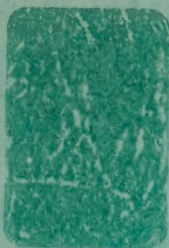


FILE IN VAULT

59



ANALYZED



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TO
A

DATE
JAN 07 1993
Dec. 7, 1992

Report no.: QCX - AVRO - CF105- R-7-0400-71-Iss:8

has been

☐

downgraded to: _____

☒

de-classified

by (Name): Michel W. Drapeau

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

Date: Dec. 7, 1992

R. Auger
Signature

QC
Auro
C-105
7-0400-71
Iss. 8

AVRO AIRCRAFT LIMITED
INTER-DEPARTMENTAL MEMORANDUM

UNCLASSIFIED
SECRET

Ref: 8433/11/J
Date: 23 April, 1958
To: Mr. G.V. Lindow
From: E.F. Burnett
Subject: Arrow 1 - Weight & Balance 9th Flight

ANALYZED

Herewith Weight and Balance data for Arrow 1 # 25201
9th 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
Weight Supervisor

EFB/ag

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



53970

12496611

Aircraft: ARROW 1
A/C 25201
Date: 23 April, 1958

Report: 7-0400-71
Issue : 8
Sheet : 1

SECRET

WEIGHT AND BALANCE SUMMARY FLIGHT #9

	<u>WEIGHT (lb)</u>	<u>H. ARM</u>	<u>% M.A.C.</u>	
1. Condition at start up -	67700	545.75	30.32	U/C Down
OWE for 3 flight plus fuel	67700	544.30	29.92	U/C Up
indicated on pack fuel				
gauges.				
2. Engine Run up, Checks,				
Taxi.				
3. Weight at take off	66700	545.84	30.34	U/C Down
(estimated)	66700	544.37	29.94	U/C Up
4. Weight at landing	53500	547.40	30.77	U/C Down
(estimated fuel Distribution)	53500	545.57	30.27	U/C Up
5. Weight at landing	53308	548.18	30.99	U/C Down
(actual fuel distribution)	53308	546.34	30.48	U/C Up

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NON CLASSIFIED

BEFORE FLIGHT

ARROW 1
AIRCRAFT 25201
FLIGHT 9

DATE: 23 April, 1958
REPORT: 7-0400-71-8
SHEET: 2

SECRET

XXXXXXXXXXXXXXXXXXXX

THE AIRCRAFT WAS NOT WEIGHED BEFORE FLIGHT

SCALE	KIT	CELL	LOAD	CORRECTION	WEIGHT
Wing Jacking Point - Port					
Wing Jacking Point - Std'd					
Nose Jacking Point					
TOTAL					

WT. (lbs) H. ARM (ins) % H.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 -

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Gross wt 67700 545.75 30.32 U/C Down

Gross wt 67700 544.30 29.92 U/C Up

Less Fuel (see Chart 1 below) 19104 540.70

Operational wt Empty (See sheet 2 of weighing for flight) 48596 547.74 30.87 U/C Down

Operational wt Empty 3) 48596 545.72 30.31 U/C Up

Before flight After flight
#1 Chart - Fuel Gauge Reading ~~shown assigned~~ #2 Chart - Fuel-Gauge Readings ~~shown assigned~~

Tanks	L.H. Deg.	R.H. Deg.	Total Deg.	Total lbs	H. ARM INS
1	-	243	243	1944	354.59
2	236	-	236	2048	435.23
3	143	144	287	2296	446.14
4	86	73	159	1272	502.57
5	159	138	297	2376	548.87
6	153	134	287	2296	589.11
7	264	273	537	4456	627.57
8	174	128	302	2416	675.52
Total				19104	540.70

Tanks	L.H. Deg.	R.H. Deg.	Total Deg.	Total lbs.	H. ARM INS
1	-	20	20	160	354.59
2	50	-	50	400	435.23
3	10	0	10	80	446.14
4	32	10	42	336	502.57
5	168	140	308	2464	548.87
6	15	2	17	136	589.11
7	61	19	80	640	627.57
8	53	9	62	496	675.52
Total				4712	552.76

