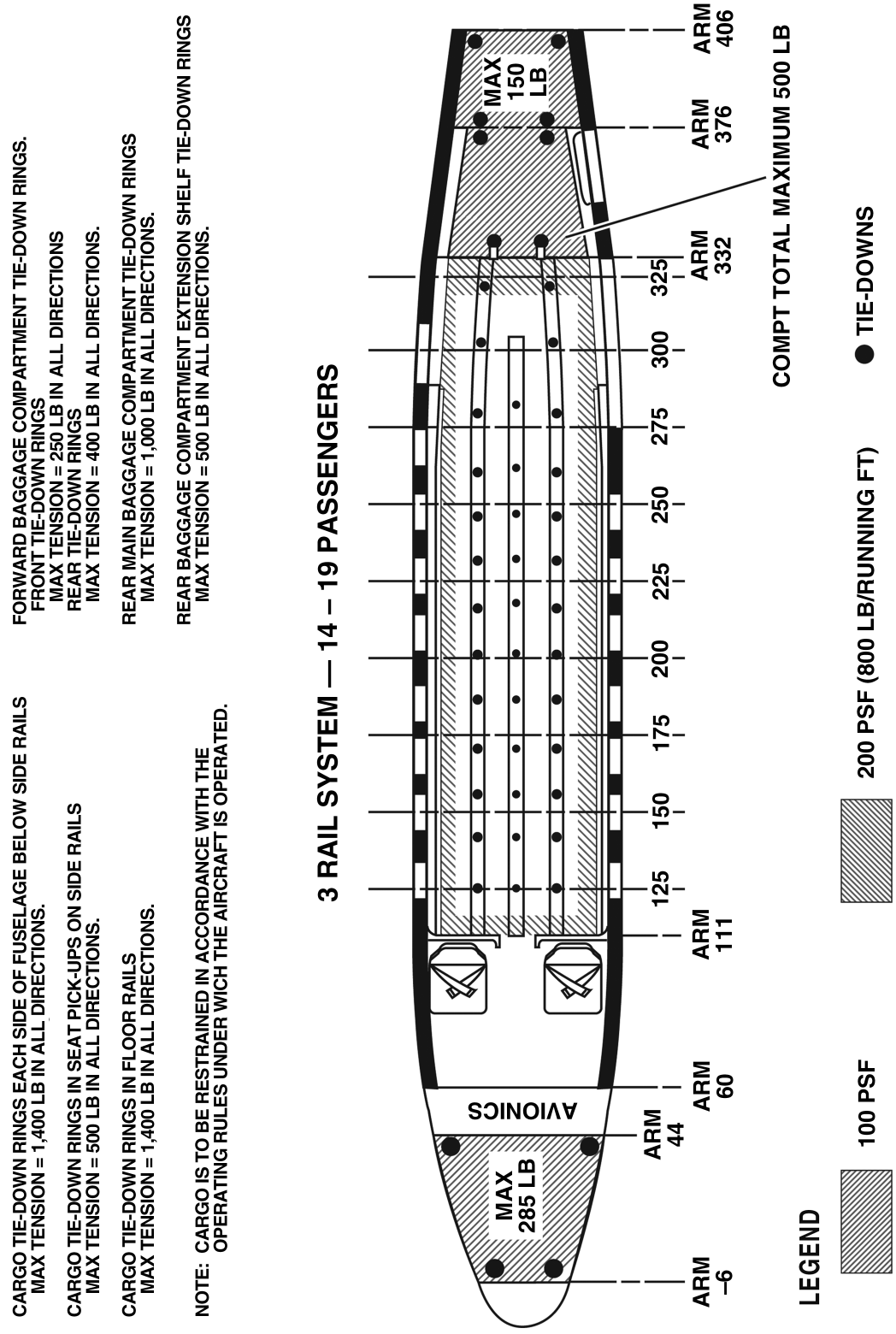


COMBI CONFIGURATION LAYOUT
9 PASSENGERS EXAMPLE
REQUIRES 3RD RAIL SEAT TRACK (S.O.O. 6243)

Combi Configuration Layouts
Figure 1-8 (Sheet 2 of 3)



Combi Configuration Layouts
Figure 1-8 (Sheet 3 of 3)



Floor Loading and Tie-down Locations
Figure 1-9 (Sheet 1 of 3)

TIE-DOWN DATA FLOOR RAILS WITHOUT DOUGLAS TRACK MAX CAPACITY = 1,400 LB TENSION IN ALL DIRECTIONS	
LOCATIONS	
3 RAIL SYSTEM 14-19 PASSENGERS	
LH CENTER AND RH	**LH AND RH**
ARM 126.78 ARM 141.68 ARM 156.78 ARM 171.68 ARM 186.78 ARM 201.68 ARM 216.78 ARM 231.68 ARM 216.78 ARM 231.68 ARM 245.82 ARM 260.72 ARM 280.62	ARM 301.19 ARM 321.98

CABIN SIDE RAILS WITHOUT DOUGLAS TRACK			
TIE-DOWN RING CFF1872 WITH FITTING C6FS2551 IN FUSELAGE SIDE FRAMES MAX TENSION = 1,400 LB IN ALL DIRECTIONS	TIE-DOWN RING C6FF1872 IN SEAT PICK-UPS. MAX TENSION = 500 LB IN ALL DIRECTIONS. MIN PITCH = 14.0 IN.		
LOCATIONS LH AND RH SIDES	**LH AND RH SIDES**	**LH SIDE**	**RH SIDE**
ARM 143.43 ARM 161.85 ARM 180.25 ARM 200.15 ARM 219.0 ARM 261.5	ARM 125.28 ARM 126.78 ARM 140.18 ARM 141.68 ARM 155.28 ARM 156.78 ARM 170.18 ARM 171.68 ARM 185.28 ARM 186.78 ARM 200.18 ARM 201.68 ARM 215.28 ARM 216.78 ARM 230.18 ARM 231.68	ARM 244.32 ARM 245.82 ARM 259.22 ARM 260.72	ARM 242.28 ARM 244.32 ARM 245.82 ARM 256.21 ARM 259.22 ARM 260.72 ARM 271.64 ARM 273.14 ARM 275.18 ARM 286.54 ARM 288.04 ARM 289.10

Floor Loading and Tie-down Locations
Figure 1-9 (Sheet 2 of 3)

TIE-DOWN DATA FLOOR AND CABING SIDE RAILS—WITH DOUGLAS TRACK INSTALLED
FLOOR USING COMMERCIAL SUPPLIED RINGS — MAX CAPACITY = 2,000 LB IN ALL DIRECTIONS, RINGS NOT LESS THAN 20 IN. APART SIDE RAILS USING COMMERCIALLY SUPPLIED RINGS — MAX CAPACITY = 500 LB IN ALL DIRECTIONS, RINGS NOT LESS THAN 20 IN. APART

BULKHEAD ARM 332 — FORWARD FACE (SEATS NOT INSTALLED)
ANY COMBINATION OF UP TO 6 RINGS MAY BE INSTALLED. MAX CAPACITY = 1,000 LB EACH IN ALL DIRECTIONS.

FORWARD BAGGAGE COMPARMENT MAX CAPACITY IN ALL DIRECTIONS	
LH AND RH SIDE	
ARM –6.0	250 LB
ARM 44.0	400 LB

BAGGAGE COMPARMENT EXTENSION
MAX CAPACITY = 500 LB IN ALL DIRECTIONS
ARM = 376.0 AFT
ARM = 406.0

AFT BAGGAGE COMPARMENT.
(ARM 332.0 TO ARM 376.0 FWD) MAX CAPACITY = 1,000 LB IN ALL DIRECTIONS
ARM = 332.0
ARM = 376.0 FWD

NOTE:

In cases where Douglas Track is installed, which also allows access to the fixed tie-down positions, the use of both Douglas Track tie-downs and the fixed tie-down positions is not allowed simultaneously unless correct spacing is adhered to.

Floor Loading and Tie-down Locations
Figure 1-9 (Sheet 3 of 3)

PERSONNEL TABLE – 14 OR 19 PASSENGER UTILITY SEATING			
POSITION	**WT — POUNDS**	**ARM — INCHES**	**MOMENT LB/IN* 100**
CREW'S SEATS			
PILOT	170	95	162
COPILOT	170	95	162
FORWARD-FACING PASSENGER SEATS			
ROW 1 LEFT	165	135	223
RIGHT	165	135	223
RIGHT	165	135	223
ROW 2 LEFT	165	165	272
RIGHT	165	165	272
RIGHT	165	165	272
ROW 3 LEFT	165	195	322
RIGHT	165	195	322
RIGHT	165	195	322
ROW 4 LEFT	165	225	371
RIGHT	165	225	371
RIGHT	165	225	371
ROW 5 LEFT	165	254	419
RIGHT	165	254	419
RIGHT	165	254	419
ROW 6 RIGHT	165	281	464
ROW 7 LEFT	165	320	528
RIGHT	165	320	528
CENTRE	165	320	528

*Above figures should be re-evaluated if the personnel to be on board vary appreciably from the standard 165 lb.

Personnel Table – 14 or 19 Passenger Seating
Figure 1-10

PERSONNEL TABLE – 19 PASSENGER OPTIONAL CONFIGURATION SEATING (S.O.O. 6407)				
POSITION		**WT – POUNDS**	**ARM – INCHES**	**MOMENT LB/IN* 100**
CREW'S SEATS				
PILOT		170	95	162
COPILOT		170	95	162
FORWARD-FACING PASSENGER SEATS				
ROW 1	LEFT	165	135	223
	RIGHT	165	135	223
	RIGHT	165	135	223
ROW 2	LEFT	165	165	272
	RIGHT	165	165	272
	RIGHT	165	165	272
ROW 3	LEFT	165	195	322
	RIGHT	165	195	322
	RIGHT	165	195	322
ROW 4	LEFT	165	225	371
	RIGHT	165	225	371
	RIGHT	165	225	371
ROW 5	LEFT	165	254	419
	RIGHT	165	254	419
	RIGHT	165	254	419
ROW 6	RIGHT	165	281	464
	RIGHT	165	281	464
ROW 7	LEFT	165	320	528
	RIGHT	165	320	528
*Above figures should be re-evaluated if the personnel to be on board vary appreciably from the standard 165 lb.				

Personnel Table – 19 Passenger Optional Configuration Seating (S.O.O. 6407)
Figure 1-11

PERSONNEL TABLE – 16 PASSENGER OPTIONAL CONFIGURATION SEATING (S.O.O. 6432)				
POSITION		**WT – POUNDS**	**ARM – INCHES**	**MOMENT LB/IN* 100**
CREW'S SEATS				
PILOT		170	95	162
COPILOT		170	95	162
FORWARD-FACING PASSENGER SEATS				
ROW 1	LEFT	165	135	223
	RIGHT	165	135	223
	RIGHT	165	135	223
ROW 2	LEFT	165	175	289
	RIGHT	165	175	289
	RIGHT	165	175	289
ROW 3	LEFT	165	214	353
	RIGHT	165	214	353
	RIGHT	165	214	353
ROW 4	LEFT	165	254	419
	RIGHT	165	254	419
	RIGHT	165	254	419
ROW 5	RIGHT	165	281	464
ROW 6	LEFT	165	320	528
	RIGHT	165	320	528
	RIGHT	165	320	528
*Above figures should be re-evaluated if the personnel to be on board vary appreciably from the standard 165 lb.				

Personnel Table – 16 Passenger Optional Configuration Seating (S.O.O. 6432)
Figure 1-12

BAGGAGE COMPARTMENT TABLE			
	MOMENT /100LB IN		
BAGGAGE WT – LB	FORWARD COMPT NOSE H. ARM = 25.0 IN.	REAR COMPT H. ARM = 354.0 IN.	EXTENSION SHELF 'H. ARM = 391.0 IN.
25	6	89	98
50	13	177	196
75	19	266	293
100	25	354	391
125	31	443	489
150	38	531	587
175	44	620	
200	50	702	
225	56	797	
250	63	885	
275	69	974	
300	75	1062	
325		1151	
350		1239	
375		1328	
400		1416	
425		1505	
450		1593	
475		1682	
500		1770	

Weight limitations for both front and rear baggage compartments vary dependent upon installations of avionics, oxygen systems, etc. For limitations of individual aircraft, see labels permanently installed in the baggage compartments.

ANY MODIFICATION AFT OF STA. 332 REQUIRING WEIGHT AND BALANCE CHANGES WILL AFFECT THE REAR FUSELAGE STRENGTH. THIS MAY REQUIRE A CHANGE TO THE REAR BAGGAGE COMPARTMENT WEIGHT LIMITATION. THEREFORE VIKING AIR LTD. MUST BE INFORMED OF THESE MODIFICATIONS SO THAT THE WEIGHT LIMIT LABEL CAN BE RE-EVALUATED.

Baggage Compartment Table
Figure 1-13

CARGO COMPARTMENT FREIGHT TABLE							
CARGO WEIGHT–LB		MOMENT/100 LB IN.					
		COMPT C1 ARM 122 IN.	COMPT C2 ARM 142 IN.	COMPT C3 ARM 162 IN.	COMPT C4 ARM 182 IN.	COMPT C5 ARM 202 IN.	COMPT C6 ARM 222 IN.
100		122	142	162	182	202	222
200		244	248	324	364	404	444
300		366	426	486	546	606	666
400		488	568	648	728	808	888
500		610	710	810	910	1,010	1,110
600		732	852	972	1,092	1,212	1,332
700		854	994	1,134	1,274	1,414	1,554
800		976	1,136	1,296	1,456	1,616	1,776
900		1,098	1,278	1,458	1,638	1,818	1,998
1,000		1,220	1,420	1,620	1,820	2,020	2,220
1,100		1,342	1,562	1,782	2,002	2,222	2,442
1,200		1,464	1,704	1,944	2,184	2,424	2,664
1,333	MAX	1.626	1,892	2,158	2,424	2,690	2,958
		COMPT C7 ARM 242 IN.	COMPT C8 ARM 262 IN.	COMPT C9 ARM 282 IN.	COMPT C10 ARM 302 IN.	COMPT C11 ARM 322 IN.	
100		242	262	282	302	322	
200		484	524	564	604	644	
300		726	786	846	906	966	
400		968	1,048	1,128	1,208	1,288	
500		1,210	1,310	1,410	1,510	1,610	
600		1,452	1,572	1,692	1,812	1,932	
700		1,694	1,834	1,974	2,114	2,254	
800		1,936	2,096	2,256	2,416	2,576	
900		2,178	2,358	2,538	2,718	2,898	
1,000		2,420	2,620	2,820	3,020	3,220	
1,100		2,662	2,882	3,102	3,322	3,542	
1,200		2,904	3,144	3,384	3,624	3,864	
1,333	MAX	3,224	3,490	3,756	4,022	4,290	

Cargo Compartment Freight Table
Figure 1-14

USABLE FUEL TABLE

NORMALOPERATION—FRONT AND REAR TANKS COMBINED ARM = *200.5 **202.9

U.S GAL	IMP GAL	WT–LB	MOMENT LB IN. 100		U.S GAL	IMP GAL	WT–LB	MOMENT LB IN. 100
14.6	12.2	100	201*		190.2	158.5	1,300	2,606*
29.3	24.4	200	401		204.8	170.7	1,400	2,807
43.9	36.6	300	602		219.5	182.9	1,500	3.007
58.6	48.8	400	802		234.1	195.1	1,600	3,208
73.2	61.0	500	1,002		248.8	207.3	1,700	3,409
87.8	73.2	600	1,203		263.4	219.5	1,800	3,609
102.5	85.4	700	1,404		278.0	231.7	1,900	3,810
117.1	97.6	800	1,604		292.7	243.9	2,000	4,010
131.8	109.8	900	1,805		307.3	256.1	2,100	4,210
146.4	122.0	1,000	2,005		322.0	268.3	2,200	4,411
160.9	134.1	1,100	2,206		336.6	280.5	2,300	4,611*
175.6	146.3	1,200	2,406*		346.2	288.5	2,366	4,744***
					362.2	301.8	2,475	4,962*
					378.0	315.0	2,583	5,241**
FRONT TANK					**REAR TANK**			
14.6	12.2	100	191		14.6	12.2	100	210
29.3	24.4	200	381		29.3	24.4	200	419
43.9	36.6	300	570		43.9	36.6	300	629
58.6	48.8	400	723		58.6	48.8	400	874
73.2	61.0	500	875		73.2	61.0	500	1,124
87.8	73.2	600	1,028		87.8	73.2	600	1,376
102.5	85.4	700	1,182		102.5	85.4	700	1,625
117.1	97.6	800	1,334		117.1	97.6	800	1,874
131.8	109.8	900	1,489		131.8	109.8	900	2,123
146.4	122.0	1,000	1,642		146.4	122.0	1,000	2,373
160.9	134.1	1,100	1,795		160.9	134.1	1,100	2,621
175.6	146.3	1,200	1,866***		175.6	146.3	1,200	2,872
181.2	151.0	1,238	1,952		177.0	147.5	1,210	2,895***
			2,011		196.8	164.0	1,345	3,228

JP-1 FUEL = 8.2 LB/IMP GAL 1 IMP GAL = 1.2 U.S. GAL

CONVERSION FACTORS:
JP-4 FUEL (7.8 LB/IMP GAL) MULTIPLY $\frac{\text{MOMENT}}{100}$ BY 0.95
JP-5 FUEL (8.3 LB/IMP GAL) MULTIPLY $\frac{\text{MOMENT}}{100}$ BY 1.01
AVGAS (7.2 LB/IMP GAL) MULTIPLY $\frac{\text{MOMENT}}{100}$ BY 0.88

} VALUES QUOTED ARE AVERAGES AT 15.5°C (60°F)

NOTE:

* This fuel CG position is true for equal weights of fuel in each tank.

** With full tanks the fuel CG is at Arm202.9. It is recommended that, once cruise condition have been achieved, fuel levels in the front and rear tanks be equalized by crossfeeding.

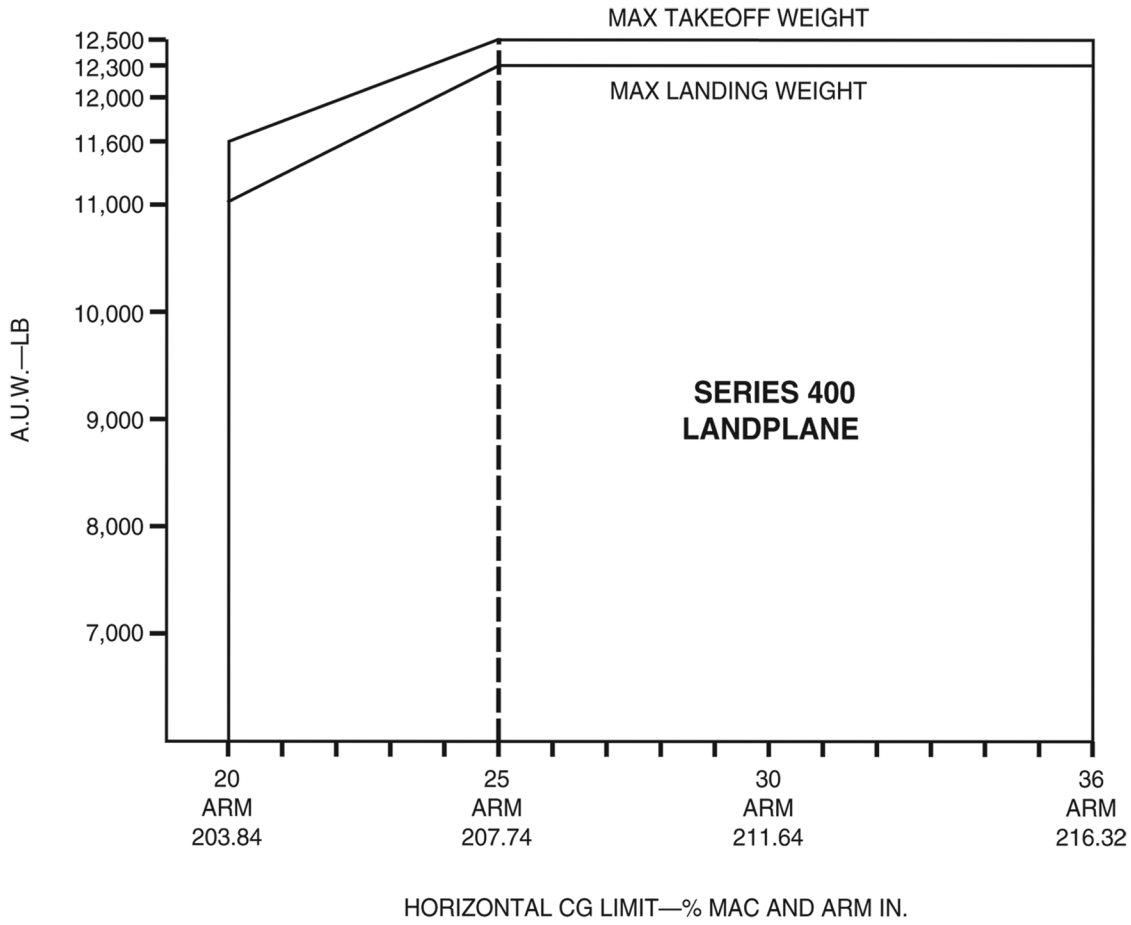
*** Maximum capacity with pressure refueling method: If normal full capacity is required, tank must be topped up using gravity fillers.

Usable Fuel Table
Figure 1-15

WING LONG RANGE FUEL TANKS

LEFT WING TANK				RIGHT WING TANK			
IMP GAL	U.S. GAL	WT–LB	MOMENT LB IN. 100	IMP GAL	U.S. GAL	WT–LB	MOMENT LB IN. 100
10	12.0	82	167	10	12.0	82	167
20	24.0	164	333	20	24.0	164	333
30	36.0	246	500	30	36.0	246	500
37	44.4	303.4	617	37	44.4	303.4	617

Wing Long Range Fuel Table
Figure 1-16



CG Limits – Landplane
Figure 1-17

SAFE MOMENTS TABLE							
GROSS WEIGHT LB	LANDPLANE AND WHEEL-SKIPLANE MOMENT/100 LB IN.		GROSS WEIGHT LB	LANDPLANE AND WHEEL-SKIPLANE MOMENT/100 LB IN.		
	FWD CG LIMIT	AFT CG LIMIT		FWD CG LIMIT		AFT CG LIMIT
7,000	14,269	15,142	10,000	20,384		21,632
7,100	14,473	15,359	10,100	20,588		21,848
7,200	14,676	15,575	10,200	20,792		22,065
7,300	14,880	15,791	10,300	20,996		22,281
7,400	15,084	16,008	10,400	21,199		22,497
7,500	15,288	16,224	10,500	21,403		22,714
7,600	15,492	16,440	10,600	21.607		22,930
7,700	15,696	16,656	10,700	21,811		23,146
7,800	15,900	16,873	10,800	22,015		23,363
7,900	16,103	17,089	10,900	22,219		23,579
8,000	16.307	17,306	11,000	22,422		23,795
8,100	16,511	17,522				
8,200	16,715	17,738		TAKE-OFF	LAND	
8,300	16,919	17,954				
8,400	17,123	18,170				
8,500	17,326	18,387	11,000	22,626	22,655	24,012
8,600	17,530	18,604	11,200	22,830	22,859	24,228
8,700	17,734	18,820	11,300	23,034	23,122	24,444
8,800	17,938	19,036	11,400	23,238	23,356	24,660
8,900	18,142	19,252	11,500	23,442	23,591	24,877
9,000	18,346	19,469	11,600	23,645	23,826	25,093
9,100	18,549	19,685	11,700	23,900	24,062	25,309
9,200	18,753	19,901	11,800	24,155	24,299	25,526
9,300	18,957	20,118	11,900	24,412	24,535	25,742
9,400	19,161	20,334	12,000	24,668	24,773	25,958
9,500	19,365	20,550	12,100	24,926	25,011	26,174
9,600	19,569	20,767	12,200	25,186	25,249	26,391
9,700	19,772	20,983	12,300*	25,445	25,488	26,607
9,800	19,976	21,199	12,400	25,705		26,824
9,900	20,180	21,416	12,500	25,968		27,040

*MAXIMUM LANDING WEIGHT

Safe Moments Table – Landplane and Wheel-skiplane
Figure 1-18

SECTION 2

SPECIFIC WEIGHT AND BALANCE DATA

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EQUIPMENT CHECKLIST

(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6 (Date)
A	STRUCTURE											
A-1												
A-2	* FUSELAGE STRUCTURE	1659.10	222.58	369275								
A-3	* TAIL STRUCTURE	302.64	534.02	161617								
A-4	* WING STRUCTURE	1262.56	224.00	282815								
A-5	* SURFACE CONTROLS	144.65	187.70	27151								
A-6	* NACELLE STRUCTURE	220.97	172.83	38190								
A-7												
A-8												
A-9	* Nose Structure incl. racks	99.00	28.00	2772								
A-10	* Radio Rack HIRF Covers (3)	5.00	44.00	220								
A-11	* Nose L/G Covers	1.00	44.00	44								
A-12												
A-13	* Radome	2.00	-13.00	-26								
A-14												
A-15												
A-16	* Main Landing Gear Complete - 11 x 12 tires	506.40	227.00	114953								
A-17	* Nose Landing Gear Complete - 8.90 x 12.5 tires	125.00	55.00	6875								
A-18	* Tail Bumper	10.00	518.00	5180								
A-19												
A-20												
A-21												
A-22												
A-23												
A-24												
A-25												

WEIGHT & BALANCE REPORT

DATE:

PREPARED:

Viking Air Limited
Sidney, BC

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All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST

(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6
							Date					
B	POWERPLANT											
B-1												
B-2	* PROPULSION GROUP	901.36	163.30	147193								
B-3												
B-4	** Propellers Hartzell HC-B3TN-3 (2) (incl. Spinners)	269.00	124.00	33356								
B-5												
B-6	** Starter-Generator BF Goodrich (2)	63.00	185.00	11655								
B-7												
B-8												
B-9	** Trapped Fuel - Fuselage Tanks	12.00	175.00	2100								
B-10	** Unusable, Drainable Fuel	23.00	202.00	4646								
B-11	** Trapped and Usable Oil	54.00	177.00	9558								
B-12												
B-13	* Engine Fire Ext. Bottles (2)	8.00	201.00	1608								
B-14												
B-15												
B-16												
B-17	* Engine Wash Kit (Provisions on Engine)	1.00	170.00	170								
B-18												
B-19												
B-20												
B-21												
B-22												
B-23												
B-24												
B-25												

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EQUIPMENT CHECKLIST

(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6
							Date					
C	INTERIOR											
C-1												
C-2	** Pilot Seat with Arm Rest and Seat Belt	18.00	105.00	1890								
C-3	** Pilot Seat Cushion	5.00	98.00	490								
C-4	* Pilot Shoulder Harness and Reel	3.00	106.00	318								
C-5	* Gust Locks (Internal) Stowed	2.00	103.00	206								
C-6												
C-7	* Co-Pilot's Seat with Arm Rest and Seat Belt	18.00	105.00	1890								
C-8	* Co-Pilot Seat Cushion	5.00	98.00	490								
C-9	* Co-Pilot Shoulder Harness and Reel	3.00	106.00	318								
C-10												
C-11												
C-12	* Floor Track - 2 Rail System - Brownline Tracks (4)	23.00	196.00	4508								
C-13	* Floor Boards - 2 Rail System - 13-19 Passenger	135.00	221.00	29835								
C-14												
C-15	** Fire Extinguisher - Flight Compartment	5.00	100.00	500								
C-16	* Fire Extinguisher - Cabin	5.00	268.00	1340								
C-17												
C-18	* Cockpit Panels and Trim	28.00	101.00	2828								
C-19	* Rear Baggage Panels and Trim	5.00	347.00	1735								
C-20												
C-21	NOTE: UNCHECK C-23, C-24 WHEN S.O.O. 6311 IS INCORPORATED											
C-22	FIRST AID KIT BECOMES PART OF LOOSE EQUIPMENT											
C-23	* Cabin Trim - Walls, Ceiling, Bulkhead, etc.	225.00	217.00	48825								
C-24	* First Aid Kit	2.00	117.00	234								
C-25												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

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All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST

(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6 (Date)
D	CABIN SEATING - 19 PASSENGER											
D-1	STANDARD SEAT INSTALLATION - POST MOD 6/2281, 6/2282											
D-2	CHECK D-7 TO D-20											
D-3	ALL OTHER SEAT ENTRIES UNCHECKED											
D-4	(SEE D-26 TO D-125 FOR PRE MOD OR S.O.O.)											
D-5	IF S.O.O. 6407 IS INCORPORATED CHECK D-17A & UNCHECK D-17 AND D-19											
D-6												
D-7	* Seat, Left, Single, Row 1 (POST MOD 6/2281)	14.81	137.83	2041								
D-8	* Seat, Left, Single, Row 2 (POST MOD 6/2281)	14.81	167.83	2486								
D-9	* Seat, Left, Single, Row 3 (POST MOD 6/2281)	14.81	197.83	2930								
D-10	* Seat, Left, Single, Row 4 (POST MOD 6/2281)	14.81	226.83	3359								
D-11	* Seat, Left, Single, Row 5 (POST MOD 6/2281)	14.81	255.83	3789								
D-12	* Seat, Right, Double, Row 1 (POST MOD 6/2281)	26.22	138.97	3644								
D-13	* Seat, Right, Double, Row 2 (POST MOD 6/2281)	26.22	168.97	4430								
D-14	* Seat, Right, Double, Row 3 (POST MOD 6/2281)	26.22	198.97	5217								
D-15	* Seat, Right, Double, Row 4 (POST MOD 6/2281)	26.22	227.97	5977								
D-16	* Seat, Right, Double, Row 5 (POST MOD 6/2281)	26.22	256.97	6738								
D-17	* Seat, Right, Single, Row 6 (POST MOD 6/2281)	14.81	284.31	4211								
D-17A	Seat, Right, Double, Row 6 (S.O.O. 6407)	26.22	283.60	7436								
D-18	* Seat, Left, Rear Mounted (POST MOD 6/2282)	15.23	321.00	4889								
D-19	* Seat, Mid, Rear Mounted (POST MOD 6/2282)	15.23	321.00	4889								
D-20	* Seat, Right, Rear Mounted (POST MOD 6/2282)	15.23	321.00	4889								
D-21	IF S.O.O. 6391 IS INCORPORATED CHECK D-22 TO D-25											
D-22	Structural Provisions	1.39	331.00	460								
D-23	Head Rest	2.26	331.00	747								
D-24	Lap Belt	-0.42	325.00	-137								
D-25	Lap Belt/Harness and Reel	2.75	331.00	910								

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST

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Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Date 1	2	3	4	5	6
					Initials							
D	CABIN SEATING - 19 PASSENGER - PRE MOD 6/2281, 6/2282											
D-26	CHECK D-30 TO D-43											
D-27	IF PRE MOD INCORPORATED											
D-28	ALL OTHER SEAT ENTRIES UNCHECKED											
D-29												
D-30	Seat, Left, Single, Row 1 (PRE MOD 6/2281)	14.00	140.00	1960								
D-31	Seat, Left, Single, Row 2 (PRE MOD 6/2281)	14.00	170.00	2380								
D-32	Seat, Left, Single, Row 3 (PRE MOD 6/2281)	14.00	200.00	2800								
D-33	Seat, Left, Single, Row 4 (PRE MOD 6/2281)	14.00	230.00	3220								
D-34	Seat, Left, Single, Row 5 (PRE MOD 6/2281)	14.00	259.00	3626								
D-35	Seat, Right, Double, Row 1 (PRE MOD 6/2281)	28.00	140.00	3920								
D-36	Seat, Right, Double, Row 2 (PRE MOD 6/2281)	28.00	170.00	4760								
D-37	Seat, Right, Double, Row 3 (PRE MOD 6/2281)	28.00	200.00	5600								
D-38	Seat, Right, Double, Row 4 (PRE MOD 6/2281)	28.00	230.00	6440								
D-39	Seat, Right, Double, Row 5 (PRE MOD 6/2281)	28.00	259.00	7252								
D-40	Seat, Right, Single, Row 6 (PRE MOD 6/2281)	14.00	286.00	4004								
D-41	Seat, Left, Rear Mounted (PRE MOD 6/2282)	16.41	321.00	5268								
D-42	Seat, Mid, Rear Mounted (PRE MOD 6/2282)	16.41	321.00	5268								
D-43	Seat, Right, Rear Mounted (PRE MOD 6/2282)	16.41	321.00	5268								
D-44												
D-45												
D-46												
D-47												
D-48												
D-49												
D-50												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST

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Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6 (Date)
D	CABIN SEATING - S.O.O. 6432- 16 SEAT OPTIONAL CONFIGURATION											
D-51	CHECK D-54 TO D-65											
D-52	ALL OTHER SEAT ENTRIES UNCHECKED											
D-53												
D-54	Seat, Left, Single, Row 1	14.81	137.83	2041								
D-55	Seat, Left, Single, Row 2	14.81	177.83	2634								
D-56	Seat, Left, Single, Row 3	14.81	216.83	3211								
D-57	Seat, Left, Single, Row 4	14.81	255.83	3789								
D-58	Seat, Right, Double, Row 1	28.00	138.97	3891								
D-59	Seat, Right, Double, Row 2	28.00	178.97	5011								
D-60	Seat, Right, Double, Row 3	28.00	217.96	6103								
D-61	Seat, Right, Double, Row 4	28.00	256.97	7195								
D-62	Seat, Right, Single, Row 5	14.81	284.31	4211								
D-63	Seat, Left, Rear Mounted	15.23	321.00	4889								
D-64	Seat, Mid, Rear Mounted	15.23	321.00	4889								
D-65	Seat, Right, Rear Mounted	15.23	321.00	4889								
D-66												
D-67												
D-68												
D-69												
D-70												
D-71												
D-72												
D-73												
D-74												
D-75												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST

