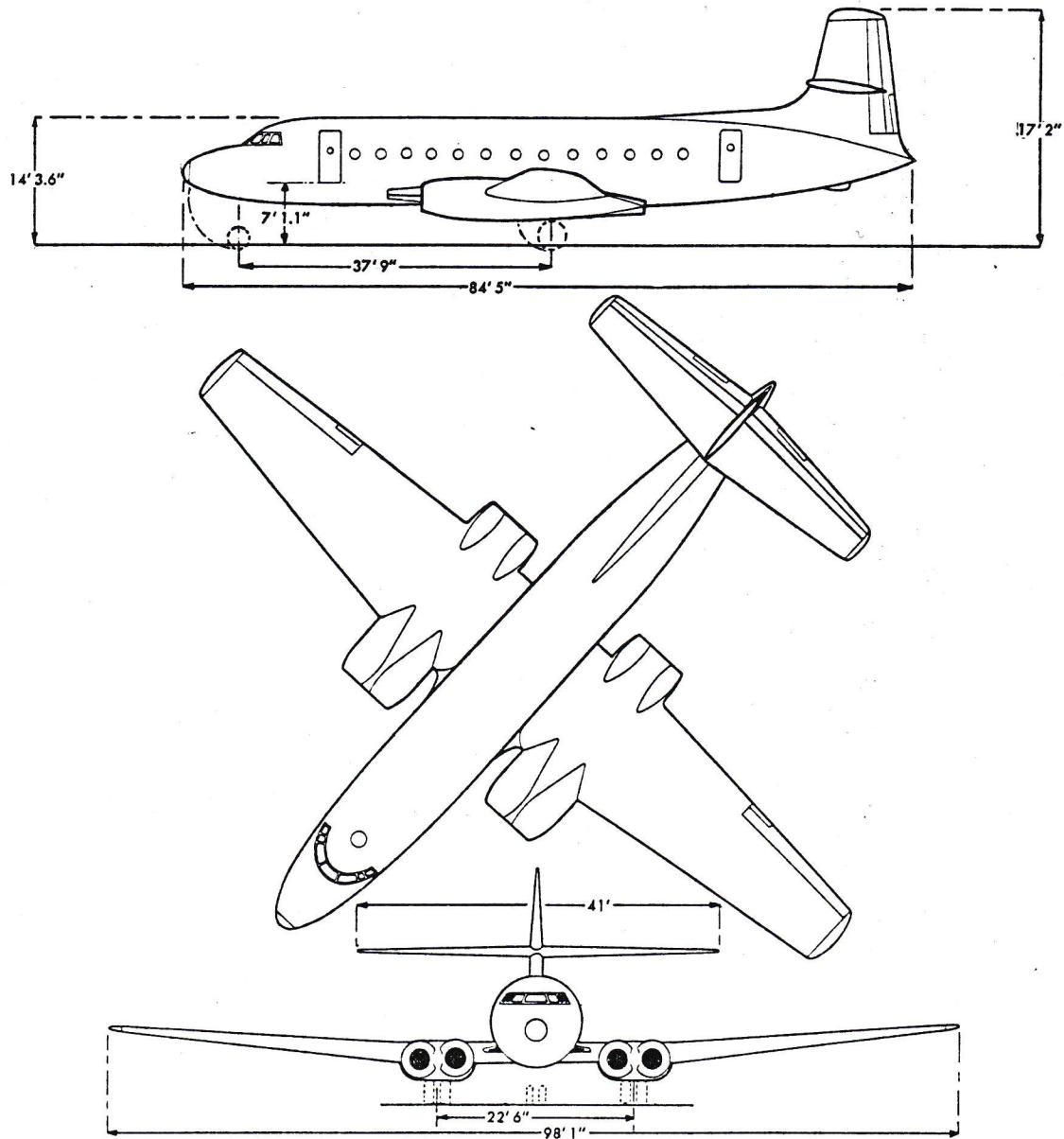




— AVRO *Getliner* BRIEF MODEL SPECIFICATION —



GENERAL ARRANGEMENT



— AVRO *Getliner* BRIEF MODEL SPECIFICATION —

DIMENSIONS

Wing Area.....	Gr: 1157 sq. ft.
.....	Net: 1097 sq. ft.
Wing Span	98' 1"
Aspect Ratio.....	8.31
Aerofoil.....	NACA 23016.5
T/C Ratio at Root.....	16.5%
T/C Ratio at Tip	12%
Geometric Mean Chord.....	11.798'
Incidence of Datum Plane.....	2½°
Dihedral on Datum Plane	6°
Fuselage Length Overall.....	84' 5"
Fuselage Diameter	10'
Wheel Track (Mean).....	22' 6"

CONTROL AREAS

Aileron.....	51.6 sq. ft.
Tailplane	251.2 sq. ft.
Elevator (total)	56 sq. ft.
Fin & Dorsal	Net: 122.6 sq. ft.
Rudder (total)	Net: 38.6 sq. ft.
Total Dorsal, Fin and Rudder.....	161.2 sq. ft.



