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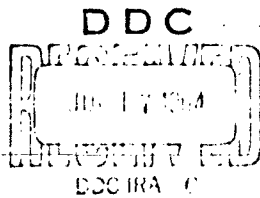
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SUPPLEMENT I
TO
TECHNICAL REPORT 46

BASIC DATA
FROM C-123/MC-1 CALIBRATION TRIALS
1963

Sponsored by

Advanced Research Projects Agency
Project Agile
ARPA Order 256



JUNE 1964

UNITED STATES ARMY
BIOLOGICAL LABORATORIES
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SUPPLEMENT I
to
TECHNICAL REPORT 46

BASIC DATA FROM
C-123/MC-1 CALIBRATION TRIALS
1963

This research was supported by the
Advanced Research Projects Agency
Project Agile under ARPA Order 256.

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Crops Division
DIRECTOR OF BIOLOGICAL RESEARCH

By ARPA Order 256

June 1964

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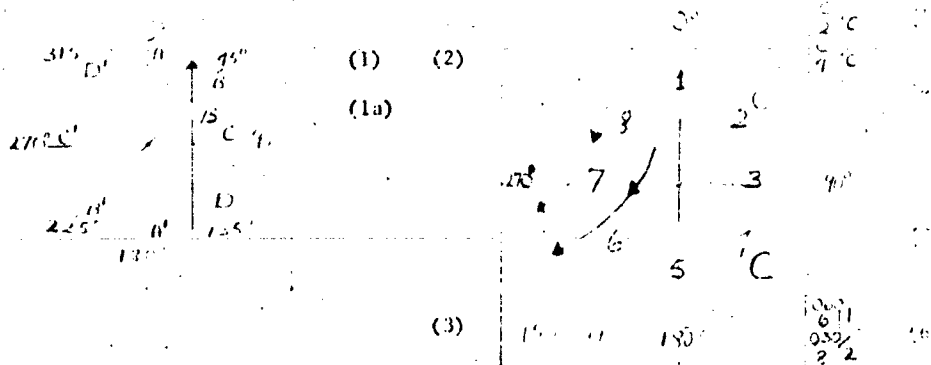
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INTRODUCTION

This supplement concerns the calibration of a modified C-123/MC-1 spray system and presents the basic data and spray deposit patterns obtained in 128 test flights at Eglin Air Force Base between 10 May and 16 July 1963. The data are presented in the sequence of ground flow determinations, mass median diameter calculations, and mass deposit measurements.

SAMPLE AND EXPLANATION OF METEOROLOGICAL DATA



(1) Aircraft course
&
(1a) Station No. aircraft crossed

(5)
Calm
Met. data station
2 C
4 C

(2) Wind current

(6)
Wind direction in degrees
6 | 1
Wind speed mph

(3) 150ft Altitude in feet, met. data obtained

Met. data station
0.20 12
Wind speed mph

(4) C Calm

(7)
1.5
1.5
1.5
1.5

Sky Conditions

Example: 25 (1) 100 (11) / + 7
1 2 3 4 5 6 7

- 1 - Cloud cover height in hundreds of feet
- 2 - Cloud Amount
 - 0 - No clouds
 - (1) - Fair weather cumulus
 - (11) - Variable sky
- 3 - Second cloud cover height in hundreds of feet
- 4 - Cloud Amount
- 5 - Barometric Tendency / Rising
- Steady
- 6 - Overcast
- 7 - Visibility in miles

Remarks

- | | |
|-------------------------|-----------------|
| GFH - Ground Fog Heavy. | N - North |
| OCNL - Occasional | E - East |
| C - Clouds | S - South |
| CLR - Clear | W - West |
| CU - Cumulus | LIG - Lightning |
| CB - Cumulo-nimbus | H - Haze |
| FQT - Frequent | S - Smoke |

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 9 May 1963

DATE TESTED: 10 May 1963

COLORED SPRAYED: Purple

TOTAL NOZZLES: 40

NOZZLE TYPE: 590120

TYPE OF TEST: Flow

DURATION OF SPRAY: 20 Sec.

PUMP PRESSURE: No. 1 20 PSI

PUMP R.P.M.: 3000 before spray

: No. 2 20 PSI

NO. OF PUMPS: 2

FLOW METER READING: 40

TOTAL AMOUNT SPRAYED: 139.5 Gals.

FLOW RATE CALIBRATION: 21

NOZZLE CONFIGURATION: WING: 1-7, 15-23, 31-39
TAIL: 1-19 (odd numbers only)

OPERATIONAL DATA DURING FLIGHT

<u>Run #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>FM FLOWMETER</u>
<u>1</u>	<u>3700</u>		<u>90</u>	<u>350</u>

REMARKS: Operator overran engines on all flights.

MASS MEDIAN DIAMETER

DATE: 10 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 1 PAPER: Kromekote, white
 SAMPLE LINE: C MATERIAL: Purple
 FLOW RATE: 550 GPM (App) SYSTEM: C-123/MC-1

Sta.	Drop #	Size	Sta.	Drop #	Size
99	3	7700			
99	16	6900			
99	15	6500			
99	12	6100			
99	19	5600*			
99	14	5500			
99	13	5400			
99	17	5300			
99	18	5200			
99	20	5100			

$$MMD = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(5600)}{2.5} = 348.7 \text{ microns}$$

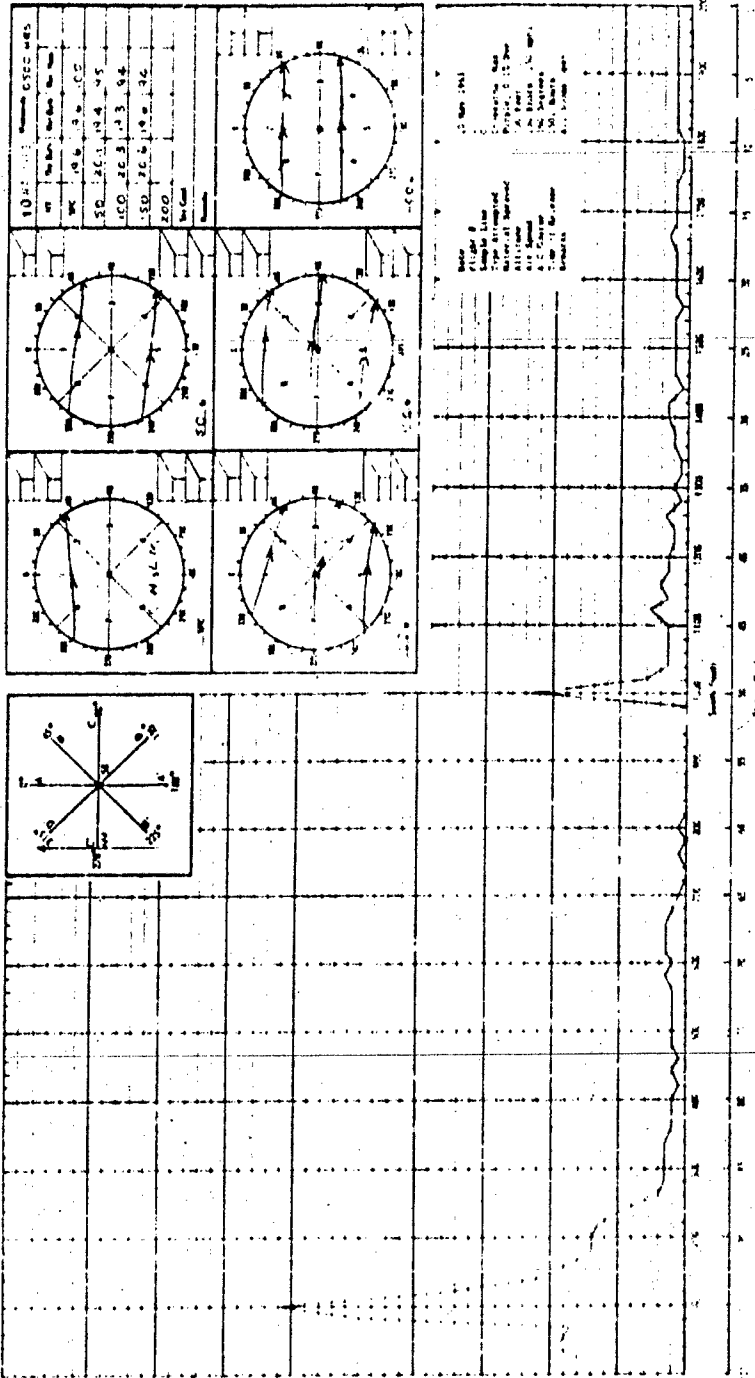
$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(7700) = 1172.3 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 36 \text{ microns}$$

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 550 GPM
 DATE: 10 May 1963 SYSTEM: C-123/Mc-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 100 feet
 TIME OF RELEASE: 0501 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 11 seconds WIND VECTOR: 258° / 4.8 mph

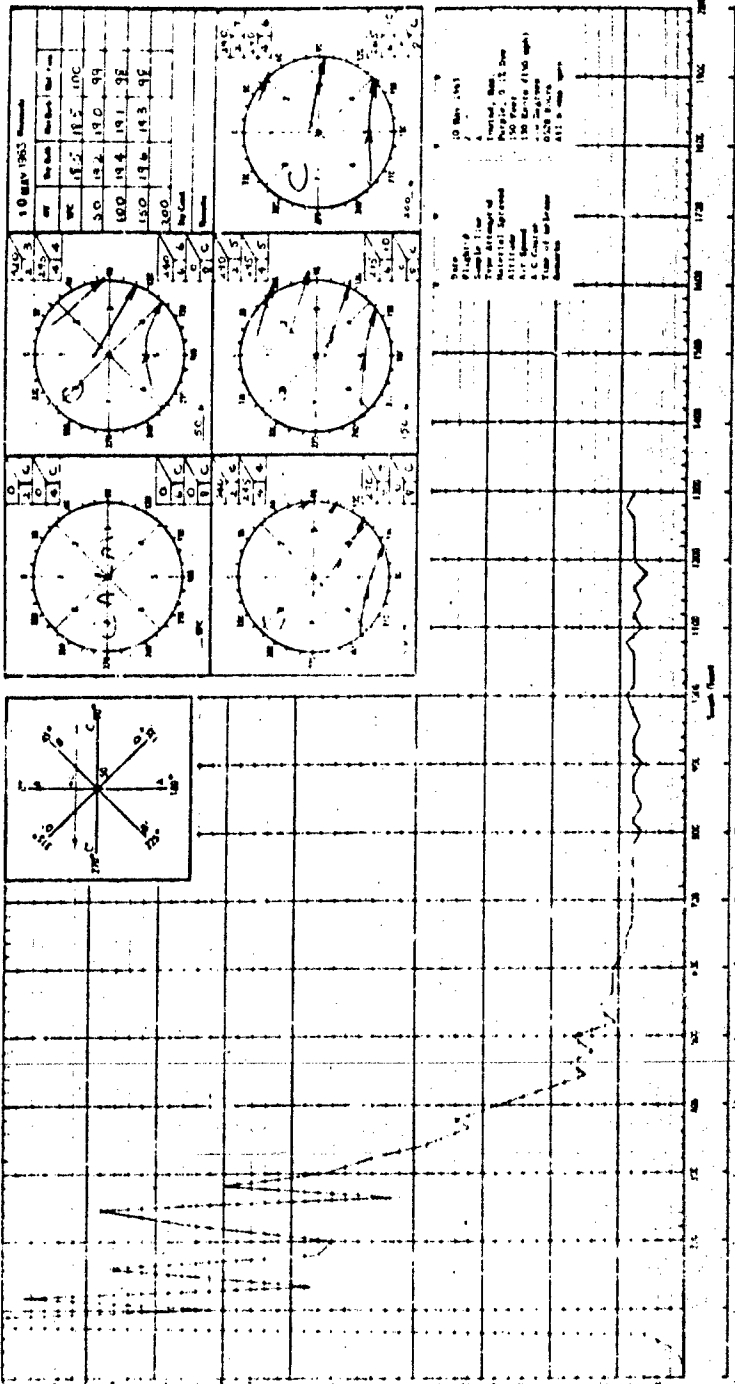
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.2	26	0.2	51	0.0	76	0.2
2	0.2	27	0.2	52	0.0	77	0.1
3	0.2	28	0.1	53	0.0	78	0.2
4	0.2	29	0.3	54	0.0	79	0.1
5	0.2	30	0.3	55	0.0	80	0.2
6	0.2	31	0.2	56	0.0	81	0.2
7	0.2	32	0.2	57	0.0	82	0.2
8	0.2	33	0.1	58	0.0	83	0.3
9	0.2	34	0.1	59	0.0	84	0.3
10	0.1	35	0.2	60	0.1	85	0.3
11	0.1	36	0.1	61	0.0	86	0.3
12	0.1	37	0.3	62	0.1	87	0.4
13	0.2	38	0.2	63	0.0	88	0.9
14	0.2	39	0.2	64	0.0	89	1.3
15	0.2	40	0.3	65	0.1	90	1.4
16	0.2	41	0.3	66	0.2	91	1.4
17	0.3	42	0.4	67	0.3	92	1.7
18	0.2	43	0.3	68	0.3	93	2.2
19	0.2	44	0.5	69	0.3	94	3.5
20	0.2	45	0.3	70	0.3	95	5.9
21	0.2	46	0.3	71	0.3	96	4.7
22	0.1	47	0.3	72	0.2	97	1.7
23	0.2	48	0.3	73	0.2	98	1.9
24	0.2	49	0.1	74	0.2	99	1.6
25	0.2	50	2.1	75	0.2	100	blank



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 550 (App) GPN
 DATE: 10 May 1965 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0528 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 17 seconds WIND VECTOR: 288° / 5 mph