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Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6 (Date)
D	CABIN SEATING - S.O.O. 6286 - 14 SINGLE SEATING LOPA											
D-76	CHECK D-80 TO D-93											
D-77	IF S.O.O. IS INCORPORATED (WITH POST MOD 6/2281, 6/2282)											
D-78	ALL OTHER SEAT ENTRIES UNCHECKED											
D-79												
D-80	Seat, Left, Single, Row 1 (POST MOD 6/2281)	14.81	137.83	2041								
D-81	Seat, Left, Single, Row 2 (POST MOD 6/2281)	14.81	167.83	2486								
D-82	Seat, Left, Single, Row 3 (POST MOD 6/2281)	14.81	197.83	2930								
D-83	Seat, Left, Single, Row 4 (POST MOD 6/2281)	14.81	226.83	3359								
D-84	Seat, Left, Single, Row 5 (POST MOD 6/2281)	14.81	255.83	3789								
D-85	Seat, Right, Single, Row 1 (POST MOD 6/2281)	14.81	137.83	2041								
D-86	Seat, Right, Single, Row 2 (POST MOD 6/2281)	14.81	167.83	2486								
D-87	Seat, Right, Single, Row 3 (POST MOD 6/2281)	14.81	197.83	2930								
D-88	Seat, Right, Single, Row 4 (POST MOD 6/2281)	14.81	226.83	3359								
D-89	Seat, Right, Single, Row 5 (POST MOD 6/2281)	14.81	255.83	3789								
D-90	Seat, Right, Single, Row 6 (POST MOD 6/2281)	15.23	286.00	4356								
D-91	Seat, Left, Rear Mounted (POST MOD 6/2282)	15.23	321.00	4889								
D-92	Seat, Mid, Rear Mounted (POST MOD 6/2282)	15.23	321.00	4889								
D-93	Seat, Right, Rear Mounted (POST MOD 6/2282)	15.23	321.00	4889								
D-94												
D-95												
D-96												
D-97												
D-98	FOR S.O.O. 6297 - NO SEATING ARRANGEMENT LOPA											
D-99	ALL SEAT ENTRIES UNCHECKED											
D-100												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST					Record of Checking								PREPARED:
(1) Items present will be acknowledged with (✓) (2) Items NOT present will be acknowledged with (-)					As Weighed	In Basic Weight	1	2	3	4	5	6	DATE:
							Date						
Manufacturer's Serial No.:	Registration:				Initials								WEIGHT & BALANCE REPORT
Item No.	Item Description	Weight lb	Arm in	Moment in*lb									Viking Air Limited Sidney, BC
D	CABIN SEATING - S.O.O. 6309 - LIFE VEST PROVISION												
D-101	IN ADDITION TO THE SEAT ENTRIES:												
D-102	CHECK D-105 TO D-123												
D-103	IF S.O.O. IS INCORPORATED (WITH POST MOD 6/2281, 6/2282)												
D-104	IF S.O.O. 6407 INCORPORATED CHECK D-120A AND UNCHECK D-122												
D-105	Life Vest Pouch - Seat Location - Left, Row 1	0.17	132.00	22									
D-106	Life Vest Pouch - Seat Location - Left, Row 2	0.17	162.00	27									
D-107	Life Vest Pouch - Seat Location - Left, Row 3	0.17	192.00	32									
D-108	Life Vest Pouch - Seat Location - Left, Row 4	0.17	221.00	37									
D-109	Life Vest Pouch - Seat Location - Left, Row 5	0.17	250.00	42									
D-110	Life Vest Pouch - Seat Location - Mid, Row 1	0.17	132.00	22									
D-111	Life Vest Pouch - Seat Location - Mid, Row 2	0.17	162.00	27									
D-112	Life Vest Pouch - Seat Location - Mid, Row 3	0.17	192.00	32									
D-113	Life Vest Pouch - Seat Location - Mid, Row 4	0.17	221.00	37									
D-114	Life Vest Pouch - Seat Location - Mid, Row 5	0.17	250.00	42									
D-115	Life Vest Pouch - Seat Location - Right, Row 1	0.17	132.00	22									
D-116	Life Vest Pouch - Seat Location - Right, Row 2	0.17	162.00	27									
D-117	Life Vest Pouch - Seat Location - Right, Row 3	0.17	192.00	32									
D-118	Life Vest Pouch - Seat Location - Right, Row 4	0.17	221.00	37									
D-119	Life Vest Pouch - Seat Location - Right, Row 5	0.17	250.00	42									AEROC SECT ISSUE PAGE
D-120	Life Vest Pouch - Seat Location - Right, Row 6	0.17	280.17	47									
D-120A	Life Vest Pouch - Seat Location - Mid, Row 6	0.17	279.40	47									
D-121	Life Vest Pouch - Seat Location - Left, Rear Mounted	0.17	314.00	53									
D-122	Life Vest Pouch - Seat Location - Mid, Rear Mounted	0.17	314.00	53									
D-123	Life Vest Pouch - Seat Location - Right, Rear Mounted	0.17	314.00	53									
D-124	NOTE: Rows D-105 thru D-123 are applicable to all Viking foreign language life												
D-125	vest provisions S.O.O.s												

EQUIPMENT CHECKLIST

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Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Date 1	2	3	4	5	6
					Initials							
D	CABIN SEATING - S.O.O. 6234 - LEATHER											
D-126	IN ADDITION TO THE SEAT ENTRIES:											
D-127	19 SEATS - CHECK D-130 TO D-148											
D-128	14 SEATS - CHECK D-130 TO D-134, D-140 TO D-148											
D-129												
D-130	Leather - Seat Location - Left, Row 1	0.75	137.83	103								
D-131	Leather - Seat Location - Left, Row 2	0.75	167.83	126								
D-132	Leather - Seat Location - Left, Row 3	0.75	197.83	148								
D-133	Leather - Seat Location - Left, Row 4	0.75	226.83	170								
D-134	Leather - Seat Location - Left, Row 5	0.75	255.83	192								
D-135	Leather - Seat Location - Mid, Row 1	0.75	137.83	103								
D-136	Leather - Seat Location - Mid, Row 2	0.75	167.83	126								
D-137	Leather - Seat Location - Mid, Row 3	0.75	197.83	148								
D-138	Leather - Seat Location - Mid, Row 4	0.75	226.83	170								
D-139	Leather - Seat Location - Mid, Row 5	0.75	255.83	192								
D-140	Leather - Seat Location - Right, Row 1	0.75	137.83	103								
D-141	Leather - Seat Location - Right, Row 2	0.75	167.83	126								
D-142	Leather - Seat Location - Right, Row 3	0.75	197.83	148								
D-143	Leather - Seat Location - Right, Row 4	0.75	226.83	170								
D-144	Leather - Seat Location - Right, Row 5	0.75	255.83	192								
D-145	Leather - Seat Location - Right, Row 6	0.75	286.00	215								
D-146	Leather - Seat Location - Left, Rear Mounted	0.75	321.00	241								
D-147	Leather - Seat Location - Mid, Rear Mounted	0.75	321.00	241								
D-148	Leather - Seat Location - Right, Rear Mounted	0.75	321.00	241								
D-149												
D-150												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST

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Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6	Date 1	2	3	4	5	6
G	GENERAL																	
G-1																		
G-2	* Windshield Wiper Installation	11.00	71.00	781														
G-3																		
G-4	* Protective Primer - Epoxy - Ext. Surface	14.00	287.00	4018														
G-5																		
G-6																		
G-7	* Airstair Door with Handrail	52.00	287.00	14924														
G-8	* Airstair Door Quick Release	1.00	287.00	287														
G-9	* Door Saver - Aircraftsman	7.00	275.00	1925														
G-10																		
G-11																		
G-12																		
G-13																		
G-14	Paint - Exterior Surface:																	
G-15	Refer to aircraft serial number specific paint scheme document for factory weight																	
G-16	and balance information																	
G-17																		
G-18																		
G-19																		
G-20																		
G-21																		
G-22																		
G-23																		
G-24																		
G-25																		

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6 (Date)
G												
G-26												
G-27	NOTE:											
G-28	Items G-31 to G-40 inclusive are standard supply but are not											
G-29	considered part of basic weight.											
G-30												
G-31	* Jury Strut/Tail Stick - for standard gear	2.50	354.00	885								
G-32	* Engine Intake and Exhaust Covers	6.40	354.00	2266								
G-33	* DC Noise Cancelling Headsets (2)	4.60	354.00	1628								
G-34	* Propellor Restraining Tie (2)	1.20	354.00	425								
G-35	* Fuel Dipstick	0.75	354.00	266								
G-36	* Pitot Tube Covers (2)	0.75	354.00	266								
G-37	* Case of Manuals	15.00	354.00	5310								
G-38	* Carrying Case/Bag	1.85	354.00	655								
G-39	* Microfibre Cloth & Bottle of Display Cleaner	0.70	354.00	248								
G-40	* Tie Down Rings	0.50	354.00	177								
G-41												
G-42												
G-43												
G-44												
G-45												
G-46												
G-47												
G-48												
G-49												
G-50												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6 (Date)
R	AVIONICS AND ELECTRICAL											
R-1	** DAU #1 (85-302-1 - Honeywell)	7.00	247.30	1731								
R-2	** DAU #2 (85-302-1 - Honeywell)	7.00	247.30	1731								
R-3	* DAU Fan (ACF328 - Sandia Aerospace)	1.18	268.50	317								
R-4												
R-5	** MAU - 12 Slot Cabinet (with cards) (7029782-1912 - Honeywell)	42.90	56.40	2420								
R-6	* Avionics Fan #1 (305468-00 - Sandia Aerospace)	0.25	53.60	13								
R-7	* Avionics Fan #2 (305468-00 - Sandia Aerospace)	0.25	60.10	15								
R-8												
R-9	** PFD #1 (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	6.61	71.41	472								
R-10	** PFD #1 (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	3.50	70.79	248								
R-11	** PFD #2 (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	6.61	71.41	472								
R-12	** PFD #2 (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	3.50	70.79	248								
R-13	** MFD UPPER (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	6.61	70.77	468								
R-14	** MFD UPPER (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	3.50	70.15	246								
R-15	** MFD LOWER (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	6.61	72.42	479								
R-16	** MFD LOWER (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	3.50	71.80	251								
R-17	* MF Controller (KMC2210 - 071-01598-0501 - Honeywell)	1.90	87.50	166								
R-18												
R-19	* ADAHRS (KSG7200 - 065-00188-5103 - Honeywell)	6.20	53.80	334								
R-20	Magnetometer #1 (KMG7010 - Honeywell) (PRE MOD 6/2171)	0.80	204.00	163								
R-21	Magnetometer #2 (KMG7010 - Honeywell) (PRE MOD 6/2171)	0.80	204.00	163								
R-22	* Magnetometer #1 (KMG7010 - Honeywell) (POST MOD 6/2171)	0.80	497.50	398								
R-23	* Magnetometer #2 (KMG7010 - Honeywell) (POST MOD 6/2171)	0.80	497.50	398								
R-24	* OAT Sensor (0129G - 00129-0122-0001 - Goodrich)	1.00	56.00	56								
R-25												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking 1 (Date / Initials)	2	3	4	5	6
R												
R-26												
R-27	* ESIS (GH3100 - 501-1860-0403 - L3 Com's) (PRE MOD 6/2170)	4.00	67.13	269								
R-28	* ESIS Power Supply (PS-850B - 501-1719-02 - L3 Com's)	13.40	417.50	5595								
R-29	* ESIS Magnetometer (MAG3000 - 501-1826-01 - L3 Com's)	0.50	204.00	102								
R-30	* ESIS (GH3900.2 - 9200-34400-0401 - L3 Com's) (POST MOD 6/2170)	2.60	68.13	177								
R-31	* Vertical Compass PAI-700-28 (Precision Aviation Inc.)	0.52	83.72	44								
R-32												
R-33	* Clock Q13-941.22.28.1.F1 (Thommen)	0.50	70.67	35								
R-34												
R-35												
R-36	* XPDR #1/PFD #1 CTRL (KXP2290 / KMC 2210 - Honeywell)	5.11	67.60	345								
R-37	* XPDR #1 ANT UPPER (CI-110-41-30 - Comant Industries)	0.25	186.50	47								
R-38	* XPDR #1 ANT LOWER (CI-110-41-30 - Comant Industries)	0.25	103.80	26								
R-39												
R-40	□* XPDR #2/PFD #2 CTRL (KXP2290 / KMC 2210 - Honeywell)	5.11	67.60	345								
R-41	□* XPDR #2 ANT UPPER (CI-110-41-30 - Comant Industries)	0.25	186.50	47								
R-42	□* XPDR #2 ANT LOWER (CI-110-41-30 - Comant Industries)	0.25	103.80	26								
R-40A	S.O.O. 6381 XPDR #2/PFD #2 CTRL (KXP2290 / KMC 2210 - Honeywell)	5.11	67.60	345								
R-41A	S.O.O. 6381 XPDR #2 ANT UPPER (CI-110-41-30 - Comant Industries)	0.25	186.50	47								
R-42A	S.O.O. 6381 XPDR #2 ANT LOWER (CI-110-41-30 - Comant Industries)	0.25	103.80	26								
R-43												
R-44												
R-45	* DME #1 (KN63 - 066-01070-0001 - Honeywell)	2.80	414.60	1161								
R-46	* DME #1 ANT (CI-110-41-30 - Comant Industries)	0.25	291.40	73								
R-47	□* DME #2 (KN63 - 066-01070-0001 - Honeywell)	2.80	429.50	1203								
R-48	□* DME #2 ANT (CI-110-41-30 - Comant Industries)	0.25	431.00	108								
R-47A	S.O.O. 6386 DME #2 (KN63 - 066-01070-0001 - Honeywell)	2.80	429.50	1203								
R-48A	S.O.O. 6386 DME #2 ANT (CI-110-41-30 - Comant Industries)	0.25	431.00	108								
R-49												
R-50												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
R												
R-51												
R-52	* RAD ALT #1 (KRA405B - 066-0153-0101 - Honeywell)	3.03	416.60	1262								
R-53	RAD ALT #1 ANT FWD - DMPN3-3A (PRE MOD 6/2258)	1.25	416.00	520								
R-54	RAD ALT #1 ANT AFT - DMPN3-3A (PRE MOD 6/2258)	1.25	446.00	558								
R-55	* RAD ALT #1 ANT FWD - KA54A (POST MOD 6/2258)	1.24	416.00	516								
R-56	* RAD ALT #1 ANT AFT - KA54A (POST MOD 6/2258)	1.24	446.00	553								
R-57												
R-58	* GPS #1 (KGS200 - 066-01201-0101 - Honeywell)	1.09	48.20	53								
R-59	□* GPS #2 (KGS200 - 066-01201-0101 - Honeywell)	1.09	54.00	59								
R-60	* GPS #1 ANT (KA96 - 071-01620-0001 - Honeywell)	0.47	140.10	66								
R-61	□* GPS #2 ANT (KA96 - 071-01620-0001 - Honeywell)	0.47	317.80	149								
R-59A	S.O.O. 6380 GPS #2 (KGS200 - 066-01201-0101 - Honeywell)	1.09	54.00	59								
R-61A	S.O.O. 6380 GPS #2 ANT (KA96 - 071-01620-0001 - Honeywell)	0.47	317.80	149								
R-62												
R-63	□* TCAS I (KTA910 - 066-01177-0101 - Honeywell)	9.60	47.20	453								
R-64	□* TCAS I CONFIG MODULE (071-00112-0200 - Honeywell)	0.10	46.75	5								
R-65	□* TCAS I ANT UPR (KA-815 - 071-01599-0100 - Honeywell)	0.95	111.60	106								
R-66	□* TCAS I ANT LWR (CI-110-41-30 - Comant Industries)	0.25	67.30	17								
R-63A	S.O.O. 6382 TCAS I (KTA910 - 066-01177-0101 - Honeywell)	9.60	47.20	453								
R-64A	S.O.O. 6382 TCAS I CONFIG MODULE (071-00112-0200 - Honeywell)	0.10	46.75	5								
R-65A	S.O.O. 6382 TCAS I ANT UPR (KA-815 - 071-01599-0100 - Honeywell)	0.95	111.60	106								
R-66A	S.O.O. 6382 TCAS I ANT LWR (CI-110-41-30 - Comant Industries)	0.25	67.30	17								
R-67												
R-68	□* EGPWS MARK VI (965-1180-024 - Honeywell)	3.90	58.80	229								
R-68A	S.O.O. 6387 EGPWS MARK VI (965-1180-024 - Honeywell)	3.90	58.80	229								
R-69												
R-70												
R-71	□* WX RADAR w/ 12" ANT (ART2000 - 071-01519-0101 - Honeywell)	10.81	-10.10	-109								
R-72	□* WX RADAR CONFIG MODULE (071-00097-0100 - Honeywell)	0.10	-6.00	-1								
R-71A	S.O.O. 6383 WX RADAR w/ 12" ANT (ART2000 - 071-01519-0101 - Honeywell)	10.81	-10.10	-109								
R-72A	S.O.O. 6383 WX RADAR CONFIG MODULE (071-00097-0100 - Honeywell)	0.10	-6.00	-1								
R-73												
R-74												
R-75												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
R												
R-76												
R-77	* FDR (AR-256 - 980-4710-003 - Honeywell)(PRE MOD 6/2332)	9.20	429.40	3950								
R-78	FDR Impact Switch (370-0145-003 - Honeywell)(PRE MOD 6/2256)	0.65	429.70	279								
R-79	□* FDR Impact Switch (3LO-1010-3 - InertiaSwitch)(POST MOD 6/2256)	0.56	429.70	241								
R-80	□* FDR Accelerometer (971-4193-001 - Honeywell)	1.10	47.10	52								
R-77A	□ FDR (FA2100FDR - 2100-2044-00 - L3)(POST MOD 6/2332)	10.00	414.20	4142								
R-77B	□ FDR MNT (2100-8005-00 - L3)(POST MOD 6/2332)	1.20	414.80	498								
R-77C	□ FDR BRKT (C6FS5029-11)(POST MOD 6/2332)	0.34	415.30	141								
R-77D	S.O.O. 6385 FDR (FA2100FDR - 2100-2044-00 - L3)	10.00	414.20	4142								
R-77E	S.O.O. 6385 FDR MNT (2100-8005-00 - L3)	1.20	414.80	498								
R-77F	S.O.O. 6385 FDR BRKT (C6FS5029-11)	0.34	415.30	141								
R-79A	S.O.O. 6385 FDR Impact Switch (3LO-1010-3 - InertiaSwitch)(POST MOD 6/2256)	0.56	429.70	241								
R-80A	S.O.O. 6385 FDR Accelerometer (971-4193-001 - Honeywell)	1.10	47.10	52								
R-81												
R-82	* CVR (AR-120 - 980-6023-002 - Honeywell)(PRE MOD 6/2332)	9.20	414.50	3813								
R-82A	□* CVR (AR-120 - 980-6023-002 - Honeywell)(POST MOD 6/2332)	9.20	429.54	3952								
R-83	CVR Impact Switch (370-0145-003 - Honeywell)(PRE MOD 6/2256)	0.65	423.80	275								
R-84	□* CVR Impact Switch (3LO-1010-3 - Inertia Switch)(POST MOD 6/2256)	0.56	423.80	237								
R-85	□* CVR Area Mic (980-6113-010 - Honeywell)	0.20	72.81	15								
R-82B	S.O.O. 6384 CVR (AR-120 - 980-6023-002 - Honeywell)(POST MOD 6/2332)	9.20	429.54	3952								
R-84A	S.O.O. 6384 CVR Impact Switch (3LO-1010-3 - Inertia Switch)(POST MOD 6/2256)	0.56	423.80	237								
R-85A	S.O.O. 6384 CVR Area Mic (980-6113-010 - Honeywell)	0.20	72.81	15								
R-86												
R-87	* ELT (C406-2 - 453-5060 - Artex)	4.63	416.40	1928								
R-88	* ELT ANT (110-338 - Artex)	0.45	424.50	191								
R-89												
R-90												
R-91	* MMDR #1 (069-01037-0102 - Honeywell)	5.45	49.80	271								
R-92	* MMDR #2 (069-01037-0102 - Honeywell)	5.45	49.80	271								
R-93	* MMDR NAV Splitter (CI-502 - Comant Industries)	0.25	47.50	12								
R-94	* MMDR VOR/LOC ANT (DMN4-4 - Dorne & Margolin)	2.00	556.10	1112								
R-95	* MMDR #1 COM ANT (CI-108-1-L - Comant Industries)	2.50	149.60	374								
R-96	* MMDR #2 COM ANT (CI-108-1-L - Comant Industries)	2.50	354.40	886								
R-97	* MMDR Glide Slope ANT (DMN25-2 - Dorne & Margolin)	0.88	-10.80	-10								
R-98	□* MMDR #1 ADF ANT (KA-44B - 071-01234-0000 - Honeywell)	4.20	294.40	1236								
R-98A	S.O.O. 6405 MMDR #1 ADF ANT (KA-44B - 071-01234-0000 - Honeywell)	4.20	294.40	1236								

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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R												
R-99												
R-100												
R-101												
R-102	* Audio Panel #1 (KMA29 - 066-01181-0101 - Honeywell)	2.50	68.64	172								
R-103	* Audio Panel #2 (KMA29 - 066-01181-0101 - Honeywell)	2.50	68.64	172								
R-104	* Marker Beacon ANT (CI-118 - Comant Industries)	0.50	79.00	40								
R-105	* Audio Mixing Amplifier (NAT247)	0.42	46.30	19								
R-106												
R-107												
R-108	* P/A Amplifier (NAT245)	0.60	46.00	28								
R-109	* Cabin Speakers (Qty 6) (4C5Z8 - Quam)	1.80	225.10	405								
R-110												
R-111												
R-112	* Lighting Power Supply (99-1128 - FTG Aerospace)	2.30	52.90	122								
R-113	* Dimmer Control Panel (C6NF2240)	0.84	82.90	70								
R-114												
R-115	* Caution Lights Dim Box (LD12-001 - NAT)	0.84	59.10	50								
R-116												
R-117	* Light Dimmer (LT45 - KGS)	0.65	50.30	33								
R-118												
R-119	* LND LT #1 HID Power Supply (8ES455338-20-Goodrich) (PRE-MOD 6/2285)	1.88	198.00	372								
R-120	* LND LT #2 HID Power Supply (8ES455338-20-Goodrich) (PRE-MOD 6/2285)	1.88	198.00	372								
R-121												
R-122	* STROBE LT #1 Power Supply (01-0790101-02 - Whelen) (PRE-MOD 6/2447)	1.70	212.00	360								
R-123	* STROBE LT #2 Power Supply (01-0790101-02 - Whelen) (PRE-MOD 6/2447)	1.70	212.00	360								
R-124												
R-125												

PREPARED: | DATE: | WEIGHT & BALANCE REPORT | Viking Air Limited Sidney, BC

AEROC SECT ISSUE PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
R												
R-126												
R-127	* Taxi Light	2.00	53.00	106								
R-128												
R-129	TAIL BEACON LIGHT (PRE-MOD 6/2240)	1.10	547.30	602								
R-130	** TAIL BEACON LIGHT (POST-MOD 6/2240)	0.75	547.30	410								
R-131												
R-132												
R-133												
R-134	* Fuel Computer (61349 - 10863B01Y01 - AMETEK)	1.40	136.50	191								
R-135	* FUEL BOOST PUMP EMI FILTER RELOCATION (POST-MOD 6/2267, PRE-MOD 6/	3.60	124.40	448								
R-136												
R-137	NOTE: WHEN S.O.O. 6371 IS INCORPORATED, REMOVE											
R-138	CHECKMARKS FROM R-139. CHECK ROWS S-9 THRU S-12											
R-139	* Battery - Lead Acid (RG-380E / 60L)	96.00	338.00	32448								
R-140	* Voltage Regulators (2)	3.00	335.00	1005								
R-141												
R-142	* DC Converter (AK-551-9M - Ameri-King) (PRE MOD 6/2406)	1.50	53.80	81								
R-143	* DC Converter (6430120-1-TRUE BLUE POWER) (POSTMOD 6/2406)	0.65	53.80	35								
R-144	* LND LT #1 HID (10455703-00 - Goodrich) (PRE-MOD 6/2285)	2.43	191.30	465								
R-145	* LND LT #2 HID (10455703-00 - Goodrich) (PRE-MOD 6/2285)	2.43	191.30	465								
R-146	* LND LT #1 LED (01-0790783-00 - Whelen) (POST-MOD 6/2285)	1.00	191.30	191								
R-147	* LND LT #2 LED (01-0790783-00 - Whelen) (POST-MOD 6/2285)	1.00	191.30	191								
R-148	* LND LT FLASHER (01-0771868-00 - Whelen) (POST-MOD 6/2285)	0.75	180.00	135								
R-149	*Avionics Start Battery provisions (not including battery) (POST-MOD 6/2315)	2.35	55.40	130								
R-150	*Avionics Start Battery (RG-122-3) (POST-MOD 6/2315)	10.00	49.40	494								

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

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							Date					
S	STANDARD ORDER OPTIONS											
S-1												
S-2	S.O.O. 6279 - US IMPORTATION PLACARD	0.09	520.00	47								
S-3	S.O.O. 6285 - IMPORTATION IDENTIFICATION PLATE	0.09	520.00	47								
S-4	S.O.O. 6267 - STA 111.0 Structural Provisions for Float Installation	3.11	105.30	327								
S-5												
S-6												
S-7	S.O.O. 6218 - 2ND RAD ALT	7.42	409.30	3037								
S-8												
S-9	S.O.O. 6371 - FORWARD BATTERY (RG-380E/60L BATTERY)	96.00	3.50	336								
S-10	S.O.O. 6371 - FORWARD BATTERY (STRUCTURAL PROVISIONS)	5.57	16.87	94								
S-11	S.O.O. 6371 - FORWARD BATTERY (ELETRICAL PROVISIONS)	33.78	52.96	1789								
S-12	S.O.O. 6371 - FORWARD BATTERY (REMOVED ELECTICAL PROVISIONS)	-33.78	291.60	-9850								
S-13	NOTE: IF S.O.O. 6371 APPLIES, UNCHECK R-139											
S-14	S.O.O. 6431 - BAGGAGE BULKHEAD - FORWARD BATTERY	7.28	15.45	112								
S-15	S.O.O. 6431 - BAGGAGE BULKHEAD - FORWARD BATTERY (PROVISIONS)	1.28	15.45	20								
S-16												
S-17												
S-18												
S-19	S.O.O. 6217 - MMDR #2 ADF ANT (KA-44B - 071-01234-0000)	4.20	294.40	1236								
S-20												
S-21	S.O.O. 6219 - TCAS II (TPU 67A - 066-01146-1211)	20.30	47.60	966								
S-22	S.O.O. 6219 - TCAS II CONFIG MODULE (071-00097-1000)	0.08	44.00	4								
S-23	S.O.O. 6219 - TCAS II UPR ANT (ANT67A - 071-01548-0200)	1.82	111.60	203								
S-24	S.O.O. 6219 - TCAS II ANT LWR (CI-110-41-30 - Comant Industries)	0.25	67.30	17								
S-25	NOTE: IF S.O.O. 6219 APPLIES, UNCHECK R63-R66											

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

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S												
S-26												
S-27	S.O.O. 6215 - HF RX/EX (KRX1053 - 064-01073-0102 - Honeywell)	5.90	431.70	2547								
S-28	S.O.O. 6215 - HF ANT CPLR (KAC1052 - 064-01074-0101 - Honeywell)	16.20	443.20	7180								
S-29	S.O.O. 6215 - HF PW AMP (KPA1052 - 064-01072-0101 - Honeywell)	8.40	444.60	3735								
S-30	S.O.O. 6215 - HF ANT (Dayton Granger)	0.60	492.00	295								
S-31	S.O.O. 6215 - HF CNTRL (071-01605-0201 - Honeywell)	1.10	70.13	77								
S-32												
S-33												
S-34	S.O.O. 6211 - XM Weather - Receiver (XMD 157)	1.40	446.00	624								
S-35	S.O.O. 6211 - XM Weather - Antenna (XMR ANT)	0.26	308.60	80								
S-36	S.O.O. 6212 - REMOTE IMAGE BUS (VHB2412-400 - Module)	1.30	53.00	69								
S-37	S.O.O. 6212 - REMOTE IMAGE BUS (Wiring)	1.86	55.70	104								
S-38	S.O.O. 6243 - THIRD SEAT RAIL - Brownline Tracks (5)	6.00	194.00	1164								
S-39	S.O.O. 6243 - THIRD SEAT RAIL - Floor Boards - 13-20 Passenger	7.00	219.00	1533								
S-40	S.O.O. 6377 - STRUCTURAL PROVISIONS, 6th ROW SEAT	3.99	279.35	1115								
S-41												
S-42	S.O.O. 6286 - 14 SEAT OPTION - Refer to Section D											
S-43	S.O.O. 6297 - NO SEAT OPTION - Refer to Section D											
S-44	S.O.O. 6234 - LEATHER - Refer to Section D											
S-45	S.O.O. 6407 - 19 SEATS OPTIONAL CONFIGURATION - Refer to Section D											
S-46												
S-47												
S-48	S.O.O. 6205 - EMERGENCY LIGHTING	1.00	215.00	215								
S-49	S.O.O. 6205 - EMERGENCY LIGHTING - BATT - RG-121-1 (Concorde)	6.40	340.20	2177								
S-50												

WEIGHT & BALANCE REPORT

PREPARED:
DATE:

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

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							Date					
S												
S-51												
S-52	S.O.O. 6244 - COIN MAT FLOORING - Cockpit	1.91	98.00	187								
S-53	S.O.O. 6244 - COIN MAT FLOORING - Cabin	42.00	221.00	9282								
S-54	S.O.O. 6398 - LIGHT WEIGHT COIN MAT FLOORING - Cockpit	1.60	98.00	157								
S-55	S.O.O. 6398 - LIGHT WEIGHT COIN MAT FLOORING - Cabin	32.55	224.00	7291								
S-56												
S-57	S.O.O. 6004 - Airframe De-Icing (Boots - Type 23S)	104.00	277.00	28808								
S-58												
S-59												
S-60												
S-61	S.O.O. 6168 - Fuselage Ice Guard - Prop Area	7.00	126.00	882								
S-62												
S-63												
S-64	S.O.O. 6187 - Heated Windshield (wt. incr.)	34.00	86.00	2924								
S-65												
S-66												
S-67												
S-68	S.O.O. 6247 - WING TANKS - Long Range Tanks	139.00	203.00	28217								
S-69	S.O.O. 6247 - WING TANKS - Trapped Fuel	10.00	238.57	2386								
S-70												
S-71												
S-72	S.O.O. 6230 - Rosen Sun Visor	2.40	87.50	210								
S-73												
S-74												
S-75												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

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							Date					
							Initials					
S												
S-76												
S-77	S.O.O. 6270 - Portable ELT Mounting Provision	0.33	86.00	28								
S-78												
S-79												
S-80	S.O.O. 6048 - LANDING GEAR - LARGE SIZE TIRES - MAIN GEAR	571.14	227.50	129934								
S-81	S.O.O. 6048 - LANDING GEAR - LARGE SIZE TIRES - NOSE GEAR	186.40	54.00	10066								
S-82	S.O.O. 6048 - JURY STRUT - SHORT - FOR USE WITH IFG	2.00	354.00	708								
S-83												
S-84												
S-85												
S-86	S.O.O. 6001 - Main Wheel Skis, Shock Cords, Hydr Hoses & Cables (2)	460.00	231.00	106260								
S-87	S.O.O. 6001 - Nose Wheel Skis, Shock Cords, Hydr Hoses & Cables (2)	163.00	50.00	8150								
S-88	S.O.O. 6001 - Provisions - Elect, Hydr., Etc (Fuselage Portion)	14.00	144.00	2016								
S-89	S.O.O. 6001 - Provisions - Elect, Hydr., Etc (L/G Leg Portion)	0.13	228.00	30								
S-90	S.O.O. 6001 - Main Wheel Ski Outboard Lugs & Bolts	13.00	232.00	3016								
S-91												
S-92												
S-93												
S-94												
S-95												
S-96												
S-97												
S-98												
S-99												
S-100												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

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							Date					
S												
S-101												
S-102	NOTE: WHEN S.O.O. 6299 IS INCORPORATED, REMOVE											
S-103	CHECKMARKS FROM R-77 TO R-80											
S-104	S.O.O. 6299 - REMOVAL OF FDR	0.00	0.00	0								
S-105												
S-106	NOTE: WHEN S.O.O. 6292 IS INCORPORATED, REMOVE											
S-107	CHECKMARKS FROM R-82 TO R-85											
S-108	S.O.O. 6292 - REMOVAL OF CVR	0.00	0.00	0								
S-109												
S-110												
S-111	S.O.O. 6291 - PARACHUTE ANCHOR LINE	25.50	219.30	5592								
S-112												
S-113	S.O.O. 6289 - BUBBLE WINDOW ESCAPE HATCH	0.00	0.00	0								
S-114												
S-115	NOTE: WEIGHT DIFFERS WHEN BOTH ARE INSTALLED											
S-116	S.O.O. 6288 AND S.O.O. 6298 TOGETHER	8.78	84.90	745								
S-117	S.O.O. 6288 - ECTM/FOQA DATA CAPTURE	4.16	108.80	453								
S-118	S.O.O. 6298 - SAT COM SYSTEM	7.03	88.90	625								
S-119												
S-120												
S-121												
S-122	S.O.O. 6296 - VHF FM RADIO	11.20	120.30	1347								
S-123	S.O.O. 6287 - COLD WEATHER OPERATIONS KIT (115VAC)	10.18	177.97	1812								
S-124	S.O.O. 6276 - COLD WEATHER OPERATIONS KIT (230VAC)	10.18	177.97	1812								
S-125												

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WEIGHT & BALANCE REPORT

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Sidney, BC

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EQUIPMENT CHECKLIST

(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6 (Date)
S												
S-126	S.O.O. 6272 - G.A. 14V POWER SOCKET - STA 332	3.50	401.00	1404								
S-127	S.O.O. 6281 - G.A. QTY 3 14V AFT CABIN POWER	5.00	354.00	1770								
S-128	S.O.O. 6282 - G.A. QTY 3 14V FWD CABIN POWER	5.00	80.00	400								
S-129	S.O.O. 6283 - G.A. 28V POWER SOCKET - STA 332	1.41	213.48	301								
S-130												
S-131												
S-132	S.O.O. 6229 - FOURTH CREW INTERCOM	0.15	328.00	50								
S-133												
S-134												
S-135												
S-136	S.O.O. 6322 - FLT COMP FANS (COMPLETE)	2.32	108.23	251								
S-137	S.O.O. 6322 - FLT COMP FAN (PILOT ONLY)	1.33	108.83	145								
S-138	S.O.O. 6322 - FLT COMP FAN (CO-PILOT ONLY)	1.33	109.20	145								
S-139												
S-140												
S-141	S.O.O. 6268 - SHEEP SKIN SEAT COVERS (PILOT SEAT)	3.06	105.00	321								
S-142	S.O.O. 6268 - SHEEP SKIN SEAT COVERS (CO-PILOT SEAT)	3.06	105.00	321								
S-143												
S-144												
S-145												
S-146	S.O.O. 6376 - AXE AND AXE STOWAGE - FLIGHT COMPARTMENT	3.00	106.00	318								
S-147												
S-148												
S-149												
S-150												

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WEIGHT & BALANCE REPORT

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EQUIPMENT CHECKLIST

(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: | Registration:

Item No.	Item Description	Weight lb	Arm in	Moment in*lb	As Weighed	In Basic Weight	Record of Checking Initials 1	2	3	4	5	6
							Date					
S												
S-151	S.O.O. 6323 - AUTOPILOT - STRUCTURAL PROVISIONS	4.60	350.65	1613								
S-152	S.O.O. 6324 - AUTOPILOT - ELECTRICAL PROVISIONS	10.21	243.34	2485								
S-153	S.O.O. 6325 - AUTOPILOT - SWITCH PROVISIONS	1.70	85.18	145								
S-154												
S-155												
S-156	S.O.O. 6221 - AUTOMATIC FLIGHT CONTROL SYSTEM - PROVISIONS	16.51	256.95	4242								
S-157	S.O.O. 6221 - AILERON SERVO INSTALLATION	7.30	106.86	780								
S-158	S.O.O. 6221 - RUDDER SERVO INSTALLATION	7.36	387.28	2850								
S-159	S.O.O. 6221 - ELEVATOR SERVO INSTALLATION	7.36	387.28	2850								
S-160	S.O.O. 6221 - PITCH TRIM SERVO INSTALLATION	3.71	439.21	1629								
S-161												
S-162	S.O.O. 6304 - STAINLESS STEEL OAT SENSOR	1.00	56.00	56								
S-163												
S-164	S.O.O. 6356 - QUICK ACCESS RECORDER INSTL'N PROVISIONS	1.00	363.20	363								
S-165	S.O.O. 6356 - uQAR (QAR200-35-04)	0.38	364.00	137								
S-166												
S-167	S.O.O. 6378 - CABIN CIRCULATION FANS AT STA 111 BULKHEAD	8.30	117.60	976								
S-168	S.O.O. 6379 - CABIN BLOWER AT STA 332 BULKHEAD	6.24	323.20	2017								
S-169												
S-170	S.O.O. 6389 - STN 332 BULKHEAD MODIFICATION	-3.41	333.00	-1136								
S-171	S.O.O. 6389 - CARGO NET INSTALLATION (C6G1607-1)	1.96	334.00	655								
S-172												
S-173												
S-174												
S-175												

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BASIC AIRCRAFT WEIGHT CHANGE RECORD

AIRCRAFT REG. No.				WEIGHT & MOMENT CHANGE						TOTAL			INITIALS
AIRCRAFT SERIAL No.				ADDED			REMOVED			BASIC AIRCRAFT			
Date	ADDED/ REMOVED	ITEM	ITEM DESCRIPTION	Wt lb	Arm in.	Moment in*lb	Wt lb	Arm in.	Moment in*lb	Wt lb	Arm in.	Moment in*lb	
			Basic Aircraft Weight										

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SUPPLEMENT 1

WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (DRUM SYSTEM)

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SUPPLEMENT 1 – WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (DRUM SYSTEM)

TABLE OF CONTENTS PAGE

S1.1 Operating Weight and Balance Limitations 5

S1.2 Take-off and Landing Weight Limitations 8

S1.3 Center of Gravity 8

List of Figures

Page

S1-1 Approximate Locations of Ferry Fuel Drums 6
S1-2 Ferry Fuel System Table 6
S1-3 Rear Baggage Compartment – Total Load Restrictions 7
S1-4 CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System 8
S1-5 Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System 9

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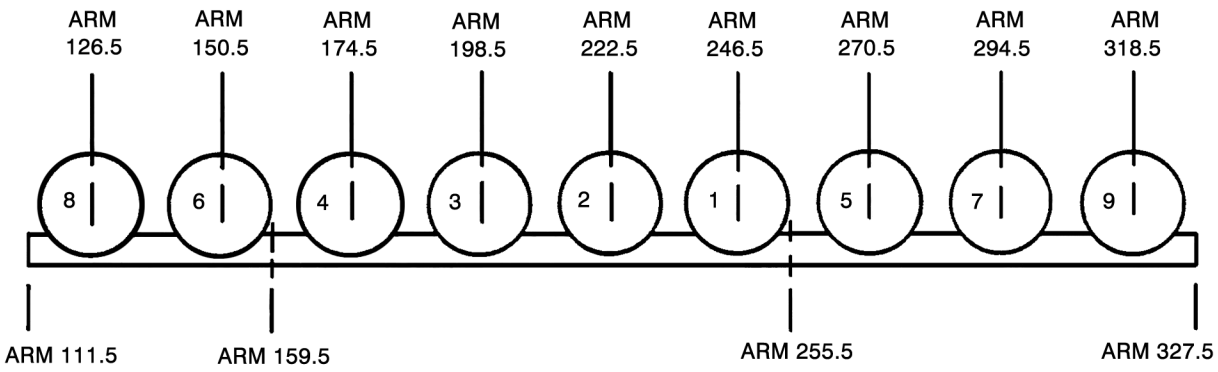
Note This is not a type design approved installation. Any operations in excess of the maximum certified gross weight of the aircraft, must be authorized by the local airworthiness authority.