— AVRO *Getliner* BRIEF MODEL SPECIFICATION —

LEADING PARTICULARS

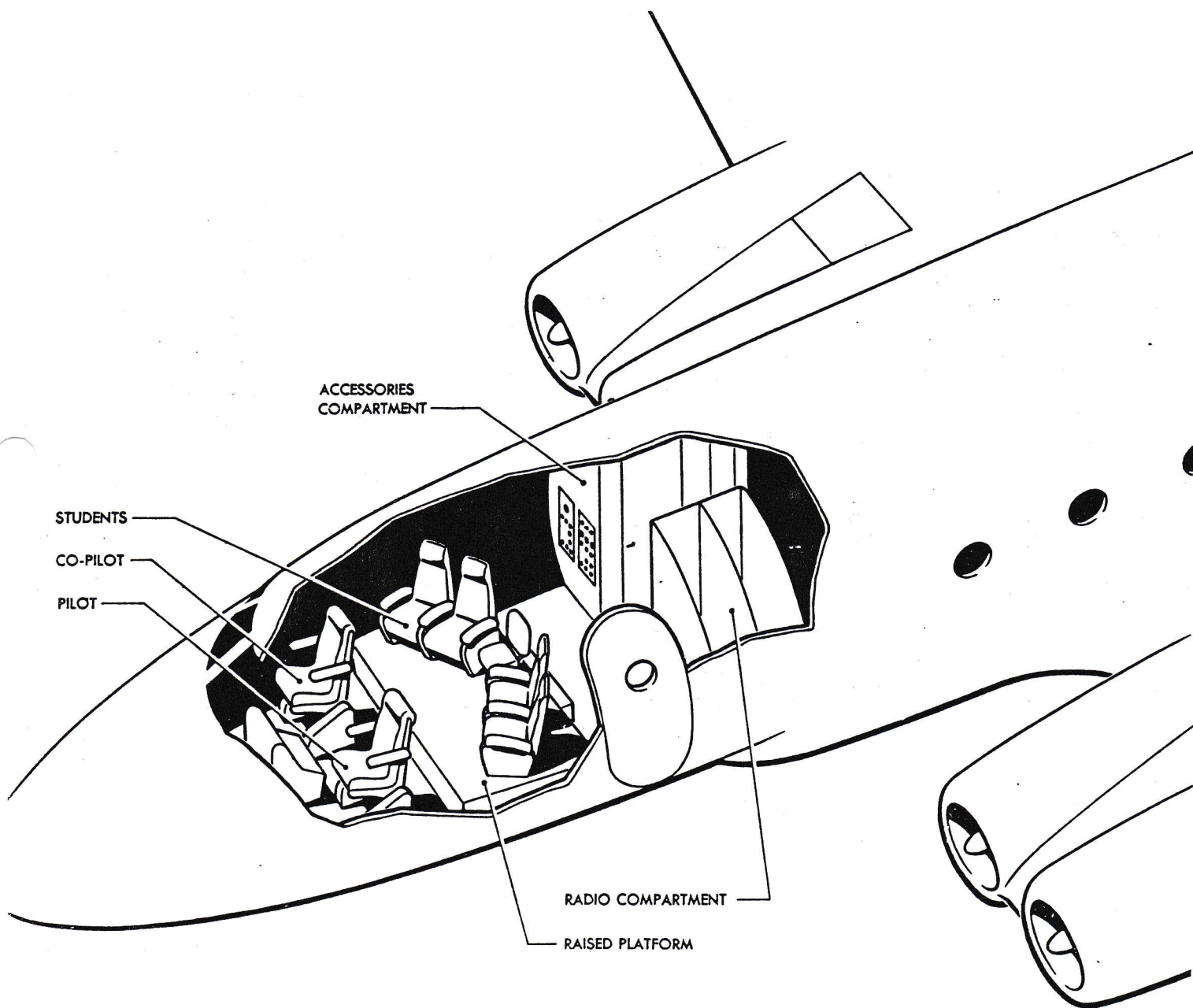
Aircraft Type.....	Low-Wing Monoplane
Take-Off Wt.....	70,000 lb.
Landing Wt.....	60,000 lb.
Power Plants.....	Four Allison J.33 engines
Undercarriage.....	Tricycle type
Main Wheel.....	Twin wheels, H.P. Hydraulic Brakes
Tires -	38" x 11.75"
Nose Wheel.....	Twin wheel, steerable
Tires -	26" x 7.75"
Elevator.....	Semi-span, double surface, unbalanced type, Span - 207 in, Rear - manual assisted; 12½% of chord Auxiliary - power operated; 12½% of chord
Rudder.....	Double surface type; Length - 159.38 in. Rear - manual operation; 14% of Chord Auxiliary - power operated; 18% of chord
Aileron.....	Semi-span, unbalanced, power assisted type. Span - 213 in. 16% of chord
Landing Flaps.....	Split type Centre Wing - Split type.
De-Icing Equipment.....	Electro-Thermal
Cabin Pressure Differential.....	8.25 lb./sq. in. maximum
Fuel Tanks.....	Integral in outer wing 3500 gals. Bag type in centre section wing 1100 gals.