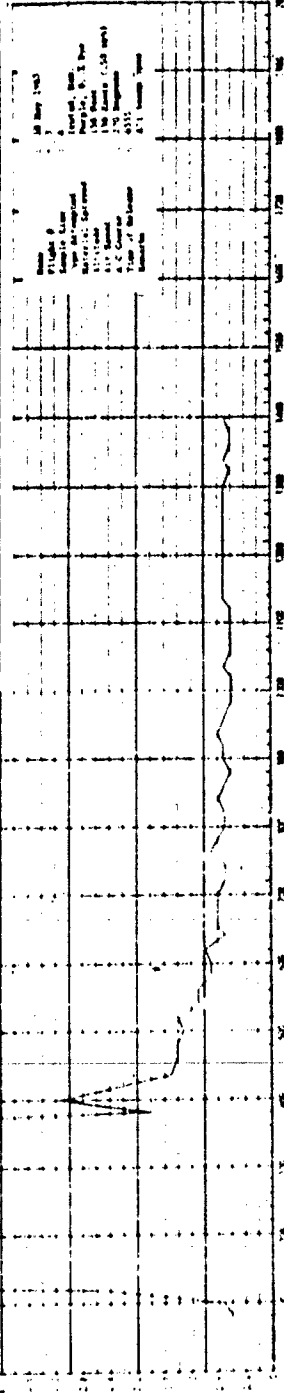
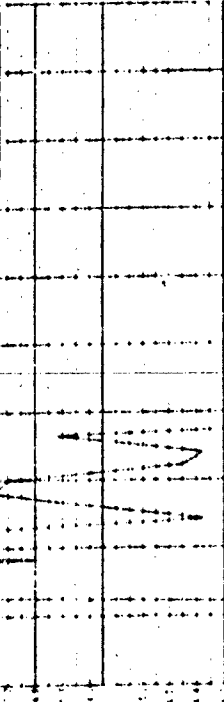
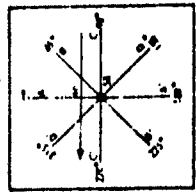
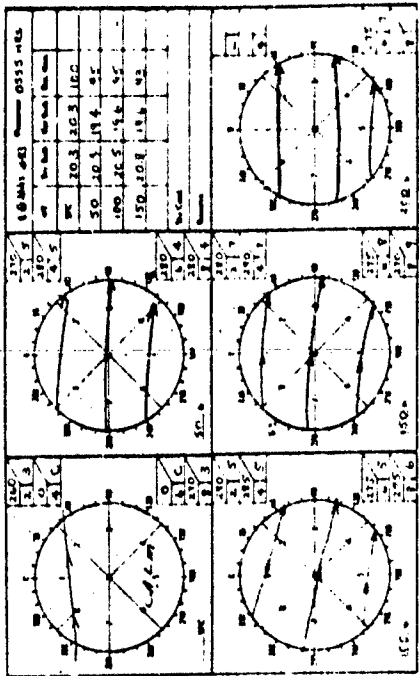
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-36	blank	51	4.6	76	0.8		
		52	3.8	77	0.7		
		53	3.2	78	0.8		
		54	3.4	79	0.8		
		55	2.8	80	0.7		
		56	2.1	81	0.8		
		57	1.5	82	0.8		
		58	1.7	83	0.7		
		59	1.4	84	0.8		
		60	1.7	85	0.9		
		61	1.1	86	0.8		
		62	1.3	87	0.8		
		63	1.1	88	0.8		
		64	1.1	89	0.9		
		65	1.1	90	0.7		
		66	0.9	91	0.8		
		67	0.9	92	0.7		
		68	0.8	93	0.8		
		69	0.8	94	0.6		
		70	0.8	95	0.8		
		71	0.8	96	0.8		
		72	0.8	97	0.8		
		73	0.8	98	0.8		
		74	0.8	99	0.9		
		75	0.7	100	0.8		
37	0.1						
38	0.6						
39	14.8						
40	7.0						
41	9.7						
42	5.5						
43	8.5						
44	5.4						
45	5.2						
46	7.2						
47	8.6						
48	4.3						
49	6.8						
50	5.3						



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 550 (App) GPM
 DATE: 10 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 3 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0555 hours AIRCRAFT COURSE: 270 degree
 DURATION: 22 seconds WIND VECTOR: 284° / 4.5 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-33 blank				51	2.2	76	0.7
				52	1.5	77	0.8
				53	1.4	78	0.7
				54	1.4	79	0.6
				55	1.3	80	0.6
				56	1.4	81	0.6
				57	1.1	82	0.7
				58	1.1	83	0.6
				59	0.9	84	0.6
				60	0.9	85	0.6
				61	1.0	86	0.6
				62	0.7	87	0.7
				63	0.8	88	0.7
				64	0.8	89	0.7
				65	0.8	90	0.7
				66	0.7	91	0.7
				67	0.7	92	0.7
				68	0.9	93	0.7
				69	0.8	94	0.7
				70	0.7	95	0.7
				71	0.7	96	0.6
				72	0.8	97	0.7
				73	0.7	98	0.6
				74	0.6	99	0.6
				75	0.7	100	0.7



10 MAY 48
 0355 HRS
 30 103 203
 30 103 194
 30 103 185
 30 103 176

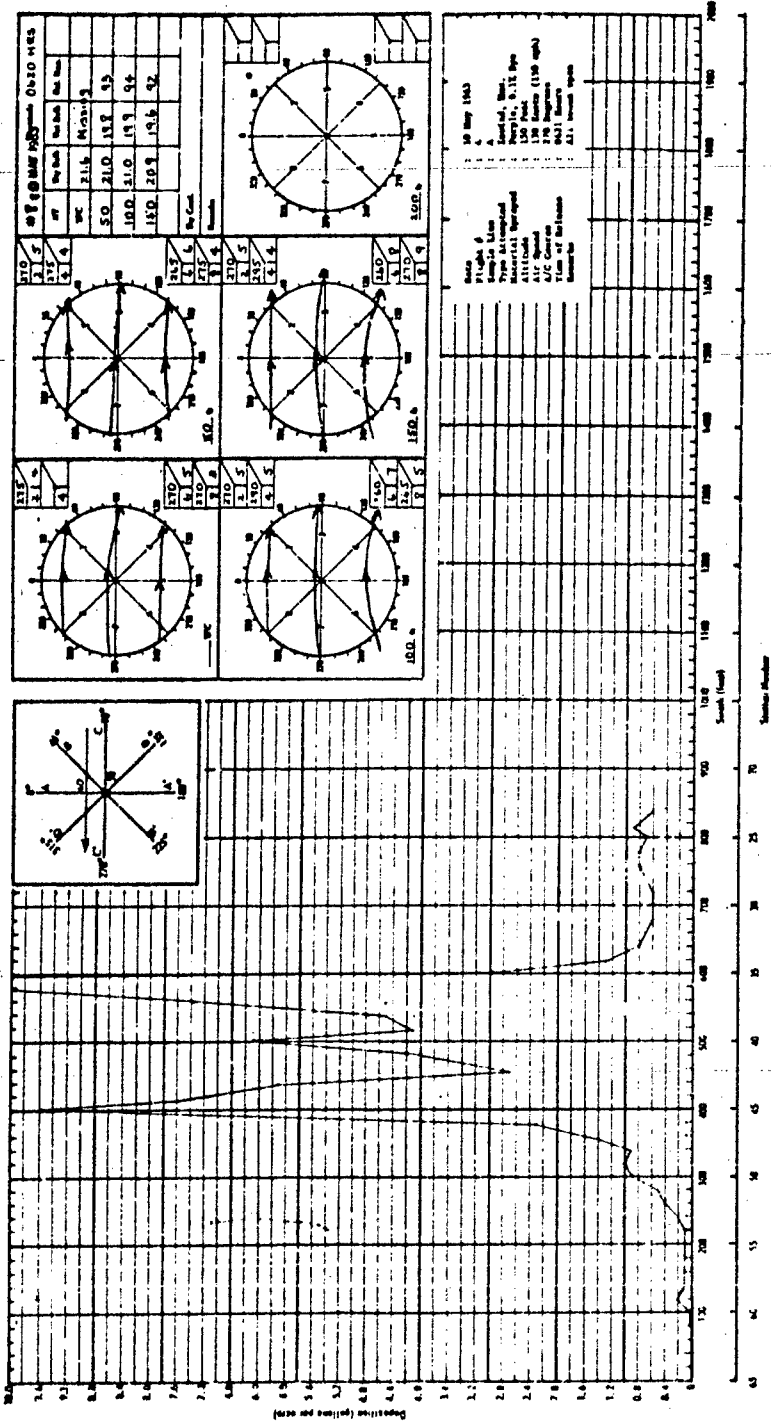
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 550 (App) GPM
 DATE: 10 May 1963 SYSTEM: G-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0621 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 23 seconds WIND VECTOR: 267° / 5.8

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-22	blank	26	0.8	51	0.5		
		27	0.8	52	0.4		
		28	0.7	53	0.2		
		29	0.6	54	0.1		
		30	0.6	55	0.1		
		31	0.6	56	0.1		
		32	0.7	57	0.1		
		33	0.8	58	0.1		
		34	1.3	59	0.2		
		35	3.0	60	0.0		
		36	16.4	61	0.0		
		37	7.4	62-100	blank		
		38	4.5				
		39	4.1				
		40	0.5				
		41	4.1				
		42	2.7				
		43	6.1				
		44	7.5				
		45	9.6				
		46	2.3				
		47	1.4				
22		48	0.9				
23	0.6	49	1.0				
24	0.9	50	0.9				
25	0.7						

$$\% \text{ Recovery} = \frac{0.207 \times 150 \times 89.3 \times 0.0}{550} = 98.4$$

Total 89.3



150		100		50		25		10		5		2.5		1.25		0.625		0.3125		0.15625	
Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)	Wt. %	Time (min)
50	21.0	11.5	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
10.0	31.0	17.5	14.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0
15.0	20.0	19.0	12.0	18.0	12.0	18.0	12.0	18.0	12.0	18.0	12.0	18.0	12.0	18.0	12.0	18.0	12.0	18.0	12.0	18.0	12.0

Notes:
 1. Sample taken from 1500 ft depth.
 2. All tests run at 100°C.
 3. All tests run at 100 rpm.
 4. All tests run at 100 g.



1000
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0

C-123/MC-1 GROUND FLOW & FLIGHT DATA

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DATE CALIBRATED: 9 May 1963 DATE TEST FLOWN: 11 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 58
NOZZLE TYPE: U50120 LIQUID TEMP: 32° C
DURATION OF SPRAY: 20 Sec. PUMP PRESSURE: No. 1 50 psi during
PUMP R.P.M.: 3000 before spray : No. 2 50 psi during
NO. OF PUMPS: 2 FLOW METER READING: 405-410 GPM
TOTAL AMOUNT SPRAYED: 139.5 Gals. FLOW RATE CALIBRATED: 418.5 GPM
NOZZLE CONFIGURATION: WING: 1-7, 15-22, 31-39
TAIL: 1-19 (odd numbers only)

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>1</u>			<u>No. 1 - 80</u>	<u>400 ± 20</u>

REMARKS: Front engine malfunction.

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MASS MEDIAN DIAMETER

DATE: 11 May 1963 CONVERSION FACTOR: 2.5
FLIGHT #: 2 PAPER: Kromekote
SAMPLE LINE: C MATERIAL: Purple
FLOW RATE: 418.5 GPM SYSTEM: C-123/MC-1

Sta.	Drop #	Size	Sta.	Drop #	Size
96	2	7500			
96	1	7400*			
96	3	7200			
96	6	7100			
96	5	7000			
96	7	6900			
96	4	6700			
96	8	6600			
96	9	6500			
96	10	6300			

MMD = $\frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Cor. Factor}} = \frac{70.44 + 0.1431(7400)}{2.5} = 457.6$ microns
Max. Spn. Dia. = $70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(7500) = 1144$ Microns
Min. Spn. Dia. = 36 microns

MASS MEDIAN DIAMETER

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DATE: 11 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 3 PAPER: Kromekote
 SAMPLE LINE: C MATERIAL: Purple
 FLOW RATE: 418.5 GPM SYSTEM: C-123/MC-1

Sta.	Drop #	Size	Sta.	Drop #	Size
95	3	7000			
95	4	6700*			
95	9	6600			
95	8	6500			
95	10	6400			
95	11	6300			
95	5	6200			
95	7	6000			
95	6	5900			
95	2	5800			
95	1	5700			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(6700)}{2.5} = 411.6 \text{ microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(7000) = 1072.1 \text{ Microns}$$

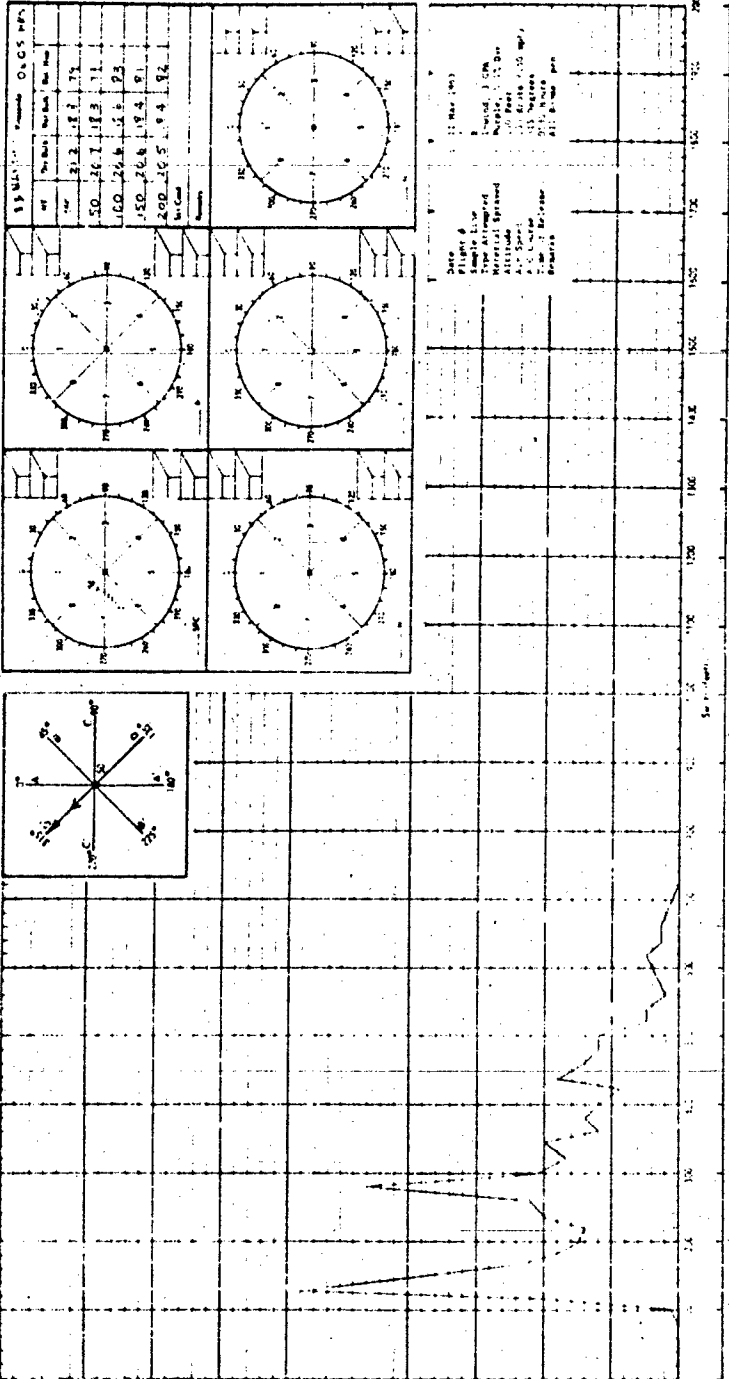
$$\text{Min. Sph. Dia.} = 36 \text{ Microns}$$