S1.1 Operating Weight and Balance Limitations

The majority of airplanes operating with a ferry fuel system installed will exceed the maximum design gross weight of 12,500 lbs (5,670 kg). When operating with ferry system drums installed, observance of the limitations in this supplement is required in addition to those specified in the Section 2 of the Flight Manual and Section 10 of the Pilot Operating Handbook.

S1.1.1 If the specified fuel drum arrangement Figure S1-1 is used, then the CG of the airplane should remain within flight limitations, provided that any additional loads (personal luggage, spares, etc) are located correctly. The drums must be installed in the numerical order specified in Figure S1-1.

The loading configuration should be checked using data in this supplement together with that in the basic Weight and Balance Handbook, to ensure that the CG limitations as shown in Figure S1-4 and the baggage compartment limitations as shown in Figure S1-3 are strictly adhered to.



Approximate Locations of Ferry Fuel Drums
Figure S1-1

FERRY FUEL SYSTEM TABLE – DRUMS IN CABIN

NO. OF DRUMS	TOTAL CAPACITY IMP. GAL	TOTAL CAPACITY U.S. GAL	USABLE FUEL IMP. GAL	USABLE FUEL U.S. GAL	USABLE WT OF FUEL LB	TOTAL WT OF FUEL. TRAPPED + USABLE LB	C.G. IN.	TOTAL FUEL MOMENT LB IN. 100
9	402	482.8	378	453.9	3100	3296	222	7317
8	357	428.7	336	403.5	2755	2927	210	6147
7	313	375.9	294	353.1	2411	2567	222	5699
6	268	321.8	252	302.6	2066	2198	210	5143
5	223	267.8	210	252.2	1722	1829	222	4060
4	179	215.0	168	201.8	1378	1468	2103	3083

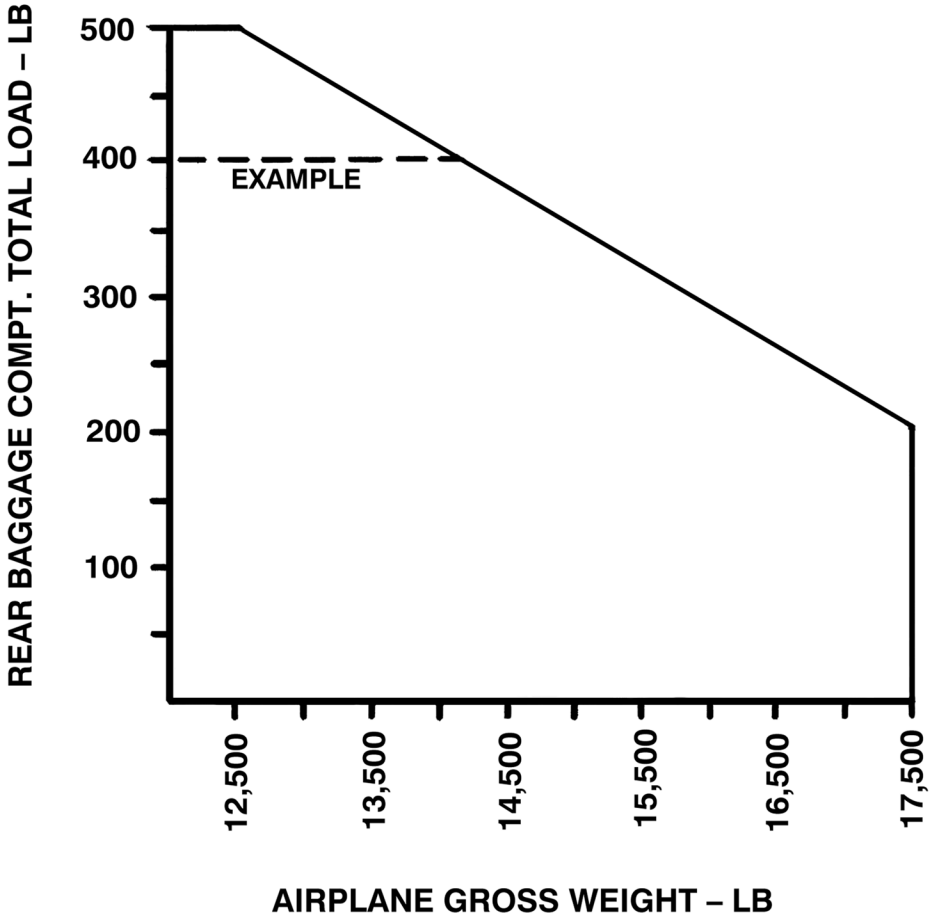
THESE WEIGHTS & VOLUMES ARE APPROXIMATE ONLY, BASED ON
42 IMP GAL USABLE FUEL PER DRUM
FUEL DENSITY ASSUMED = 8.2 LB/IMP GAL
FUEL DENSITY ASSUMED = 6.83 LB/U.S. GAL

Ferry Fuel System Table
Figure S1-2

AT WEIGHTS IN EXCESS OF 12,500 LB, IT IS NECESSARY TO RESTRICT THE LOAD IN THE REAR BAGGAGE COMPARTMENT.

THE MAXIMUM WEIGHT PERMITTED ON THE SHELF IS UNCHANGED AT 150 LB. THE TOTAL WEIGHT IN THE COMPARTMENT VARIES LINEARLY FROM 500 LB AT 12,500 LB GROSS WEIGHT TO 200 LB AT 17,500 LB.

SHOULD THE LABEL IN THE REAR BAGGAGE COMPARTMENT RESTRICT THE WEIGHT TO LESS THAN THAT GIVEN HERE, THE LABELLED RESTRICTION SHALL TAKE PRECEDENCE (SEE EXAMPLE).



Rear Baggage Compartment – Total Load Restrictions
Figure S1-3

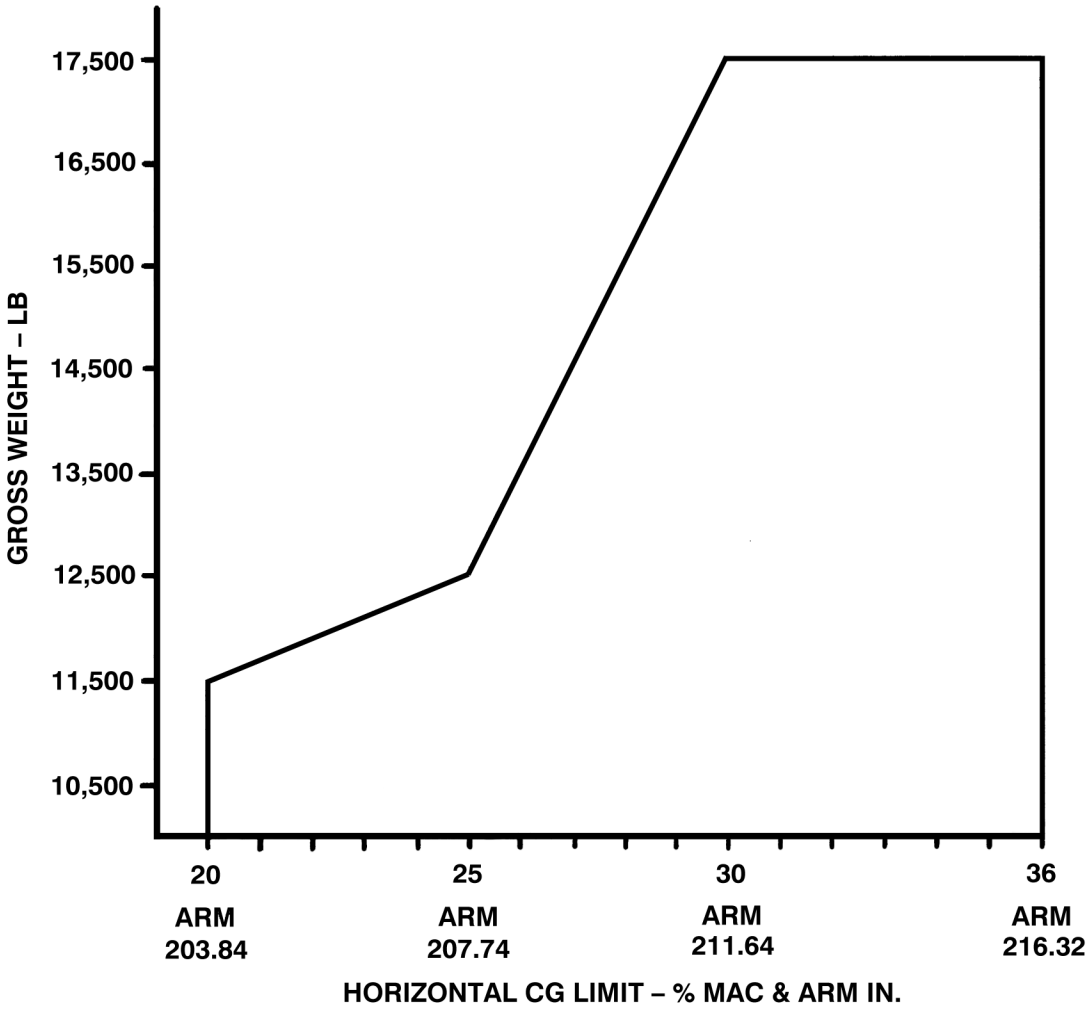
S1.2 Take-off and Landing Weight Limitations

a. The maximum take-off weight with a ferry fuel system installed is 17,500 lbs (7,940 kg), unless limited by operating conditions such as temperature, altitude, runway length, etc.

b. The maximum design landing weight is 12,300 lbs (5,580 kg). Emergency landings may be made safely with weights up to 17,500 lbs (7,940 kg) provided that touchdown is made at a moderate descent velocity.

S1.3 Center of Gravity

The CG limits of the airplane with a ferry fuel system installed are shown in Figure S1-4. The limiting CG locations are given as both airplane horizontal stations and percentages of the Mean Aerodynamic Chord.



CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S1-4

SAFE MOMENTS TABLE – LANDPLANE & WHEEL-SKIPLANE		
GROSS WEIGHT LB	MOMENT/100 LB IN.	
	FWD CG LIMIT	AFT CG LIMIT
12,500	25,968	27,040
12,750	26,512	27,581
13,000	27,057	28,122
13,250	27,604	28,662
13,500	28,150	29,203
13,750	28,699	29,744
14,000	29,247	30,285
14,250	29,798	30,826
14,500	30,349	31,366
14,750	30,901	31,907
15,000	31,454	32,448
15,250	32,008	32,989
15,500	32,562	33,530
15,750	33,119	34,070
16,000	33,675	34,611
16,250	34,234	35,152
16,500	34,792	35,693
16,750	35,353	36,234
17,000	35,913	36,774
17,250	36,475	37,315
17,500	37,037	37,856

Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S1-5

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SUPPLEMENT 2

WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (TURTLE PAC BLADDER)

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SUPPLEMENT 2 – WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (TURTLE PAC BLADDER)

TABLE OF CONTENTS PAGE

S2.1 Operating Weight and Balance Limitations 5

S2.2 Take-off and Landing Weight Limitations 8

S2.3 Center of Gravity 8

List of Figures

Page

S2-1 Approximate Locations of Ferry Fuel Bladder – One Bladder System 5
S2-2 Approximate Locations of Ferry Fuel Bladder – Two Bladder System 5
S2-3 Ferry Fuel System Table 6
S2-4 Rear Baggage Compartment – Total Load Restrictions 7
S2-5 CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System 8
S2-6 Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System 10
S2-7 Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System 11
S2-8 Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System 13
S2-9 Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System 14
S2-10 Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System 15

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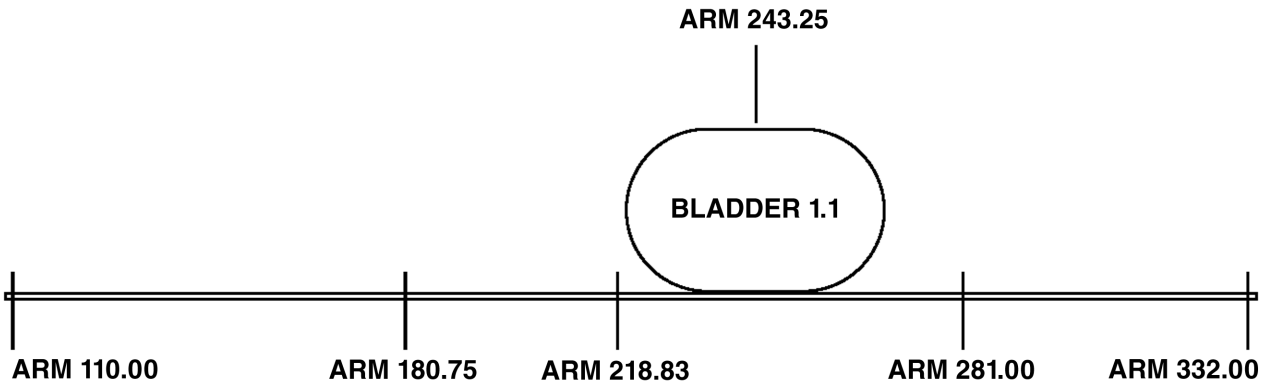
Note This is not a type design approved installation. Any operations in excess of the maximum certified gross weight of the aircraft, must be authorized by the local airworthiness authority.

S2.1 Operating Weight and Balance Limitations

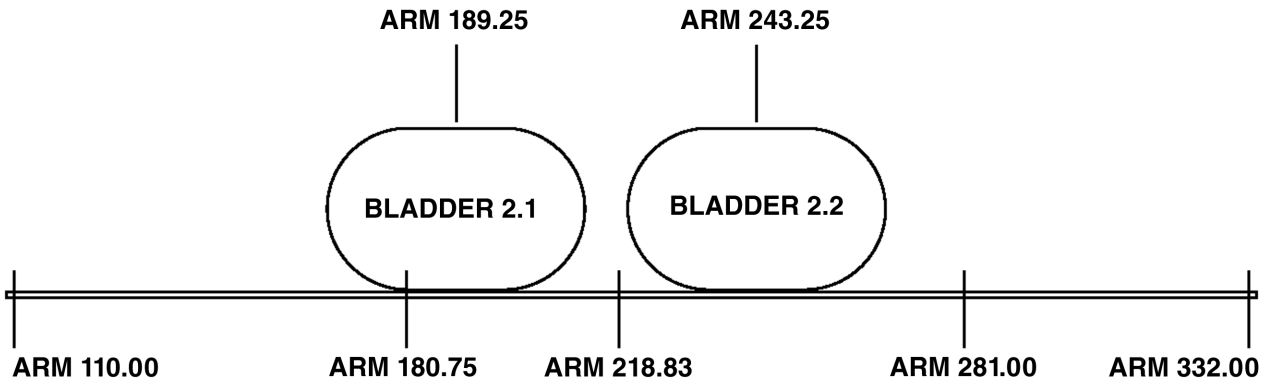
The majority of airplanes operating with a ferry fuel system installed will exceed the maximum design gross weight of 12,500 lbs (5,670 kg). When operating with ferry system installed, observance of the limitations in this supplement is required in addition to those specified in the Section 2 of the Flight Manual and Section 10 of the Pilot Operating Handbook.

S2.1.1 If the specified fuel bladder arrangement in Figure S2-1 or Figure S2-2 is used, then the CG of the airplane should remain within flight limitations, provided that any additional loads (personal luggage, spares, etc) are located correctly. The bladder(s) must be installed in the numerical order specified in Figure S2-1 or Figure S2-2.

The loading configuration should be checked using data in this supplement together with that in the basic Weight and Balance Handbook, to ensure that the CG limitations as shown inFigure S2-5 and the baggage compartment limitations as shown in Figure S2-4 are strictly adhered to.



Approximate Locations of Ferry Fuel Bladder – One Bladder System
Figure S2-1



Approximate Locations of Ferry Fuel Bladder – Two Bladder System
Figure S2-2

FERRY FUEL SYSTEM TABLE – BLADDERS IN CABIN									
NUMBER OF BLADDERS	TOTAL CAPACITY		USABLE FUEL		USABLE WT OF FUEL LB	UNUSABLE WT OF FUEL LB	TOTAL WT OF FUEL LB	C.G. IN.	TOTAL FUEL MOMENT LB IN. 100
	US GALLON	IMP GALLON	US GALLON	IMP GALLON					
2	476	396	470	392	3,208	40	3,248	216.25	7,024
1	238	198	235	196	1,604	20	1,624	243.25	3,950

THESE WEIGHTS AND VOLUMES ARE APPROXIMATE ONLY, BASED ON 238 US GAL CAPACITY FUEL PER BLADDER. THE FOLLOWING CONVERSION FACTORS ARE USED IN THE CALCULATION:

1 IMP GAL = 1.2 US GAL

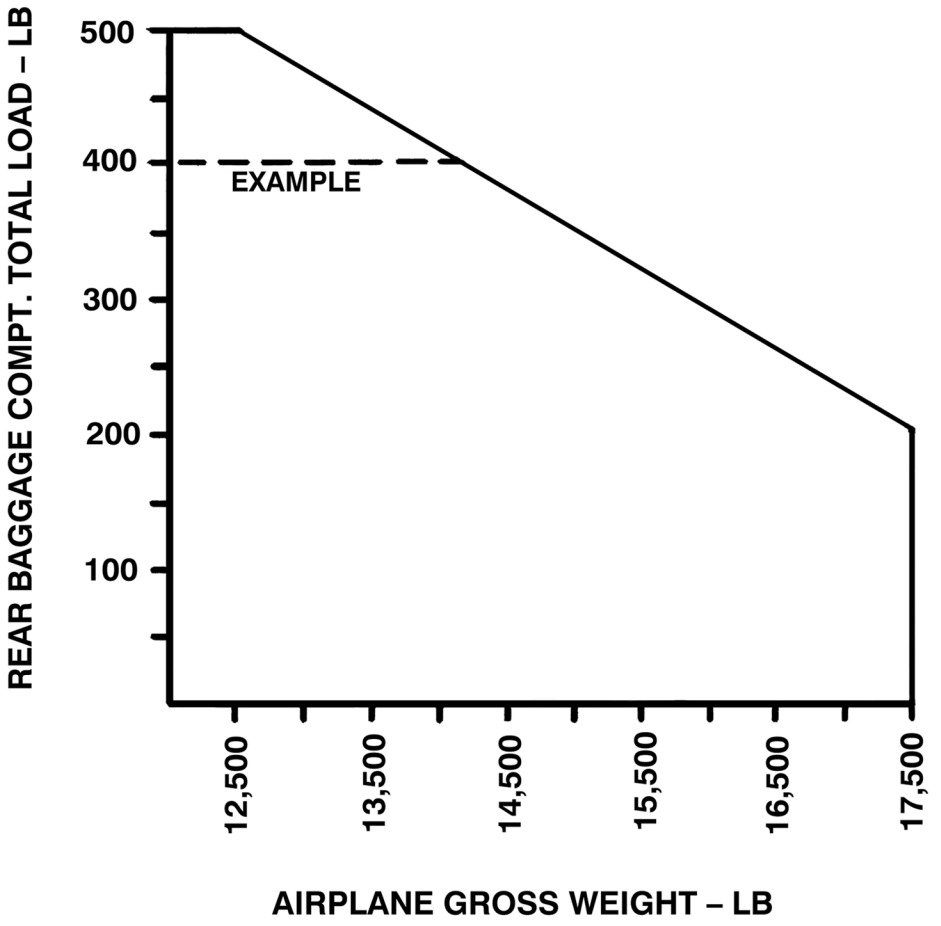
FUEL DENSITY ASSUMED = 6.83 LB/ US GAL
FUEL DENSITY ASSUMED = 8.20 LB/ IMP GAL

Ferry Fuel System Table
Figure S2-3

AT WEIGHTS IN EXCESS OF 12,500 LB, IT IS NECESSARY TO RESTRICT THE LOAD IN THE REAR BAGGAGE COMPARTMENT.

THE MAXIMUM WEIGHT PERMITTED ON THE SHELF IS UNCHANGED AT 150 LB. THE TOTAL WEIGHT IN THE COMPARTMENT VARIES LINEARLY FROM 500 LB AT 12,500 LB GROSS WEIGHT TO 200 LB AT 17,500 LB.

SHOULD THE LABEL IN THE REAR BAGGAGE COMPARTMENT RESTRICT THE WEIGHT TO LESS THAN THAT GIVEN HERE, THE LABELLED RESTRICTION SHALL TAKE PRECEDENCE (SEE EXAMPLE).



Rear Baggage Compartment – Total Load Restrictions
Figure S2-4

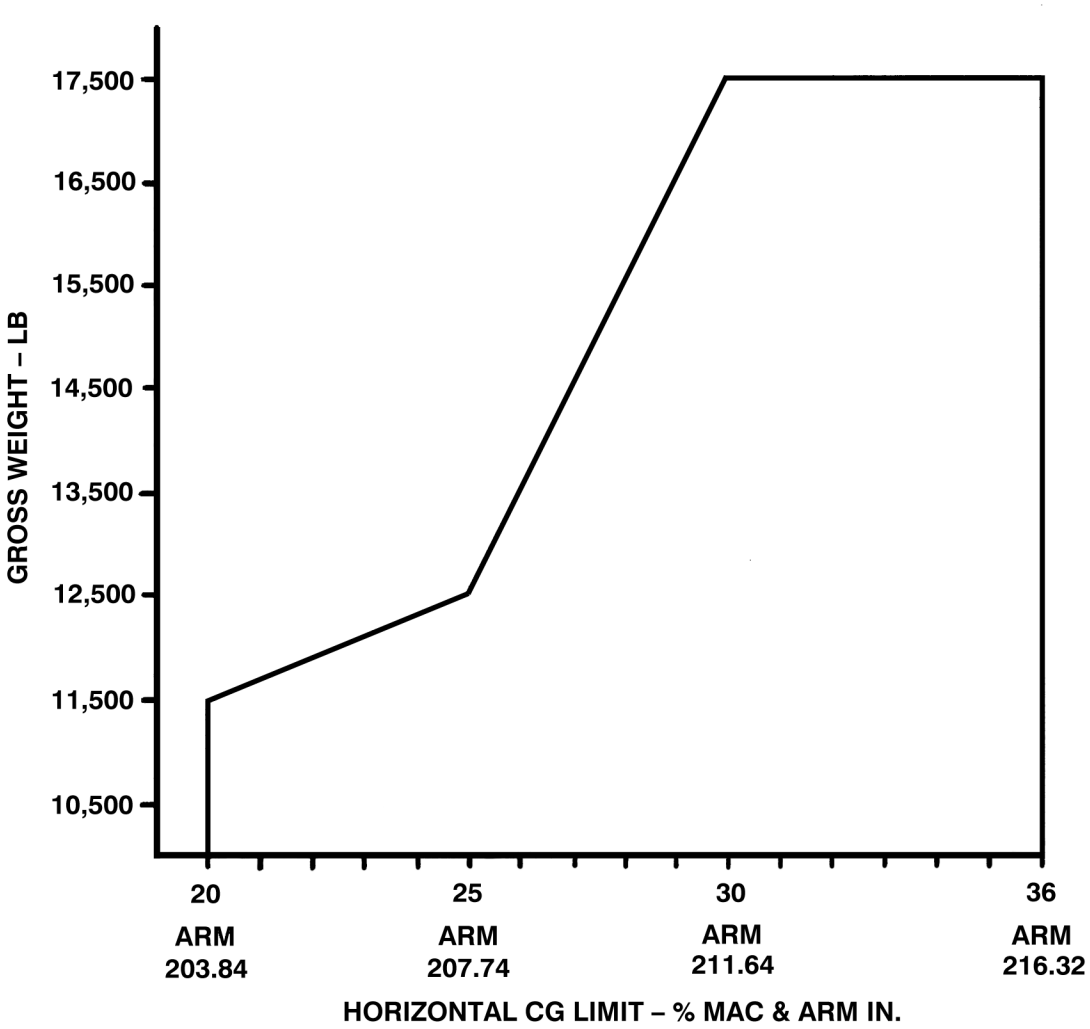
S2.2 Take-off and Landing Weight Limitations

a. The maximum take-off weight with a ferry fuel system installed is 17,500 lbs (7,940 kg), unless limited by operating conditions such as temperature, altitude, runway length, etc.

b. The maximum design landing weight is 12,300 lbs (5,580 kg). Emergency landings may be made safely with weights up to 17,500 lbs (7,940 kg) provided that touchdown is made at a moderate descent velocity.

S2.3 Center of Gravity

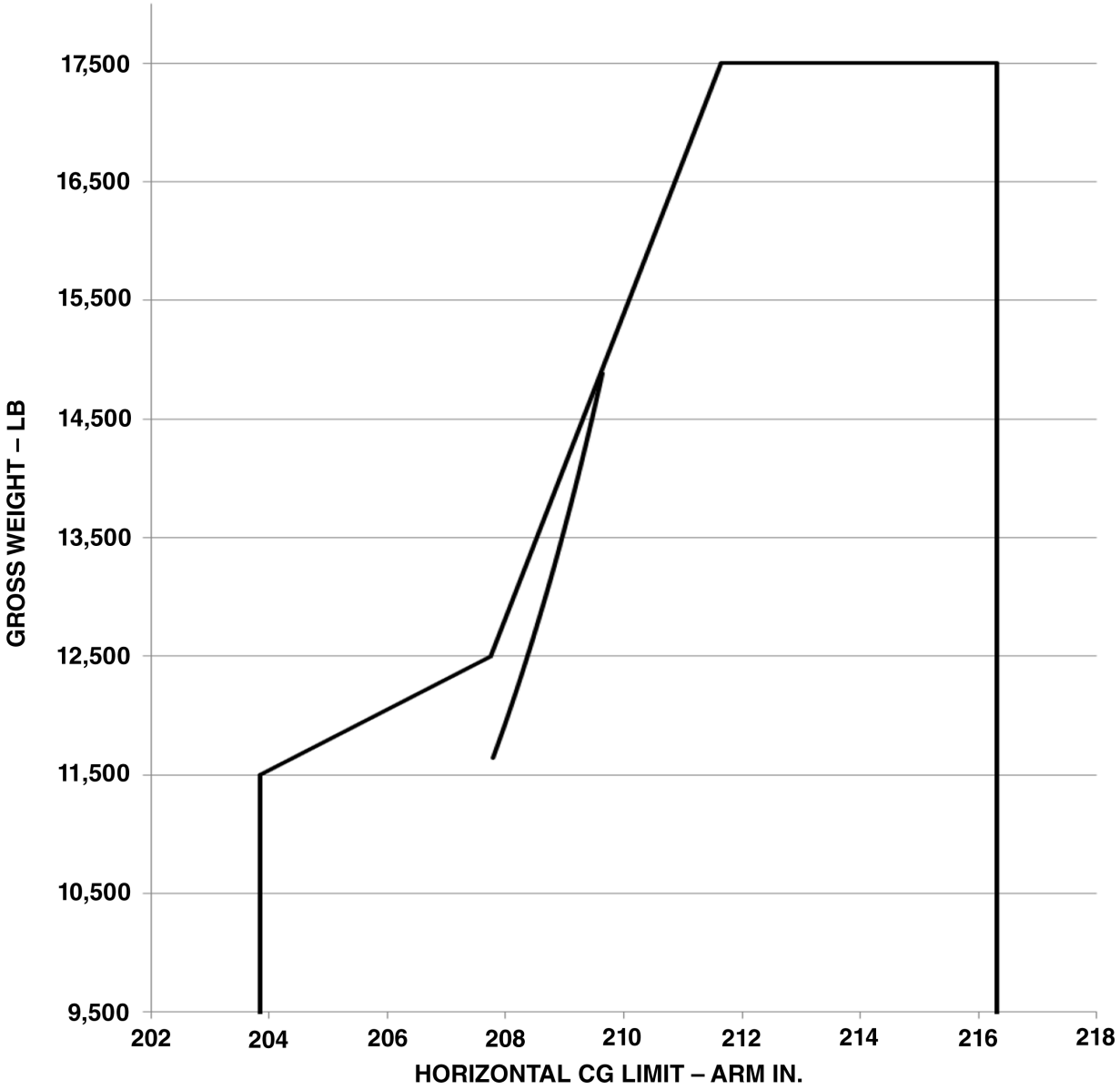
The CG limits of the airplane with a ferry fuel system installed are shown in Figure S2-5. The limiting CG locations are given as both airplane horizontal stations and percentages of the Mean Aerodynamic Chord.



CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S2-5

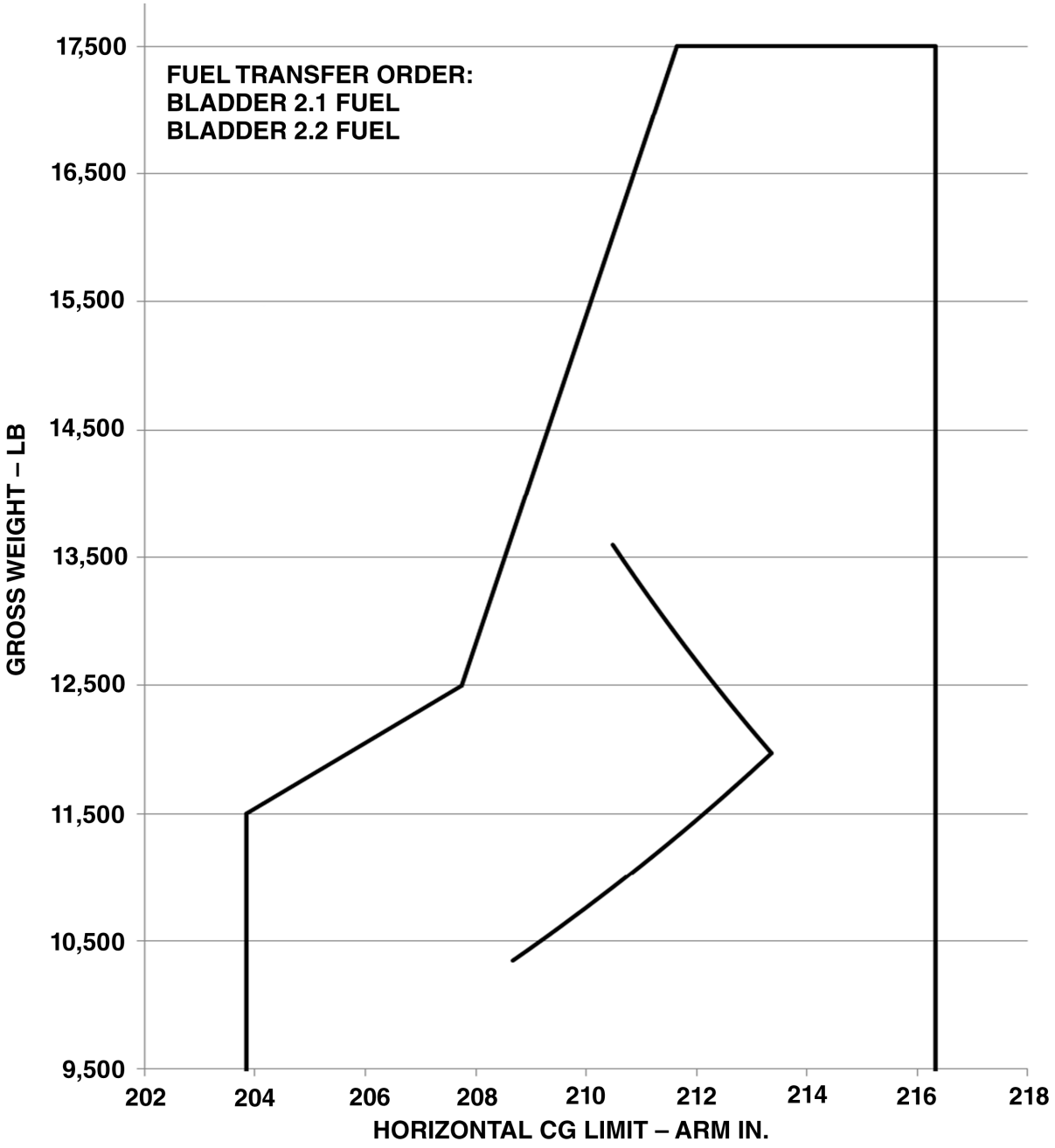
S2.3.1 When the two bladder ferry fuel system is used, the following fuel schedule shall be used to manage fuel transfer. Aircraft configurations shown in Figure S2-6 and Figure S2-7.

AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 100% FUEL
MINIMUM BALLAST REQUIREMENT:	90.0 LB (AFT BAGGAGE SHELF)
LH AND RH WING TANK FUEL:	100%
NOTES:	EMERGENCY FUEL DUMP AT TAKE-OFF
	ALL BLADDERS DUMPED AT THE SAME TIME
	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO
	BEW: 7,610 LB CG: ARM 214.69 16,337.5 IN-LBS /100



Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System
Figure S2-6

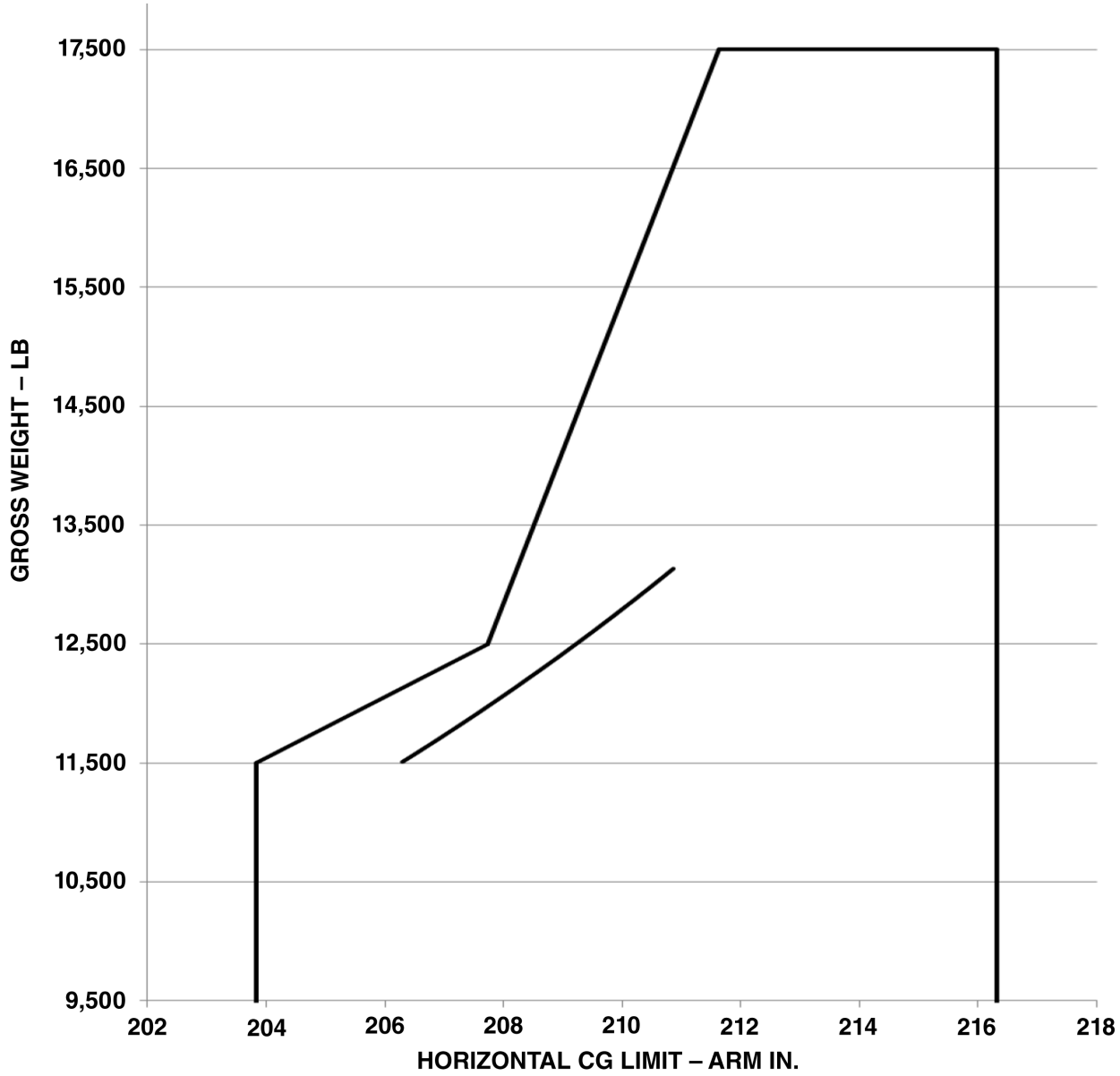
AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 50% FUEL
MINIMUM BALLAST REQUIREMENT:	90.0 LB (AFT BAGGAGE SHELF)
LH AND RH WING TANK FUEL:	100%
MAIN TANK FUEL:	MANAGED BETWEEN 50% TO 80% WHILE BLADDERS TRANSFER
NOTES:	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO
	BEW: 7,610 LB CG: ARM 214.69 16,337.5 IN-LBS /100



Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System
Figure S2-7

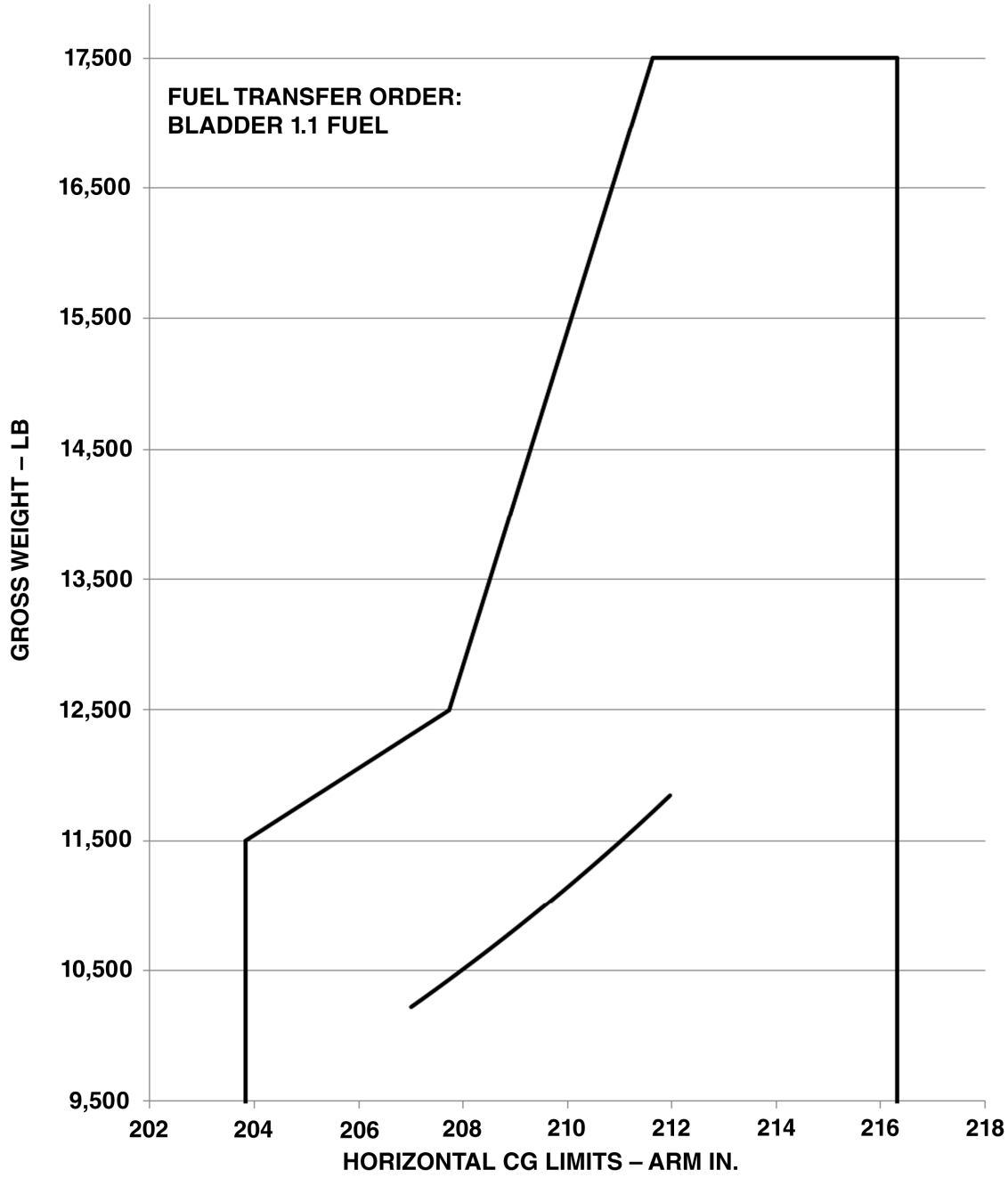
S2.3.2 When the one bladder ferry fuel system is used, the following fuel schedule shall be used to manage fuel transfer. Aircraft configuration shown in Figure S2-8 and Figure S2-9.

AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 100% FUEL
MINIMUM BALLAST REQUIREMENT:	NONE REQUIRED
LH AND RH WING TANK FUEL:	100%
NOTES:	EMERGENCY FUEL DUMP AT TAKE-OFF
	ALL BLADDERS DUMPED AT THE SAME TIME
	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO
	BEW: 7,610 LB CG: ARM 214.69 16,337.5 IN-LBS /100



Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System
Figure S2-8

AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 50% FUEL
MINIMUM BALLAST REQUIREMENT:	NONE REQUIRED
LH AND RH WING TANK FUEL:	100%
MAIN TANK FUEL:	MANAGED BETWEEN 50% TO 80% WHILE BLADDERS TRANSFER
NOTES:	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO
	BEW: 7,610 LB CG: ARM 214.69 16,337.5 IN-LBS /100



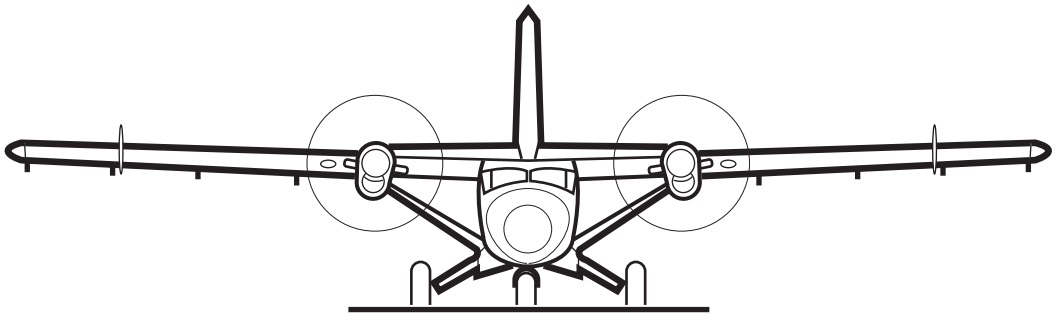
Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System
Figure S2-9

SAFE MOMENTS TABLE – LANDPLANE & WHEEL-SKIPLANE		
GROSS WEIGHT LB	MOMENT/100 LB IN.	
	FWD CG LIMIT	AFT CG LIMIT
12,500	25,968	27,040
12,750	26,512	27,581
13,000	27,057	28,122
13,250	27,604	28,662
13,500	28,150	29,203
13,750	28,699	29,744
14,000	29,247	30,285
14,250	29,798	30,826
14,500	30,349	31,366
14,750	30,901	31,907
15,000	31,454	32,448
15,250	32,008	32,989
15,500	32,562	33,530
15,750	33,119	34,070
16,000	33,675	34,611
16,250	34,234	35,152
16,500	34,792	35,693
16,750	35,353	36,234
17,000	35,913	36,774
17,250	36,475	37,315
17,500	37,037	37,856

Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S2-10

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PSM 1-64-8 (M)



DHC-6 TWIN OTTER

SERIES 400

Metric Weight and Balance

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Issue 7 - 24 May. 2019

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January 31, 2006

SECTION 1

GENERAL WEIGHT AND BALANCE DATA

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SECTION 1 – GENERAL WEIGHT AND BALANCE DATA

TABLE OF CONTENTS PAGE

1.1 Weight and Balance Limitations 5
1.1.1 Take-off Weight Limitations 5
1.1.2 Landing Weight Limitations 5

1.2 Weight Definitions 5
1.2.1 Standard Basic Weight 5
1.2.2 Basic Weight 5
1.2.3 Operational Load 5
1.2.4 Payload 5
1.2.5 All-up Weight (A.U.W.) 5
1.2.6 Horizontal Arm 6

1.3 Aircraft Weight and Balance Data 6

1.4 Preparation for Flight 6

1.5 Center of Gravity (C.G.) 6

1.6 Freight Loading 6

1.7 Compartment Definitions 7
1.7.1 Front Baggage Compartment 7
1.7.2 Flight Compartment 7
1.7.3 Cabin Compartment 7
1.7.4 Rear Baggage Compartment 7

1.8 Reweighing Aircraft 7

1.9 To Check Aircraft Loading 8

1.10 Loading Calculations 8

List of Figures

Page

1-1 Sample Worksheet 9
1-2 Sample Worksheet 10
1-3 Sample Worksheet 11
1-4 Sample Worksheet 12
1-5 Balance Diagram 13
1-6 Cabin Seating Configurations 14
1-7 Cargo Nets (S.O.O. 6274) 16
1-8 Combi Configuration Layouts 17
1-9 Floor Loading and Tie-down Locations 20
1-10 Personnel Table – 14 or 19 Passenger Seating 23
1-11 Personnel Table – 19 Passenger Optional Configuration Seating (S.O.O. 6407) 24
1-12 Personnel Table – 16 Passenger Optional Configuration Seating (S.O.O. 6432) 25
1-13 Baggage Compartment Table 26
1-14 Cargo Compartment Freight Table 27
1-15 Usable Fuel Table 28
1-16 Wing Long Range Fuel Table 29
1-17 CG Limits – Landplane 29
1-18 Safe Moments Table – Landplane and Wheel-skiplane 30

1.1 Weight and Balance Limitations

The design gross weight of the aircraft is 5,670 kg (12,500 pounds). In the interests of airworthiness it is essential that the weight and balance limits for the aircraft be adhered to in accordance with the recommendations and information given in the following paragraphs, tables and diagrams.

1.1.1 Take-off Weight Limitations

The all-up weight must not exceed the figures stated below for the various configurations.

1 Landplane – The take-off weight must not exceed 5,670 kg (12,500 pounds).

2 Floatplane – The take-off weight must not exceed 5,670 kg (12,500 pounds).

3 Wheel-Skiplane – The take-off weight must not exceed 5,670 kg (12,500 pounds).

1.1.2 Landing Weight Limitations

1 Landplane – The landing weight must not exceed 5,579 kg (12,300 pounds).

2 Floatplane – The landing weight must not exceed 5,670 kg (12,500 pounds).

3 Wheel-Skiplane – The landing weight must not exceed 5,579 kg (12,300 pounds).

1.2 Weight Definitions

1.2.1 Standard Basic Weight

The Standard Basic Weight is the weight of the aircraft including all standard equipment supplied with the aircraft. This weight is used for reference purposes only and is not generally representative of an operational aircraft, which would have avionics and possibly special order equipment installed. Trapped and unusable fuel and full oil are included in the Standard Basic Weight. Standard Basic Weight will always be considered as the landplane configuration, other forms of alighting gear being considered as special order equipment. See Basic Weight below.

1.2.2 Basic Weight

Basic Weight is the Standard Basic Weight as defined above plus all other equipment, both fixed and removable, which is additional to the standard configuration, for example, avionics, airframe and propeller de-icing, complete external paint etc. Such equipment is identified for the subject aircraft by a check mark on the Equipment Check List.

1.2.3 Operational Load

The Operational Load comprises crew, fuel and payload weights.

1.2.4 Payload

Payload consists only of passengers, baggage and cargo. The aircraft payload capabilities will obviously vary with flight range requirements.

1.2.5 All-up Weight (A.U.W.)

The all-up weight is the sum of the basic weight plus operational load and must not exceed the limits stated in Para 1.1 for the applicable aircraft configuration.

1.2.6 Horizontal Arm

This term for the Twin Otter is synonymous with the Aircraft Station. Horizontal Arm 0 or Aircraft Station 0 is located 109.32 inches forward of the fuselage jig points, which are marked on either side of the fuselage. With the standard extended nose Station 0 is approximately 21 inches aft of the tip of the nose fairing.

1.3 Aircraft Weight and Balance Data

This data consists of an Equipment Check List, Weighing Record and a Basic Weight Change Record. The Equipment Check List indicates with a check mark in the appropriate column, the equipment that was in the aircraft in the "As Weighed" and "Basic Weight" configurations. If the equipment is changed then the basic weight changes also.

All equipment changes to the aircraft should be recorded on the Basic Weight Change Record, so that an up-to-date record of the weight is available at all times. Similarly if the configuration of the aircraft is altered at any time, for example, changing from wheel landing gear to floats, such alterations must be recorded in the Basic Weight Change Record. The obligation that all changes must be recorded also applies to modifications of all types, for example, repair to damage suffered in service. In these cases all parts removed from or added to the aircraft must be separately weighed and their locations measured so that the Basic Weight Change Record can be correctly updated.

The Balance Diagram Figure 1-5 may be used to determine the approximate arms of any equipment, or modifications not listed on the Equipment Check List. When Viking Air Ltd. modifications are incorporated, the Weight & Balance Change will be found on the appropriate Modification Bulletin.

1.4 Preparation for Flight

The all-up weight should be computed for the conditions at the beginning and end of the flight, using the current Basic Weight from the Basic Weight Change Record, and the Operational Load Diagrams. The resulting A.U.W. and Total Moment must fall within the limits shown on the appropriate chart for the aircraft configuration. To arrive at the condition at the end of the flight subtract from the all up weight and total moment, the weights and moments of fuel used during the flight, to ensure that the aircraft center of gravity (represented by the Safe Moments Table Figure 1-18) does not fall outside the prescribed limits. (See also Para 1.1 and Para 1.10)

1.5 Center of Gravity (C.G.)

For center of gravity Limits, see Figure 1-17. The limiting center of gravity locations are shown both as Aircraft Horizontal Stations and as percentages of the Mean Aerodynamic Chord.

1.6 Freight Loading

The cabin floor loading limit is 975 kg/m^2 (200 pounds per square foot) overall; this is equivalent to 1,190 kg per linear meter run (800 pounds per foot). The front and rear baggage compartment floor loading must not exceed 488 kg/m^2 (100 pounds per square foot). The maximum weights shown per compartment on Figure 1-14 are limited by the 975 kg/m^2 (200 pounds per square foot) overall loading. Whether such quantities can actually be loaded into these compartments, for the configuration to be flown, can only be determined by individually checking the particular complete aircraft loading concerned. However, under no circumstances must the loads shown for the designated compartments be exceeded.

CAUTION **IF THERE IS ANY DOUBT THAT A CONCENTRATED LOAD MAY EXCEED THE 975 KG/M^2 (200 POUNDS PER SQUARE FOOT) LIMIT, THEN SHORING SHOULD BE USED.**

1.7 Compartment Definitions

(See Figure 1-5 through Figure 1-9)

1.7.1 Front Baggage Compartment

Area forward of bulkhead Station 44. The load here should be limited to 129 kg (285 pounds). An allowance of 7 kg (15 pounds) for the weight of the avionics equipment forward of station 44 has been made. (Refer to Figure 1-13)

1.7.2 Flight Compartment

From aircraft Station 60 to the sloping bulkhead at Station 111 approximately.

1.7.3 Cabin Compartment

From the sloping bulkhead aft to bulkhead Station 332. This area has been subdivided into eleven 50 cm (20-inch) sections designated C-1 to C-11. Limits of compartments C-1 to C-11 are marked on the lower air distribution ducts.

1.7.4 Rear Baggage Compartment

Area between cabin rear bulkhead Station 332 and aft bulkhead Station 376 with extension shelf from Station 376 to Station 406. The load on the shelf must not exceed 68 kg (150 pounds). The total weight in the baggage compartment must not exceed 227 kg (500 pounds). When a toilet or other special installation is installed in this compartment a weight restriction will be imposed. (Refer to Figure 1-13).

1.8 Reweighing Aircraft

Following a modification or a major repair that involves a change to the empty weight or centre of gravity of an aircraft, it is a requirement that the aircraft be reweighed. Local or military regulations may differ from those stated above. The actual method of weighing will be at the discretion of the operator or their agent; platform scales may be used beneath the wheels or electronic sensing devices at the fuselage jacking points. For locations of jacking points, jig points and stations of the standard nose and main wheels see Figure 1-5. Irrespective of the weighing method chosen, the following points should be noted.

1 The basic weight condition is established with flaps up, controls locked in the neutral position, all doors and hatches closed, full oil, trapped fuel only in the aircraft and the hydraulic system full.

2 The aircraft should be weighed with all fuel drained. Drain from the two tank drain points in the manifold fairing at approximately Station 185 and 214, with the aircraft level. Drain the collector tanks by attaching a one inch hose to the drain valves at Station 188 and 211 approximately.

3 The aircraft should NEVER be weighed with partially filled fuel tanks, since it is impossible to establish an accurate weight for the fuel aboard.

4 If it is impossible for the aircraft to be drained, a weighing with full fuel is permissible (though this is not advised). The tanks have been calibrated and their volume is known with some accuracy (Refer to Figure 1-15). If a weighing is made with full fuel then the specific gravity of the fuel must be measured at the time of weighing so that, knowing the volume, an accurate weight of fuel aboard can be established.

Note Fuel Quantity Gauging System Indications are not accurate enough to be used when establishing the Aircraft Basic Weight.

5 On piston engine aircraft full oil is not normally included as part of the basic weight. However, for turboprop aircraft, the oil quantity is relatively small, and no appreciable amount is used during normal flights, thus loading calculations etc. can be simplified by always considering full oil as part of the Aircraft Basic Weight for the Twin Otter.

6 For levelling the aircraft, prior to weighing, use an inclinometer and levelling bar laid on the extruded floor channels. Work through the open door, ensuring that no load is inadvertently applied during the levelling process. Aircraft attitude can be adjusted by varying nose and main tire pressures or nose gear strut pressure, if platform scales are being used.

1.9 To Check Aircraft Loading

Prior to flight all loadings of the aircraft must be checked to ensure that weight and CG locations do not fall outside the prescribed limits. A valid Weight and Balance Loading Form should be available for every loading flown. The Basic Weight and Basic Moment will be found on the Basic Weight Change Record.

1.9.1 Add to the Basic Weight and Basic Moment:

1. Pilot(s) and Passenger(s) }
2. Freight and Baggage } Weights and Moments
3. Fuel }

1.9.2 Make sure that:

1 The Take-off Weight, less any fuel consumed for warm-up and taxi, does not exceed the limits stated for the applicable configuration.

2 The Total Moment value is within the Safe Moment limits.

3 Available take-off distance permits take-off at this weight.

4 The landing weight does not exceed the applicable limits.

1.10 Loading Calculations

On the following pages will be found charts showing the weights and moments of crew, fuel and payload, permissible center of gravity limitations etc. Two sample loadings have been made for a high density passenger version and for a freight version using the weight and moment charts.

It is appreciated that for operational use this method though accurate is tedious, and loading trim sheets have been devised to speed the process of checking the loading. The same sample loadings are also shown on the trim sheets.

DHC-6—TWIN OTTER
WEIGHT & BALANCE LOADING MANIFEST

SERIAL NO:	REGISTRATION NO:	LOADING COMPUTED BY:
511	HB-LOM	MICHAEL MOORE

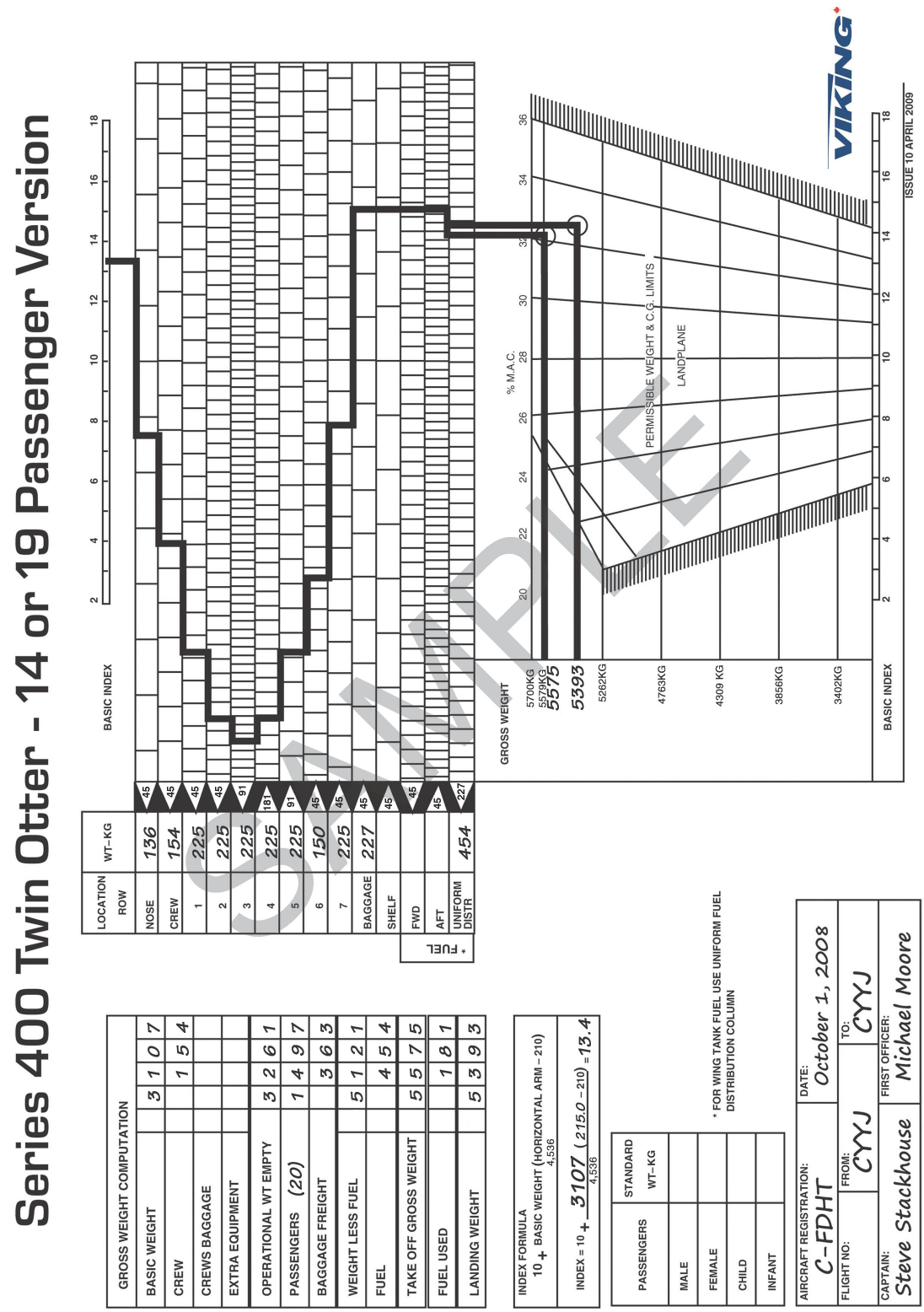
FLIGHT NO:	FROM / TO	PILOT'S SIGNATURE:	DATE:
RED-07	FROM LUENA TO KUITO	M. MOORE	MAR 29, 1991

LIMITATIONS: FOR WEIGHT & CG LIMITS SEE HANDBOOK PSM 1-64-8

REF	ITEM		WEIGHT KG	MOMENT / 100 KG IN.	
1	BASIC AIRPLANE (from Wt. Change Record)		3,107	6,681	
2	Crew No. 2		154	147	
3	OPERATIONAL WEIGHT EMPTY		3,261	6,828	
4	Fuel in Fwd Tank		227	397	
5	Fuel in Aft Tank		227	510	
6	GROSS WEIGHT LESS PAYLOAD		3,715	7,735	
7	Passengers Row 1	3	225	303	
8	Passengers Row 2	3	225	370	
9	Passengers Row 3	3	225	438	
10	Passengers Row 4	3	225	505	
11	Passengers Row 5	3	225	573	
12	Passengers Row 6	2	150	422	
13	Passengers Row 7	3	225	718	
14					
15					
16					
17	Fwd Baggage Compartment		136	34	
18	Aft Baggage Compartment		227	803	
19	Cargo Compartment C-1				
20	Cargo Compartment C-2				
21	Cargo Compartment C-3				
22	Cargo Compartment C-4				
23	Cargo Compartment C-5				
24	Cargo Compartment C-6				
25	Cargo Compartment C-7				
26	Cargo Compartment C-8				
27	Cargo Compartment C-9				
28	Cargo Compartment C-10				
29	Cargo Compartment C-11				
30	GROSS WEIGHT AT ENG. START-UP		5,575	11,901	
31	Fuel Consumed Warm-Up & Taxi				
32	GROSS WEIGHT AT TAKE-OFF		5,575	11,901	
33	Position of CG at Take-Off in % MAC		32.4%		
34	Fuel Consumed During Flight		181	364	
35	ESTIMATED LANDING CONDITION		5,393	11,537	
36	Position of CG at Landing in % MAC		32.9%		

SAMPLE

Sample Worksheet
Figure 1-1



Sample Worksheet
Figure 1-2

DHC-6—TWIN OTTER
WEIGHT & BALANCE LOADING MANIFEST

SERIAL NO:	REGISTRATION NO:	LOADING COMPUTED BY:
845	C-FDHC	JEN SCHRIBER

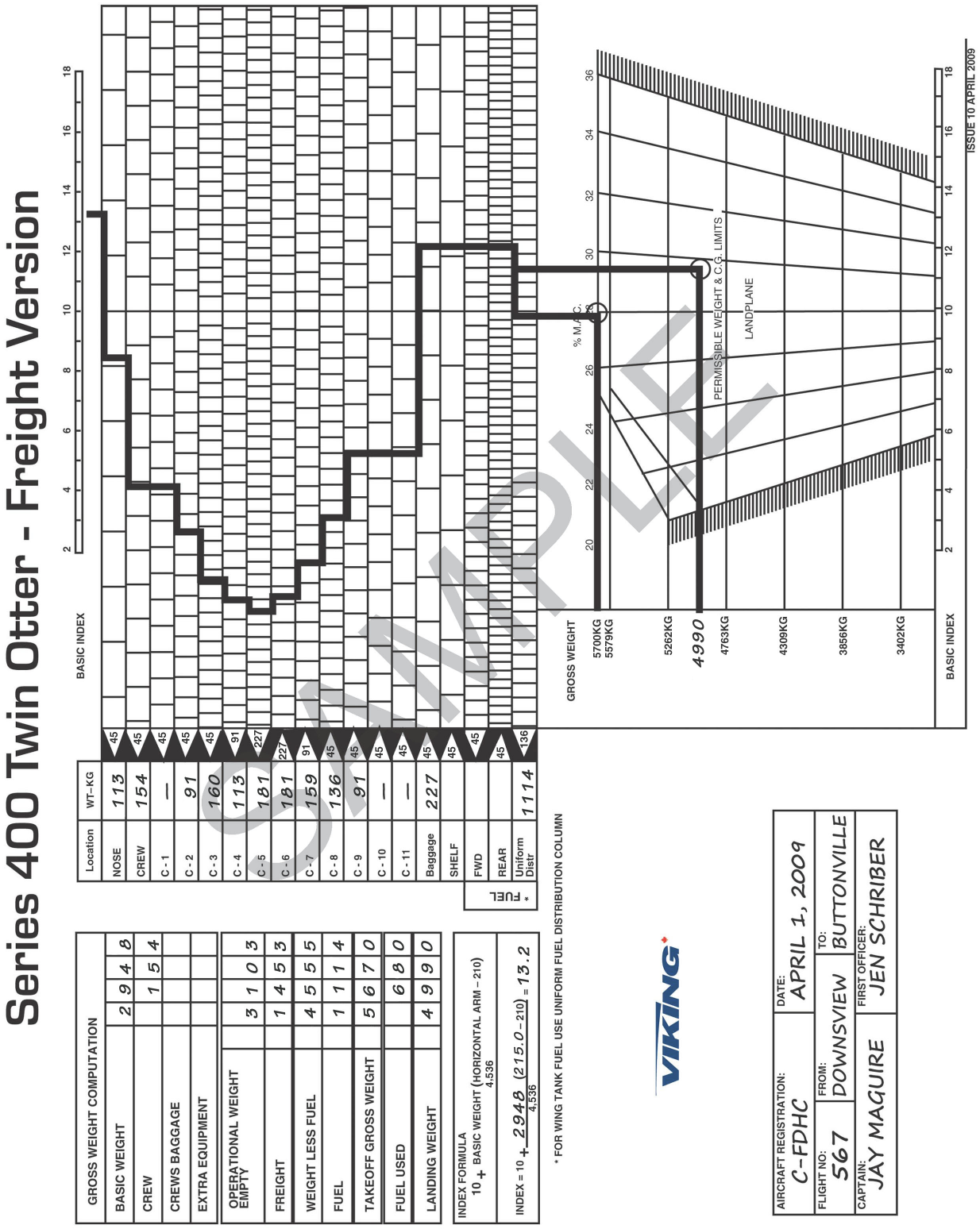
FLIGHT NO:	FROM / TO	PILOT'S SIGNATURE:	DATE:
567	FROM DOWNSVIEW TO BUTTONVILLE	JAY MAGUIRE	MAR 1, 2009