AVRO *Getliner*

AVRO *Getliner* BRIEF MODEL SPECIFICATION



CUTAWAY OF FLIGHT DECK



TECHNICAL DEPARTMENT (AIRFRAME).

REPORT No. C102Der/Aero/40C

SHEET No. 1

DATE December, 1948.

PREPARED D.C. Whittley.
BY _____

AIRCRAFT C.102Der

COMPONENT

A.U.W.

C.102 DATA

Wing

Area	1157 sq.ft.
Span	98.2ft.
S.M.C.	11.78 ft.
Location of S.M.C.	LE 391.3" aft of nose. 34.3" below C.L. of Fuselage.
Root Chord Incidence	2.1/2°
Root Chord Section	23016.5
Tip Section	23012
Aspect Ratio	8.3
Distance from wing root spar to L.E. of S.M.C.	7.645'

Flap

Type	Split
Span	I/B: 46.75"
	O/B: 174"
Area	104.8 sq.ft.
Chord % Wing	I/B Flap: 20%
	O/B Flap: 20% 25.6%

Horizontal Tail

Dist. from C.G. to Fwd. Elevator Hinge.	459.9in.
Dist. from C.G. to aft Elevator Hinge.	470.7in.
Airfoil Section	0012.8 modified
Area	251.2 sq.ft.
Span	41 ft
Aspect Ratio .	6.7
Stabilizer Area	180.9sq.ft.
Stabilizer Setting	0° to wing root chord
Area of fwd. elevator	35.3sq.ft.
Area of aft elevator	35.0sq.ft.
Percent Aerodynamic Balance	none
Elevator Chord - RMS - Fwd.	1.05ft
Aft.	1.05ft
Elevator Tab	
Type	combination servo and trim
Mean Chord	5.95"
Span	5' 6.5"
Area	2.74 sq.ft.
Aerodynamic Balance	none
Dist. from Tailplane Rear Spar to Wing Rear Spar	34.1ft

TECHNICAL DEPARTMENT (AIRFRAME)

AIRCRAFT C.102Der

COMPONENT

A.U.W.

C102 DATA

REPORT No. C102Der/Aero/400

SHEET No. 2

DATE December, 1948

PREPARED BY D.C. Whittley

I N D E X (Cont)

PAGE NO.

Distance from T.P. Rear Spar to Tailplane 1/4 Chord.
Distance from 1/4 chord to L.E. of S.M.C.

2.195'
39.56'

Vertical Tail

Airfoil Section
Percent Rudder Chord, fwd.
Percent Rudder Chord, aft.
Aerodynamic Balance
Rudder Area, fwd.
aft.

0012.8 mod.
18%
14%
none
22.55 sq.ft.
17.52 sq.ft.

Rudder Chord (mean), fwd.
aft.

1.72ft
1.3'ft

Tail Length from C.G. to H.L. of Fwd. Rudder
Tail Length from C.G. to H.L. of aft Rudder

466.36in.
485.36in.

Rudder Tab
Type

combination servo
and trim

Span
Area
Aft Rudder H.L. to Tab H.L.
Tab C.L. to Rudder C.L.
Aerodynamic Balance

54.2in.
2.63sq.ft.
13.78
52.75in.
none

Fuselage

Length
Section
Frontal Area
Side Area
Location of Root Chord

80' 7"
circular
78.5sq.ft.
519sq.ft.
LE 483in. aft
of nose
LE 42.9 below
C.L. of Fuselage
433.6in. aft of nose
20.8in. below
Fuselage C.L.

C.G. Location (CORNELL W/T MODEL)

AVRO *Getliner*ROOT RIB

NACA 23016.5

 $t = 16.5\%$

STATION D	UPPER ORDINATE	LOWER ORDINATE
0	-	-
1.25	+ 3.71	- 1.68
2.5	+ 4.86	- 2.48
5.0	+ 6.40	- 3.42
7.5	+ 7.45	- 4.10
10	+ 8.23	- 4.65
15	+ 9.19	- 5.51
20	+ 9.64	- 6.13
25	+ 9.82	- 6.52
30	+ 9.80	- 6.71
40	+ 9.31	- 6.64
50	+ 8.39	- 6.15
60	+ 7.18	- 5.37
70	+ 5.71	- 4.36
80	+ 4.06	- 3.15
90	+ 2.21	- 1.76
95	+ 1.22	- 0.99
100	+ 0.17020	- 0.17020

JOSE RAD 2.99%