15

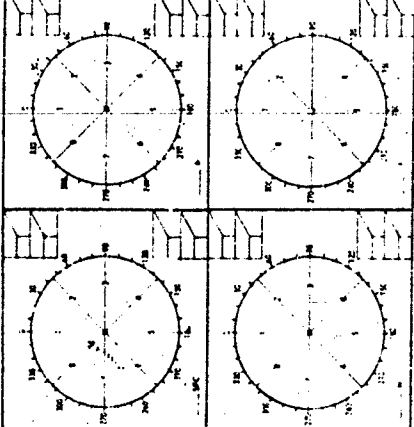
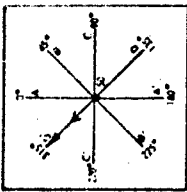
MASS DEPOSIT

MATERIAL: Purple, 0.1% Dye FLOW RATE: 418.5 GPM
DATE: 11 May 1963 SYSTEM: C-123/MC-1
FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
SAMPLE LINE: B ALTITUDE: 150 feet
TIME OF RELEASE: 0530 hours AIRCRAFT COURSE: 315 degrees
DURATION: 18 seconds WIND VECTOR: 286° / 6.8 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.0	26	0.3	Stations 51-100 blank			
2	0.0	27	0.2				
3	0.0	28	0.5				
4	0.0	29	0.5				
5	0.0	30	1.2				
6	0.0	31	1.2				
7	0.0	32	1.4				
8	0.0	33	1.8				
9	0.0	34	0.9				
10	0.0	35	1.2				
11	0.0	36	1.4				
12	0.0	37	1.2				
13	0.0	38	2.0				
14	0.0	39	1.7				
15	0.0	40	2.1				
16	0.0	41	4.6				
17	0.0	42	2.2				
18	0.0	43	2.0				
19	0.0	44	1.4				
20	0.1	45	1.5				
21	0.2	46	1.8				
22	0.3	47	2.3				
23	0.3	48	5.6				
24	0.5	49	2.0				
25	0.4	50	0.1				



Date: 11 Mar 1963
 Sample Size: 100 ml
 Type of Sample: 100 ml
 Method of Spinning: 100 ml
 Analysis: 100 ml
 Location: 100 ml
 Remarks: 100 ml



Flow Rate (gpm)	Pressure (psi)	Temperature (°F)	Depth (ft)
150	26.7	113	71
100	26.8	114	81
200	16.5	94	94

MASS DEPOSIT

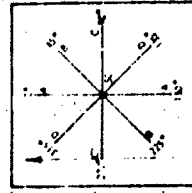
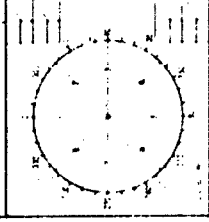
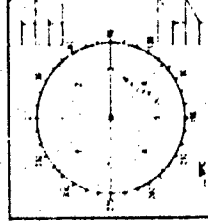
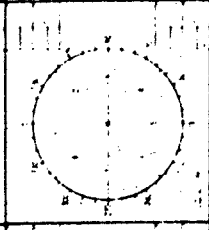
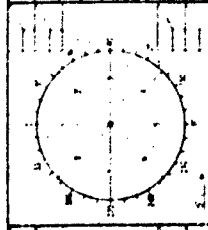
MATERIAL: Purple FLOW RATE: 418.5 GPM
 DATE: 11 May 1963 SYSTEM: C-123 MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0550 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 18 seconds WIND VECTOR: 273° / 6.6 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.0	26	0.0	51	0.0	76	1.0
2	0.0	27	0.0	52	0.0	77	1.3
3	0.0	28	0.0	53	0.1	78	0.9
4	0.0	29	0.0	54	0.0	79	1.5
5	0.0	30	0.0	55	0.0	80	1.8
6	0.0	31	0.0	56	0.0	81	2.0
7	0.0	32	0.0	57	0.0	82	1.5
8	0.0	33	0.1	58	0.3	83	1.8
9	0.0	34	0.0	59	0.0	84	2.4
10	0.0	35	0.0	60	0.1	85	2.4
11	0.0	36	0.0	61	0.2	86	2.0
12	0.0	37	0.0	62	0.2	87	1.5
13	0.0	38	0.0	63	0.3	88	3.2
14	0.0	39	0.0	64	0.3	89	5.5
15	0.0	40	0.0	65	0.2	90	2.7
16	0.0	41	0.0	66	0.2	91	2.6
17	0.0	42	0.0	67	0.4	92	2.9
18	0.0	43	0.0	68	0.4	93	3.0
19	0.0	44	0.0	69	0.3	94	2.2
20	0.0	45	0.0	70	0.7	95	1.9
21	0.0	46	0.0	71	0.2	96	0.8
22	0.0	47	0.0	72	0.4	97	0.1
23	0.0	48	0.0	73	0.6	98	0.0
24	0.0	49	0.0	74	0.4	99	0.0
25	0.0	50	0.1	75	0.5	100	0.0

11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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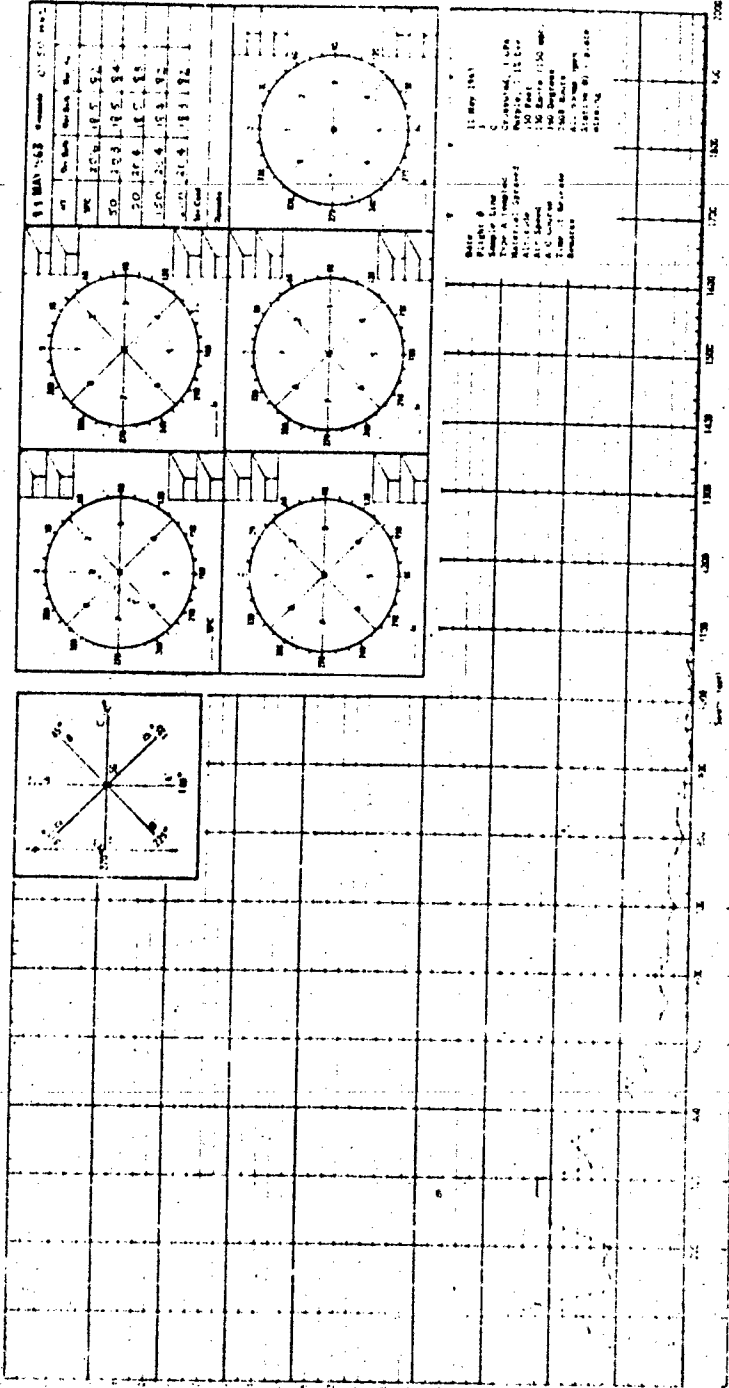
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MASE DEPOSIT

MATERIAL: Purple FLOW RATE: 418.5 GPM
 DATE: 11 May 1963 SYSTEM: C-1-3/MC-1
 FLIGHT #: 3 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0608 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 16 seconds WIND VECTOR: 263° / 7.0

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.0	26	0.0	51	0.1	76	0.7
2	0.0	27	0.0	52	0.1	77	0.6
3	0.0	28	0.0	53	0.0	78	0.9
4	0.0	29	1.0	54	0.0	79	0.8
5	0.0	30	0.0	55	0.1	80	1.3
6	0.0	31	0.0	56	0.1	81	1.3
7	0.0	32	0.0	57	0.1	83	1.7
8	0.0	33	0.0	58	0.2	83	1.5
9	0.0	34	0.0	59	0.2	84	1.4
10	0.0	35	0.0	60	0.1	85	2.2
11	0.0	36	0.0	61	0.2	86	2.2
12	0.0	37	0.0	62	0.3	87	2.0
13	0.0	38	0.0	63	0.3	88	2.0
14	0.0	39	0.0	64	0.3	89	1.5
15	0.0	40	0.0	65	0.2	90	1.1
16	0.0	41	0.0	66	0.3	91	1.2
17	0.0	42	0.0	67	0.3	92	1.1
18	0.0	43	0.0	68	0.3	93	1.1
19	0.0	44	0.0	69	0.3	94	2.2
20	0.0	45	0.0	70	0.5	95	1.5
21	0.0	46	0.0	71	0.5	96	1.4
22	0.0	47	0.1	72	0.3	97	0.2
23	0.0	48	0.0	73	0.4		
24	0.0	49	0.0	74	0.5		
25	0.0	50	0.0	75	0.6		

Stations 96-100
Blank



Deposited for Patent

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 11 May 1963 DATE TEST FLOWN: 12 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 69
NOZZLE TYPE: U50120 LIQUID TEMP: 32° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 84 psi before
 No. 1 50 psi during
 84 psi before
PUMP R.P.M.: 3000 before spray : No. 2 50 psi during

NO. OF PUMPS: 2 FLOW METER READING: 405 GPM
TOTAL AMOUNT SPRAYED: 105.5 Gals. FLOW RATE CALIBRATED: 422 GPM
NOZZLE CONFIGURATION: WING: 1-9, 14-22, 31-43
 TAIL: 1-3, 10, 17-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1		85	28	290
2		85	46	290
3		85	50	400
4		85	50	400

REMARKS: Airlock in forward pump during 1st & 2nd run.

MASS MEDIAN DIAMETER

DATE: L@ 12 May 1963 CONVERSION FACTOR 2.5
 FLIGHT #: 4 PAPER: Kromekote
 SAMPLE LINE: D MATERIAL: Purple
 FLOW RATE: 422 GPM SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
99	5	5600*			
100	2	5400			
100	3	5200			
100	4	5100			
100	1	5000			
98	7	4900			
98	6	4800			
98	8	4700			
100	9	4600			
98	10	4500			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431 (5600)}{2.5} = 348.7 \text{ Microns}$$

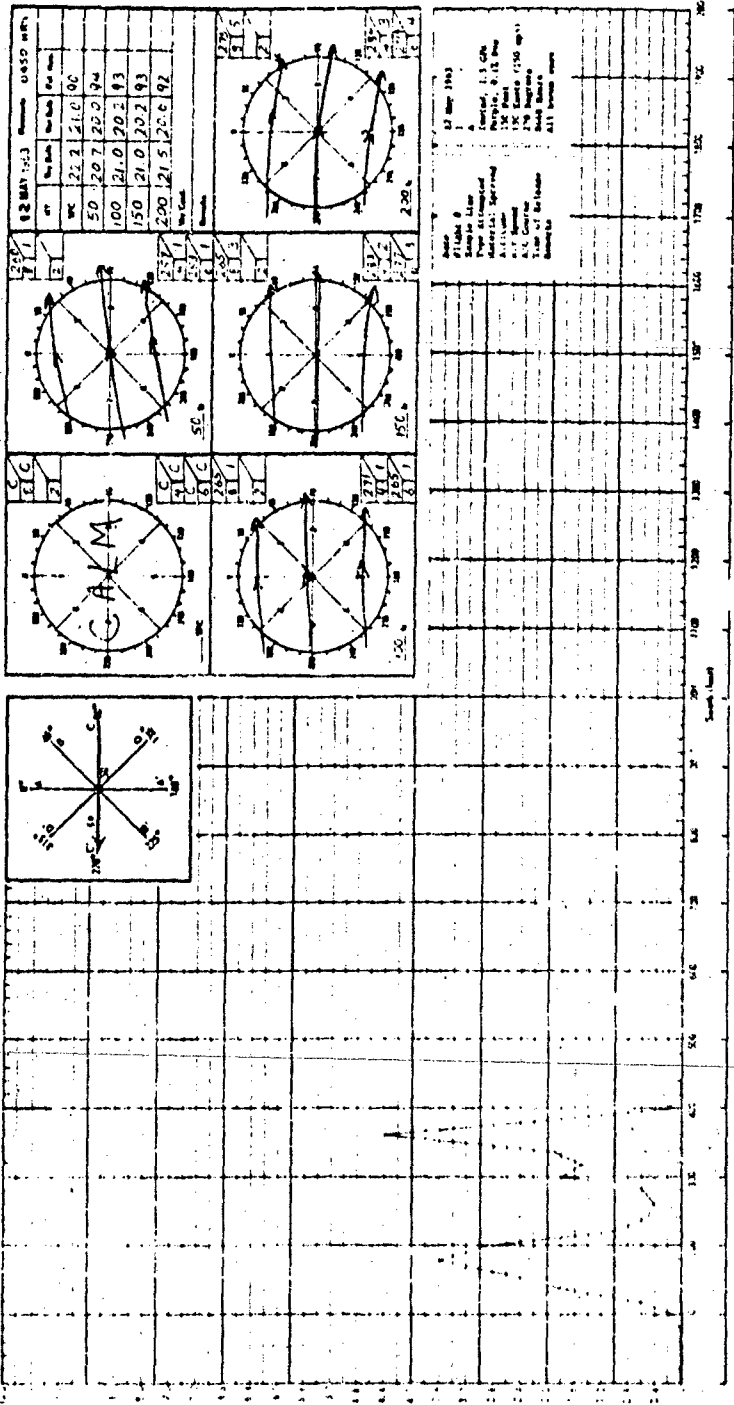
$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431 (5600) = 871.8 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 36 \text{ Microns}$$