LIMITATIONS: FOR WEIGHT & CG LIMITS SEE HANDBOOK PSM 1-64-8

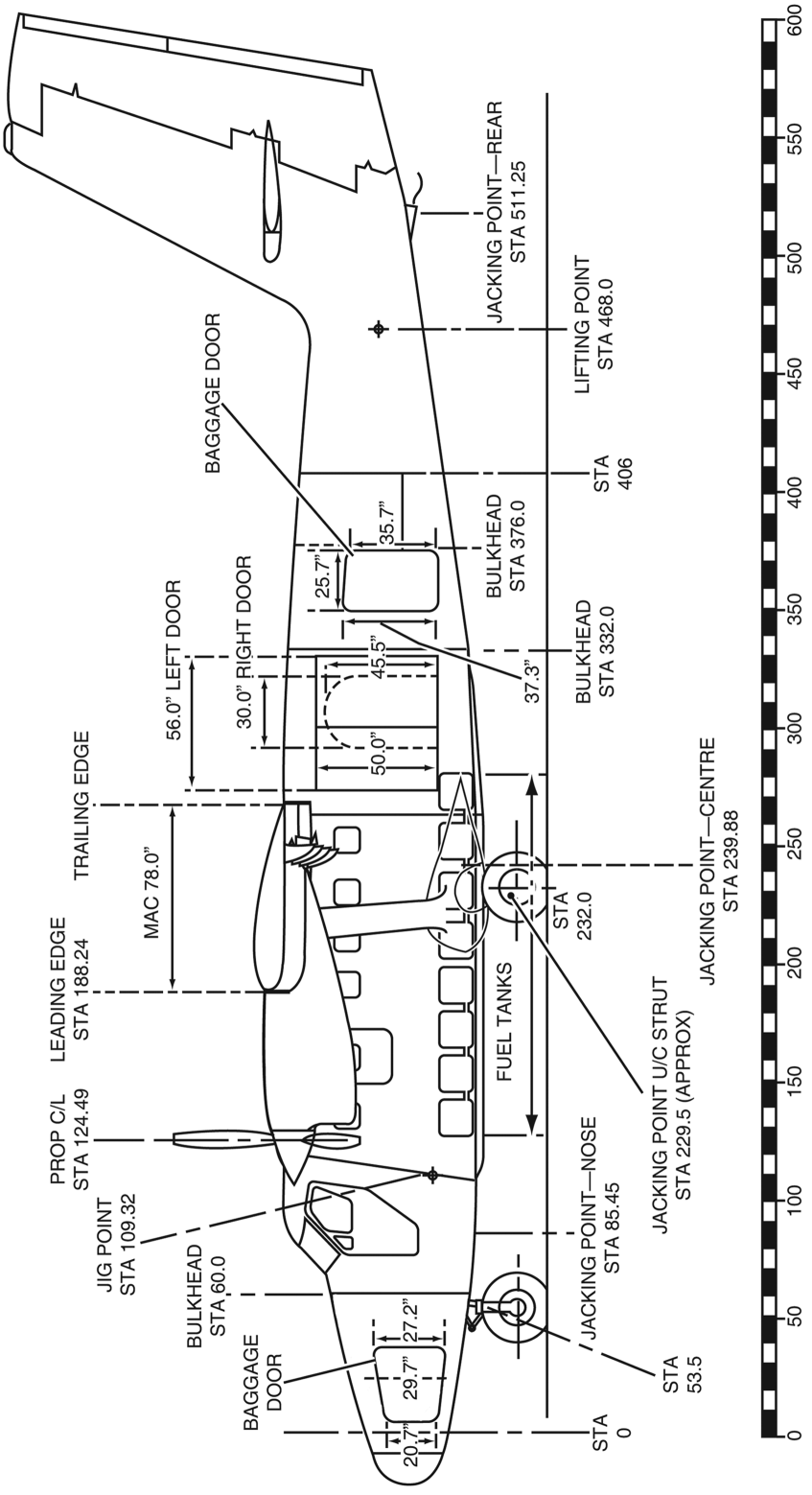
REF	ITEM	WEIGHT KG	MOMENT / 100 KG IN.	
1	BASIC AIRPLANE (from Wt. Change Record)	2,948	6,339	
2	Crew No. (2)	154	147	
3	OPERATIONAL WEIGHT EMPTY	3,103	6,486	
4	Fuel in Fwd Tank } FULL	1,114	2,261	
5	Fuel in Aft Tank }			
6	GROSS WEIGHT LESS PAYLOAD	4,217	8,747	
7	Passengers Row 1			
8	Passengers Row 2			
9	Passengers Row 3			
10	Passengers Row 4			
11	Passengers Row 5			
12	Passengers Row 6			
13	Passengers Row 7			
14				
15				
16				
17	Fwd Baggage Compartment	113	29	
18	Aft Baggage Compartment	227	803	
19	Cargo Compartment C-1			
20	Cargo Compartment C-2	91	111	
21	Cargo Compartment C-3	160	259	
22	Cargo Compartment C-4	113	206	
23	Cargo Compartment C-5	181	367	
24	Cargo Compartment C-6	181	403	
25	Cargo Compartment C-7	159	384	
26	Cargo Compartment C-8	136	357	
27	Cargo Compartment C-9	91	256	
28	Cargo Compartment C-10			
29	Cargo Compartment C-11			
30	GROSS WEIGHT AT ENG. START-UP	5,670	11,921	
31	Fuel Consumed Warm-Up & Taxi			
32	GROSS WEIGHT AT TAKE-OFF	5,670	11,921	
33	Position of CG at Take-Off in % MAC	28.2%		
34	Fuel Consumed During Flight	680	1,364	
35	ESTIMATED LANDING CONDITION	4,990	10,557	
36	Position of CG at Landing in % MAC	29.9%		

SAMPLE

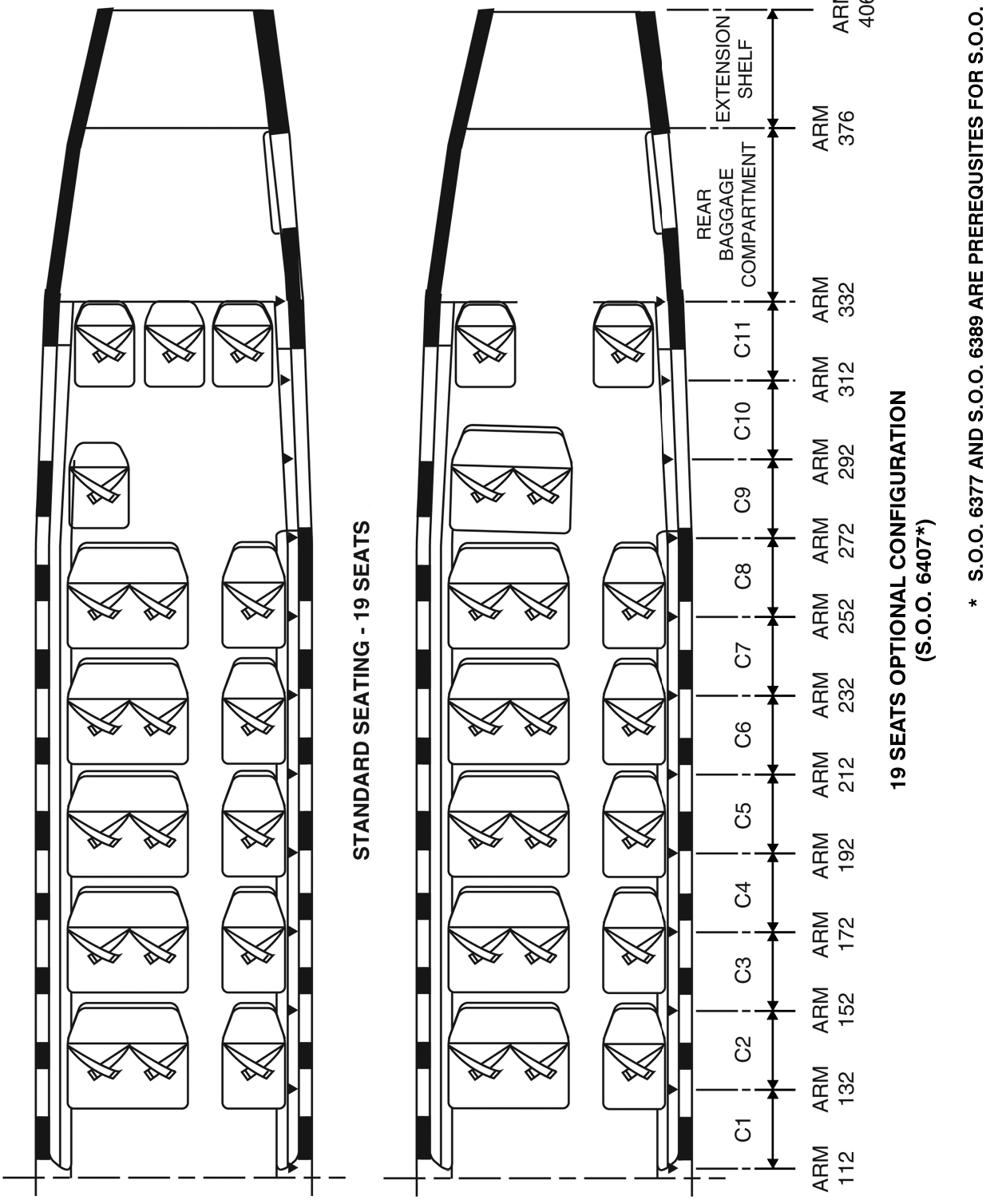
Sample Worksheet
Figure 1-3



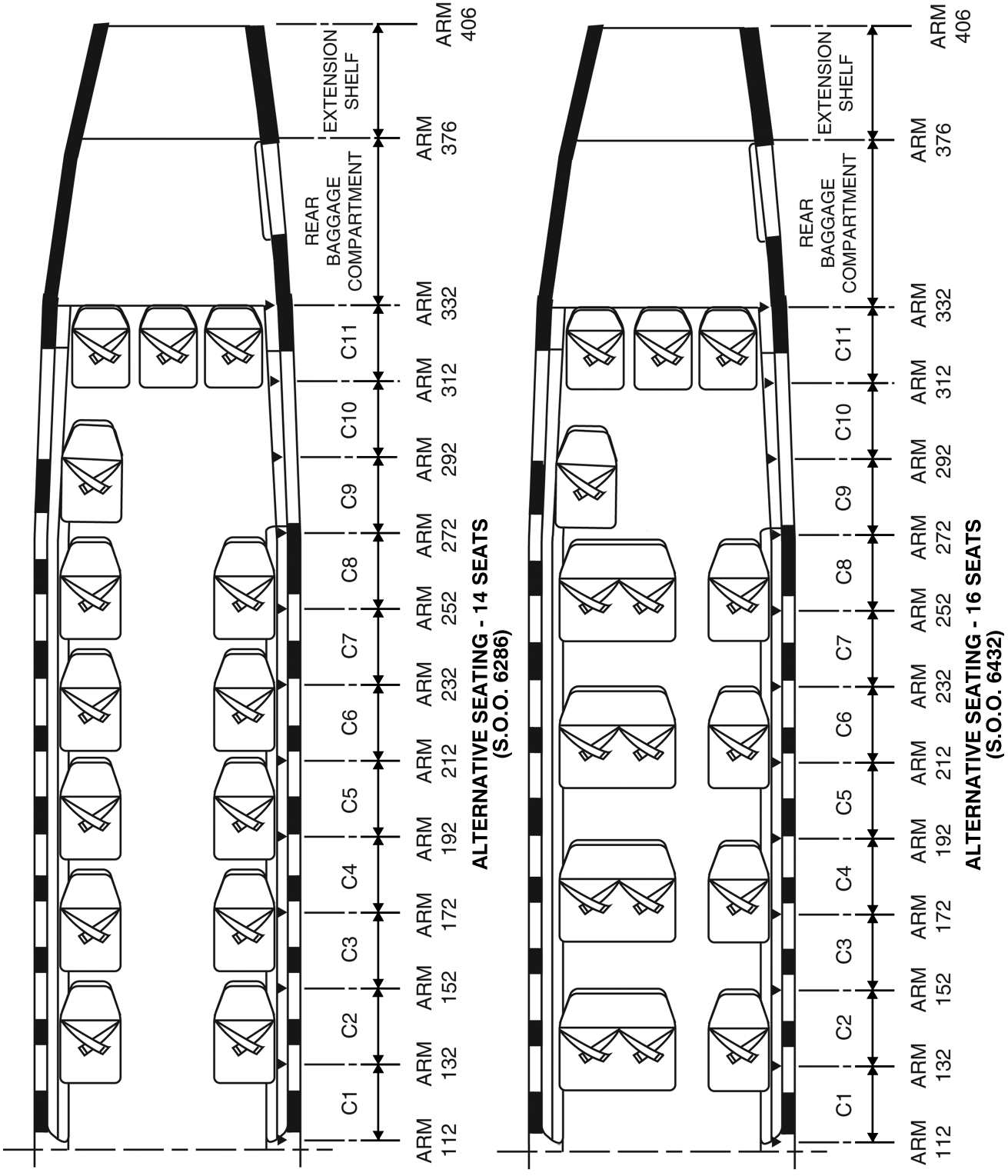
Sample Worksheet
Figure 1-4



Balance Diagram
Figure 1-5



Cabin Seating Configurations
Figure 1-6 (Sheet 1 of 2)



Cabin Seating Configurations
Figure 1-6 (Sheet 2 of 2)

WHEN S.O.O. 6274 IS INCORPORATED:

LOADING TABLE	
# OF TIE-DOWNS	ALLOWABLE LOAD (KG)
4	399
5	499
6	599
7	699
8	798
9	898
10	998

NOTES:

LOAD CARGO NET FROM AFT PER THE FOLLOWING:

1) CONNECT DOUBLE STUD CARGO FITTINGS TO SEAT RAILS FORWARD OF WHERE CARGO WILL BE LOCATED. ENSURE A MINIMUM DISTANCE OF 35 INCHES IS MAINTAINED BETWEEN FORWARD BULKHEAD.

2) CONNECT SNAP HOOKS ON CARGO NET TO FORWARD DOUBLE STUD CARGO FITTINGS.

3) LOAD CARGO UNDER NET IN ACCORDANCE WITH WEIGHT AND BALANCE MANUAL.

NOTE: NET MUST COMPLETELY COVER TOP AND BOTH SIDES OF CARGO.

4) ATTACH DOUBLE LUG CARGO FITTINGS TO SEAT RAILS AFT OF CARGO.

5) CONNECT STRAPS TO APPROPRIATE D-RINGS ON CARGO NET.

6) SECURE OTHER ENDS OF STRAPS TO AFT DOUBLE LUG CARGO FITTINGS.

7) TIGHTEN STRAPS OVER CARGO.

8) USE ADDITIONAL STRAPS AND DOUBLE STUD CARGO FITTINGS AS REQUIRED.

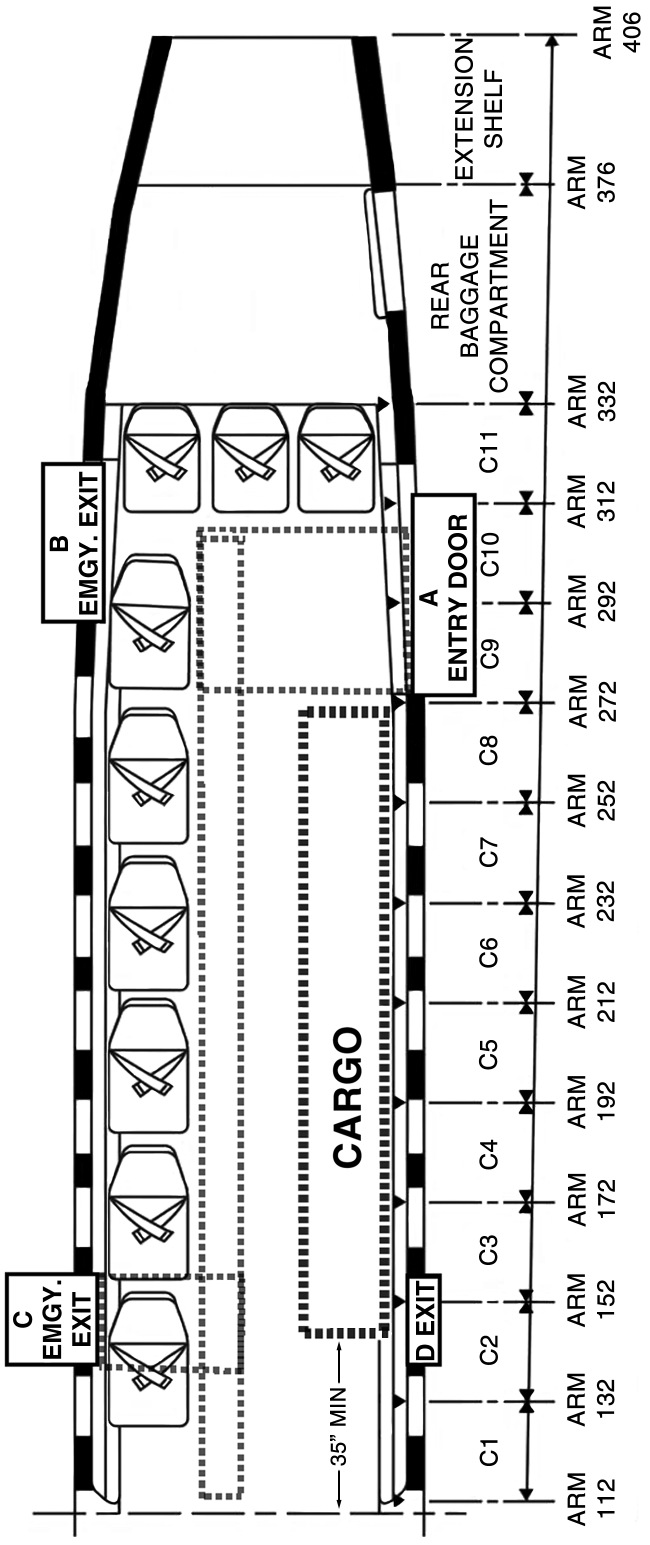
NOTE: MINIMUM 1 LATERAL STRAP FOR EACH 299 KG (IF USING FLOOR RAIL FITTINGS) OR 150 KG (IF USING A SIDE WALL FITTING) OF LOAD WHEN USED IN COMBI CONFIGURATIONS.

Cargo Nets (S.O.O. 6274)
Figure 1-7

1. SEATS
   A. SEATS MUST BE MOUNTED IN APPROVED LOCATIONS. (REFER TO PSM 1-64-2, CHAPTER 25, SECTION 25-20-00, CABIN COMPARTMENT – COMMUTER).
   B. COMBI IS MAXIMUM 9 PASSENGER.
   C. ALL OCCUPIED SEATS MUST BE ABLE TO SEE THE PASSENGER INFORMATION SIGNS.
2. AISLE
   A. ONE CONTINUOUS AISLE IS REQUIRED FROM THE ENTRY DOOR (A) TO ANY SEATS OR EXITS REQUIRED.
   B. THE AISLE MUST BE 13 INCHES WIDE FROM THE FLOOR UP TO 25 INCHES ABOVE THE FOOR AND 15 INCHES WIDE ABOVE 25 INCHES FROM THE FLOOR.
3. EMERGENCY EXITS
   A. ACCESS TO EITHER EXITS B OR C MUST BE CLEAR OF OBSTRUCTION BY ANY CARGO FROM FLOOR TO CEILING.
   B. SEATS MOUNTED ADJACENT TO AN EXIT AND IN THEIR APPROVED LOCATION ARE ACCEPTABLE.
4. CARGO MUST BE RESTRAINED USING APPROVED NETS AND STRAPS.
   A. MAXIMUM CARGO NET STATIC LOAD CAPACITY IS 998 KG.
5. FOR COMBI CONFIGURATION WITH CARGO ONLY IN A FREIGHT COMPARTMENT ZONE:
   A. MAXIMUM PERMISSABLE FREIGHT COMPARTMENT LOADS (ZONES C1 THRU C11 INCLUSIVE) ARE 299 KG EACH.
6. FOR COMBI COMBINATIONS WITH COMBINED PASSENGER SEAT(S) AND CARGO IN SAME FREIGHT COMPARTMENT ZONE:
   A. MAXIMUM PERMISSABLE FREIGHT COMPARTMENT LOADS (ZONES C1 THRU C11 INCLUSIVE) ARE 150 KG EACH.

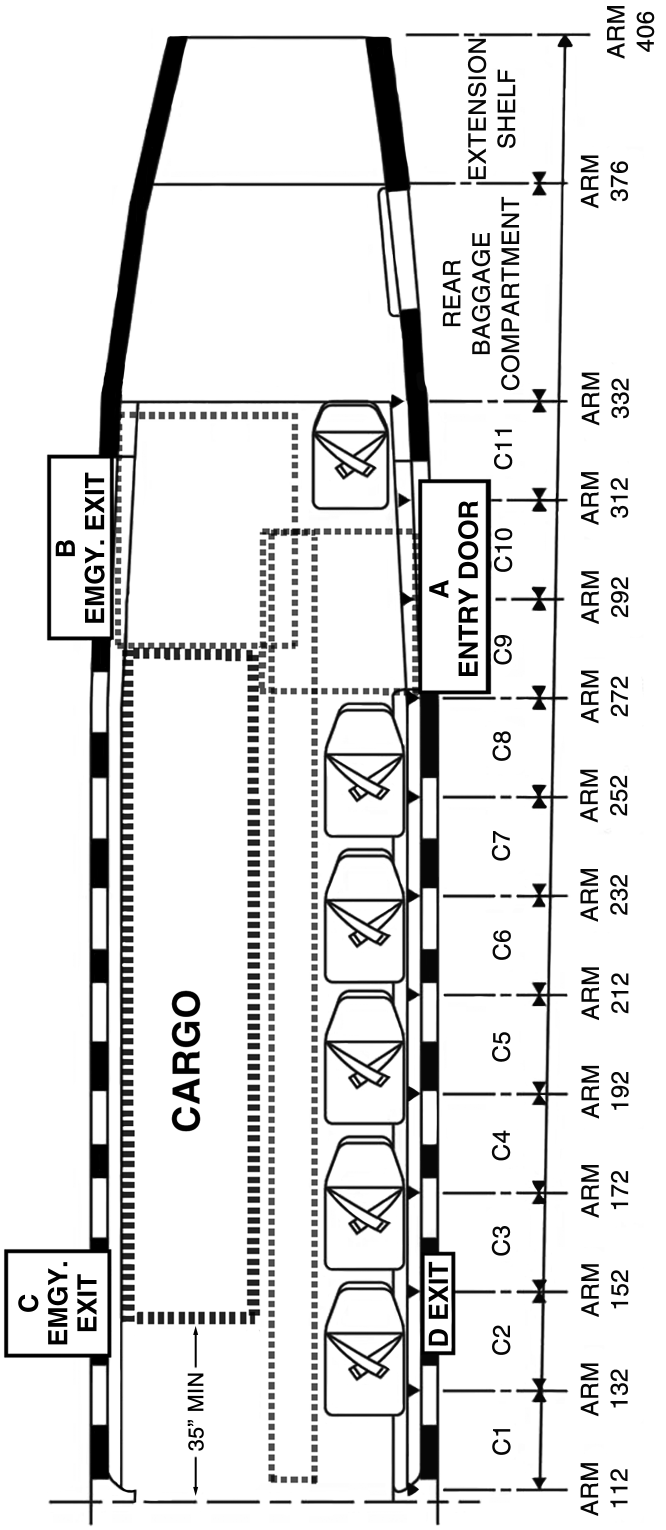
COMBI CONFIGURATION LAYOUT
9 OR LESS PASSENGERS

Combi Configuration Layouts
Figure 1-8 (Sheet 1 of 3)



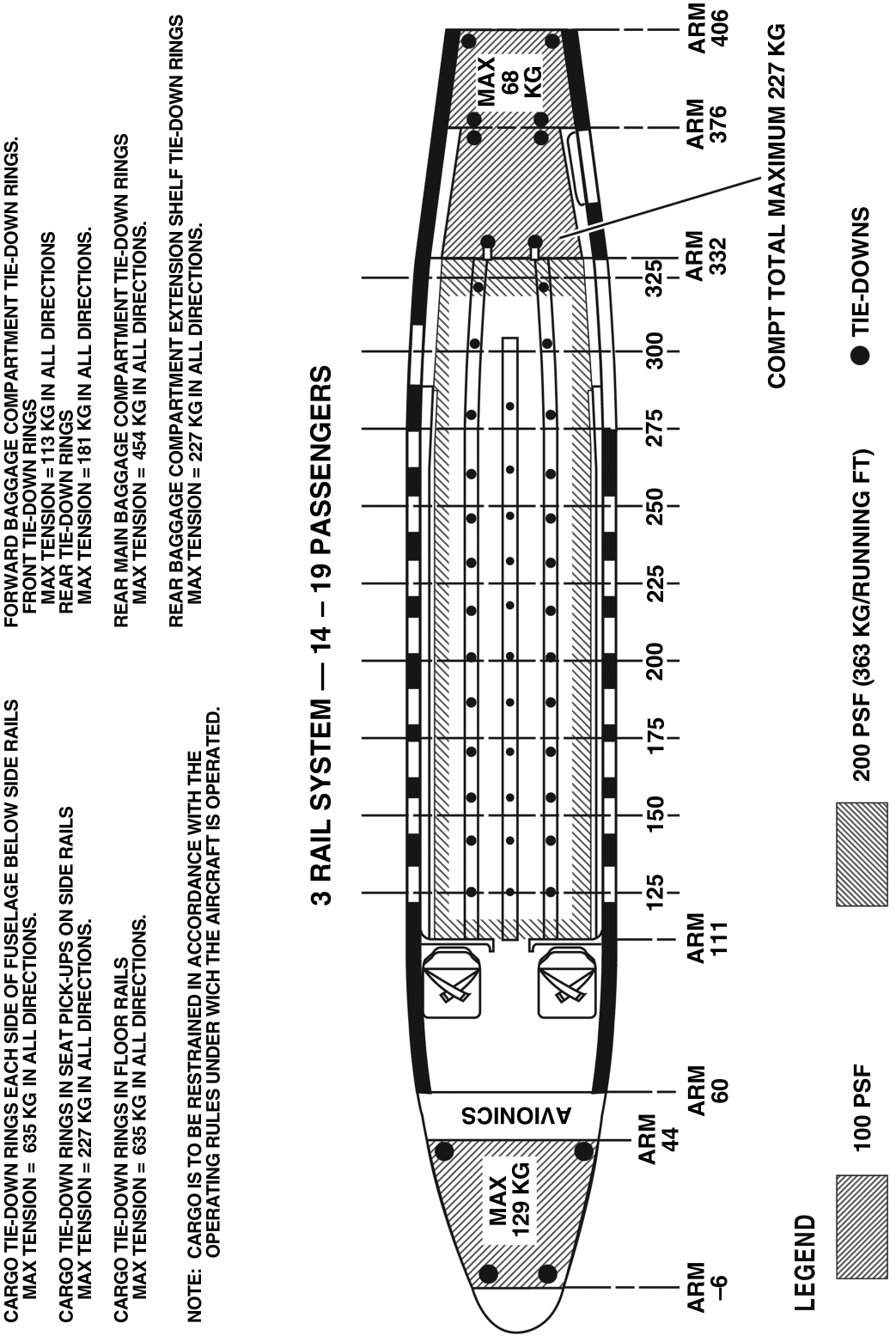
COMBI CONFIGURATION LAYOUT
9 PASSENGERS EXAMPLE
REQUIRES 3RD RAIL SEAT TRACK (S.O.O. 6243)

Combi Configuration Layouts
Figure 1-8 (Sheet 2 of 3)



COMBI CONFIGURATION LAYOUT
6 PASSENGERS EXAMPLE

Combi Configuration Layouts
Figure 1-8 (Sheet 3 of 3)



Floor Loading and Tie-down Locations
Figure 1-9 (Sheet 1 of 3)

<table>
<tr><th colspan="4">TIE-DOWN DATA
FLOOR RAILS WITHOUT DOUGLAS TRACK MAX CAPACITY = 635 KG TENSION IN ALL DIRECTIONS</th></tr>
<tr><th colspan="4">LOCATIONS</th></tr>
<tr><th colspan="4">3 RAIL SYSTEM 14-19 PASSENGERS</th></tr>
<tr><th colspan="2">LH CENTER AND RH</th><th colspan="2">LH AND RH</th></tr>
<tr><td colspan="2">ARM 126.78
ARM 141.68
ARM 156.78
ARM 171.68
ARM 186.78
ARM 201.68
ARM 216.78
ARM 231.68
ARM 216.78
ARM 231.68
ARM 245.82
ARM 260.72
ARM 280.62</td><td colspan="2">ARM 301.19
ARM 321.98</td></tr>
<tr><th colspan="4">CABIN SIDE RAILS WITHOUT DOUGLAS TRACK</th></tr>
<tr><td>TIE-DOWN RING CFF1872
WITH FITTING C6FS2551
IN FUSELAGE SIDE FRAMES
MAX TENSION = 635 KG
IN ALL DIRECTIONS</td><td colspan="3">TIE-DOWN RING C6FF1872 IN SEAT
PICK-UPS. MAX TENSION = 227 KG IN ALL
DIRECTIONS. MIN PITCH = 14.0 IN.</td></tr>
<tr><th>LOCATIONS LH AND RH SIDES</th><th>LH AND RH SIDES</th><th>LH SIDE</th><th>RH SIDE</th></tr>
<tr><td rowspan="2">ARM 143.43
ARM 161.85
ARM 180.25
ARM 200.15
ARM 219.0
ARM 261.5</td><td rowspan="2">ARM 125.28
ARM 126.78
ARM 140.18
ARM 141.68
ARM 155.28
ARM 156.78
ARM 170.18
ARM 171.68
ARM 185.28
ARM 186.78
ARM 200.18
ARM 201.68
ARM 215.28
ARM 216.78
ARM 230.18
ARM 231.68</td><td>ARM 244.32
ARM 245.82
ARM 259.22
ARM 260.72</td><td>ARM 242.28
ARM 244.32
ARM 245.82
ARM 256.21
ARM 259.22
ARM 260.72
ARM 271.64
ARM 273.14
ARM 275.18
ARM 286.54
ARM 288.04
ARM 289.10</td></tr>
<tr><td rowspan="2"></td><td></td></tr>
</table>

Floor Loading and Tie-down Locations
Figure 1-9 (Sheet 2 of 3)

TIE-DOWN DATA FLOOR AND CABING SIDE RAILS—WITH DOUGLAS TRACK INSTALLED
FLOOR USING COMMERCIAL SUPPLIED RINGS — MAX CAPACITY = 907 KG IN ALL DIRECTIONS, RINGS NOT LESS THAN 20 IN. APART SIDE RAILS USING COMMERCIALLY SUPPLIED RINGS — MAX CAPACITY = 227 KG IN ALL DIRECTIONS, RINGS NOT LESS THAN 20 IN. APART

BULKHEAD ARM 332 — FORWARD FACE (SEATS NOT INSTALLED)
ANY COMBINATION OF UP TO 6 RINGS MAY BE INSTALLED. MAX CAPACITY = 454 KG EACH IN ALL DIRECTIONS.

FORWARD BAGGAGE COMPARMENT MAX CAPACITY IN ALL DIRECTIONS	
LH AND RH SIDE	
ARM –6.0	113 KG
ARM 44.0	181 KG

BAGGAGE COMPARMENT EXTENSION
MAX CAPACITY = 227 KG IN ALL DIRECTIONS
ARM = 376.0 AFT
ARM = 406.0

AFT BAGGAGE COMPARMENT.
(ARM 332.0 TO ARM 376.0 FWD) MAX CAPACITY = 454 KG IN ALL DIRECTIONS
ARM = 332.0 ARM = 376.0 FWD

NOTE:
In cases where Douglas Track is installed, which also allows access to the fixed tie-down positions, the use of both Douglas Track tie-downs and the fixed tie-down positions is not allowed simultaneously unless correct spacing is adhered to.

Floor Loading and Tie-down Locations
Figure 1-9 (Sheet 3 of 3)

PERSONNEL TABLE – 14 OR 19 PASSENGER UTILITY SEATING				
POSITION		**WT – KG**	**ARM – INCHES**	**MOMENT KG/IN* 100**
CREW'S SEATS				
PILOT		77	95	73
COPILOT		77	95	73
FORWARD-FACING PASSENGER SEATS				
ROW 1	LEFT	75	135	101
	RIGHT	75	135	101
	RIGHT	75	135	101
ROW 2	LEFT	75	165	123
	RIGHT	75	165	123
	RIGHT	75	165	123
ROW 3	LEFT	75	195	146
	RIGHT	75	195	146
	RIGHT	75	195	146
ROW 4	LEFT	75	225	168
	RIGHT	75	225	168
	RIGHT	75	225	168
ROW 5	LEFT	75	254	190
	RIGHT	75	254	190
	RIGHT	75	254	190
ROW 6	RIGHT	75	281	210
ROW 7	LEFT	75	320	239
	RIGHT	75	320	239
	CENTRE	75	320	239
*Above figures should be re-evaluated if the personnel to be on board vary appreciably from the standard 75 kg.				

Personnel Table – 14 or 19 Passenger Seating
Figure 1-10

PERSONNEL TABLE – 19 PASSENGER OPTIONAL CONFIGURATION SEATING (S.O.O. 6407)				
POSITION		**WT – KG**	**ARM – INCHES**	**MOMENT KG/IN* 100**
CREW'S SEATS				
PILOT		77	95	73
COPILOT		77	95	73
FORWARD-FACING PASSENGER SEATS				
ROW 1	LEFT	75	135	101
	RIGHT	75	135	101
	RIGHT	75	135	101
ROW 2	LEFT	75	165	123
	RIGHT	75	165	123
	RIGHT	75	165	123
ROW 3	LEFT	75	195	146
	RIGHT	75	195	146
	RIGHT	75	195	146
ROW 4	LEFT	75	225	168
	RIGHT	75	225	168
	RIGHT	75	225	168
ROW 5	LEFT	75	254	190
	RIGHT	75	254	190
	RIGHT	75	254	190
ROW 6	RIGHT	75	281	210
	RIGHT	75	281	210
ROW 7	LEFT	75	320	239
	RIGHT	75	320	239
*Above figures should be re-evaluated if the personnel to be on board vary appreciably from the standard 75 kg.				