Cockpit Gauges
L.H. 10200
R.H. 9000

29 April, 1958
7-0400-71.8
Sheet 3

WING A D BALANCE SHEET FOR ACFT 1

SECRET

Serial No.	25201	C.G. Limits	28% - 31%	Crew	1
Flight No.	9	Gross Wt.	67700	Fuel Load	1910 $\frac{1}{2}$
<u>CONDITION</u>					
	Wt. T	Wt. Alt	Wt. A.C.		
	lb	ins.	lb		
<u>TAKE OFF</u>					
Gross Wt (from Sheet 2)	67700	545.75	30.32	U/C Down	
Gross Wt (from Sheet 2)	67700	544.30	29.92	U/C Up	
<u>TAKE-OFF</u>					
Gross Wt U/C Down (above)	67700	545.75			
Less Fuel - Start Up Taxi, Take-off	-3000	532.96			
Gross Wt - Take off	66700	545.84	30.34	U/C Down	
Less Moment 97,909 lb/in					
Gross Wt. Take off	66700	544.37	29.94	U/C Up	
<u>MID-FLIGHT</u>					
Operational Wt Empty U/C Up (from sheet)	48596	545.72			
Tanks					
1	1119	354.59			
2	1179	435.23			
3 x 2	1322	446.14			
4 x 2	732	502.47			
5 x 2	2376	548.87			
6 x 2	1322	589.11			
7 x 2	2565	627.57			
8 x 2	1381	675.52			
Total Fuel	12006	541.38			
Gross Wt. - Mid Flight	60602	544.86	30.07	U/C	
<u>LANDING</u>					
Operational Wt. Empty - U/C Down (from sheet)	48596	547.74			
Tanks					
1	294	354.59			
2	310	435.23			
3 x 2	347	446.14			
4 x 2	192	502.47			
5 x 2	2376	548.87			
6 x 2	347	589.11			
7 x 2	673	627.57			
8 x 2	365	675.52			
Total Fuel	4904	544.03			
Gross Wt. - Landing	53500	547.40	30.77	U/C Down	
Less Moment 97,909 lb/in					
Gross Wt Landing	53500	545.57	30.27	U/C Up	

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Loading Conditions and C.G. Travel Approved

Envelope attained - based on fuel gauge
readings after flight

Date: 23 April, 1958
Report: 7-0400-71-8
Sheet: 4

WEIGHT AND BALANCE CLEARANCE FOR AIRCRAFT

SECRET

Serial No.	25201	C.G. Limits	283 - 313	Crew	1
Flight No.	9	Gross Wt.	67700	Fuel Load	19104 lb
<u>CONDITION</u>		<u>WEIGHT</u> lb	<u>W. A.U.</u> ins.	<u>I. A.C.</u> %	
<u>START UP</u>					
Gross Wt (from Sheet 2		67700	545.75	30.32	U/C Down
Gross Wt (from Sheet 2		67700	544.30	29.92	U/C Up
<u>TAKE-OFF</u>					
Gross Wt U/C Down (above)		67700	545.75		
Less Fuel - Start Up Taxi, Take-off		-1000	539.96		
Gross Wt. - Take off		66700	545.84	30.34	U/C Down
Less Moment 97,969 lb/in					
Gross Wt. Take off		66700	544.37	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		160	354.59		
2		400	435.23		
3 x 2		80	446.14		
4 x 2		336	502.47		
5 x 2		2464	548.87		
6 x 2		136	589.11		
7 x 2		640	627.57		
8 x 2		496	675.52		
Total Fuel		4712	552.76		
Gross Wt. - Landing		53308	548.18	30.99	U/C Down
Less Moment 97,969 lb/in					
Gross Wt Landing		53308	546.34	30.48	U/C Up

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NON CLASSIFIED

Loading Conditions and C.G. Travel Approved _____