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 422 GPM
 DATE: 12 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0448 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 15 seconds WIND VECTOR 273° / 2.2 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-42	blank	43	0.0				
		44	0.0				
		45	0.2				
		46	2.2				
		47	4.4				
		48	1.9				
		49	1.5				
		50	1.8				
		51	0.6				
		52	0.4				
		53	0.5				
		54	1.0				
		55	2.9				
		56	3.6				
		57	2.6				
		58	1.7				
		59	0.6				
		60	0.1				
		61	0.0				
		62	0.0				
		63	0.0				
		Stations 64-100	blank				

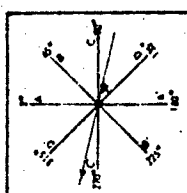
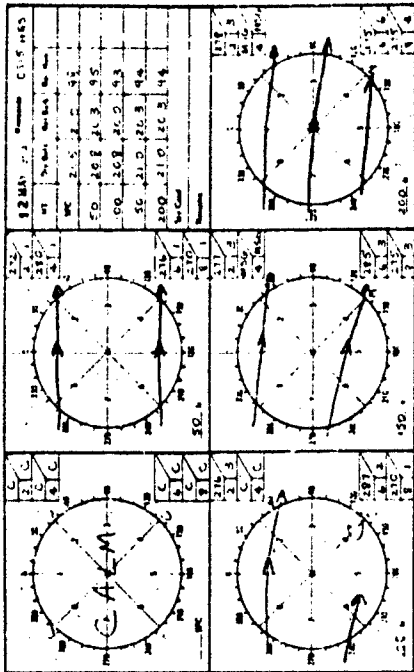


Date: 12 May 1943
 Station: [unclear]
 Paper: [unclear]
 Scale: [unclear]
 S.W. [unclear]
 S.E. [unclear]
 N.W. [unclear]
 N.E. [unclear]

MASS DEPOSIT

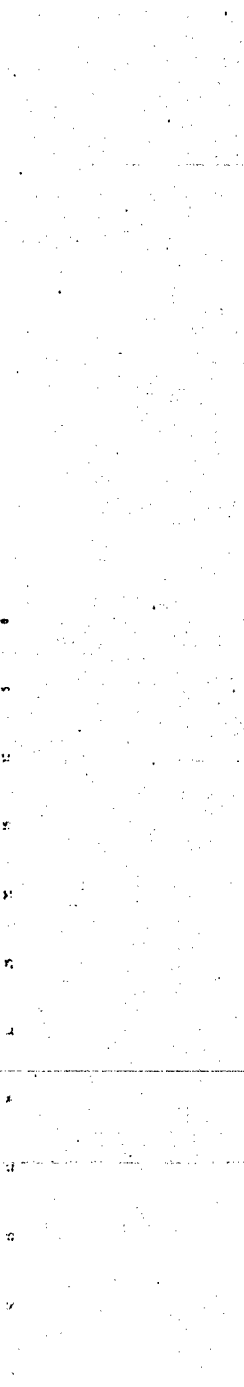
MATERIAL: Purple FLOW RATE: 42? GPM
 DATE: 12 May 1963 SYSTEM: G-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0512 hours AIRCRAFT COURSE: 290 degrees
 DURATION: 18 seconds WIND VECTOR: 277⁰ / 2.5 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-16 blank		17	0.0	42	2.1
		18	0.0	43	1.5
		19	0.0	44	2.2
		20	0.0	45	1.5
		21	0.2	46	3.0
		22	0.0	47	3.5
		23	0.1	48	1.4
		24	0.2	49	3.5
		25	0.2	50	13.3
		26	0.2	51	0.0
		27	0.2	Stations 52-100 blank	
		28	0.2		
		29	0.3		
		30	0.4		
		31	0.3		
		32	0.2		
		33	0.3		
		34	1.1		
		35	0.7		
		36	0.9		
		37	1.5		
		38	1.4		
		39	2.8		
		40	2.5		
		41	3.4		



Altitude	Compass Rose	Vector Arrow
150 ft	Compass rose with N, NE, E, SE, S, SW, W, NW	Vector arrow pointing NE
300 ft	Compass rose with N, NE, E, SE, S, SW, W, NW	Vector arrow pointing NE
450 ft	Compass rose with N, NE, E, SE, S, SW, W, NW	Vector arrow pointing NE
600 ft	Compass rose with N, NE, E, SE, S, SW, W, NW	Vector arrow pointing NE

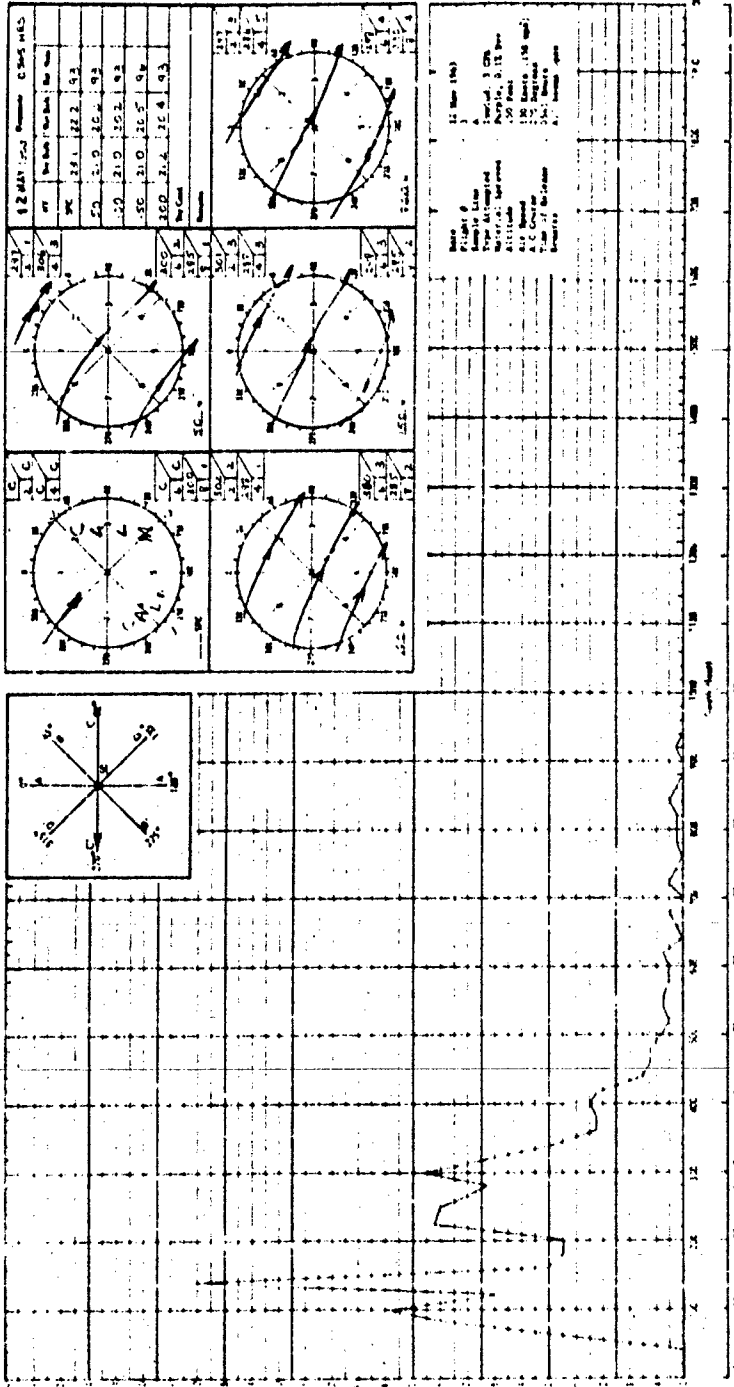
Date: 17 Nov 1943
 Flight #:
 Location:
 Material: 1.5 GPa
 Material: 5.12 Pa
 Altitude: 150 ft
 Altitude: 300 ft
 Altitude: 450 ft
 Altitude: 600 ft
 Type of field: 200 Gauss
 Number: 2117
 Number: 2117



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 422 GPM
 DATE: 12 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 3 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0541 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 18 seconds WIND VECTOR: 291° / 2.2 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-46 blank		47	0.0	72	0.3		
		48	2.3	73	0.3		
		49	3.6	74	0.2		
		50	4.3	75	0.2		
		51	2.8	76	0.3		
		52	7.3	77	0.0		
		53	2.0	78	0.1		
		54	1.8	79	0.2		
		55	1.8	80	0.0		
		56	3.7	81	0.2		
		57	3.6	82	0.1		
		58	3.2	83	0.0		
		59	2.9	84	0.1		
		60	3.8	85	0.1		
		61	2.9	86	0.1		
		62	2.0	87	0.2		
		63	1.3	88	0.1		
		64	1.3	89	0.0		
		65	1.4	90	0.0		
		66	1.3	91	0.1		
		67	0.6	92	0.0		
		68	0.5	93	0.0		
		69	0.5	94	0.0		
		70	0.3	95	0.0		
		71	0.2	Stations 96-100 blank			

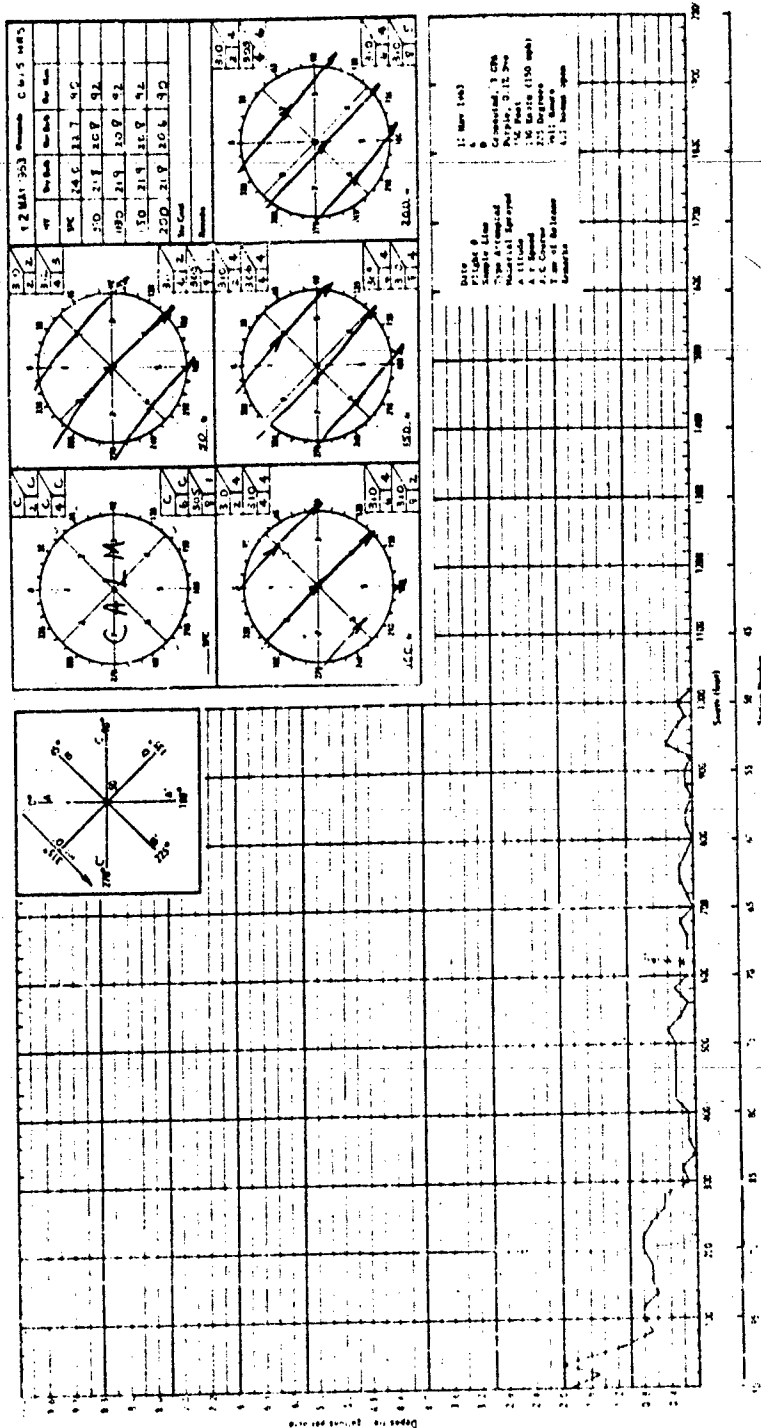


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MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 422 GPM
 DATE: 12 May 1963 SYSTEM: C-123/MC
 FLIGHT #: 4 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0611 Hours AIRCRAFT COURSE: 225 Degrees
 DURATION: 15 Seconds WIND VECTOR: 309°/2.9 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.0	26	0.0	51	0.1	76	0.3
2	0.0	27	0.0	52	0.3	77	0.3
3	0.0	28	0.0	53	0.4	78	0.3
4	0.0	29	0.0	54	0.0	79	0.3
5	0.0	30	0.0	55	0.1	80	0.1
6	0.0	31	0.0	56	0.1	81	0.1
7	0.0	32	0.0	57	0.0	82	0.1
8	0.0	33	0.0	58	0.1	83	0.0
9	0.0	34	0.0	59	0.1	84	0.2
10	0.0	35	0.0	60	0.0	84	0.1
11	0.0	36	0.0	61	0.1	86	0.5
12	0.0	37	0.0	62	0.2	87	0.5
13	0.0	38	0.0	63	0.2	88	0.7
14	0.0	39	0.0	64	0.1	89	0.8
15	0.0	40	0.0	65	0.0	90	0.8
16	0.0	41	0.0	66	0.2	91	0.7
17	0.0	42	0.0	67	0.1	92	0.7
18	0.0	43	0.0	68	0.1	93	0.6
19	0.0	44	0.0	69	Missing	94	0.8
20	0.0	45	0.0	70	0.1	95	0.8
21	0.0	46	0.0	71	0.3	96	0.7
22	0.0	47	0.0	72	0.1	97	1.1
23	0.0	48	0.0	73	0.2	98	2.0
24	0.0	49	0.0	74	0.4	99	1.5
25	0.0	50	0.2	75	0.3	100	1.9



10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

1: 1000
 2: 1000
 3: 1000
 4: 1000
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 11: 1000
 12: 1000
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 14: 1000
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 16: 1000
 17: 1000
 18: 1000
 19: 1000
 20: 1000

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 12 May 1963 DATE TEST FLOWN: 13 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 81
NOZZLE TYPE: US070 LIQUID TEMP: 33° C
DURATION OF SPRAY: 9.5 Sec. PUMP PRESSURE: No. 1 55 psi during
PUMP R.P.M. 3200 before spray : No. 2 35 psi during
NO. OF PUMPS: 2 FLOW METER READING: 410-415 GPM
TOTAL AMOUNT SPRAYED: 61 Cals. FLOW RATE CALIBRATED: 418 GPM
NOZZLE CONFIGURATION: WING: 1-9, 14-23, 28-43
TAIL: 1-4, 9-11, 16-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1		92	55	410
2		94.90	50	415
3		92	52	420

REMARKS: Temp. on 1st run 27° C, on return 30° C.

