

52

FILE IN VAULT

ANALYZED

QC
AVRO
C-105
7-0400-71
Iss. 6

X

Ref: 8300/11/J
Date: 18 April,
To: Mr. C.V. L
From: E.F. Burne
Subject: Arrow 1

Herewith W
7th flight



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DATE

JAN 07 1993

Report no.: QCX - AVRO - CF105- R-7-0400-71- Iss.-6

has been ☐ downgraded to : _____

☒ de-classified

by (Name): Michel W. Drapeau

(Dept.): A/DND Coordinator, Access to Information

Date: Dec. 7, 1992

R. Anger
Signature

Classification can
By authority of: D
Date: 5 Nov 1992
Signature: _____
Unit / Rank / App

EFB/ag
cc: Messrs

QC
A110
C-105
7-0400-71
Iss. 6

AVRO AIRCRAFT LIMITED
INTER-DEPARTMENTAL MEMORANDUM

UNCLASSIFIED SECRET

Ref: 8300/11/J
Date: 18 April, 1958
To: Mr. C.V. Lindow
From: E.F. Burnett
Subject: Arrow 1 - Weight & Balance 7th Flight

ANALYZED

Herewith Weight and Balance data for Arrow 1 # 25201
7th flight.

Classification cancelled / changed to: UNCLASSIFIED

By authority of: DRDA 7/DARFT 5-8/DAS Eng 6-4-5

Date: 5 Nov 1992

Signature: B. Aubrey

Unit / Rank / Appointment: DSIS 3, Secretary CRAD HQ DRP

E.F. Burnett

E.F. Burnett
Weights Supervisor

LEB/ag

cc: Messrs. J.C. Floyd
R.K. Lindley
F.P. Mitchell
D.N. Scard
G. Hake
T. Roberts
J. Thorne
J. Lucas
A.J. Crust (7 copies for R.C.A.F.)
Central Files



53758
12496591

Arrow 1
Aircraft 25201
Date 18 April, 1958

Report 7-0400-71
Issue 6
Sheet 1

SECRET

WEIGHT & BALANCE SUMMARY FLIGHT #7

UNCLASSIFIED
NON CLASSIFIED

	<u>WT. (lbs)</u>	<u>H. ARM</u>	<u>% M.A.C.</u>	
1. Condition at Start Up - OWE for #3 flight plus fuel as indicated on back Fuel Gauges	67516 67516	545.78 544.33	30.32 29.92	U/C Down U/C Up
2. Engine Run Up, checks, taxi				
3. Weight at take off (estimated)	66516 66516	545.87 544.39	30.35 29.94	U/C Down U/C Up
4. Weight at landing (estimated fuel distribution)	53000 53000	547.48 545.63	30.79 30.28	U/C Down U/C Up
5. Weight at landing (actual fuel distribution)	52844 52844	547.73 545.88	30.86 30.35	U/C Down U/C Up

BEFORE FLIGHT

ARROW 1
AIRCRAFT 25201
FLIGHT 7

DATE: 13 April, 1958
REL. OMT: 7-0400-71-6
SHEET: 2

~~RESTRICTED INFORMATION~~

SECRET

THE AIRCRAFT WAS NOT WEIGHED BEFORE FLIGHT

SCALE	KIT	CELL	LOAD	CORRECTION	WEIGHT
Wing Jacking Point - Port					
Wing Jacking Point - Stbd					
Rose Jacking Point					
TOTAL					

WT. (lbs)

H. ARM (ins)

% M.A.C.

Total Wt. Fwd Jacking Point
Total Wt. Aft Jacking Points
TOTAL as Weighed

U/C Down

Plus Pilot +
Plus Observer +
Less Elevator Uplocks -
Less Intake Blanks -
Less Tailcone Blanks -
Less U/C Down Locks -

NON CLASSIFIED

Gross Wt 67516 545.78 30.32 U/C Down

Gross Wt 67516 544.83 29.92 U/C Up

Less Fuel (see Chart 1 below) 18920 540.75

Operational Wt Empty (See sheet 2 of weighing for flight #3) 43996 547.71 30.87 U/C Down

Operational Wt Empty 43996 545.72 30.31 U/C Up

Before Flight

After Flight

#1 Chart - Fuel Gauge Reading When Weighed

#2 Chart - Fuel Gauge Readings Before Weigh

Tanks	L.H. Deg.	R.H. Deg.	Total Deg.	Total lbs	H. ARM INS
1	-	244	244	1952	354.59
2	251	-	251	2008	435.23
3	142	141	283	2231	446.11
4	83	70	153	1224	502.57
5	159	136	295	2360	548.87
6	155	133	288	2311	589.11
7	202	270	552	4416	627.57
8	173	126	299	2392	675.52
Total				18920	540.75