Personnel Table – 19 Passenger Optional Configuration Seating (S.O.O. 6407)
Figure 1-11

PERSONNEL TABLE – 16 PASSENGER OPTIONAL CONFIGURATION SEATING (S.O.O. 6432)				
POSITION		**WT – KG**	**ARM – INCHES**	**MOMENT KG/IN* 100**
CREW'S SEATS				
PILOT		77	95	73
COPILOT		77	95	73
FORWARD-FACING PASSENGER SEATS				
ROW 1	LEFT	75	135	101
	RIGHT	75	135	101
	RIGHT	75	135	101
ROW 2	LEFT	75	175	131
	RIGHT	75	175	131
	RIGHT	75	175	131
ROW 3	LEFT	75	214	160
	RIGHT	75	214	160
	RIGHT	75	214	160
ROW 4	LEFT	75	254	190
	RIGHT	75	254	190
	RIGHT	75	254	190
ROW 5	RIGHT	75	281	210
ROW 6	LEFT	75	320	240
	RIGHT	75	320	240
	RIGHT	75	320	240
*Above figures should be re-evaluated if the personnel to be on board vary appreciably from the standard 165 lb.				

Personnel Table – 16 Passenger Optional Configuration Seating (S.O.O. 6432)
Figure 1-12

BAGGAGE COMPARTMENT TABLE			
	MOMENT/100 KG IN		
BAGGAGE WT – KG	FORWARD COMPT NOSE H. ARM = 25.0 IN.	REAR COMPT H. ARM = 354.0 IN.	EXTENSION SHELF 'H. ARM = 391.0 IN.
10	2.5	35.4	39.1
20	5.0	70.8	78.2
30	7.5	106.2	117.3
40	10.0	141.6	156.4
50	12.5	177.0	195.5
60	15.0	212.4	234.6
68	-	-	265.9
70	17.5	247.8	
80	20.0	283.2	
90	22.5	318.6	
100	25.0	354.0	
110	27.5	389.4	
120	30.0	424.8	
130	32.5	460.2	
136	34.0		
140		495.6	
150		531.0	
160		566.4	
170		601.8	
180		637.2	
190		672.6	
200		708.0	
210		743.4	
227		803.6	

Weight limitations for both front and rear baggage compartments vary dependent upon installations of avionics, oxygen systems, etc. For limitations of individual aircraft, see labels permanently installed in the baggage compartments.

ANY MODIFICATION AFT OF STA. 332 REQUIRING WEIGHT AND BALANCE CHANGES WILL AFFECT THE REAR FUSELAGE STRENGTH. THIS MAY REQUIRE A CHANGE TO THE REAR BAGGAGE COMPARTMENT WEIGHT LIMITATION. THEREFORE VIKING AIR LTD. MUST BE INFORMED OF THESE MODIFICATIONS SO THAT THE WEIGHT LIMIT LABEL CAN BE RE-EVALUATED.

Baggage Compartment Table
Figure 1-13

CARGO COMPARTMENT FREIGHT TABLE							
CARGO WEIGHT–KG		MOMENT/100 KG IN.					
		COMPT C1 ARM 122 IN.	COMPT C2 ARM 142 IN.	COMPT C3 ARM 162 IN.	COMPT C4 ARM 182 IN.	COMPT C5 ARM 202 IN.	COMPT C6 ARM 222 IN.
50		61	71	81	91	101	111
100		122	142	162	182	202	222
150		183	213	243	273	303	333
200		244	284	324	364	404	444
250		305	355	405	455	505	555
300		366	426	486	546	606	666
350		427	497	567	637	707	777
400		488	568	648	728	808	888
450		549	639	729	819	909	999
500		610	710	810	910	1010	1110
550		671	781	891	1001	1111	1221
600		732	852	972	1092	1212	1332
605	MAX	738	859	980	1101	1222	1343
		COMPT C7 ARM 242 IN.	COMPT C8 ARM 262 IN.	COMPT C9 ARM 282 IN.	COMPT C10 ARM 302 IN.	COMPT C11 ARM 322 IN.	
50		121	131	141	151	161	
100		242	262	282	302	322	
150		363	393	423	453	483	
200		484	524	564	604	644	
250		605	655	705	755	805	
300		726	786	846	906	966	
350		847	917	907	1057	1127	
400		968	1048	1129	1208	1288	
450		1089	1179	1269	1359	1449	
500		1210	1310	1410	1510	1610	
550		1331	1441	1551	1661	1771	
600		1452	1572	1692	1812	1932	
605	MAX	1464	1585	1706	1827	1948	

Cargo Compartment Freight Table
Figure 1-14

USABLE FUEL TABLE

NORMALOPERATION—FRONT AND REAR TANKS COMBINED ARM = *200.5 **202.9

LITRES	WT–KG	MOMENT KG IN. / 100		LITRES	WT–KG	MOMENT KG IN. / 100
61.1	50	100*		793.8	650	1303*
122.1	100	201*		854.8	700	1404*
183.2	150	301*		915.9	750	1504*
244.2	200	401*		977.0	800	1604*
305.3	250	501*		1038.0	850	1704*
366.4	300	602*		1099.1	900	1805*
427.4	350	702*		1160.1	950	1805*
488.5	400	802*		1221.2	1000	2005*
550.0	450	902*		1273.7	1043	2091*
610.6	500	1003*		1310.3	1073	2151***
671.7	550	1103*		1371.4	1123	2252*
732.7	600	1203*		1431.2	1172	2378**
FRONT TANK				**REAR TANK**		
61.1	50	96		61.1	50	105
122.1	100	191		122.1	100	210
183.2	150	279		183.2	150	319
244.2	200	356		244.2	200	443
305.3	250	433		305.3	250	568
366.4	300	509		366.4	300	694
427.4	350	586		427.4	350	818
488.5	400	663		488.5	400	943
550.0	450	739		550.0	450	1068
610.6	500	815		610.6	500	1193
640.0	524	852***		670.4	549	1315***
664.3	544	883		745.0	610	1464
686.3	562	910				

JP-1 FUEL = .82 KG/LITRE

CONVERSION FACTORS:
JP-4 FUEL (.78 KG/LITRE) MULTIPLY $\frac{\text{MOMENT}}{100}$ BY 0.95
JP-5 FUEL (.83 KG/LITRE) MULTIPLY $\frac{\text{MOMENT}}{100}$ BY 1.01
AVGAS (.72 KG/LITRE) MULTIPLY $\frac{\text{MOMENT}}{100}$ BY 0.88

} VALUES QUOTED ARE AVERAGES AT 15.5°C (60°F)

NOTE:

* This fuel CG position is true for equal weights of fuel in each tank.

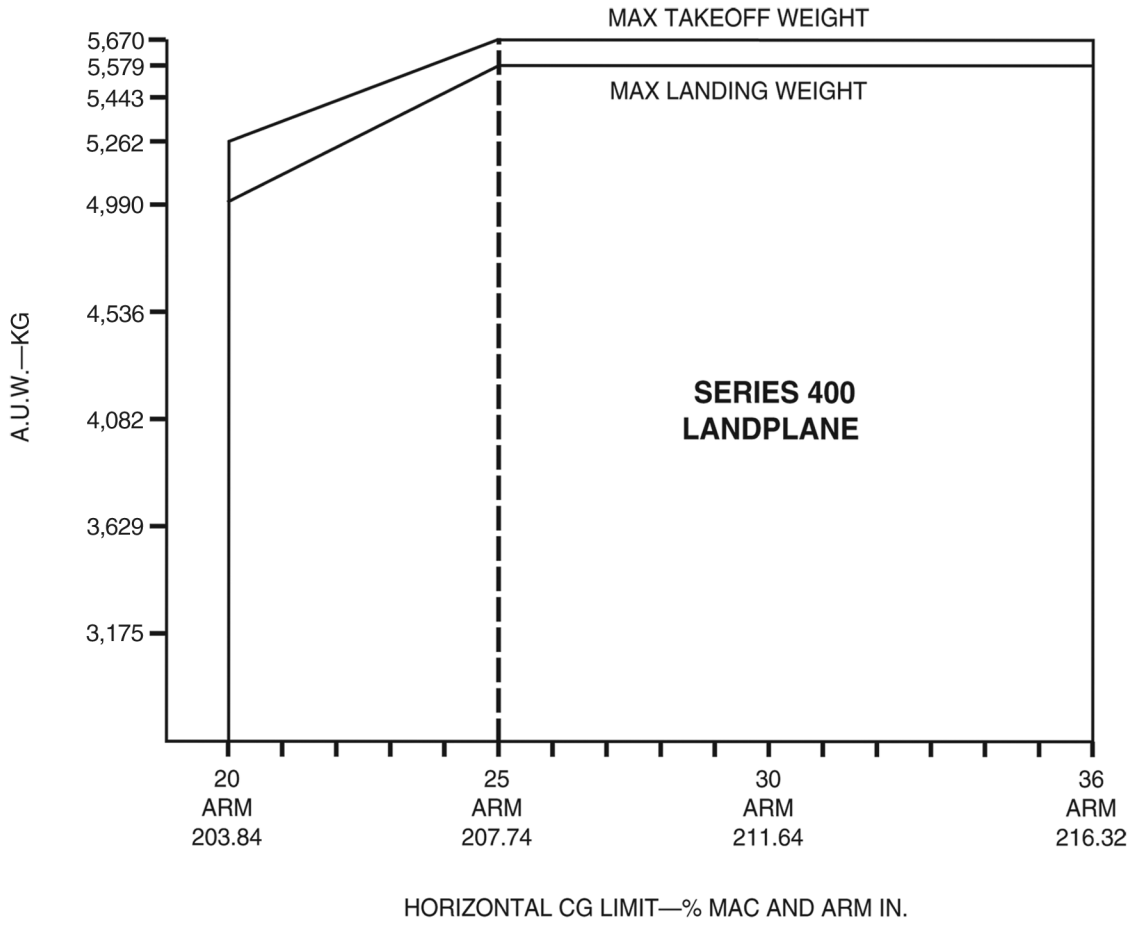
** With full tanks the fuel CG is at Arm 202.9. It is recommended that, once cruise condition have been achieved, fuel levels in the front and rear tanks be equalized by crossfeeding.

*** Maximum capacity with pressure refueling method: If normal full capacity is required, tank must be topped up using gravity fillers.

Usable Fuel Table
Figure 1-15

WING LONG RANGE FUEL TANKS					
LEFT WING TANK			RIGHT WING TANK		
LITRES	WT–KG	MOMENT LB IN. / 100	LITRES	WT–KG	MOMENT LB IN. / 100
50	41	83	50	41	83
100	82	166	100	82	166
150	123	250	150	123	250
168	137.6	279	168	137.6	279

Wing Long Range Fuel Table
Figure 1-16



CG Limits – Landplane
Figure 1-17

SAFE MOMENTS TABLE						
GROSS WEIGHT KG	LANDPLANE AND WHEEL-SKIPLANE MOMENT/100 KG IN.		GROSS WEIGHT KG	LANDPLANE AND WHEEL-SKIPLANE MOMENT/100 KG IN.		
	FWD CG LIMIT	AFT CG LIMIT		FWD CG LIMIT		AFT CG LIMIT
				TAKE-OFF	LAND	
3,100	6,319	6,706	4,600	9,377		9,951
3,150	6,421	6,814	4,650	9,479		10,059
3,200	6,523	6,922	4,700	9,580		10,167
3,250	6,625	7,030	4,750	9,682		10,275
3,300	6,727	7,139	4,800	9,784		10,383
3,350	6,829	7,247	4,850	9,886		10,492
3,400	6,931	7,355	4,900	9,988		10,600
3,450	7,033	7,463	4,950	10,090		10,708
3,500	7,134	7,571	4,990	10,172		10,794
3,550	7,236	7,679				
3,600	7,338	7,788				
3,650	7,440	7,896				
3,700	7,542	8,004				
3,750	7,644	8,112				
3,800	7,746	8,220				
3,850	7,848	8,328	5,035	10,263	10,278	10,892
3,900	7,950	8,436	5,050	10,294	10,314	10,924
3,950	8,052	8,545	5,100	10,396	10,433	11,032
4,000	8,154	8,653	5,150	10,498	10,552	11,140
4,050	8,256	8,761	5,200	10,600	10,672	11,249
4,100	8,357	8,869	5,250	10,702	10,792	11,357
4,150	8,459	8,977	5,262	10,726	10,821	11,383
4,200	8,561	9,085	5,300	10,832	10,912	11,465
4,250	8,663	9,194	5,350	10,950	11,033	11,573
4,300	8,765	9,302	5,400	11,079	11,154	11,681
4,350	8,867	9,410	5,450	11,207	11,276	11,789
4,400	8,969	9,518	5,500	11,336	11,397	11,898
4,450	9,071	9,626	5,550	11,466	11,519	12,006
4,500	9,173	9,734	5,579*	11,541	11,590	12,068
4,550	9,275	9,843	5,600	11,596		12,114
			5,650	11,727		12,222
			5,670	11,779		12,265

*MAXIMUM LANDING WEIGHT

Safe Moments Table – Landplane and Wheel-skiplane
Figure 1-18

SECTION 2

SPECIFIC WEIGHT AND BALANCE DATA

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EQUIPMENT CHECKLIST METRIC

(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
A	STRUCTURE											
A-1												
A-2	* FUSELAGE STRUCTURE	752.57	222.58	167503								
A-3	* TAIL STRUCTURE	137.28	534.02	73309								
A-4	* WING STRUCTURE	572.70	224.00	128285								
A-5	* SURFACE CONTROLS	65.61	187.70	12316								
A-6	* NACELLE STRUCTURE	100.23	172.83	17323								
A-7												
A-8												
A-9	* Nose Structure incl. racks	44.91	28.00	1257								
A-10	* Radio Rack HIRF Covers (3)	2.27	44.00	100								
A-11	* Nose L/G Covers	0.45	44.00	20								
A-12												
A-13	* Radome	0.91	-13.00	-12								
A-14												
A-15												
A-16	* Main Landing Gear Complete - 11 x 12 tires	229.70	227.00	52143								
A-17	* Nose Landing Gear Complete - 8.90 x 12.5 tires	56.70	55.00	3119								
A-18	* Tail Bumper	4.54	518.00	2350								
A-19												
A-20												
A-21												
A-22												
A-23												
A-24												
A-25												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
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PAGE

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(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
B	POWERPLANT											
B-1												
B-2	* PROPULSION GROUP	408.86	163.30	66767								
B-3												
B-4	** Propellers Hartzell HC-B3TN-3 (2) (incl. Spinners)	122.02	124.00	15130								
B-5												
B-6	** Starter-Generator BF Goodrich (2)	28.58	185.00	5287								
B-7												
B-8												
B-9	** Trapped Fuel - Fuselage Tanks	5.44	175.00	953								
B-10	** Unusable, Drainable Fuel	10.43	202.00	2107								
B-11	** Trapped and Usable Oil	24.49	177.00	4336								
B-12												
B-13	* Engine Fire Ext. Bottles (2)	3.63	201.00	729								
B-14												
B-15												
B-16												
B-17	* Engine Wash Kit (Provisions on Engine)	0.45	170.00	77								
B-18												
B-19												
B-20												
B-21												
B-22												
B-23												
B-24												
B-25												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
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PAGE

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Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
C	INTERIOR											
C-1												
C-2	** Pilot Seat with Arm Rest and Seat Belt	8.16	105.00	857								
C-3	** Pilot Seat Cushion	2.27	98.00	222								
C-4	* Pilot Shoulder Harness and Reel	1.36	106.00	144								
C-5	* Gust Locks (Internal) Stowed	0.91	103.00	93								
C-6												
C-7	* Co-Pilot's Seat with Arm Rest and Seat Belt	8.16	105.00	857								
C-8	* Co-Pilot Seat Cushion	2.27	98.00	222								
C-9	* Co-Pilot Shoulder Harness and Reel	1.36	106.00	144								
C-10												
C-11												
C-12	* Floor Track - 2 Rail System - Brownline Tracks (4)	10.43	196.00	2045								
C-13	* Floor Boards - 2 Rail System - 13-19 Passenger	61.24	221.00	13533								
C-14												
C-15	** Fire Extinguisher - Flight Compartment	2.27	100.00	227								
C-16	* Fire Extinguisher - Cabin	2.27	268.00	608								
C-17												
C-18	* Cockpit Panels and Trim	12.70	101.00	1283								
C-19	* Rear Baggage Panels and Trim	2.27	347.00	787								
C-20												
C-21	NOTE: UNCHECK C-23, C-24 WHEN S.O.O. 6311 IS INCORPORATED											
C-22	FIRST AID KIT BECOMES PART OF LOOSE EQUIPMENT											
C-23	* Cabin Trim - Walls, Ceiling, Bulkhead, etc.	102.06	217.00	22147								
C-24	* First Aid Kit	0.91	117.00	106								
C-25												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

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Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
D	CABIN SEATING - 19 PASSENGER											
D-1	STANDARD SEAT INSTALLATION - POST MOD 6/2281, 6/2282											
D-2	CHECK D-7 TO D-20											
D-3	ALL OTHER SEAT ENTRIES UNCHECKED											
D-4	(SEE D-26 TO D-125 FOR PRE MOD OR S.O.O.)											
D-5	IF S.O.O. 6407 IS INCORPORATED CHECK D-17A & UNCHECK D-17 AND D-19											
D-6												
D-7	* Seat, Left, Single, Row 1 (POST MOD 6/2281)	6.72	137.83	926								
D-8	* Seat, Left, Single, Row 2 (POST MOD 6/2281)	6.72	167.83	1127								
D-9	* Seat, Left, Single, Row 3 (POST MOD 6/2281)	6.72	197.83	1329								
D-10	* Seat, Left, Single, Row 4 (POST MOD 6/2281)	6.72	226.83	1524								
D-11	* Seat, Left, Single, Row 5 (POST MOD 6/2281)	6.72	255.83	1719								
D-12	* Seat, Right, Double, Row 1 (POST MOD 6/2281)	11.89	138.97	1653								
D-13	* Seat, Right, Double, Row 2 (POST MOD 6/2281)	11.89	168.97	2010								
D-14	* Seat, Right, Double, Row 3 (POST MOD 6/2281)	11.89	198.97	2366								
D-15	* Seat, Right, Double, Row 4 (POST MOD 6/2281)	11.89	227.97	2711								
D-16	* Seat, Right, Double, Row 5 (POST MOD 6/2281)	11.89	256.97	3056								
D-17	* Seat, Right, Single, Row 6 (POST MOD 6/2281)	6.72	284.31	1910								
D-17A	Seat, Right, Double, Row 6 (S.O.O. 6407)	11.89	283.60	3373								
D-18	* Seat, Left, Rear Mounted (POST MOD 6/2282)	6.91	321.00	2218								
D-19	* Seat, Mid, Rear Mounted (POST MOD 6/2282)	6.91	321.00	2218								
D-20	* Seat, Right, Rear Mounted (POST MOD 6/2282)	6.91	321.00	2218								
D-21	IF S.O.O. 6391 IS INCORPORATED CHECK D-22 TO D-25											
D-22	Structural Provisions	0.63	331.00	209								
D-23	Head Rest	1.02	331.00	339								
D-24	Lap Belt	-0.19	325.00	-62								
D-25	Lap Belt/Harness and Reel	1.25	331.00	413								

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WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

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Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
D	CABIN SEATING - 19 PASSENGER - PRE MOD 6/2281, 6/2282											
D-26	CHECK D-30 TO D-43											
D-27	IF PRE MOD INCORPORATED											
D-28	ALL OTHER SEAT ENTRIES UNCHECKED											
D-29												
D-30	Seat, Left, Single, Row 1 (PRE MOD 6/2281)	6.35	140.00	889								
D-31	Seat, Left, Single, Row 2 (PRE MOD 6/2281)	6.35	170.00	1080								
D-32	Seat, Left, Single, Row 3 (PRE MOD 6/2281)	6.35	200.00	1270								
D-33	Seat, Left, Single, Row 4 (PRE MOD 6/2281)	6.35	230.00	1461								
D-34	Seat, Left, Single, Row 5 (PRE MOD 6/2281)	6.35	259.00	1645								
D-35	Seat, Right, Double, Row 1 (PRE MOD 6/2281)	12.70	140.00	1778								
D-36	Seat, Right, Double, Row 2 (PRE MOD 6/2281)	12.70	170.00	2159								
D-37	Seat, Right, Double, Row 3 (PRE MOD 6/2281)	12.70	200.00	2540								
D-38	Seat, Right, Double, Row 4 (PRE MOD 6/2281)	12.70	230.00	2921								
D-39	Seat, Right, Double, Row 5 (PRE MOD 6/2281)	12.70	259.00	3290								
D-40	Seat, Right, Single, Row 6 (PRE MOD 6/2281)	6.35	286.00	1816								
D-41	Seat, Left, Rear Mounted (PRE MOD 6/2282)	7.44	321.00	2389								
D-42	Seat, Mid, Rear Mounted (PRE MOD 6/2282)	7.44	321.00	2389								
D-43	Seat, Right, Rear Mounted (PRE MOD 6/2282)	7.44	321.00	2389								
D-44												
D-45												
D-46												
D-47												
D-48												
D-49												
D-50												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

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Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
D	CABIN SEATING - S.O.O. 6432- 16 SEAT OPTIONAL CONFIGURATION											
D-51	CHECK D-54 TO D-65											
D-52	ALL OTHER SEAT ENTRIES UNCHECKED											
D-53												
D-54	Seat, Left, Single, Row 1	6.72	137.83	926								
D-55	Seat, Left, Single, Row 2	6.72	177.83	1195								
D-56	Seat, Left, Single, Row 3	6.72	216.83	1457								
D-57	Seat, Left, Single, Row 4	6.72	255.83	1719								
D-58	Seat, Right, Double, Row 1	12.70	138.97	1765								
D-59	Seat, Right, Double, Row 2	12.70	178.97	2273								
D-60	Seat, Right, Double, Row 3	12.70	217.96	2768								
D-61	Seat, Right, Double, Row 4	12.70	256.97	3264								
D-62	Seat, Right, Single, Row 5	6.72	284.31	1910								
D-63	Seat, Left, Rear Mounted	6.91	321.00	2218								
D-64	Seat, Mid, Rear Mounted	6.91	321.00	2218								
D-65	Seat, Right, Rear Mounted	6.91	321.00	2218								
D-66												
D-67												
D-68												
D-69												
D-70												
D-71												
D-72												
D-73												
D-74												
D-75												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
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PAGE

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(1) Items present will be acknowledged with (✓)
(2) Items NOT present will be acknowledged with (-)

Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
D	CABIN SEATING - S.O.O. 6286 - 14 SINGLE SEATING LOPA											
D-76	CHECK D-80 TO D-93											
D-77	IF S.O.O. IS INCORPORATED (WITH POST MOD 6/2281, 6/2282)											
D-78	ALL OTHER SEAT ENTRIES UNCHECKED											
D-79												
D-80	Seat, Left, Single, Row 1 (POST MOD 6/2281)	6.72	137.83	926								
D-81	Seat, Left, Single, Row 2 (POST MOD 6/2281)	6.72	167.83	1127								
D-82	Seat, Left, Single, Row 3 (POST MOD 6/2281)	6.72	197.83	1329								
D-83	Seat, Left, Single, Row 4 (POST MOD 6/2281)	6.72	226.83	1524								
D-84	Seat, Left, Single, Row 5 (POST MOD 6/2281)	6.72	255.83	1719								
D-85	Seat, Right, Single, Row 1 (POST MOD 6/2281)	6.72	137.83	926								
D-86	Seat, Right, Single, Row 2 (POST MOD 6/2281)	6.72	167.83	1127								
D-87	Seat, Right, Single, Row 3 (POST MOD 6/2281)	6.72	197.83	1329								
D-88	Seat, Right, Single, Row 4 (POST MOD 6/2281)	6.72	226.83	1524								
D-89	Seat, Right, Single, Row 5 (POST MOD 6/2281)	6.72	255.83	1719								
D-90	Seat, Right, Single, Row 6 (POST MOD 6/2281)	6.91	286.00	1976								
D-91	Seat, Left, Rear Mounted (POST MOD 6/2282)	6.91	321.00	2218								
D-92	Seat, Mid, Rear Mounted (POST MOD 6/2282)	6.91	321.00	2218								
D-93	Seat, Right, Rear Mounted (POST MOD 6/2282)	6.91	321.00	2218								
D-94												
D-95												
D-96												
D-97												
D-98	FOR S.O.O. 6297 - NO SEATING ARRANGEMENT LOPA											
D-99	ALL SEAT ENTRIES UNCHECKED											
D-100												

PREPARED: DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC SECT ISSUE PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
D	CABIN SEATING - S.O.O. 6309 - LIFE VEST PROVISION											
D-101	IN ADDITION TO THE SEAT ENTRIES:											
D-102	CHECK D-105 TO D-123											
D-103	IF S.O.O. IS INCORPORATED (WITH POST MOD 6/2281, 6/2282)											
D-104	IF S.O.O. 6407 INCORPORATED CHECK D-120A AND UNCHECK D-122											
D-105	Life Vest Pouch - Seat Location - Left, Row 1	0.08	132.00	10								
D-106	Life Vest Pouch - Seat Location - Left, Row 2	0.08	162.00	12								
D-107	Life Vest Pouch - Seat Location - Left, Row 3	0.08	192.00	15								
D-108	Life Vest Pouch - Seat Location - Left, Row 4	0.08	221.00	17								
D-109	Life Vest Pouch - Seat Location - Left, Row 5	0.08	250.00	19								
D-110	Life Vest Pouch - Seat Location - Mid, Row 1	0.08	132.00	10								
D-111	Life Vest Pouch - Seat Location - Mid, Row 2	0.08	162.00	12								
D-112	Life Vest Pouch - Seat Location - Mid, Row 3	0.08	192.00	15								
D-113	Life Vest Pouch - Seat Location - Mid, Row 4	0.08	221.00	17								
D-114	Life Vest Pouch - Seat Location - Mid, Row 5	0.08	250.00	19								
D-115	Life Vest Pouch - Seat Location - Right, Row 1	0.08	132.00	10								
D-116	Life Vest Pouch - Seat Location - Right, Row 2	0.08	162.00	12								
D-117	Life Vest Pouch - Seat Location - Right, Row 3	0.08	192.00	15								
D-118	Life Vest Pouch - Seat Location - Right, Row 4	0.08	221.00	17								
D-119	Life Vest Pouch - Seat Location - Right, Row 5	0.08	250.00	19								
D-120	Life Vest Pouch - Seat Location - Right, Row 6	0.08	280.17	21								
D-120A	Life Vest Pouch - Seat Location - Mid, Row 6	0.08	279.40	21								
D-121	Life Vest Pouch - Seat Location - Left, Rear Mounted	0.08	314.00	24								
D-122	Life Vest Pouch - Seat Location - Mid, Rear Mounted	0.08	314.00	24								
D-123	Life Vest Pouch - Seat Location - Right, Rear Mounted	0.08	314.00	24								
D-124	NOTE: Rows D-105 thru D-123 are applicable to all Viking foreign language life											
D-125	vest provisions S.O.O.s											

PREPARED: DATE:

Viking Air Limited
Sidney, BC

WEIGHT & BALANCE REPORT

AEROC SECT ISSUE PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
D	CABIN SEATING - S.O.O. 6234 - LEATHER											
D-126	IN ADDITION TO THE SEAT ENTRIES:											
D-127	19 SEATS - CHECK D-130 TO D-148											
D-128	14 SEATS - CHECK D-130 TO D-134, D-140 TO D-148											
D-129												
D-130	Leather - Seat Location - Left, Row 1	0.34	137.83	47								
D-131	Leather - Seat Location - Left, Row 2	0.34	167.83	57								
D-132	Leather - Seat Location - Left, Row 3	0.34	197.83	67								
D-133	Leather - Seat Location - Left, Row 4	0.34	226.83	77								
D-134	Leather - Seat Location - Left, Row 5	0.34	255.83	87								
D-135	Leather - Seat Location - Mid, Row 1	0.34	137.83	47								
D-136	Leather - Seat Location - Mid, Row 2	0.34	167.83	57								
D-137	Leather - Seat Location - Mid, Row 3	0.34	197.83	67								
D-138	Leather - Seat Location - Mid, Row 4	0.34	226.83	77								
D-139	Leather - Seat Location - Mid, Row 5	0.34	255.83	87								
D-140	Leather - Seat Location - Right, Row 1	0.34	137.83	47								
D-141	Leather - Seat Location - Right, Row 2	0.34	167.83	57								
D-142	Leather - Seat Location - Right, Row 3	0.34	197.83	67								
D-143	Leather - Seat Location - Right, Row 4	0.34	226.83	77								
D-144	Leather - Seat Location - Right, Row 4	0.34	226.83	77								
D-145	Leather - Seat Location - Right, Row 5	0.34	255.83	87								
D-146	Leather - Seat Location - Left, Rear Mounted	0.34	321.00	109								
D-147	Leather - Seat Location - Mid, Rear Mounted	0.34	321.00	109								
D-148	Leather - Seat Location - Right, Rear Mounted	0.34	321.00	109								
D-149												
D-150												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
G	GENERAL											
G-1												
G-2	* Windshield Wiper Installation	4.99	71.00	354								
G-3												
G-4	* Protective Primer - Epoxy - Ext. Surface	6.35	287.00	1823								
G-5												
G-6												
G-7	* Airstair Door with Handrail	23.59	287.00	6770								
G-8	* Airstair Door Quick Release	0.45	287.00	130								
G-9	* Door Saver - Aircraftsman	3.18	275.00	873								
G-10												
G-11												
G-12												
G-13												
G-14	Paint - Exterior Surface:											
G-15	Refer to aircraft serial number specific paint scheme document for factory weight											
G-16	and balance information											
G-17												
G-18												
G-19												
G-20												
G-21												
G-22												
G-23												
G-24												
G-25												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
G												
G-26												
G-27	NOTE:											
G-28	Items G-31 to G-40 inclusive are standard supply but are not											
G-29	considered part of basic weight.											
G-30												
G-31	* Jury Strut/Tail Stick - for standard gear	1.13	354.00	401								
G-32	* Engine Intake and Exhaust Covers	2.90	354.00	1028								
G-33	* DC Noise Cancelling Headsets (2)	2.09	354.00	739								
G-34	* Propellor Restraining Tie (2)	0.54	354.00	193								
G-35	* Fuel Dipstick	0.34	354.00	120								
G-36	* Pitot Tube Covers (2)	0.34	354.00	120								
G-37	* Case of Manuals	6.80	354.00	2409								
G-38	* Carrying Case/Bag	0.84	354.00	297								
G-39	* Microfibre Cloth & Bottle of Display Cleaner	0.32	354.00	112								
G-40	* Tie Down Rings	0.23	354.00	80								
G-41												
G-42												
G-43												
G-44												
G-45												
G-46												
G-47												
G-48												
G-49												
G-50												

WEIGHT & BALANCE REPORT

DATE:

PREPARED:

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
R	AVIONICS AND ELECTRICAL											
R-1	** DAU #1 (85-302-1 - Honeywell)	3.18	247.30	785								
R-2	** DAU #2 (85-302-1 - Honeywell)	3.18	247.30	785								
R-3	* DAU Fan (ACF328 - Sandia Aerospace)	0.54	268.50	144								
R-4												
R-5	** MAU - 12 Slot Cabinet (with cards) (7029782-1912 - Honeywell)	19.46	56.40	1098								
R-6	* Avionics Fan #1 (305468-00 - Sandia Aerospace)	0.11	53.60	6								
R-7	* Avionics Fan #2 (305468-00 - Sandia Aerospace)	0.11	60.10	7								
R-8												
R-9	** PFD #1 (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	3.00	71.41	214								
R-10	** PFD #1 (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	1.59	70.79	112								
R-11	** PFD #2 (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	3.00	71.41	214								
R-12	** PFD #2 (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	1.59	70.79	112								
R-13	** MFD UPPER (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	3.00	70.77	212								
R-14	** MFD UPPER (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	1.59	70.15	111								
R-15	** MFD LOWER (KDU-1080 - 066-01202-0101 - Honeywell) (PRE MOD 6/2450)	3.00	72.42	217								
R-16	** MFD LOWER (KDU-1080-2 - K932100A00 - Honeywell) (POST MOD 6/2450)	1.59	71.80	114								
R-17	* MF Controller (KMC2210 - 071-01598-0501 - Honeywell)	0.86	87.50	75								
R-18												
R-19	* ADAHRS (KSG7200 - 065-00188-5103 - Honeywell)	2.81	53.80	151								
R-20	Magnetometer #1 (KMG7010 - Honeywell) (PRE MOD 6/2171)	0.36	204.00	74								
R-21	Magnetometer #2 (KMG7010 - Honeywell) (PRE MOD 6/2171)	0.36	204.00	74								
R-22	* Magnetometer #1 (KMG7010 - Honeywell) (POST MOD 6/2171)	0.36	497.50	181								
R-23	* Magnetometer #2 (KMG7010 - Honeywell) (POST MOD 6/2171)	0.36	497.50	181								
R-24	* OAT Sensor (0129G - 00129-0122-0001 - Goodrich)	0.45	56.00	25								
R-25												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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R												
R-26												
R-27	* ESIS (GH3100 - 501-1860-0403 - L3 Com's) (PRE MOD 6/2170)	1.81	67.13	122								
R-28	* ESIS Power Supply (PS-850B - 501-1719-02 - L3 Com's)	6.08	417.50	2538								
R-29	* ESIS Magnetometer (MAG3000 - 501-1826-01 - L3 Com's)	0.23	204.00	46								
R-30	* ESIS (GH3900.2 - 9200-34400-0401 - L3 Com's) (POST MOD 6/2170)	1.18	68.13	80								
R-31	* Vertical Compass PAI-700-28 (Precision Aviation Inc.)	0.24	83.72	20								
R-32												
R-33	* Clock Q13-941.22.28.1.F1 (Thommen)	0.23	70.67	16								
R-34												
R-35												
R-36	* XPDR #1/PFD #1 CTRL (KXP2290 / KMC 2210 - Honeywell)	2.32	67.60	157								
R-37	* XPDR #1 ANT UPPER (CI-110-41-30 - Comant Industries)	0.11	186.50	21								
R-38	* XPDR #1 ANT LOWER (CI-110-41-30 - Comant Industries)	0.11	103.80	12								
R-39												
R-40	□* XPDR #2/PFD #2 CTRL (KXP2290 / KMC 2210 - Honeywell)	2.32	67.60	157								
R-41	□* XPDR #2 ANT UPPER (CI-110-41-30 - Comant Industries)	0.11	186.50	21								
R-42	□* XPDR #2 ANT LOWER (CI-110-41-30 - Comant Industries)	0.11	103.80	12								
R-40A	S.O.O. 6381 XPDR #2/PFD #2 CTRL (KXP2290 / KMC 2210 - Honeywell)	2.32	67.60	157								
R-41A	S.O.O. 6381 XPDR #2 ANT UPPER (CI-110-41-30 - Comant Industries)	0.11	186.50	21								
R-42A	S.O.O. 6381 XPDR #2 ANT LOWER (CI-110-41-30 - Comant Industries)	0.11	103.80	12								
R-43												
R-44												
R-45	* DME #1 (KN63 - 066-01070-0001 - Honeywell)	1.27	414.60	527								
R-46	* DME #1 ANT (CI-110-41-30 - Comant Industries)	0.11	291.40	33								
R-47	□* DME #2 (KN63 - 066-01070-0001 - Honeywell)	1.27	429.50	545								
R-48	□* DME #2 ANT (CI-110-41-30 - Comant Industries)	0.11	431.00	49								
R-47A	S.O.O. 6386 DME #2 (KN63 - 066-01070-0001 - Honeywell)	1.27	429.50	545								
R-48A	S.O.O. 6386 DME #2 ANT (CI-110-41-30 - Comant Industries)	0.11	431.00	49								
R-49												
R-50												