MASS MEDIAN DIAMETER

DATE: 13 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 1 PAPER: Kromekote, white
 SAMPLE LINE: C MATERIAL: Purple
 FLOW RATE: 418 GPM SYSTEM: C-123/MC-1

Sta.	Drop #	Size	Sta.	Drop#	Size
3	1	7500	4	10	5800
3	2	7400	4	11	5700
3	3	7300	4	12	5600
4	5	6500*			
4	4	6400			
4	7	6300			
4	8	6200			
4	6	6000			
4	9	5900			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(6500)}{2.5} = 400.2 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(7500) = 1143.7 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 36 \text{ Microns}$$

MASS MEDIAN DIAMETER

37

DATE: 13 May 1963

CONVERSION FACTOR: 2.5

FLIGHT #: 2

PAPER: Kromekote, white

SAMPLE LINE: C

MATERIAL: Purple

FLOW RATE: 418 GPM

SYSTEM: C-123/MC-1

Sta.	Drop#	Size	Sta.	Drop #	Size
11	2	7400	12	9	6000
11	1	6900*	12	11	6000
12	3	6800			
12	4	6700			
12	6	6600			
12	5	6500			
12	7	6400			
12	8	6300			
12	10	6200			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(6900)}{2.5} = 423.1 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(7400) = 1129.4 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 36 \text{ Microns}$$

MASS MEDIAN DIAMETER

39

DATE: 13 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 3 PAPER: Kromekote, white
 SAMPLE LINE: C MATERIAL: Purple
 FLOW RATE: 418 GPM SYSTEM: C-123/MC-1

Sta.	Drop #	Size	Sta.	Drop #	Size
10	4	7100*			
10	1	7000			
10	2	6900			
10	3	6800			
10	5	6700			
10	6	6600			
10	7	6500			
11	9	6400			
11	8	6300			
11	10	6100			

$MSD = \frac{70,4410.1431 \text{ Spot D Max} - 70,4410.1431(7100)}{\text{Con. Factor } 2.5} = 634.5 \text{ Microns}$

Max. Sph. Dia. = 70,4410.1431 Max Spot = 70,4410.1431(7100) = 1086.4 Microns

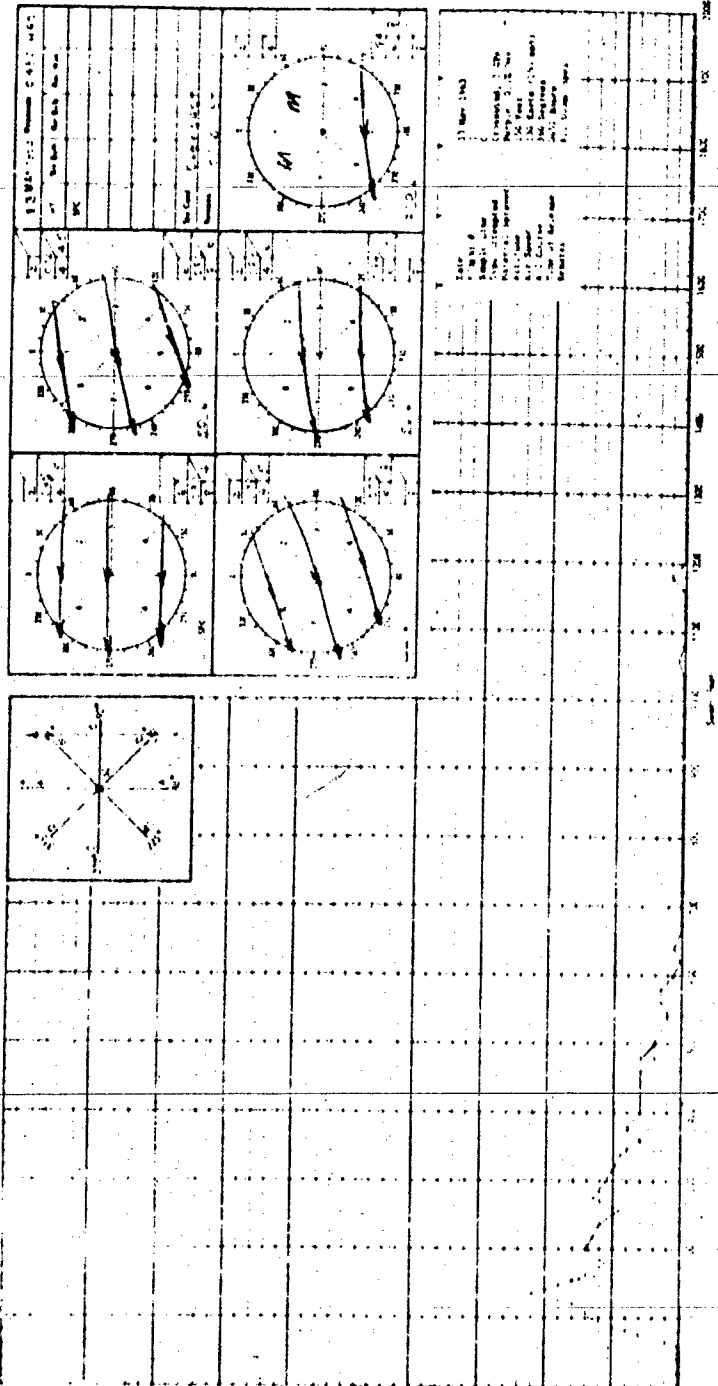
Min. Sph. Dia. = 36 Microns

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 13 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0452 Hours AIRCRAFT COURSE: 300 Degrees
 DURATION: 13 Seconds WIND VECTOR: 084°/6.4 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.0	26	0.3	51	0.0	76	0.0
2	0.0	27	0.2	52	0.0	77	0.0
3	0.0	28	0.3	53	0.1	78	0.0
4	0.6	29	0.3	54	0.0	79	0.0
5	1.3	30	0.1	55	0.0	80	0.0
6	1.5	31	0.0	56	0.0	81	0.0
7	2.2	32	0.1	57	0.0	82	0.0
8	1.5	33	0.0	58	0.0	83	0.0
9	1.1	34	0.0	59	0.2	84	0.0
10	1.4	35	0.0	60	0.0	85	0.0
11	1.3	36	0.0	61	0.0	86	0.0
12	1.2	37	0.0	62	0.0	87	0.0
13	0.9	38	0.0	63	0.0	88	0.0
14	1.3	39	0.0	64	0.0	89	0.0
15	1.1	40	0.0	65	0.0	90	0.0
16	1.0	41	0.0	66	0.0	91	0.0
17	0.9	42	0.0	67	0.0	92	0.0
18	0.6	43	0.0	68	0.0	93	0.0
19	0.6	44	0.0	69	0.0	94	0.0
20	0.6	45	0.0	70	0.0	95	0.0
21	0.6	46	0.0	71	0.0	96	0.0
22	0.6	47	0.0	72	0.0	97	0.0
23	0.6	48	0.0	73	0.0	98	0.0
24	0.6	49	0.0	74	0.0	99	0.0
25	0.4	50	0.0	74	0.0	100	0.0

Total 40.7



Vertical text on the right side of the grid, possibly a scale or axis label, including the number "100" at the top.

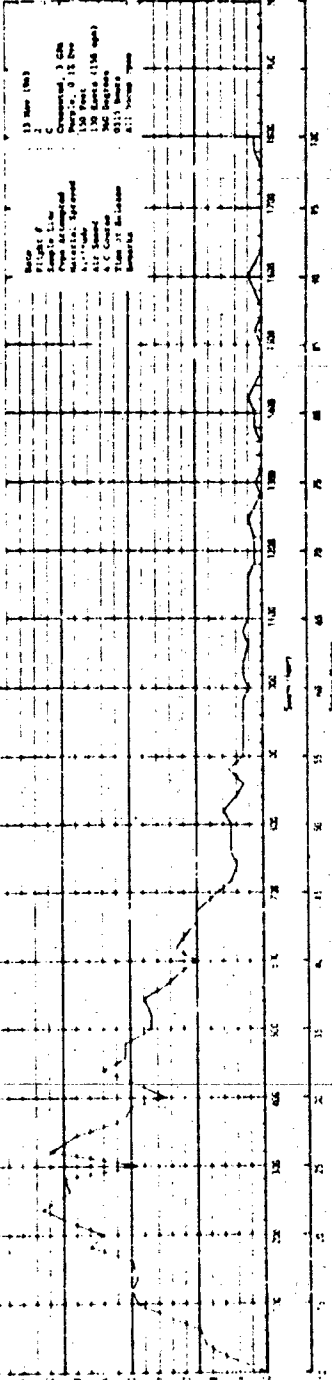
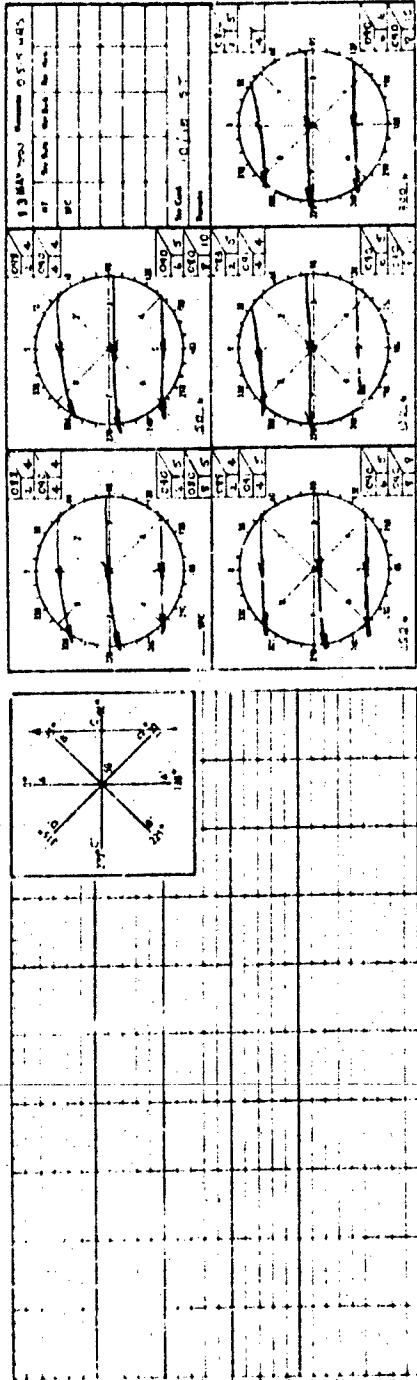
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1	100

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 416 GPM
 DATE: 13 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0515 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 14 Seconds WIND VECTOR: 088° 5.8 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-10	Blank	26	3.2	51	0.6	76	0.0
		27	2.8	52	0.4	77	0.0
		28	2.1	53	0.3	78	0.0
		29	2.0	54	0.5	79	0.1
		30	1.5	55	0.4	80	0.1
		31	1.9	56	0.3	81	0.2
		32	2.4	57	0.3	82	0.1
		33	2.1	58	0.3	83	0.0
		34	2.1	59	0.3	84	0.0
		35	1.7	60	0.2	85	0.0
11	0.6	36	1.7	61	0.3	86	0.1
12	0.9	37	1.8	62	0.3	87	0.0
13	1.0	38	1.5	63	0.2	88	0.0
14	1.5	39	1.2	64	0.3	89	0.1
15	1.9	40	1.0	65	0.2	90	0.2
16	2.0	41	1.3	66	0.2	91	0.1
17	1.9	42	1.2	67	0.2	92	0.0
18	2.0	43	1.0	68	0.2	93	0.0
19	2.6	44	1.0	69	0.1	94	0.0
20	2.4	45	0.7	70	0.1	95	0.0
21	2.9	46	0.5	71	0.1	96	0.0
22	3.3	47	0.4	72	0.2	97	0.0
23	2.9	48	0.5	73	0.1	98	0.0
24	3.0	49	0.5	74	0.0	99	0.1
25	1.9	50	0.5	75	0.1	100	0.1

Total 74.9



Date: 13 May 1967
 Flight #:
 From: Alameda
 To: Santa Ana
 Aircraft: C-47
 Pilot: J. J. [unclear]
 Observer: J. J. [unclear]
 Station: Santa Ana
 Remarks:

Comments: 3 GHz
 Part 1, 0 15 Pm
 130 knots (130 mph)
 340 degrees
 0111 knots
 211 knots

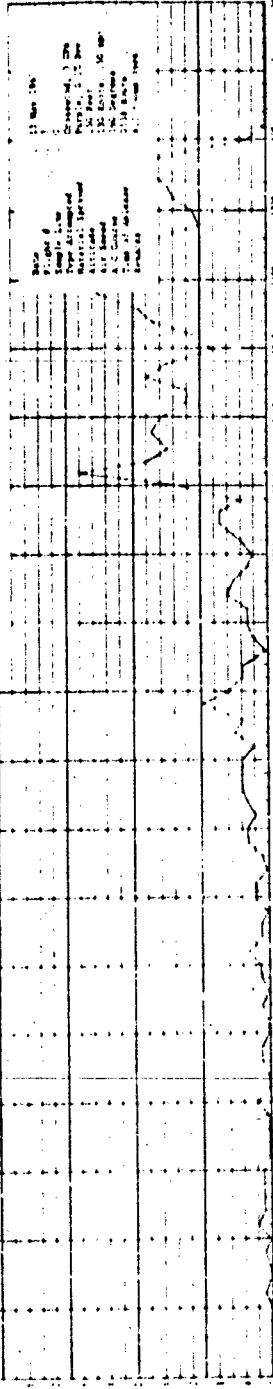
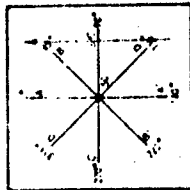
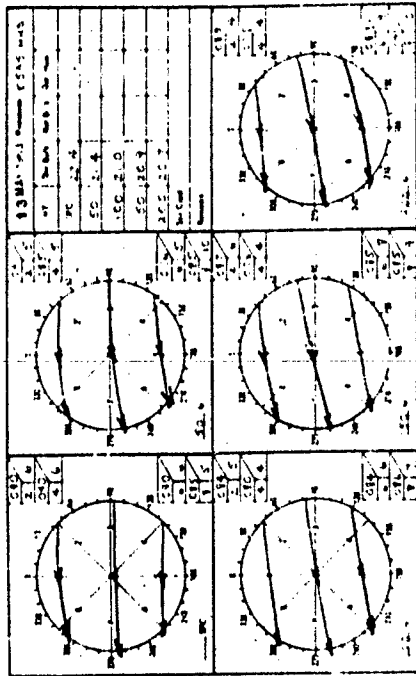
13 MAY 1967 Summary of 4 HRS
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 03:00-04:00
 04:00-05:00
 05:00-06:00
 06:00-07:00
 07:00-08:00
 08:00-09:00
 09:00-10:00
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 18:00-19:00
 19:00-20:00
 20:00-21:00
 21:00-22:00
 22:00-23:00
 23:00-24:00