Tanks	L.H. Deg.	R.H. Deg.	Total Deg.	Total lbs.	H. ARM INS
1	-	29	29	232	354.59
2	48	-	48	384	435.23
3	12	0	12	96	446.11
4	12	0	12	96	502.57
5	166	140	306	1248	548.87
6	11	0	11	88	589.11
7	43	10	53	124	627.57
8	55	5	60	180	675.52
Total				4248	547.62

Date: 10 April, 1958
 Report: 7-0400-71-6
 Sheet: 3

WEIGHT AND BALANCE CLEARANCE FOR ARROW 1

SECRET

Serial No. <u>25201</u>	C.G. Limits <u>28% - 31%</u>	Crew <u>1</u>
Flight No. <u>7</u>	Gross Wt. <u>67516</u>	Fuel Load <u>13920</u> lb

CONDITION	WEIGHT lb	H. ARM ins.	M.A.C. %	
<u>START UP</u>				
Gross Wt (from Sheet)	67516	545.73	30.32	U/C Down
Gross Wt (from Sheet)	67516	544.33	29.92	U/C Up
<u>TAKE-OFF</u>				
Gross Wt U/C Down (above)	67516	545.73		
Less Fuel - Start Up Taxi, Take-off	<u>-1000</u>	<u>537.26</u>		
Gross Wt.- Take off	<u>66516</u>	<u>545.07</u>	30.35	U/C Down
Less Moment 97,969 lb/in				
Gross Wt. Take off	66516	544.39	29.94	U/C Up
<u>MID-FLIGHT</u>				
Operational Wt Empty U/C Up (from sheet)	<u>48596</u>	<u>545.72</u>		
Tanks				
1	1096	354.59		
2	1128	435.23		
3 x 2	1272	446.14		
4 x 2	683	502.47		
5 x 2	2360	548.87		
6 x 2	1294	589.11		
7 x 2	2481	627.57		
8 x 2	1344	675.52		
Total Fuel	<u>11663</u>	<u>541.43</u>		
Gross Wt. - Mid Flight	60259	544.20	30.03	U/C Up
<u>LANDING</u>				
Operational Wt. Empty = U/C Down (from sheet)	<u>48596</u>	<u>547.74</u>		
Tanks				
1	241	354.59		
2	248	435.23		
3 x 2	279	446.14		
4 x 2	151	502.47		
5 x 2	2360	548.87		
6 x 2	284	589.11		
7 x 2	545	627.57		
8 x 2	295	675.52		
Total Fuel	<u>4404</u>	<u>544.56</u>		
Gross Wt.- Landing	53000	547.43	30.79	U/C Down
Less Moment 97,969 lb/in				
Gross Wt Landing	53000	545.63	30.23	U/C Up

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 NON CLASSIFIED

Loading Conditions and C.G. Travel Approved _____

Envelope attained based on fuel
gauge readings after flight

Date: 28 April, 1958
Report: 7-0400-71-0
Sheet: 4

WEIGHT AND BALANCE CLEARANCE FOR ARROW 1

SECRET

Serial No.	25201	C.G. Limits	28" - 31"	Crew	1
Flight No.	7	Gross Wt.	67516	Fuel Load	18920 lb
<u>CONDITION</u>	<u>WEIGHT</u> lb	<u>H. ARM</u> ins.	<u>M.A.C.</u> %		
<u>START UP</u>					
Gross Wt (from Sheet)	67516	545.78	30.32	U/C Down	
Gross Wt (from Sheet)	67516	544.33	29.92	U/C Up	
<u>TAKE-OFF</u>					
Gross Wt U/C Down (above)	67516	545.78			
Less Fuel - Start Up Taxi, Take-off	-1000	539.96			
Gross Wt. - Take off	66516	545.87	30.35	U/C Down	
Less Moment 97,969 lb/in					
Gross Wt. Take off	66516	544.39	29.94	U/C Up	
<u>MID-FLIGHT</u>					
Operational Wt Empty U/C Up (from sheet)					
Tanks					
1		354.59			
2		435.23			
3 x 2		446.14			
4 x 2		502.47			
5 x 2		548.87			
6 x 2		589.11			
7 x 2		627.57			
8 x 2		675.52			
Total Fuel					
Gross Wt. - Mid Flight				U/C Up	
<u>LANDING</u>					
Operational Wt. Empty - U/C Down (from sheet)	48596	547.74			
Tanks					
1	292	354.59			
2	384	435.23			
3 x 2	96	446.14			
4 x 2	96	502.47			
5 x 2	248	548.87			
6 x 2	88	589.11			
7 x 2	424	627.57			
8 x 2	490	675.52			
Total Fuel	4248	547.62			
Gross Wt. - Landing	52844	547.73	30.86	U/C Down	
Less Moment 97,969 lb/in					
Gross Wt Landing	52844	545.38	30.35	U/C Up	

UNCLASSIFIED
NON CLASSIFIED

Loading Conditions and C.G. Travel Approved