PREPARED: DATE:

Viking Air Limited
Sidney, BC

WEIGHT & BALANCE REPORT

AEROC SECT ISSUE PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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R													
R-51													
R-52	* RAD ALT #1 (KRA405B - 066-0153-0101 - Honeywell)	1.37	416.60	573									
R-53	RAD ALT #1 ANT FWD - DMPN3-3A (PRE MOD 6/2258)	0.57	416.00	236									
R-54	RAD ALT #1 ANT AFT - DMPN3-3A (PRE MOD 6/2258)	0.57	446.00	253									
R-55	* RAD ALT #1 ANT FWD - KA54A (POST MOD 6/2258)	0.56	416.00	234									
R-56	* RAD ALT #1 ANT AFT - KA54A (POST MOD 6/2258)	0.56	446.00	251									
R-57													
R-58	* GPS #1 (KGS200 - 066-01201-0101 - Honeywell)	0.49	48.20	24									
R-59	□* GPS #2 (KGS200 - 066-01201-0101 - Honeywell)	0.49	54.00	27									
R-60	* GPS #1 ANT (KA96 - 071-01620-0001 - Honeywell)	0.21	140.10	30									
R-61	□* GPS #2 ANT (KA96 - 071-01620-0001 - Honeywell)	0.21	317.80	68									
R-59A	S.O.O. 6380 GPS #2 (KGS200 - 066-01201-0101 - Honeywell)	0.49	54.00	27									
R-61A	S.O.O. 6380 GPS #2 ANT (KA96 - 071-01620-0001 - Honeywell)	0.21	317.80	68									
R-62													
R-63	□* TCAS I (KTA910 - 066-01177-0101 - Honeywell)	4.35	47.20	206									
R-64	□* TCAS I CONFIG MODULE (071-00112-0200 - Honeywell)	0.05	46.75	2									
R-65	□* TCAS I ANT UPR (KA-815 - 071-01599-0100 - Honeywell)	0.43	111.60	48									
R-66	□* TCAS I ANT LWR (CI-110-41-30 - Comant Industries)	0.11	67.30	8									
R-63A	S.O.O. 6382 TCAS I (KTA910 - 066-01177-0101 - Honeywell)	4.35	47.20	206									
R-64A	S.O.O. 6382 TCAS I CONFIG MODULE (071-00112-0200 - Honeywell)	0.05	46.75	2									
R-65A	S.O.O. 6382 TCAS I ANT UPR (KA-815 - 071-01599-0100 - Honeywell)	0.43	111.60	48									
R-66A	S.O.O. 6382 TCAS I ANT LWR (CI-110-41-30 - Comant Industries)	0.11	67.30	8									
R-67													
R-68	□* EGPWS MARK VI (965-1180-024 - Honeywell)	1.77	58.80	104									
R-68A	S.O.O. 6387 EGPWS MARK VI (965-1180-024 - Honeywell)	1.77	58.80	104									
R-69													
R-70													
R-71	□* WX RADAR w/ 12" ANT (ART2000 - 071-01519-0101 - Honeywell)	4.90	-10.10	-50									
R-72	□* WX RADAR CONFIG MODULE (071-00097-0100 - Honeywell)	0.05	-6.00	0									
R-71A	S.O.O. 6383 WX RADAR w/ 12" ANT (ART2000 - 071-01519-0101 - Honeywell)	4.90	-10.10	-50									
R-72A	S.O.O. 6383 WX RADAR CONFIG MODULE (071-00097-0100 - Honeywell)	0.05	-6.00	0									
R-73													
R-74													
R-75													

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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Item No.	Item Description	Weight kg	Arm in	Moment in*kg									
R													
R-76													
R-77	* FDR (AR-256 - 980-4710-003 - Honeywell)(PRE MOD 6/2332)	4.17	429.40	1792									
R-78	FDR Impact Switch (370-0145-003 - Honeywell)(PRE MOD 6/2256)	0.29	429.70	127									
R-79	□* FDR Impact Switch (3LO-1010-3 - InertiaSwitch)(POST MOD 6/2256)	0.25	429.70	109									
R-80	□* FDR Accelerometer (971-4193-001 - Honeywell)	0.50	47.10	24									
R-77A	□ FDR (FA2100FDR - 2100-2044-00 - L3)(POST MOD 6/2332)	4.54	414.20	1879									
R-77B	□ FDR MNT (2100-8005-00 - L3)(POST MOD 6/2332)	0.54	414.80	226									
R-77C	□ FDR BRKT (C6FS5029-11)(POST MOD 6/2332)	0.15	415.30	64									
R-77D	S.O.O. 6385 FDR (FA2100FDR - 2100-2044-00 - L3)	4.54	414.20	1879									
R-77E	S.O.O. 6385 FDR MNT (2100-8005-00 - L3)	0.54	414.80	226									
R-77F	S.O.O. 6385 FDR BRKT (C6FS5029-11)	0.15	415.30	64									
R-79A	S.O.O. 6385 FDR Impact Switch (3LO-1010-3 - InertiaSwitch)(POST MOD 6/2256)	0.25	429.70	109									
R-80A	S.O.O. 6385 FDR Accelerometer (971-4193-001 - Honeywell)	0.50	47.10	24									
R-81													
R-82	* CVR (AR-120 - 980-6023-002 - Honeywell)(PRE MOD 6/2332)	4.17	414.50	1730									
R-82A	□* CVR (AR-120 - 980-6023-002 - Honeywell)(POST MOD 6/2332)	4.17	429.54	1793									
R-83	CVR Impact Switch (370-0145-003 - Honeywell)(PRE MOD 6/2256)	0.29	423.80	125									
R-84	□* CVR Impact Switch (3LO-1010-3 - Inertia Switch)(POST MOD 6/2256)	0.25	423.80	108									
R-85	□* CVR Area Mic (980-6113-010 - Honeywell)	0.09	72.81	7									
R-82B	S.O.O. 6384 CVR (AR-120 - 980-6023-002 - Honeywell)(POST MOD 6/2332)	4.17	429.54	1793									
R-84A	S.O.O. 6384 CVR Impact Switch (3LO-1010-3 - Inertia Switch)(POST MOD 6/2256)	0.25	423.80	108									
R-85A	S.O.O. 6384 CVR Area Mic (980-6113-010 - Honeywell)	0.09	72.81	7									
R-86													
R-87	* ELT (C406-2 - 453-5060 - Artex)	2.10	416.40	875									
R-88	* ELT ANT (110-338 - Artex)	0.20	424.50	87									
R-89													
R-90													
R-91	* MMDR #1 (069-01037-0102 - Honeywell)	2.47	49.80	123									
R-92	* MMDR #2 (069-01037-0102 - Honeywell)	2.47	49.80	123									
R-93	* MMDR NAV Splitter (CI-502 - Comant Industries)	0.11	47.50	5									
R-94	* MMDR VOR/LOC ANT (DMN4-4 - Dorne & Margolin)	0.91	556.10	504									
R-95	* MMDR #1 COM ANT (CI-108-1-L - Comant Industries)	1.13	149.60	170									
R-96	* MMDR #2 COM ANT (CI-108-1-L - Comant Industries)	1.13	354.40	402									
R-97	* MMDR Glide Slope ANT (DMN25-2 - Dorne & Margolin)	0.40	-10.80	-4									
R-98	□* MMDR #1 ADF ANT (KA-44B - 071-01234-0000 - Honeywell)	1.91	294.40	561									
R-98A	S.O.O. 6405 MMDR #1 ADF ANT (KA-44B - 071-01234-0000 - Honeywell)	1.91	294.40	561									

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST METRIC

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Manufacturer's Serial No.: Registration:

Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
R												
R-99												
R-100												
R-101												
R-102	* Audio Panel #1 (KMA29 - 066-01181-0101 - Honeywell)	1.13	68.64	78								
R-103	* Audio Panel #2 (KMA29 - 066-01181-0101 - Honeywell)	1.13	68.64	78								
R-104	* Marker Beacon ANT (CI-118 - Comant Industries)	0.23	79.00	18								
R-105	* Audio Mixing Amplifier (NAT247)	0.19	46.30	9								
R-106												
R-107												
R-108	* P/A Amplifier (NAT245)	0.27	46.00	13								
R-109	* Cabin Speakers (Qty 6) (4C5Z8 - Quam)	0.82	225.10	184								
R-110												
R-111												
R-112	* Lighting Power Supply (99-1128 - FTG Aerospace)	1.04	52.90	55								
R-113	* Dimmer Control Panel (C6NF2240)	0.38	82.90	32								
R-114												
R-115	* Caution Lights Dim Box (LD12-001 - NAT)	0.38	59.10	23								
R-116												
R-117	* Light Dimmer (LT45 - KGS)	0.29	50.30	15								
R-118												
R-119	* LND LT #1 HID Power Supply (8ES455338-20-Goodrich) (PRE-MOD 6/2285)	0.85	198.00	169								
R-120	* LND LT #2 HID Power Supply (8ES455338-20-Goodrich) (PRE-MOD 6/2285)	0.85	198.00	169								
R-121												
R-122	* STROBE LT #1 Power Supply (01-0790101-02 - Whelen) (PRE-MOD 6/2447)	0.77	212.00	163								
R-123	* STROBE LT #2 Power Supply (01-0790101-02 - Whelen) (PRE-MOD 6/2447)	0.77	212.00	163								
R-124												
R-125												

PREPARED: DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							1	2	3	4	5	6			
							Date								
(1) Items present will be acknowledged with (✓) (2) Items NOT present will be acknowledged with (-)					As Weighed	In Basic Weight									
Manufacturer's Serial No.:	Registration:				Initials										
Item No.	Item Description	Weight kg	Arm in	Moment in*kg											
R													WEIGHT & BALANCE REPORT	DATE:	PREPARED:
R-126															
R-127	* Taxi Light	0.91	53.00	48											
R-128															
R-129	TAIL BEACON LIGHT (PRE-MOD 6/2240)	0.50	547.30	273											
R-130	** TAIL BEACON LIGHT (POST-MOD 6/2240)	0.34	547.30	186											
R-131															
R-132															
R-133															
R-134	* Fuel Computer (61349 - 10863B01Y01 - AMETEK)	0.64	136.50	87											
R-135	* FUEL BOOST PUMP EMI FILTER RELOCATION (POST-MOD 6/2267, PRE-MOD 6/	1.63	124.40	203											
R-136															
R-137	NOTE: WHEN S.O.O. 6371 IS INCORPORATED, REMOVE														
R-138	CHECKMARKS FROM R-139. CHECK ROWS S-9 THRU S-12														
R-139	* Battery - Lead Acid (RG-380E / 60L)	43.55	338.00	14718											
R-140	* Voltage Regulators (2)	1.36	335.00	456											
R-141															
R-142	* DC Converter (AK-551-9M - Ameri-King) (PRE MOD 6/2406)	0.68	53.80	37											
R-143	* DC Converter (6430120-1-TRUE BLUE POWER) (POSTMOD 6/2406)	0.29	53.80	16											
R-144	* LND LT #1 HID (10455703-00 - Goodrich) (PRE-MOD 6/2285)	1.10	191.30	211											
R-145	* LND LT #2 HID (10455703-00 - Goodrich) (PRE-MOD 6/2285)	1.10	191.30	211											
R-146	* LND LT #1 LED (01-0790783-00 - Whelen) (POST-MOD 6/2285)	0.45	191.30	87											
R-147	* LND LT #2 LED (01-0790783-00 - Whelen) (POST-MOD 6/2285)	0.45	191.30	87											
R-148	* LND LT FLASHER (01-0771868-00 - Whelen) (POST-MOD 6/2285)	0.34	180.00	61											
R-149	*Avionics Start Battery provisions (not including battery) (POST-MOD 6/2315)	1.07	55.40	59											
R-150	*Avionics Start Battery (RG-122-3) (POST-MOD 6/2315)	4.54	49.40	224											

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST METRIC

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Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
S	STANDARD ORDER OPTIONS											
S-1												
S-2	S.O.O. 6279 - US IMPORTATION PLACARD	0.04	520.00	21								
S-3	S.O.O. 6285 - IMPORTATION IDENTIFICATION PLATE	0.04	520.00	21								
S-4	S.O.O. 6267 - STA 111.0 Structural Provisions for Float Installation	1.41	105.30	149								
S-5												
S-6												
S-7	S.O.O. 6218 - 2ND RAD ALT	3.37	409.30	1378								
S-8												
S-9	S.O.O. 6371 - FORWARD BATTERY (RG-380E/60L BATTERY)	43.55	3.50	152								
S-10	S.O.O. 6371 - FORWARD BATTERY (STRUCTURAL PROVISIONS)	2.53	16.87	43								
S-11	S.O.O. 6371 - FORWARD BATTERY (ELETRICAL PROVISIONS)	15.32	52.96	811								
S-12	S.O.O. 6371 - FORWARD BATTERY (REMOVED ELECTICAL PROVISIONS)	-15.32	291.60	-4468								
S-13	NOTE: IF S.O.O. 6371 APPLIES, UNCHECK R-139											
S-14	S.O.O. 6431 - BAGGAGE BULKHEAD - FORWARD BATTERY	3.30	15.45	51								
S-15	S.O.O. 6431 - BAGGAGE BULKHEAD - FORWARD BATTERY (PROVISIONS)	0.58	15.45	9								
S-16												
S-17												
S-18												
S-19	S.O.O. 6217 - MMDR #2 ADF ANT (KA-44B - 071-01234-0000)	1.91	294.40	561								
S-20												
S-21	S.O.O. 6219 - TCAS II (TPU 67A - 066-01146-1211)	9.21	47.60	438								
S-22	S.O.O. 6219 - TCAS II CONFIG MODULE (071-00097-1000)	0.04	44.00	2								
S-23	S.O.O. 6219 - TCAS II UPR ANT (ANT67A - 071-01548-0200)	0.83	111.60	92								
S-24	S.O.O. 6219 - TCAS II ANT LWR (CI-110-41-30 - Comant Industries)	0.11	67.30	8								
S-25	NOTE: IF S.O.O. 6219 APPLIES, UNCHECK R63-R66											

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST METRIC

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Item No.	Item Description	Weight kg	Arm in	Moment in*kg	As Weighed	In Basic Weight	Record of Checking 1	2	3	4	5	6
							Date					
							Initials					
S												
S-26												
S-27	S.O.O. 6215 - HF RX/EX (KRX1053 - 064-01073-0102 - Honeywell)	2.68	431.70	1155								
S-28	S.O.O. 6215 - HF ANT CPLR (KAC1052 - 064-01074-0101 - Honeywell)	7.35	443.20	3257								
S-29	S.O.O. 6215 - HF PW AMP (KPA1052 - 064-01072-0101 - Honeywell)	3.81	444.60	1694								
S-30	S.O.O. 6215 - HF ANT (Dayton Granger)	0.27	492.00	134								
S-31	S.O.O. 6215 - HF CNTRL (071-01605-0201 - Honeywell)	0.50	70.13	35								
S-32												
S-33												
S-34	S.O.O. 6211 - XM Weather - Receiver (XMD 157)	0.64	446.00	283								
S-35	S.O.O. 6211 - XM Weather - Antenna (XMR ANT)	0.12	308.60	36								
S-36	S.O.O. 6212 - REMOTE IMAGE BUS (VHB2412-400 - Module)	0.59	53.00	31								
S-37	S.O.O. 6212 - REMOTE IMAGE BUS (Wiring)	0.84	55.70	47								
S-38	S.O.O. 6243 - THIRD SEAT RAIL - Brownline Tracks (5)	2.72	194.00	528								
S-39	S.O.O. 6243 - THIRD SEAT RAIL - Floor Boards - 13-20 Passenger	3.18	219.00	695								
S-40	S.O.O. 6377- STRUCTURAL PROVISIONS, 6th ROW SEAT	1.81	279.35	506								
S-41												
S-42	S.O.O. 6286 - 14 SEAT OPTION - Refer to Section D											
S-43	S.O.O. 6297 - NO SEAT OPTION - Refer to Section D											
S-44	S.O.O. 6234 - LEATHER - Refer to Section D											
S-45	S.O.O. 6407 - 19 SEATS OPTIONAL CONFIGURATION - Refer to Section D											
S-46	S.O.O. 6391 - FLIGHT ATTENDANT FOUR POINT HARNESS - Refer to Section D											
S-47												
S-48	S.O.O. 6205 - EMERGENCY LIGHTING	0.45	215.00	98								
S-49	S.O.O. 6205 - EMERGENCY LIGHTING - BATT - RG-121-1 (Concorde)	2.90	340.20	988								
S-50												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

EQUIPMENT CHECKLIST METRIC

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							Date					
							Initials					
S												
S-51												
S-52	S.O.O. 6244 - COIN MAT FLOORING - Cockpit	0.87	98.00	85								
S-53	S.O.O. 6244 - COIN MAT FLOORING - Cabin	19.05	221.00	4210								
S-54	S.O.O. 6398 - LIGHT WEIGHT COIN MAT FLOORING - Cockpit	0.73	98.00	71								
S-55	S.O.O. 6398 - LIGHT WEIGHT COIN MAT FLOORING - Cabin	14.76	224.00	3307								
S-56												
S-57	S.O.O. 6004 - Airframe De-Icing (Boots - Type 23S)	47.17	277.00	13067								
S-58												
S-59												
S-60												
S-61	S.O.O. 6168 - Fuselage Ice Guard - Prop Area	3.18	126.00	400								
S-62												
S-63												
S-64	S.O.O. 6187 - Heated Windshield (wt. incr.)	15.42	86.00	1326								
S-65												
S-66												
S-67												
S-68	S.O.O. 6247 - WING TANKS - Long Range Tanks	63.05	203.00	12799								
S-69	S.O.O. 6247 - WING TANKS - Trapped Fuel	4.54	238.57	1082								
S-70												
S-71												
S-72	S.O.O. 6230 - Rosen Sun Visor	1.09	87.50	95								
S-73												
S-74												
S-75												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
S												
S-76												
S-77	S.O.O. 6270 - Portable ELT Mounting Provision	0.15	86.00	13								
S-78												
S-79												
S-80	S.O.O. 6048 - LANDING GEAR - LARGE SIZE TIRES - MAIN GEAR	259.07	227.50	58938								
S-81	S.O.O. 6048 - LANDING GEAR - LARGE SIZE TIRES - NOSE GEAR	84.55	54.00	4566								
S-82	S.O.O. 6048 - JURY STRUT - SHORT - FOR USE WITH IFG	0.91	354.00	321								
S-83												
S-84												
S-85												
S-86	S.O.O. 6001 - Main Wheel Skis, Shock Cords, Hydr Hoses & Cables (2)	208.66	231.00	48200								
S-87	S.O.O. 6001 - Nose Wheel Skis, Shock Cords, Hydr Hoses & Cables (2)	73.94	50.00	3697								
S-88	S.O.O. 6001 - Provisions - Elect, Hydr., Etc (Fuselage Portion)	6.35	144.00	914								
S-89	S.O.O. 6001 - Provisions - Elect, Hydr., Etc (L/G Leg Portion)	0.06	228.00	13								
S-90	S.O.O. 6001 - Main Wheel Ski Outboard Lugs & Bolts	5.90	232.00	1368								
S-91												
S-92												
S-93												
S-94												
S-95												
S-96												
S-97												
S-98												
S-99												
S-100												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

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							Date					
							Initials					
S												
S-101												
S-102	NOTE: WHEN S.O.O. 6299 IS INCORPORATED, REMOVE											
S-103	CHECKMARKS FROM R-77 TO R-80											
S-104	S.O.O. 6299 - REMOVAL OF FDR	0.00	0.00	0								
S-105												
S-106	NOTE: WHEN S.O.O. 6292 IS INCORPORATED, REMOVE											
S-107	CHECKMARKS FROM R-82 TO R-85											
S-108	S.O.O. 6292 - REMOVAL OF CVR	0.00	0.00	0								
S-109												
S-110												
S-111	S.O.O. 6291 - PARACHUTE ANCHOR LINE	11.57	219.30	2537								
S-112												
S-113	S.O.O. 6289 - BUBBLE WINDOW ESCAPE HATCH	0.00	0.00	0								
S-114												
S-115	NOTE: WEIGHT DIFFERS WHEN BOTH ARE INSTALLED											
S-116	S.O.O. 6288 AND S.O.O. 6298 TOGETHER	3.98	84.90	338								
S-117	S.O.O. 6288 - ECTM/FOQA DATA CAPTURE	1.89	108.80	205								
S-118	S.O.O. 6298 - SAT COM SYSTEM	3.19	88.90	284								
S-119												
S-120												
S-121												
S-122	S.O.O. 6296 - VHF FM RADIO	5.08	120.30	611								
S-123	S.O.O. 6287 - COLD WEATHER OPERATIONS KIT (115VAC)	4.62	177.97	822								
S-124	S.O.O. 6276 - COLD WEATHER OPERATIONS KIT (230VAC)	4.62	177.97	822								
S-125												

PREPARED:
DATE:
WEIGHT & BALANCE REPORT
Viking Air Limited
Sidney, BC
AEROC
SECT
ISSUE
PAGE

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							Date					
							Initials					
S												
S-126	S.O.O. 6272 - G.A. 14V POWER SOCKET - STA 332	1.59	401.00	637								
S-127	S.O.O. 6281 - G.A. QTY 3 14V AFT CABIN POWER	2.27	354.00	803								
S-128	S.O.O. 6282 - G.A. QTY 3 14V FWD CABIN POWER	2.27	80.00	181								
S-129	S.O.O. 6283 - G.A. 28V POWER SOCKET - STA 332	0.64	213.48	137								
S-130												
S-131												
S-132	S.O.O. 6229 - FOURTH CREW INTERCOM	0.07	328.00	22								
S-133												
S-134												
S-135												
S-136	S.O.O. 6322 - FLT COMP FANS (COMPLETE)	1.05	108.23	114								
S-137	S.O.O. 6322 - FLT COMP FAN (PILOT ONLY)	0.60	108.83	66								
S-138	S.O.O. 6322 - FLT COMP FAN (CO-PILOT ONLY)	0.60	109.20	66								
S-139												
S-140												
S-141	S.O.O. 6268 - SHEEP SKIN SEAT COVERS (PILOT SEAT)	1.39	105.00	146								
S-142	S.O.O. 6268 - SHEEP SKIN SEAT COVERS (CO-PILOT SEAT)	1.39	105.00	146								
S-143												
S-144												
S-145												
S-146	S.O.O. 6376 - AXE AND AXE STOWAGE - FLIGHT COMPARTMENT	1.36	106.00	144								
S-147												
S-148												
S-149												
S-150												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

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							Date					
							Initials					
S												
S-151	S.O.O. 6323 - AUTOPILOT - STRUCTURAL PROVISIONS	2.09	350.65	732								
S-152	S.O.O. 6324 - AUTOPILOT - ELECTRICAL PROVISIONS	4.63	243.34	1127								
S-153	S.O.O. 6325 - AUTOPILOT - SWITCH PROVISIONS	0.77	85.18	66								
S-154												
S-155												
S-156	S.O.O. 6221 - AUTOMATIC FLIGHT CONTROL SYSTEM - PROVISIONS	7.49	256.95	1924								
S-157	S.O.O. 6221 - AILERON SERVO INSTALLATION	3.31	106.86	354								
S-158	S.O.O. 6221 - RUDDER SERVO INSTALLATION	3.34	387.28	1293								
S-159	S.O.O. 6221 - ELEVATOR SERVO INSTALLATION	3.34	387.28	1293								
S-160	S.O.O. 6221 - PITCH TRIM SERVO INSTALLATION	1.68	439.21	739								
S-161												
S-162	S.O.O. 6304 - STAINLESS STEEL OAT SENSOR	0.45	56.00	25								
S-163												
S-164	S.O.O. 6356 - QUICK ACCESS RECORDER INSTL'N PROVISIONS	0.45	363.20	165								
S-165	S.O.O. 6356 - uQAR (QAR200-35-04)	0.17	364.00	62								
S-166												
S-167	S.O.O. 6378 - CABIN CIRCULATION FANS AT STA 111 BULKHEAD	3.76	117.60	443								
S-168	S.O.O. 6379 - CABIN BLOWER AT STA 332 BULKHEAD	2.83	323.20	915								
S-169												
S-170	S.O.O. 6389 - STN 332 BULKHEAD MODIFICATION	-1.55	333.00	-515								
S-171	S.O.O. 6389 - CARGO NET INSTALLATION (C6G1607-1)	0.89	334.00	297								
S-172												
S-173												
S-174												
S-175												

PREPARED:
DATE:

WEIGHT & BALANCE REPORT

Viking Air Limited
Sidney, BC

AEROC
SECT
ISSUE
PAGE

All Items Special Order Only Except - ** Mandatory Items - * Standard Items - □ Not Installed with S.O.O. 6388

BASIC AIRCRAFT WEIGHT CHANGE RECORD

METRIC

AEROC
SECT
PAGE
ISSUE

AIRCRAFT REG. No.				WEIGHT & MOMENT CHANGE						TOTAL			INITIALS
AIRCRAFT SERIAL No.				ADDED			REMOVED			BASIC AIRCRAFT			
Date	ADDED/ REMOVED	ITEM	ITEM DESCRIPTION	Wt kg	Arm in.	Moment in*kg	Wt kg	Arm in.	Moment in*kg	Wt kg	Arm in.	Moment in*kg	
			Basic Aircraft Weight										

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SUPPLEMENT 1

WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (DRUM SYSTEM)

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SUPPLEMENT 1 – WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (DRUM SYSTEM)

TABLE OF CONTENTS PAGE

S1.1 Operating Weight and Balance Limitations 5

S1.2 Take-off and Landing Weight Limitations 8

S1.3 Center of Gravity 8

List of Figures

Page

S1-1 Approximate Locations of Ferry Fuel Drums 6
S1-2 Ferry Fuel System Table 6
S1-3 Rear Baggage Compartment – Total Load Restrictions 7
S1-4 CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System 8
S1-5 Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System 9

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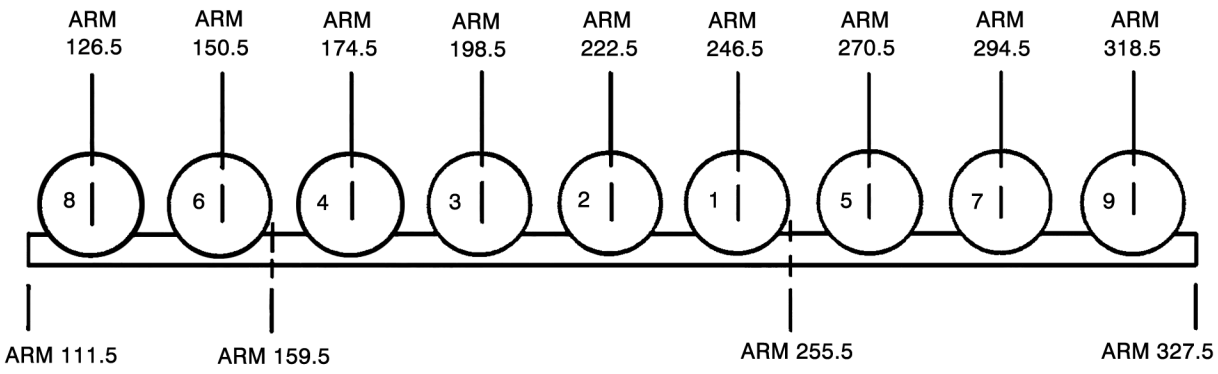
Note This is not a type design approved installation. Any operations in excess of the maximum certified gross weight of the aircraft, must be authorized by the local airworthiness authority.

S1.1 Operating Weight and Balance Limitations

The majority of airplanes operating with a ferry fuel system installed will exceed the maximum design gross weight of 5,670 kg (12,500 lbs). When operating with ferry system drums installed, observance of the limitations in this supplement is required in addition to those specified in Section 2 of the Flight Manual and Section 10 of the Pilot Operating Handbook.

S1.1.1 If the specified fuel drum arrangement Figure S1-1 is used, then the CG of the airplane should remain within flight limitations, provided that any additional loads (personal luggage, spares, etc) are located correctly. The drums must be installed in the numerical order specified in Figure Figure S1-1.

The loading configuration should be checked using data in this supplement together with that in the basic Weight and Balance Handbook, to ensure that the CG limitations as shown in Figure S1-4 and the baggage compartment limitations as shown in Figure S1-3 are strictly adhered to.



Approximate Locations of Ferry Fuel Drums
Figure S1-1

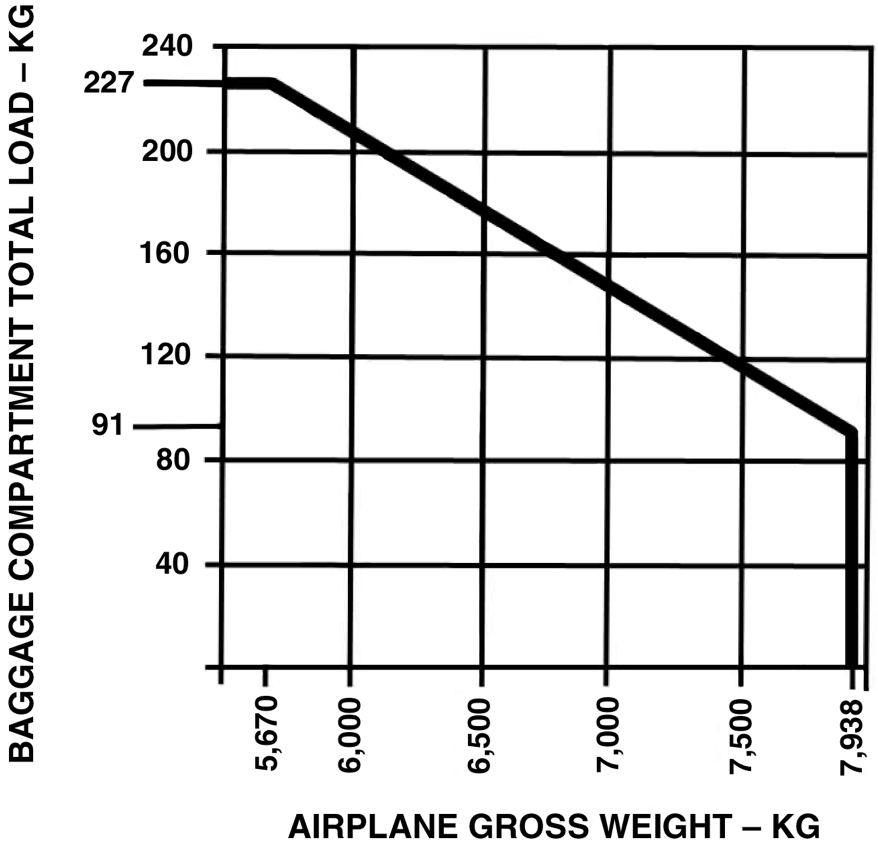
FERRY FUEL SYSTEM TABLE – DRUMS IN CABIN						
NO. OF DRUMS	TOTAL CAPACITY LITRES	USABLE FUEL LITRES	USABLE WT OF FUEL KG	TOTAL WT OF FUEL. TRAPPED + USABLE KG	C.G. IN.	TOTAL FUEL MOMENT KG IN. 100
9	1827	1718	1406	1495	222	3319
8	1623	1527	1250	1328	210	2789
7	1423	1337	1094	1164	222	2584
6	1218	1146	937	997	210	2094
5	1014	955	781	830	222	1843
4	814	764	625	666	210	1399
THESE WEIGHTS & VOLUMES ARE APPROXIMATE ONLY, BASED ON 191 LITRES USABLE FUEL PER DRUM FUEL DENSITY ASSUMED = .82 KG/LITRE						

Ferry Fuel System Table
Figure S1-2

AT WEIGHTS IN EXCESS OF 5,670 KG, IT IS NECESSARY TO RESTRICT THE LOAD IN THE REAR BAGGAGE COMPARTMENT.

THE MAXIMUM WEIGHT PERMITTED ON THE SHELF IS UNCHANGED AT 68 KG. THE TOTAL WEIGHT IN THE COMPARTMENT VARIES LINEARLY FROM 227 KG AT 5,670 KG GROSS WEIGHT TO 91 KG AT 7,938 KG.

SHOULD THE LABEL IN THE REAR BAGGAGE COMPARTMENT RESTRICT THE WEIGHT TO LESS THAN THAT GIVEN HERE, THE LABELLED RESTRICTION SHALL TAKE PRECEDENCE (SEE EXAMPLE).



Rear Baggage Compartment – Total Load Restrictions
Figure S1-3

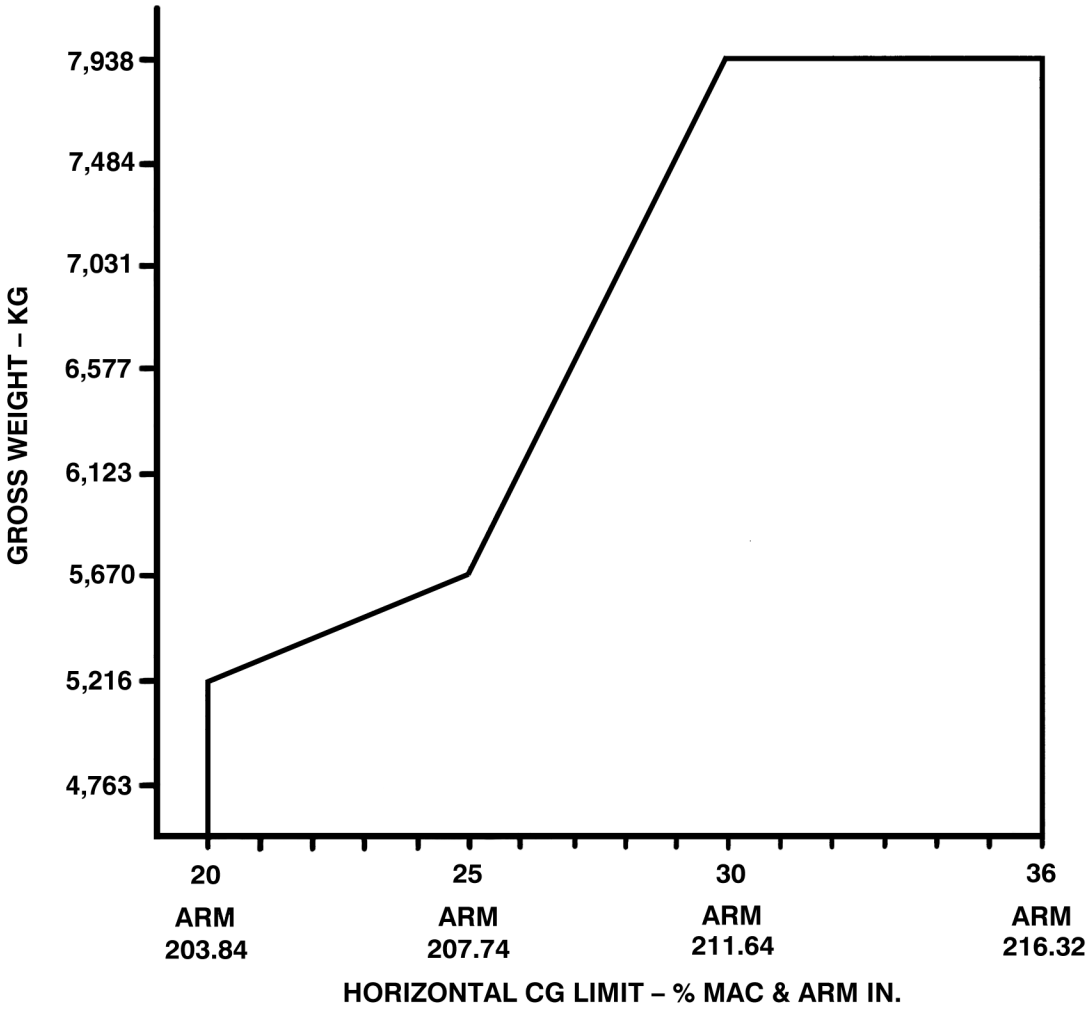
S1.2 Take-off and Landing Weight Limitations

a. The maximum take-off weight with a ferry fuel system installed is 7,940 kg (17,500 lbs), unless limited by operating conditions such as temperature, altitude, runway length, etc.

b. The maximum design landing weight is 5,580 kg (12,300 lbs). Emergency landings may be made safely with weights up to 7,940 kg (17,500 lbs) provided that touchdown is made at a moderate descent velocity.