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 13 May 1963 SYSTEM: C-123/PC-1
 FLIGHT #: 3 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0538 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 15 Seconds WIND VECTOR: 086°/6.2 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.0	26	1.5	51	1.0	76	0.1
2	0.0	27	1.8	52	0.4	77	0.1
3	0.0	28	1.2	53	0.5	78	0.0
4	0.0	29	1.2	54	0.2	79	0.0
5	0.0	30	1.0	55	0.4	80	0.2
6	0.0	31	1.7	56	0.4	81	0.0
7	0.0	32	1.5	57	0.4	82	0.0
8	0.0	33	1.8	58	0.3	83	0.0
9	0.0	34	2.8	59	0.2	84	0.0
10	0.3	35	1.3	60	0.3	85	0.1
11	1.6	36	0.4	61	0.3	86	0.1
12	1.8	37	0.7	62	0.1	87	0.1
13	1.5	38	0.7	63	0.0	88	0.1
14	1.4	39	0.4	64	0.2	89	0.2
15	1.1	40	0.2	65	0.2	90	0.0
16	1.0	41	0.3	66	0.0	91	0.1
17	1.7	42	0.5	67	0.1	92	0.0
18	2.5	43	0.6	68	0.1	93	0.0
19	3.0	44	0.3	69	0.3	94	0.1
20	2.8	45	0.2	70	0.1	95	0.0
21	2.5	46	0.2	71	0.1	96	0.0
22	1.9	47	0.0	72	0.0	97	0.0
23	1.7	48	0.4	73	0.1	98	0.0
24	1.1	49	0.4	74	0.0	99	0.0
25	0.8	50	0.6	75	0.0	100	0.0

Total 55.9



FORM NO. 1 (REV. 1-64)

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 13 May 1963 DATE TEST FLOWN: 14 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 81
NOZZLE TYPE: U5070 LIQUID TEMP: 33° C
DURATION OF SPRAY: 9.6 Sec PUMP PRESSURE: No.1 55 psi during
PUMP R.P.M.: 3200 before spray : No.2 55 psi during
NO. OF PUMPS: 2 FLOW METER READING: 410-415 GPM
TOTAL AMOUNT SPRAYED: _____ FLOW RATE CALIBRATED: 418 GPM
NOZZLE CONFIGURATION: WING: 1-9, 14-23, 28-43
TAIL: 1-4, 9-11, 16-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>1</u>	<u>3175 before</u> <u>2600 during</u>	<u>90</u>	<u>52</u>	<u>400</u>
<u>2</u>	<u>3175 before</u> <u>2600 during</u>	<u>90</u>	<u>52</u>	<u>375</u>

REMARKS: No explanation for flowmeter reading on 2nd run.

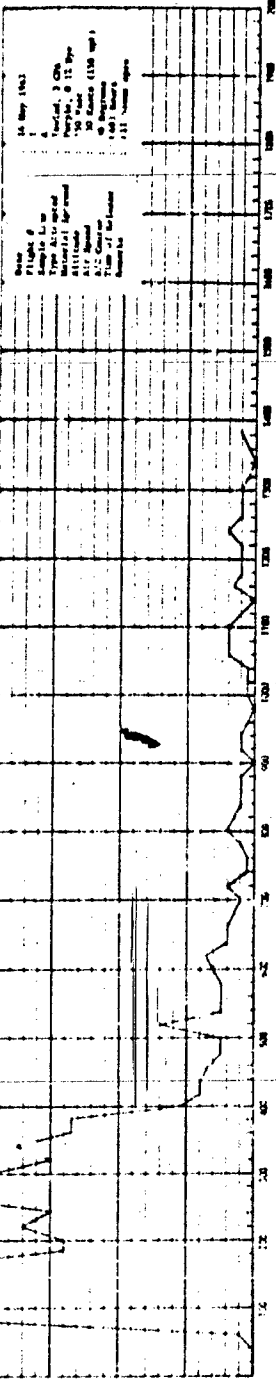
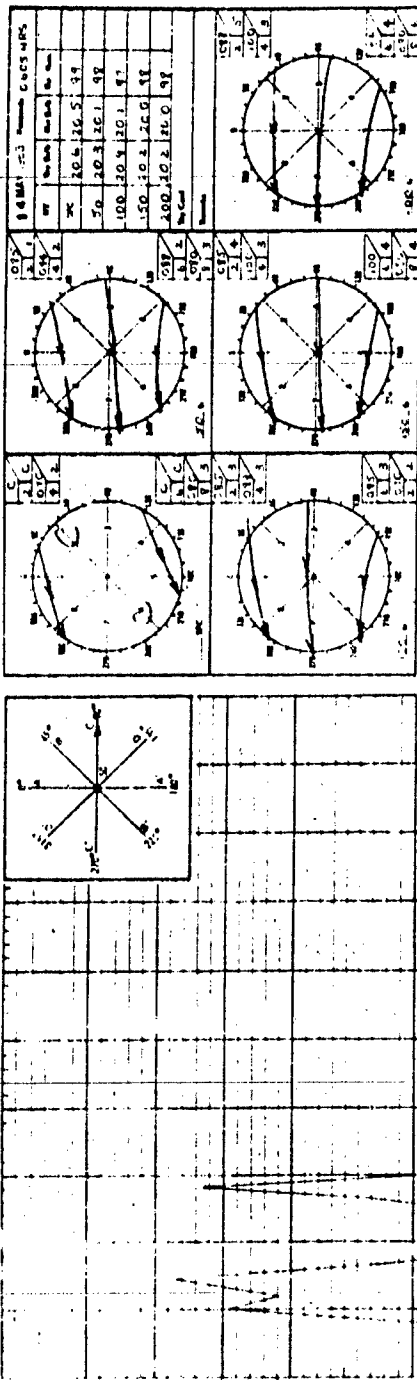
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 14 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0603 Hours AIRCRAFT COURSE: 090 Degrees
 DURATION: 19 Seconds WIND VECTOR: 091°/2.9 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.2	26	0.2	51	2.7		
2	0.1	27	0.2	52	2.7		
3	0.0	28	0.2	53	3.5		
4	0.1	29	0.3	54	3.0		
5	0.2	30	0.4	55	3.9		
6	0.2	31	0.2	56	7.1		
7	0.2	32	0.1	57	4.6		
8	0.4	33	0.1	58	3.0		
9	0.2	34	0.4	59	3.4		
10	0.2	35	0.2	60	2.8		
11	0.2	36	0.3	61	2.8		
12	0.3	37	0.4	62	4.5		
13	0.0	38	0.4	63	7.5		
14	0.2	39	0.7	64	6.0		
15	0.4	40	0.6	65	6.7		
16	0.4	41	0.5	66	3.9		
17	0.4	42	0.5	67	0.2		
18	0.1	43	0.5	68	Stations 63 to 68 Blank		
19	0.1	44	1.4				
20	0.1	45	0.5				
21	0.0	46	0.5				
22	0.1	47	0.7				
23	0.2	48	0.8				
24	0.2	49	0.8				
25	0.0	50	1.1				

Z Recovery = $\frac{0.202 \times 150 \times 84.3 \times 20}{418} = 122.9$

Total = 84.3



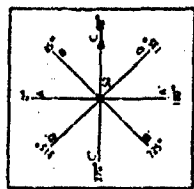
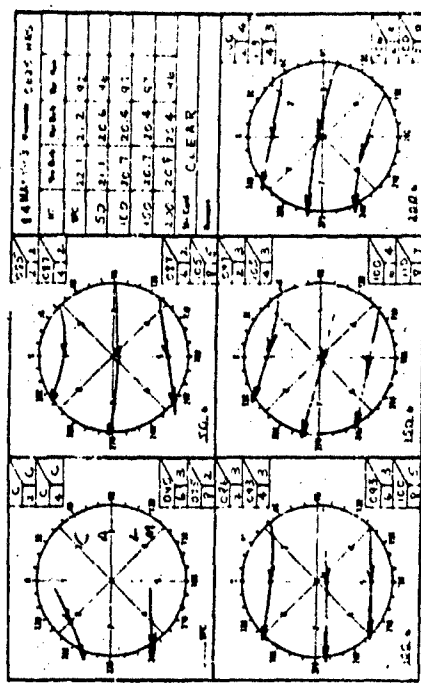
Drill	Core	Remarks	Core	Remarks
100	10.2	10.0	10.0	10.0
100	10.2	10.0	10.0	10.0
100	10.2	10.0	10.0	10.0
100	10.2	10.0	10.0	10.0
100	10.2	10.0	10.0	10.0
100	10.2	10.0	10.0	10.0

Date: 14 May 1963
 Project: 3000
 Location: 1000
 Operator: J. J. Jones
 Instrument: 1000
 Scale: 1:1000
 Unit: Feet
 Note: 1000

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 14 May 1963 SYSTEM: C-123/MC-1
 FLIGHT: 2 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0625 hours AIRCRAFT COURSE: 090 degrees
 DURATION: 17 seconds WIND VECTOR: 099° / 3.2 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-14 blank		15	0.0	40	2.3		
		16	0.0	41	2.5		
		17	0.0	42	9.5		
		18	0.0	43	6.2		
		19	0.0	44	11.6		
		20	0.0	45	11.4		
		21	0.0	46	0.3		
		22	0.0	47	0.0		
		23	0.0	Stations 48-100 blank			
		24	0.0				
		25	0.1				
		26	0.0				
		27	0.0				
		28	0.5				
		29	0.6				
		30	0.5				
		31	0.6				
		32	3.0				
		33	3.1				
		34	2.5				
		35	3.8				
		36	8.4				
		37	7.5				
		38	3.5				
		39	2.1				



Site		Date		Scale		Remarks	
Area	Station	Year	Month	Horizontal	Vertical	Notes	Remarks
113	W.C.	1917					
114	S.P.	1917					
115	I.C.D.	1917					
116	S.P.	1917					

Type of Instrument: Sighting
 Type of Observation: Horizontal
 Type of Work: 1:50 Horizontal
 Name of Engineer: W.C. (Station 113)
 Name of Surveyor: S.P. (Station 114)
 Name of Checker: I.C.D. (Station 115)
 Name of Reviewer: S.P. (Station 116)

Horizontal - Station per cent

53

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: <u>13 May 1963</u>	DATE TEST FLOWN: <u>15 May 1963</u>
LIQUID SPRAYED: <u>Purple</u>	TOTAL NOZZLES OPEN: <u>81</u>
NOZZLE TYPE: <u>U5070</u>	LIQUID TEMP: <u>33° C</u>
DURATION OF SPRAY: <u>9.6</u> Sec.	PUMP PRESSURE: <u>No. 1 55 psi during</u> <u>89 psi before</u>
PUMP R.P.M.: <u>3200 before spray</u>	<u>: No. 2 55 psi during</u>
NO. OF PUMPS: <u>2</u>	FLOW METER READING: <u>410-415</u> GPM
TOTAL AMOUNT SPRAYED: <u>67</u> Gals.	FLOW RATE CALIBRATED: <u>418</u> GPM
NOZZLE CONFIGURATION: <u>WING: 1-9, 14-23, 28-43</u> <u>TAIL: 1-4, 9-11, 16-19</u>	

OPERATIONAL DATA DURING FLIGHT

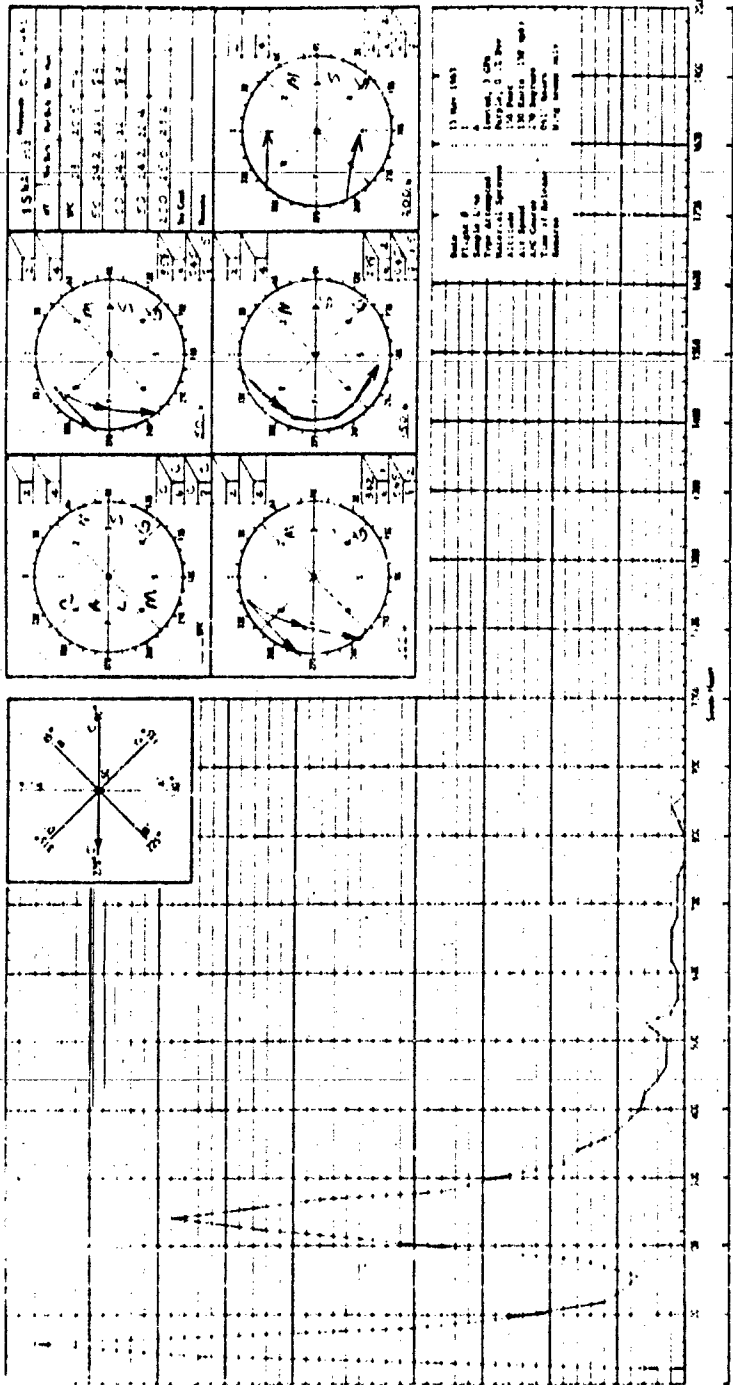
<u>PUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1		90	56	390
2		90	55	350

REMARKS: Tail Boom not opened.

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 15 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0617 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 14 seconds WIND VECTOR: 333° / 1.3 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-46 blank		47	7.2	72	0.2	97	0.0
		48	9.6	73	0.1	98	0.0
		49	4.0	74	0.1	99	0.0
		50	2.4	75	0.1	100	0.0
		51	1.2	76	0.2		
		52	0.9	77	0.2		
		53	0.7	78	0.2		
		54	1.6	79	0.1		
		55	3.8	80	0.1		
		56	6.2	81	0.1		
		57	7.6	82	0.1		
		58	5.3	83	0.0		
		59	3.6	84	0.0		
		60	2.8	85	0.0		
		61	1.8	86	0.1		
		62	1.6	87	0.2		
		63	1.1	88	0.0		
		64	0.9	89	0.0		
		65	0.7	90	0.0		
		66	0.6	91	0.0		
		67	0.4	92	0.0		
		68	0.3	93	0.0		
		69	0.3	94	0.0		
		70	0.3	95	0.0		
		71	0.6	96	0.0		



Department of Defense

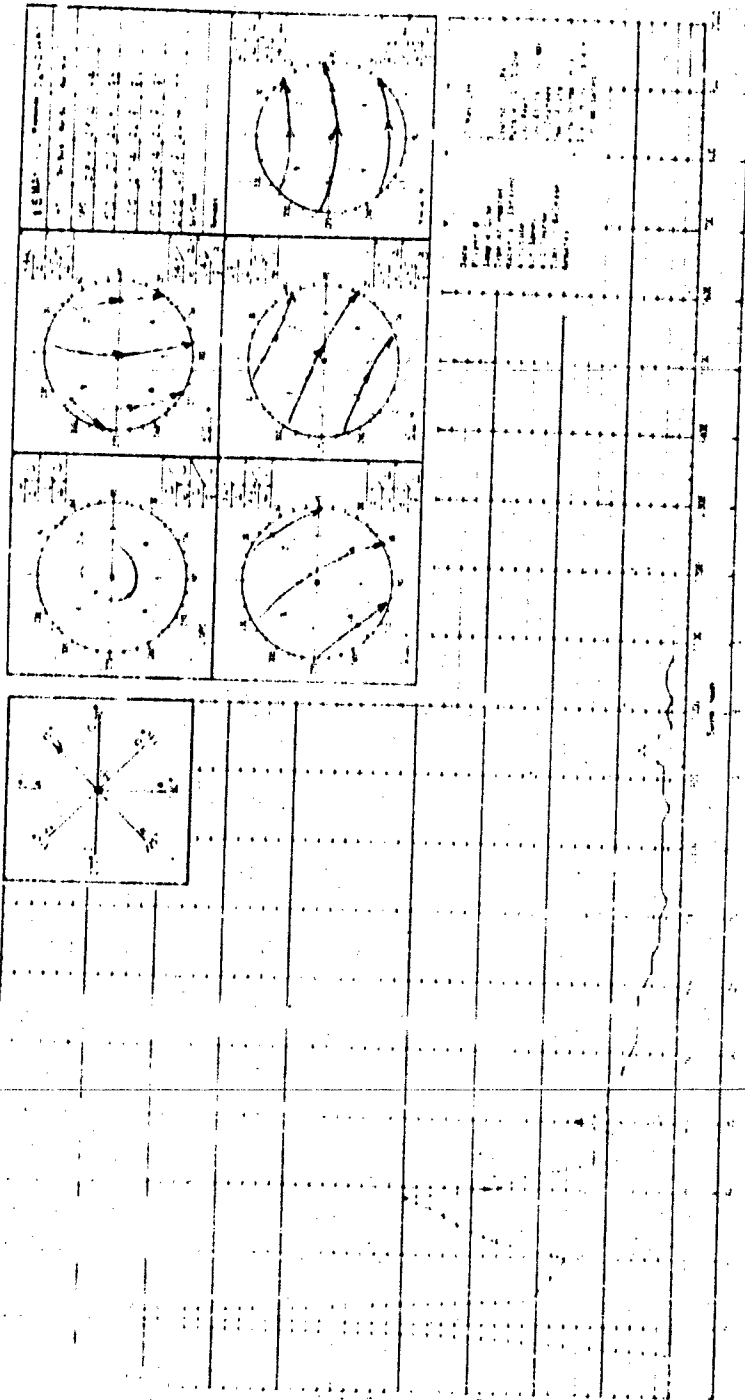
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 15 May 1963 SYSTEM C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0643 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 14 Seconds WIND VECTOR: 301°/2.0

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.2	26	0.6	51	3.5		
2	0.3	27	0.6	Stations 52-100 Blank			
3	0.3	28	0.6				
4	0.2	29	0.6				
5	0.3	30	0.7				
6	0.2	31	0.8				
7	0.4	32	0.9				
8	0.7	33	1.1				
9	0.3	34	1.0				
10	0.3	35	1.5				
11	0.3	36	0.9				
12	0.2	37	1.2				
13	0.3	38	1.2				
14	0.3	39	2.2				
15	0.3	40	2.6				
16	0.3	41	4.0				
17	0.3	42	3.5				
18	0.3	43	3.1				
19	0.2	44	2.5				
20	0.3	45	1.6				
21	0.3	46	1.7				
22	0.3	47	1.9				
23	0.4	48	2.1				
24	0.4	49	5.2				
25	0.5	50	12.6*				

* Contaminated by dirt

Total 66.1



C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 11 May 1963 DATE TEST FLOWN: 17 May 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 81
 NOZZLE TYPE: H5070 LIQUID TEMP: 33° C
 DURATION OF SPRAY: 9.6 Green PUMP PRESSURE: No. 1 55 psi during
 PUMP R.P.M.: 1200 before spray : No. 2 55 psi during
 NO. OF PUMPS: 2 FLOW METER READING: 410-415 GPM
 TOTAL AMOUNT SPRAYED: 67 Gals FLOW RATE CALIBRATED: 418 GPM
 NOZZLE CONFIGURATION: WING: 1-9, 14-23, 28-43
 TAIL: 1-4, 9-11, 16-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1	3175 before 2600 during	90	54	400
2	3175 before 2600 during	90	54	400
3	3175 before 2600 during	90	54	400
4	3175 before 2600 during	90	54	400

REMARKS:

MASS MEDIAN DIAMETER

DATE: 17 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 4 PAPER: Kromchote, white
 SAMPLE LINE: C MATERIAL: Purple
 FLOW RATE: 418 GPM SYSTEM: C-123/MC-1

Sta.	Drop #	Size	Sta.	Drop #	Size
96	1	6800*			
96	2	6700			
96	3	6600			
96	4	6500			
96	6	6400			
96	9	6200			
96	8	6100			
96	7	6000			
96	5	5900			
96	10	5800			

MMD $\frac{70.44 \pm 0.1431 \text{ Spot D Max} \times 70.44 \pm 0.1431 (6800)}{\text{Con. Factor } 2.5}$ = 417.6 Microns

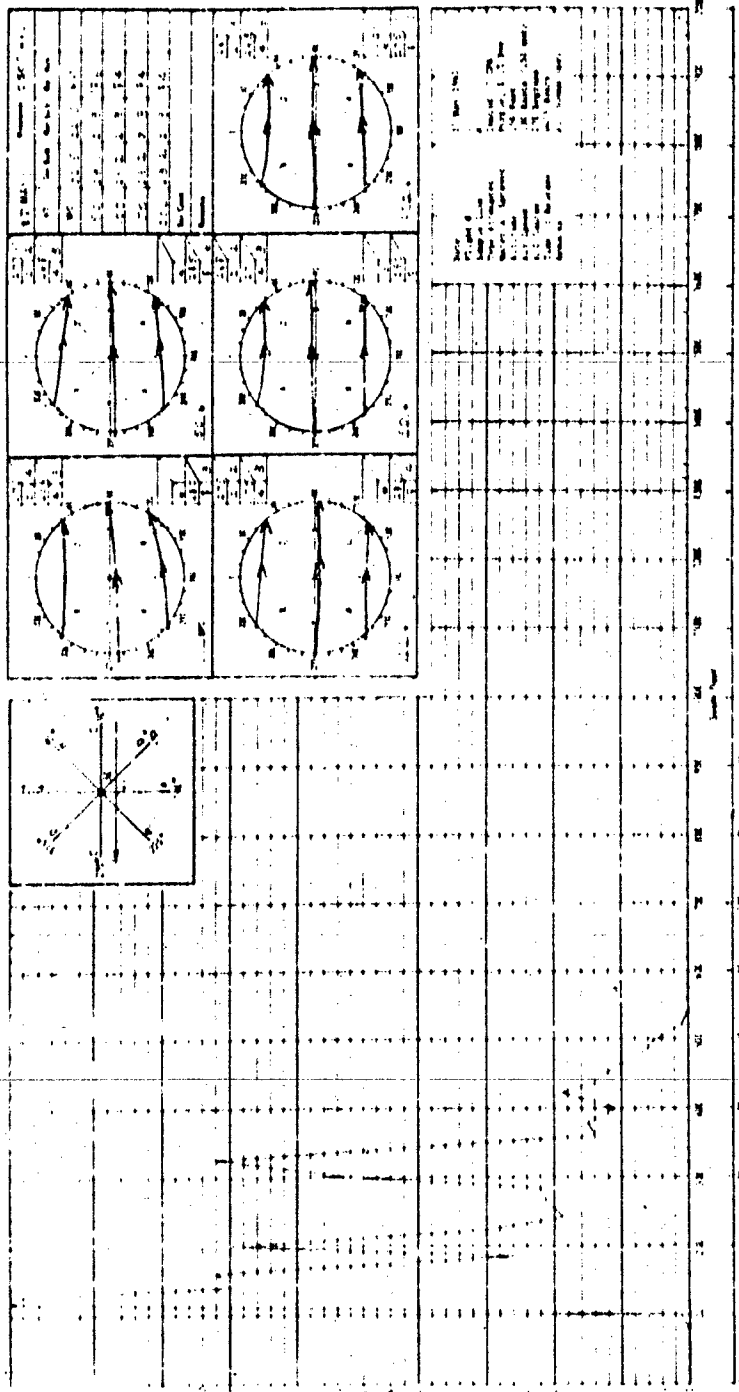
Max. Sph. Dia. = $70.44 \pm 0.1431 \text{ Max Spot} \times 70.44 \pm 0.1431 (6800)$ = 1041.5 Microns

Min. Sph. Dia. = 16.0 Microns

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 17 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0459 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 17 seconds WIND VECTOR: 274° / 4.6 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-59	blank			60	0.1		
				61	10.9		
				62	6.8		
				63	7.0		
				64	2.6		
				65	6.8		
				66	3.0		
				67	1.9		
				68	2.1		
				69	2.2		
				70	5.0		
				71	7.0		
				72	5.0		
				73	1.4		
				74	1.5		
				75	1.1		
				76	1.9		
				77	1.4		
				78	1.1		
				79	0.7		
				80	0.5		
				81	0.1		
				Stations 82-100	blank		



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 17 May 1961 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 110 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0521 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 18 seconds WIND VECTOR: 276° / 4.4 mph

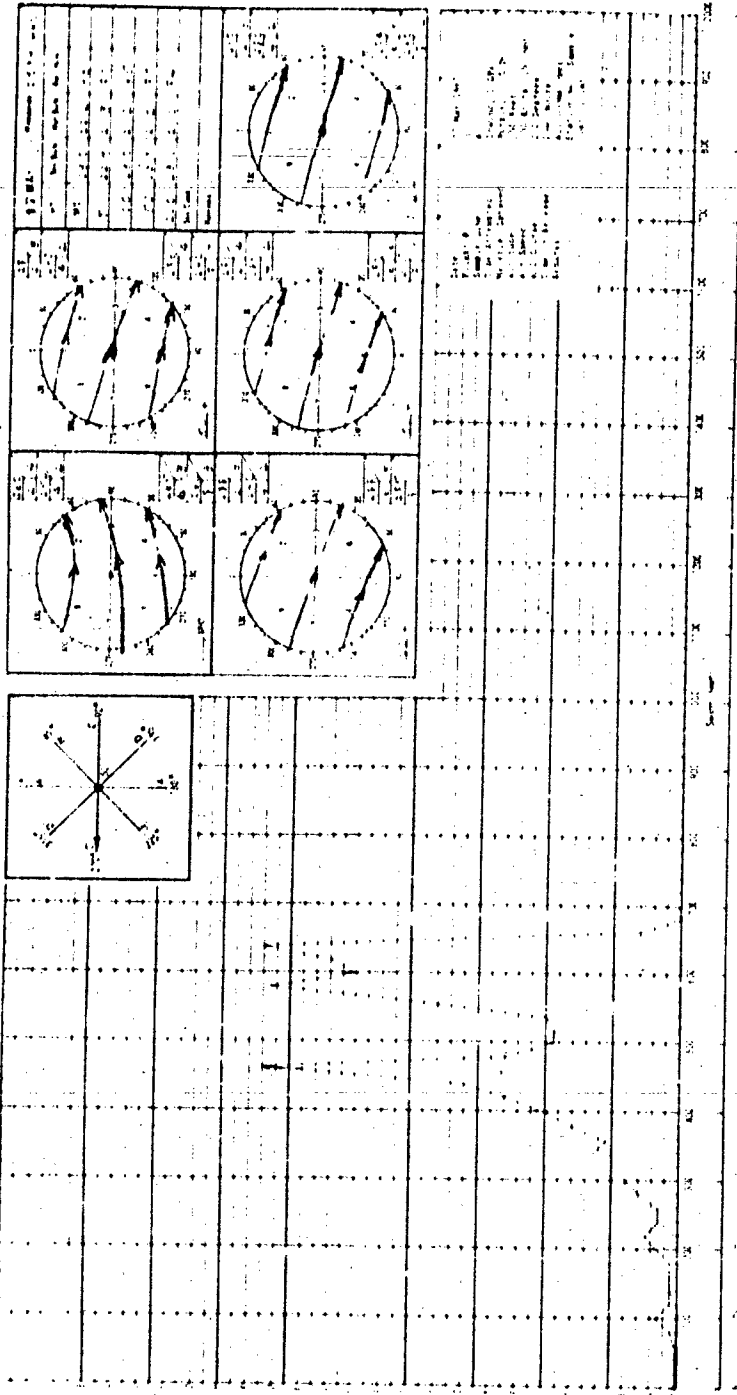
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-45 blank		46	3.0	71	0.2		
		47	10.4	72	0.2		
		48	5.5	73	0.1		
		49	2.8	74	0.1		
		50	6.0	75	0.1		
		51	4.8	76	0.1		
		52	2.2	77	0.2		
		53	2.6	78	0.1		
		54	4.1	79	blank		
		55	5.8	80	blank		
		56	7.8	81	blank		
		57	3.2	82	0.1		
		58	3.0	83	blank		
		59	2.3	84	0.1		
		60	1.2	85	blank		
		61	1.4	86	blank		
		62	1.0	87	blank		
		63	1.0	88	0.1		
		64	1.2	89	0.1		
		65	1.0	90	0.1		
		66	0.2	Stations 91-100 blank			
		67	0.2				
		68	0.2				
		69	0.2				
		70	0.2				