S1.3 Center of Gravity

The CG limits of the airplane with a ferry fuel system installed are shown in Figure S1-4. The limiting CG locations are given as both airplane horizontal stations and percentages of the Mean Aerodynamic Chord.



CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S1-4

SAFE MOMENTS TABLE – LANDPLANE & WHEEL-SKIPLANE		
GROSS WEIGHT KG	MOMENT/100 KG IN.	
	FWD CG LIMIT	AFT CG LIMIT
5,670	11,779	12,265
5,700	11,844	12,330
5,800	12,062	12,547
5,900	12,280	12,763
6,000	12,499	12,979
6,100	12,717	13,196
6,200	12,936	13,412
6,300	13,156	12,628
6,400	13,376	13,844
6,500	13,596	14,061
6,600	13,816	14,277
6,700	14,037	14,493
6,800	14,258	14,710
6,900	14,480	14,926
7,000	14,702	15,142
7,100	14,920	15,359
7,200	15,147	15,575
7,300	15,369	15,791
7,400	15,593	16,008
7,500	15,817	16,224
7,600	16,041	16,440
7,700	16,265	16,657
7,800	16,489	16,873
7,938	16,800	17,171

Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S1-5

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SUPPLEMENT 2

WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (TURTLE PAC BLADDER)

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SUPPLEMENT 2 – WEIGHT AND BALANCE INFORMATION AND LIMITATIONS – FERRY FUEL SYSTEM (TURTLE PAC BLADDER)

TABLE OF CONTENTS PAGE

S2.1 Operating Weight and Balance Limitations 5

S2.2 Take-off and Landing Weight Limitations 8

S2.3 Center of Gravity 8

List of Figures

Page

S2-1 Approximate Locations of Ferry Fuel Bladder – One Bladder System 5
S2-2 Approximate Locations of Ferry Fuel Bladder – Two Bladder System 5
S2-3 Ferry Fuel System Table 6
S2-4 Rear Baggage Compartment – Total Load Restrictions 7
S2-5 CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System 8
S2-6 Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System 10
S2-7 Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System 11
S2-8 Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System 13
S2-9 Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System 14
S2-10 Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System 15

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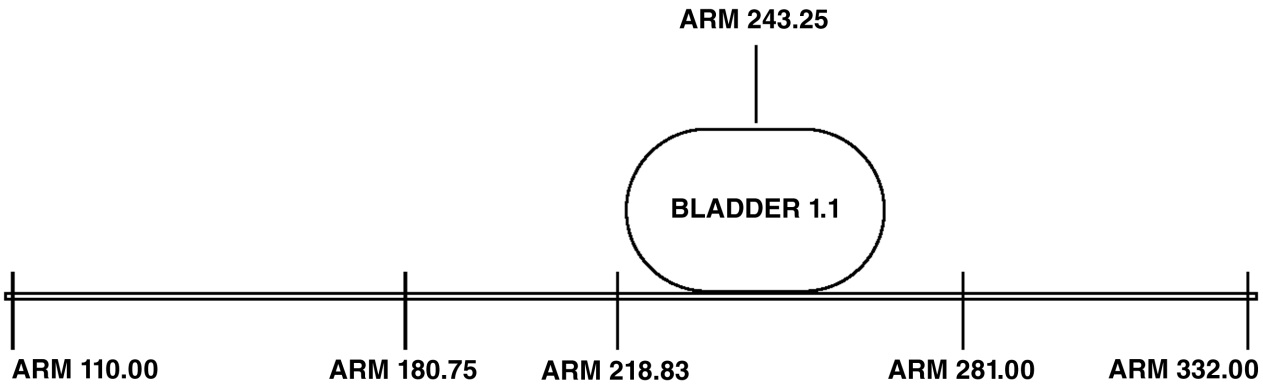
Note This is not a type design approved installation. Any operations in excess of the maximum certified gross weight of the aircraft, must be authorized by the local airworthiness authority.

S2.1 Operating Weight and Balance Limitations

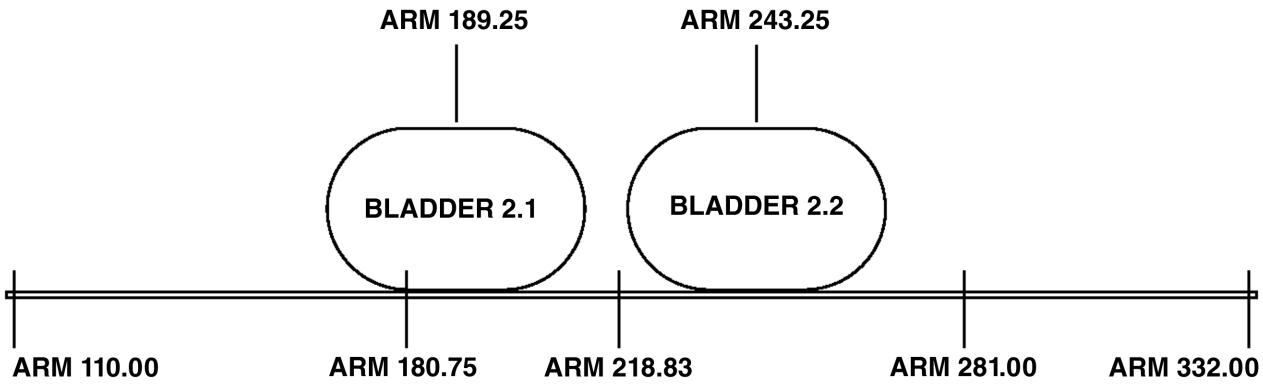
The majority of airplanes operating with a ferry fuel system installed will exceed the maximum design gross weight of 5,670 kg (12,500 lbs). When operating with ferry system installed, observance of the limitations in this supplement is required in addition to those specified in the Section 2 of the Flight Manual and Section 10 of the Pilot Operating Handbook.

S2.1.1 If the specified fuel bladder arrangement in Figure S2-1 or Figure S2-2 is used, then the CG of the airplane should remain within flight limitations, provided that any additional loads (personal luggage, spares, etc) are located correctly. The bladder(s) must be installed in the numerical order specified in Figure S2-1 or Figure S2-2.

The loading configuration should be checked using data in this supplement together with that in the basic Weight and Balance Handbook, to ensure that the CG limitations as shown inFigure S2-5 and the baggage compartment limitations as shown in Figure S2-4 are strictly adhered to.



Approximate Locations of Ferry Fuel Bladder – One Bladder System
Figure S2-1



Approximate Locations of Ferry Fuel Bladder – Two Bladder System
Figure S2-2

FERRY FUEL SYSTEM TABLE – BLADDERS IN CABIN							
NUMBER OF BLADDERS	TOTAL CAPACITY LITRES	USABLE FUEL LITRES	USABLE WT OF FUEL KG	UNUSABLE WT OF FUEL KG	TOTAL WT OF FUEL KG	C.G. IN.	TOTAL FUEL MOMENT KG IN. 100
2	1,800	1,778	1,458	18	1,476	216.25	3,192
1	900	889	729	9	738	243.25	1,795

THESE WEIGHTS AND VOLUMES ARE APPROXIMATE ONLY, BASED ON 900 LITRES CAPACITY FUEL PER BLADDER.

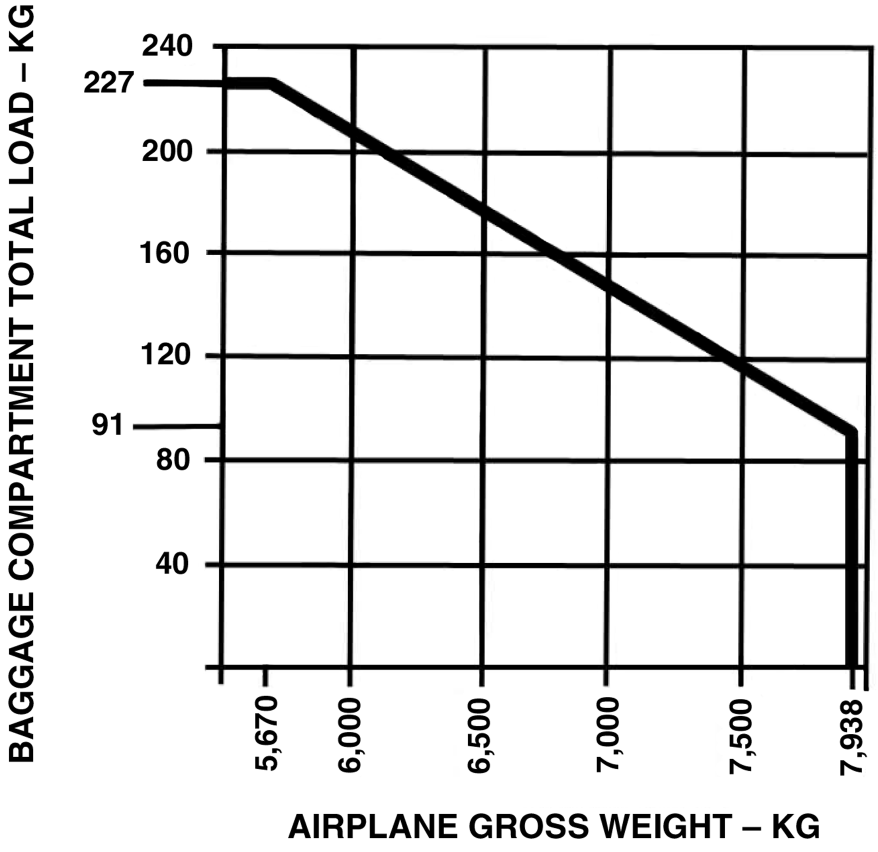
FUEL DENSITY ASSUMED = 0.82 KG/ LITRE

Ferry Fuel System Table
Figure S2-3

AT WEIGHTS IN EXCESS OF 5,670 KG, IT IS NECESSARY TO RESTRICT THE LOAD IN THE REAR BAGGAGE COMPARTMENT.

THE MAXIMUM WEIGHT PERMITTED ON THE SHELF IS UNCHANGED AT 68 KG. THE TOTAL WEIGHT IN THE COMPARTMENT VARIES LINEARLY FROM 227 KG AT 5,670 KG GROSS WEIGHT TO 91 KG AT 7,938 KG.

SHOULD THE LABEL IN THE REAR BAGGAGE COMPARTMENT RESTRICT THE WEIGHT TO LESS THAN THAT GIVEN HERE, THE LABELLED RESTRICTION SHALL TAKE PRECEDENCE (SEE EXAMPLE).



Rear Baggage Compartment – Total Load Restrictions
Figure S2-4

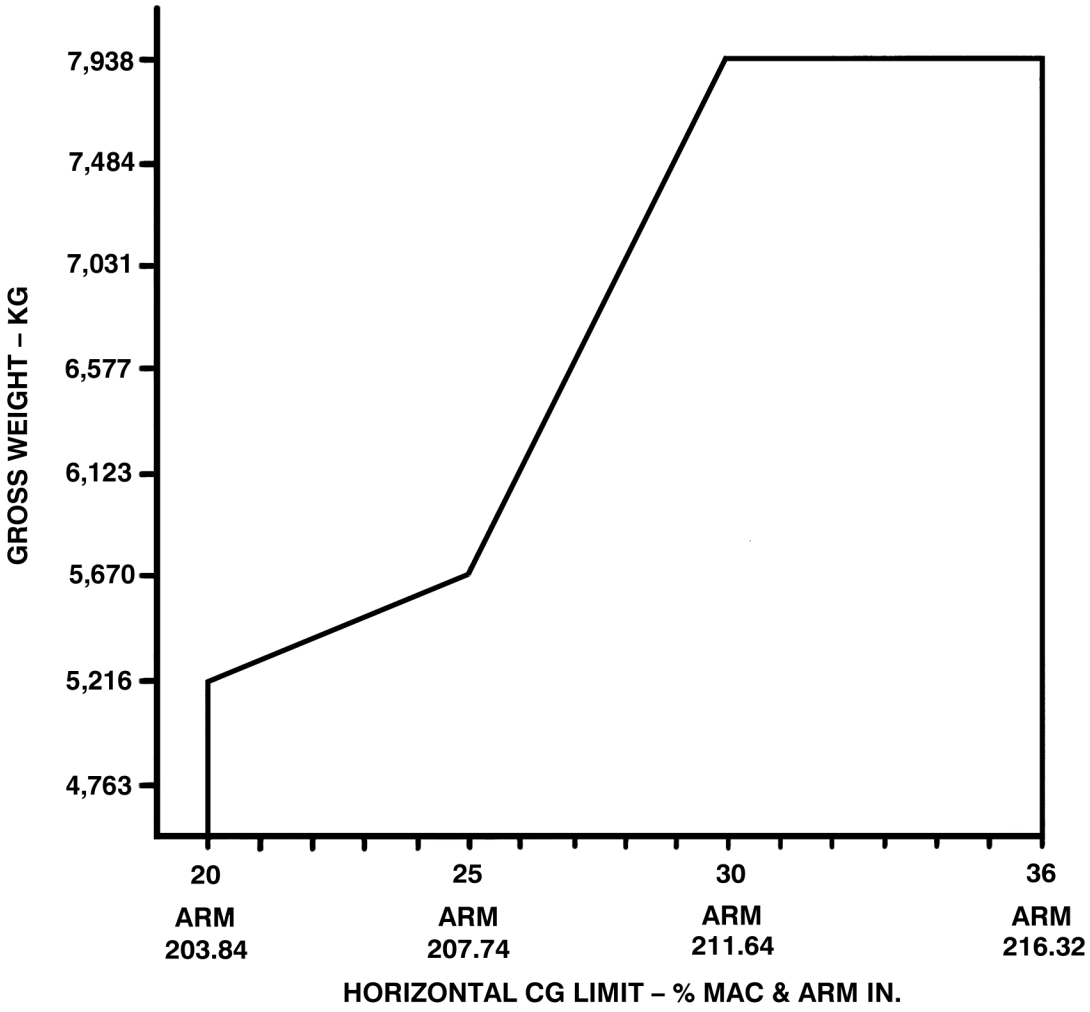
S2.2 Take-off and Landing Weight Limitations

a. The maximum take-off weight with a ferry fuel system installed is 7,940 kg (17,500 lbs), unless limited by operating conditions such as temperature, altitude, runway length, etc.

b. The maximum design landing weight is 5,580 kg (12,300 lbs). Emergency landings may be made safely with weights up to 7,940 kg (17,500 lbs) provided that touchdown is made at a moderate descent velocity.

S2.3 Center of Gravity

The CG limits of the airplane with a ferry fuel system installed are shown in Figure S2-5. The limiting CG locations are given as both airplane horizontal stations and percentages of the Mean Aerodynamic Chord.

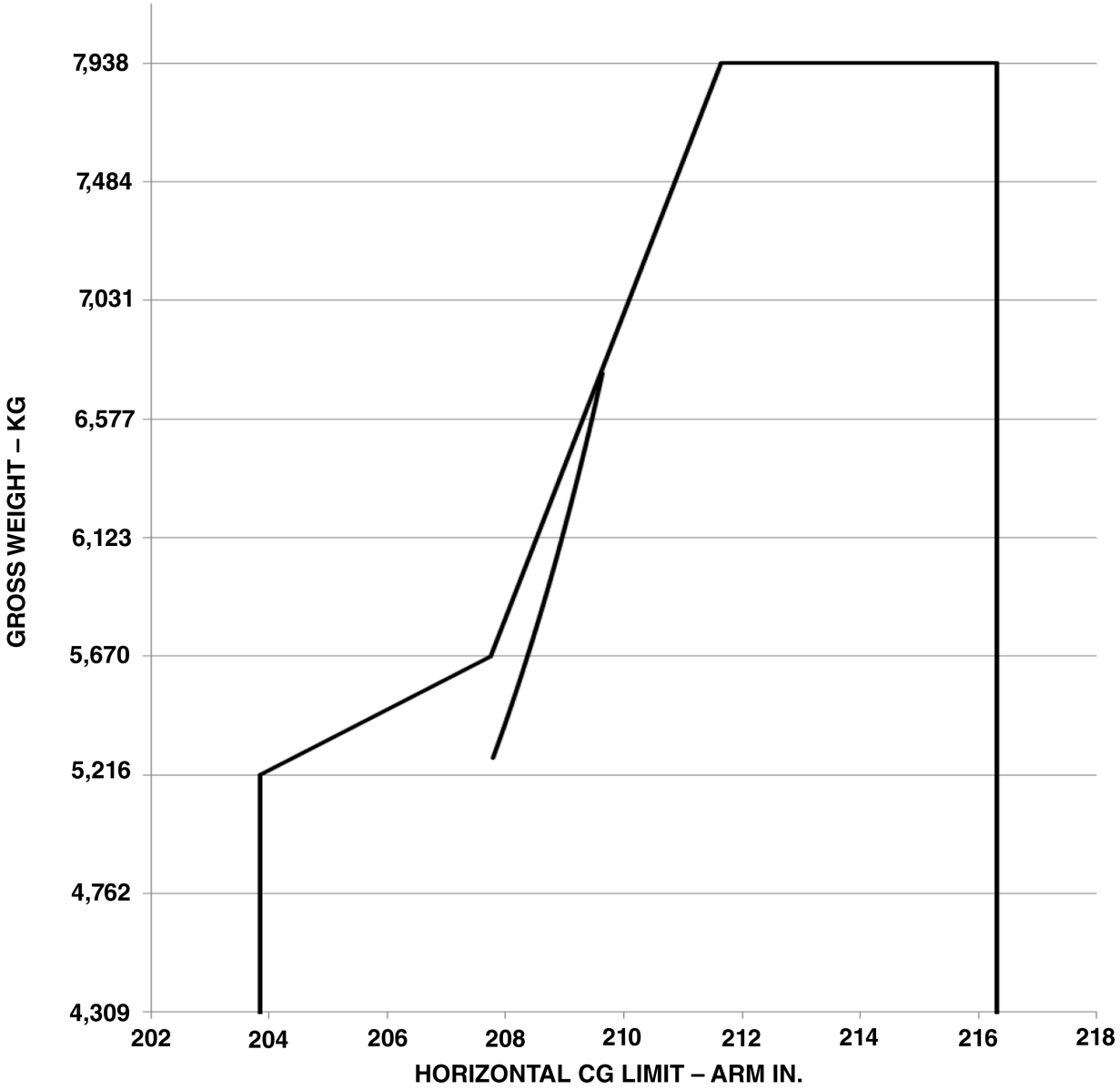


CG Limits – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S2-5

S2.3.1 When the two bladder ferry fuel system is used, the following fuel schedule shall be used to manage fuel transfer. Aircraft configurations shown in Figure S2-6 and Figure S2-7.

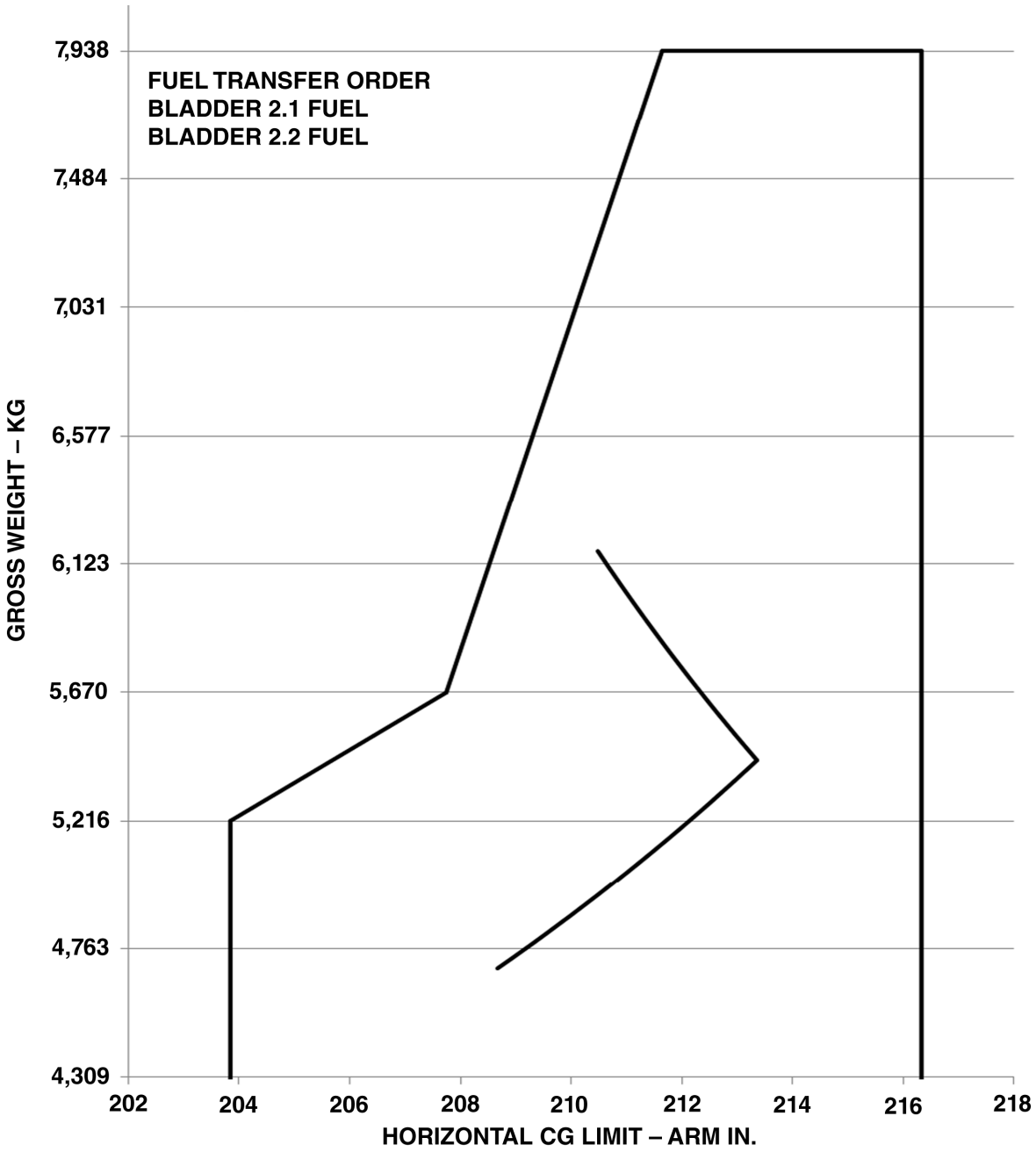
AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 100% FUEL
MINIMUM BALLAST REQUIREMENT:	40.8 KG (AFT BAGGAGE SHELF)
LH AND RH WING TANK FUEL:	100%
NOTES:	EMERGENCY FUEL DUMP AT TAKE-OFF
	ALL BLADDERS DUMPED AT THE SAME TIME
	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO

BEW: 3,452 KG CG: ARM 214.69 7,410.6 IN-KG / 100



Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System
Figure S2-6

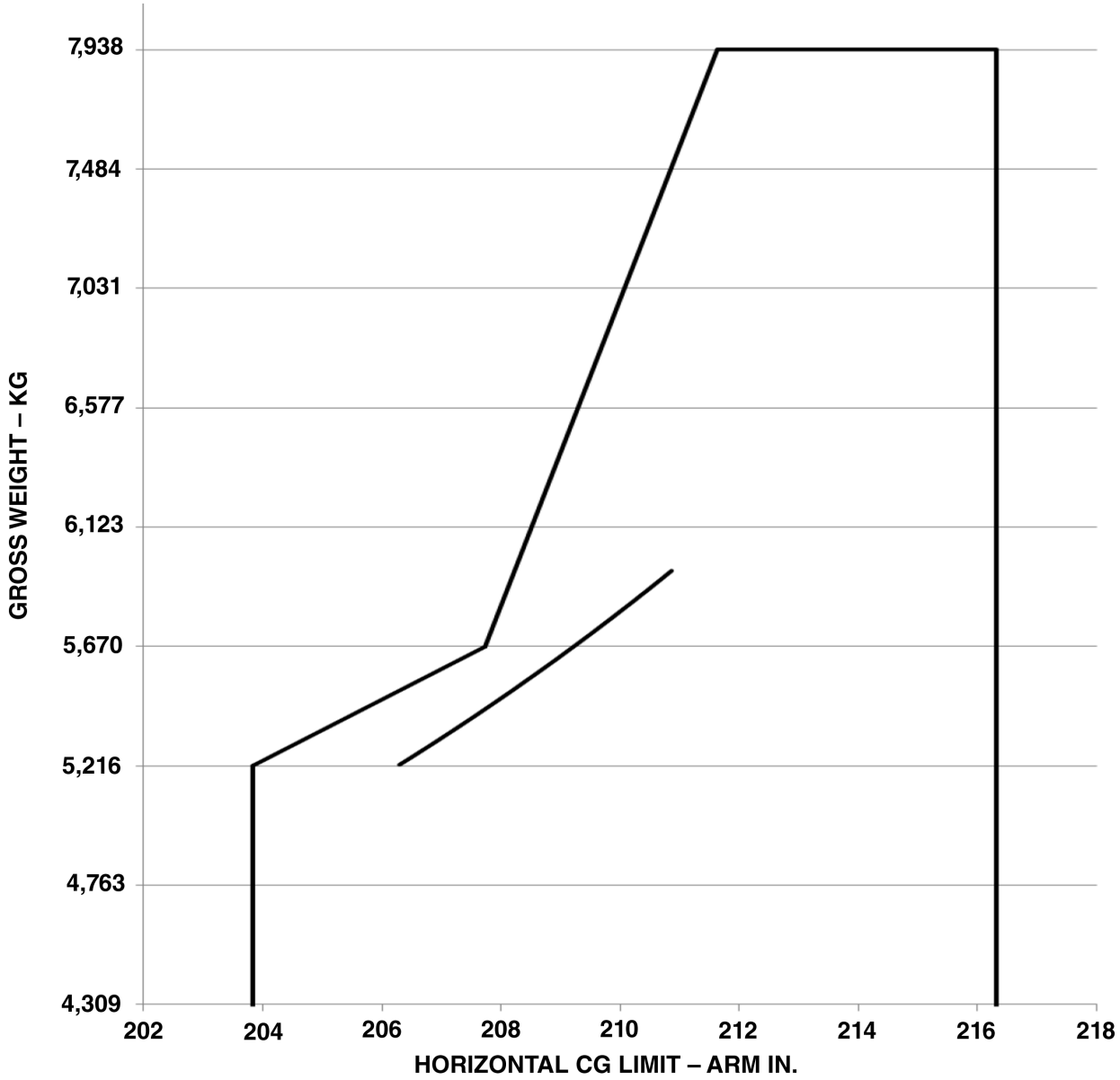
AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 50% FUEL
MINIMUM BALLAST REQUIREMENT:	40.8 KG (AFT BAGGAGE SHELF)
LH AND RH WING TANK FUEL:	100%
MAIN TANK FUEL:	MANAGED BETWEEN 50% TO 80% WHILE BLADDERS TRANSFER
NOTES:	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO
	BEW: 3,452 KG CG: ARM 214.69 7,410.6 IN-KG / 100



Fuel Schedule – Landplane and Wheel-skiplane with Two Bladder Ferry Fuel System
Figure S2-7

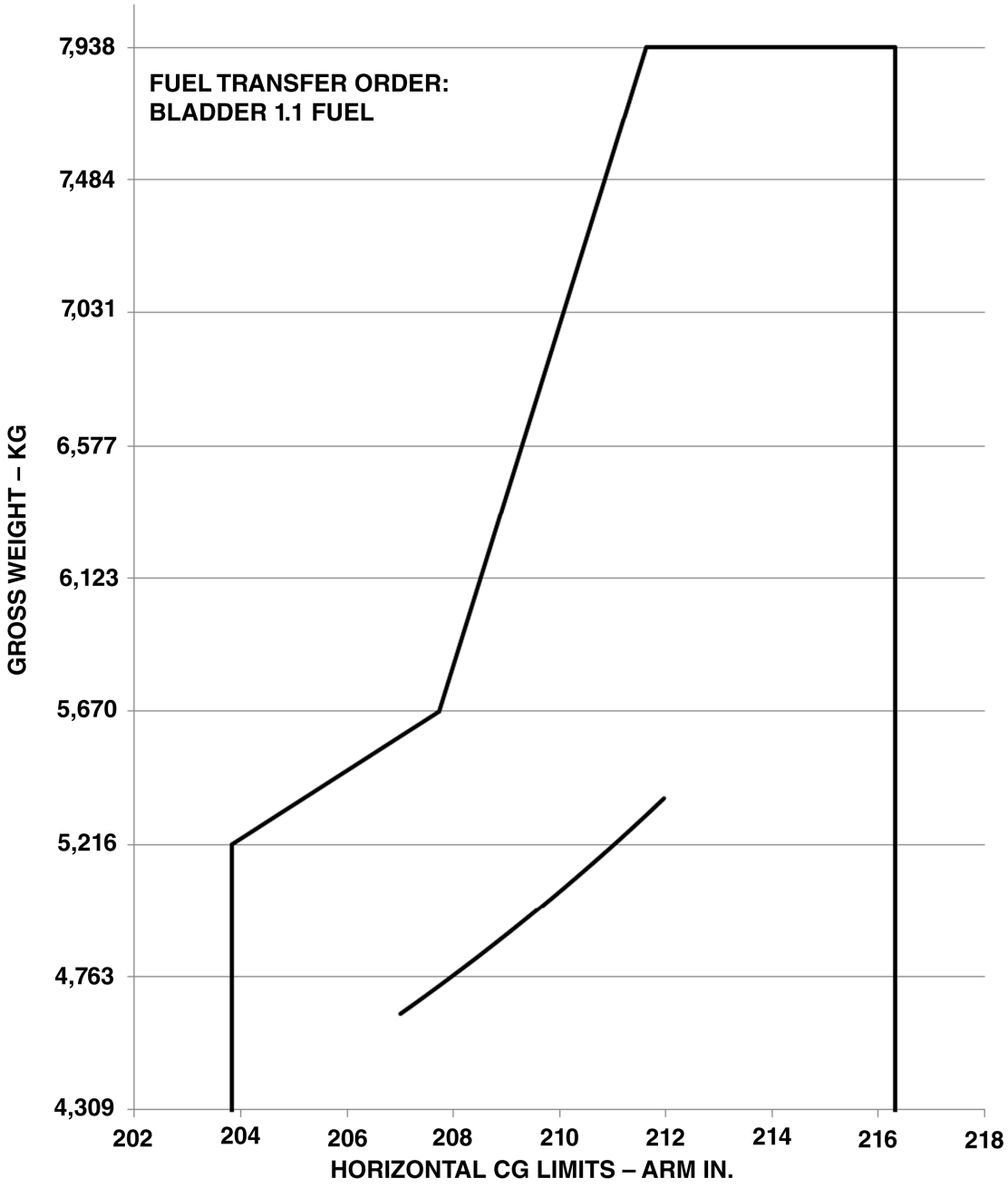
S2.3.2 When the one bladder ferry fuel system is used, the following fuel schedule shall be used to manage fuel transfer. Aircraft configuration shown in Figure S2-8 and Figure S2-9.

AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 100% FUEL
MINIMUM BALLAST REQUIREMENT:	NONE REQUIRED
LH AND RH WING TANK FUEL:	100%
NOTES:	EMERGENCY FUEL DUMP AT TAKE-OFF
	ALL BLADDERS DUMPED AT THE SAME TIME
	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO
	BEW: 3,452 KG CG: ARM 214.69 7,410.6 IN-KG / 100



Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System
Figure S2-8

AIRCRAFT CONFIGURATION:	IN-FLIGHT WEIGHT – MAIN TANKS AT 50% FUEL
MINIMUM BALLAST REQUIREMENT:	NONE REQUIRED
LH AND RH WING TANK FUEL:	100%
MAIN TANK FUEL:	MANAGED BETWEEN 50% TO 80% WHILE BLADDERS TRANSFER
NOTES:	BALLAST REQUIREMENTS WILL VARY DEPENDING ON ACTUAL AIRCRAFT BEW, PILOT PROVISIONS AND CARGO
	BEW: 3,452 KG CG: ARM 214.69 7,410.6 IN-KG / 100



Fuel Schedule – Landplane and Wheel-skiplane with One Bladder Ferry Fuel System
Figure S2-9

SAFE MOMENTS TABLE – LANDPLANE & WHEEL-SKIPLANE		
GROSS WEIGHT KG	MOMENT/100 KG IN.	
	FWD CG LIMIT	AFT CG LIMIT
5,670	11,779	12,265
5,700	11,844	12,330
5,800	12,062	12,547
5,900	12,280	12,763
6,000	12,499	12,979
6,100	12,717	13,196
6,200	12,936	13,412
6,300	13,156	12,628
6,400	13,376	13,844
6,500	13,596	14,061
6,600	13,816	14,277
6,700	14,037	14,493
6,800	14,258	14,710
6,900	14,480	14,926
7,000	14,702	15,142
7,100	14,920	15,359
7,200	15,147	15,575
7,300	15,369	15,791
7,400	15,593	16,008
7,500	15,817	16,224
7,600	16,041	16,440
7,700	16,265	16,657
7,800	16,489	16,873
7,938	16,800	17,171

Safe Moments Table – Landplane and Wheel-skiplane with Ferry Fuel System
Figure S2-10

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