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE 17 May 1963 SYSTEM: C-123/MC-1
 FLIGHT # 3 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0540 hours AIRCRAFT COURSE: 270 degrees
 DURATION: 16 seconds WIND VECTOR: 284⁰ / 4.7 mph

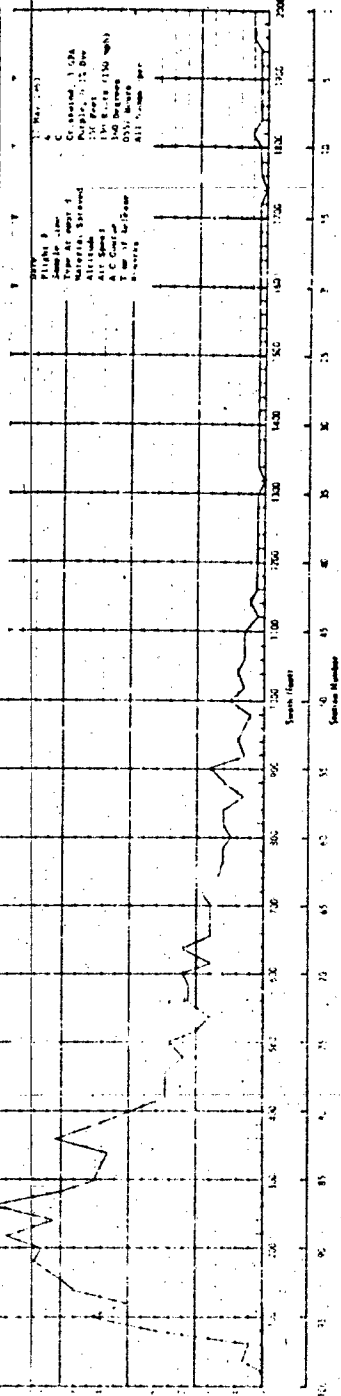
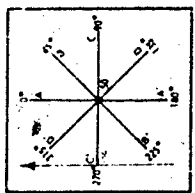
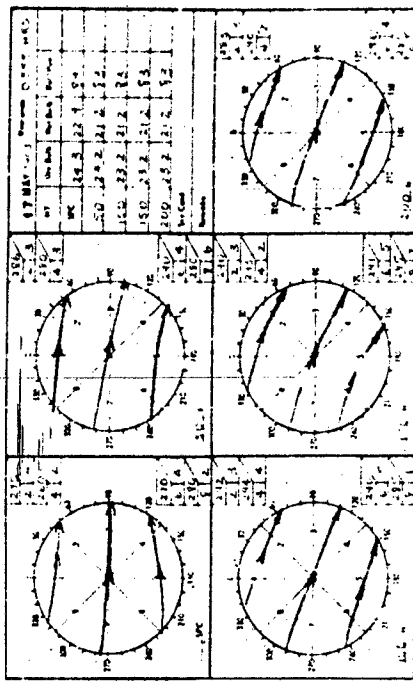
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-46	blank	47	0.6	72	0.1		
		48	0.2	73	0.1		
		49	5.2	74	0.1		
		50	4.8	75	0.3		
		51	6.3	76	0.1		
		52	3.6	Stations 77-			
		53	2.0	100 blank			
		54	1.9				
		55	1.9				
		56	2.6				
		57	6.2				
		58	3.2				
		59	2.6				
		60	2.0				
		61	1.6				
		62	1.1				
		63	1.3				
		64	Blank				
		65	0.8				
		66	0.6				
		67	0.3				
		68	0.1				
		69	0.5				
		70	0.3				
		71	0.1				



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 418 GPM
 DATE: 17 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0557 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 15 seconds WIND VECTOR: 282° / 3.9 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.2	26	0.1	51	0.2	76	1.2
2	0.2	27	0.1	52	0.3	77	1.5
3	0.1	28	0.1	53	0.4	78	1.5
4	0.1	29	0.1	54	0.3	79	1.5
5	0.1	30	0.1	55	0.8	80	2.0
6	0.1	31	0.1	56	0.6	81	2.5
7	0.1	32	0.1	57	0.3	82	3.1
8	0.1	33	0.1	58	0.6	83	2.3
9	0.2	34	0.0	59	0.6	84	2.4
10	0.1	35	0.1	60	0.5	85	2.5
11	0.1	36	0.1	61	0.6	86	3.0
12	0.1	37	0.1	62	0.6	87	4.0
13	0.0	38	0.1	63	0.7	88	3.1
14	0.1	39	0.1	64	0.9	89	3.8
15	0.1	40	0.1	65	0.8	90	3.3
16	0.1	41	0.1	66	0.8	91	3.4
17	0.1	42	0.1	67	0.6	92	3.0
18	0.1	43	0.2	68	1.2	93	2.8
19	0.1	44	0.1	69	0.8	94	2.0
20	0.1	45	0.3	70	1.2	95	2.5
21	0.1	46	0.3	71	1.1	96	1.6
22	0.1	47	0.3	72	1.1	97	0.2
23	0.1	48	0.4	73	0.8	98	0.3
24	0.1	49	0.3	74	1.0	99	Blank
25	0.1	50	0.5	75	1.4	100	Blank



FLIGHT # _____
 Date _____
 Altitude _____
 Air Speed _____
 Time of Day _____
 Pilot _____
 Observer _____
 Recorder _____
 Station _____
 Remarks _____

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 14 May 1963 DATE TEST FLOWN: 18 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 80
NOZZLE TYPE: U5070 LIQUID TEMP: 29.5° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: No. 1 90 psi before
58 psi during
PUMP R.P.M.: 3200 before spray : No. 2 90 psi before
58 psi during
NO. OF PUMPS: 2 FLOW METER READING: 420 GPM
TOTAL AMOUNT SPRAYED: 102.5 Gals FLOW METER CALIBRATED: 410 GPM
NOZZLE CONFIGURATION: WING: 1-9, 14-23, 28-45
TAIL: 1-4, 9-11, 16-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1	3200	90	58	300-350
2	3200	90	58	300-350

REMARKS: Teflon diaphragm used in check valves became loose and worked down into nozzle openings causing plugging.

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MASS MEDIAN DIAMETER

DATE: 18 May 1963 CONVERSION FACTOR: 2.5
FLIGHT #: 1 PAPER: Kromekote, white
SAMPLE LINE: C MATERIAL: Purple
FLOW RATE: 410 GPM SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
91	4	7400*			
93	2	7300			
93	1	7200			
93	3	7100			
89	9	6900			
91	5	6800			
91	6	6600			
90	7	6500			
90	8	6400			
92	10	6300			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(7400)}{2.5} = 451.7 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(7400) = 1129.4 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 36 \text{ Microns}$$

MASS MEDIAN DIAMETER

DATE: 18 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 2 PAPER: Kromekote, white
 SAMPLE LINE: C MATERIAL: Purple
 FLOW RATE: 410 GPM SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
92	1	7000*			
92	2	6900			
90	4	6800			
92	3	6600			
92	11	6500			
91	5	6300			
91	6	6200			
91	7	6100			
91	8	6000			
91	10	5900			
91	9	5700			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(7000)}{2.5} = 428.8 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(7000) = 1072.1 \text{ Microns}$$

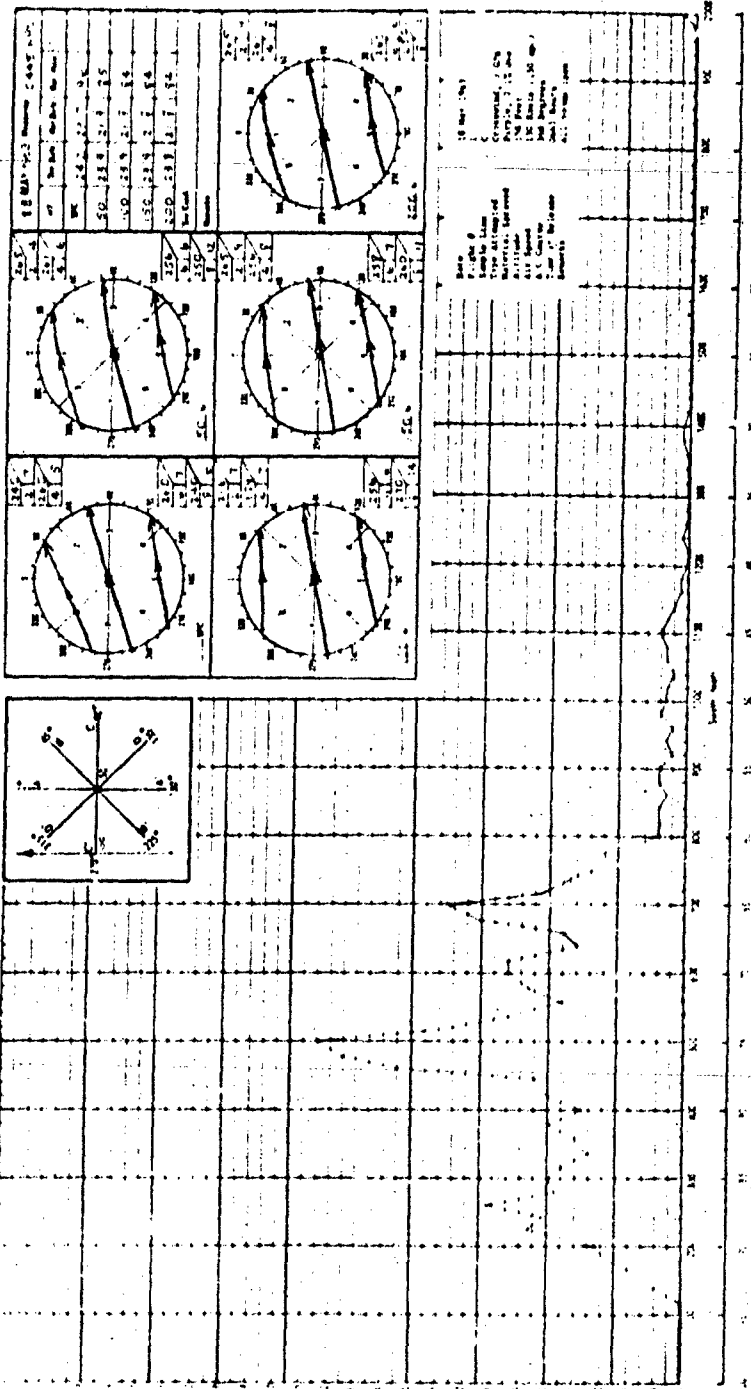
$$\text{Min. Sph. Dia.} = 36 \text{ Microns}$$

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 410 GPM
 DATE: 18 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0445 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 24 Seconds WIND VECTOR: 258°/7.9 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.2	26	0.0	51	0.4	76	5.0
2	0.0	27	0.0	52	0.2	77	4.2
3	0.0	28	0.0	53	0.3	78	2.2
4	0.0	29	0.0	54	0.2	79	2.0
5	0.0	30	0.1	55	0.4	80	1.5
6	0.0	31	0.1	56	0.4	81	2.0
7	0.0	32	0.0	57	0.3	82	1.6
8	0.0	33	0.0	58	0.4	83	1.4
9	0.0	34	0.0	59	0.4	84	1.8
10	0.0	35	0.0	60	0.4	85	2.0
11	0.0	36	0.0	61	1.2	86	1.9
12	0.0	37	0.0	62	1.1	87	2.9
13	0.0	38	0.1	63	1.7	88	2.1
14	0.0	39	0.0	64	2.1	89	2.3
15	0.0	40	0.0	65	3.5	90	1.3
16	0.0	41	0.1	66	3.0	91	1.1
17	0.0	42	0.1	67	1.9	92	0.7
18	0.0	43	0.2	68	1.6	93	0.4
19	0.0	44	0.3	69	2.6	94	0.0
20	0.0	45	0.4	70	2.6	95	0.0
21	0.0	46	0.3	71	2.3	96	0.0
22	0.0	47	0.3	72	1.8	97	0.0
23	0.0	48	0.2	73	2.6	98	0.0
24	0.0	49	0.3	74	3.5	99	0.0
25	0.0	50	0.3	75	5.4	100	0.0

Total 49.7



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 410 GPM
 DATE: 18 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0505 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 17 Seconds WIND VECTOR: 255^o/7.1 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.0	26	0.0	51	0.3	76	2.0
2	0.0	27	0.0	52	0.2	77	1.9
3	0.0	28	0.0	53	0.1	78	1.7
4	0.0	29	0.0	54	0.0	79	1.2
5	0.0	30	0.0	55	0.2	80	1.2
6	0.0	31	0.0	56	0.3	81	1.6
7	0.0	32	0.0	57	0.3	82	1.7
8	0.0	33	0.0	58	0.5	83	1.2
9	0.0	34	0.0	59	0.7	84	1.6
10	0.0	35	0.0	60	0.7	85	1.2
11	0.0	36	0.0	61	0.8	86	1.0
12	0.0	37	0.0	62	1.0	87	1.1
13	0.0	38	0.0	63	0.6	88	0.8
14	0.0	39	0.0	64	0.8	89	1.0
15	0.0	40	0.0	65	1.4	90	0.3
16	0.0	41	0.0	66	0.7	91	0.4
17	0.0	42	0.0	67	0.8	92	0.1
18	0.0	43	0.0	68	1.0	93	0.0
19	0.0	44	0.0	69	1.2	94	0.0
20	0.0	45	0.3	70	1.2	95	0.0
21	0.0	46	0.0	71	1.8	96	0.0
22	0.0	47	0.1	72	1.4	97	0.0
23	0.0	48	0.4	73	1.4	98	0.0
24	0.0	49	0.0	74	1.4	99	0.0
25	0.0	50	0.3	75	1.7	100	0.0

Total 41.7

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 18 May 1963 DATE TEST FLOWN: 19 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 123
NOZZLE TYPE: U5070 LIQUID TEMP 30° C
DURATION OF SPRAY: 15 Sec PUMP PRESSURE: No. 1 36 psi during
PUMP R.P.M.: 2800 before spray No. 2 36 psi during
NO. OF PUMPS: 2 FLOW METER READING: 430 GPM
TOTAL AMOUNT SPRAYED: 106 Gals FLOW RATE CALIBRATED: 424 GPM
NOZZLE CONFIGURATION: WING: 1-52
TAIL: 1-19

OPERATIONAL DATA DURING FLIGHT

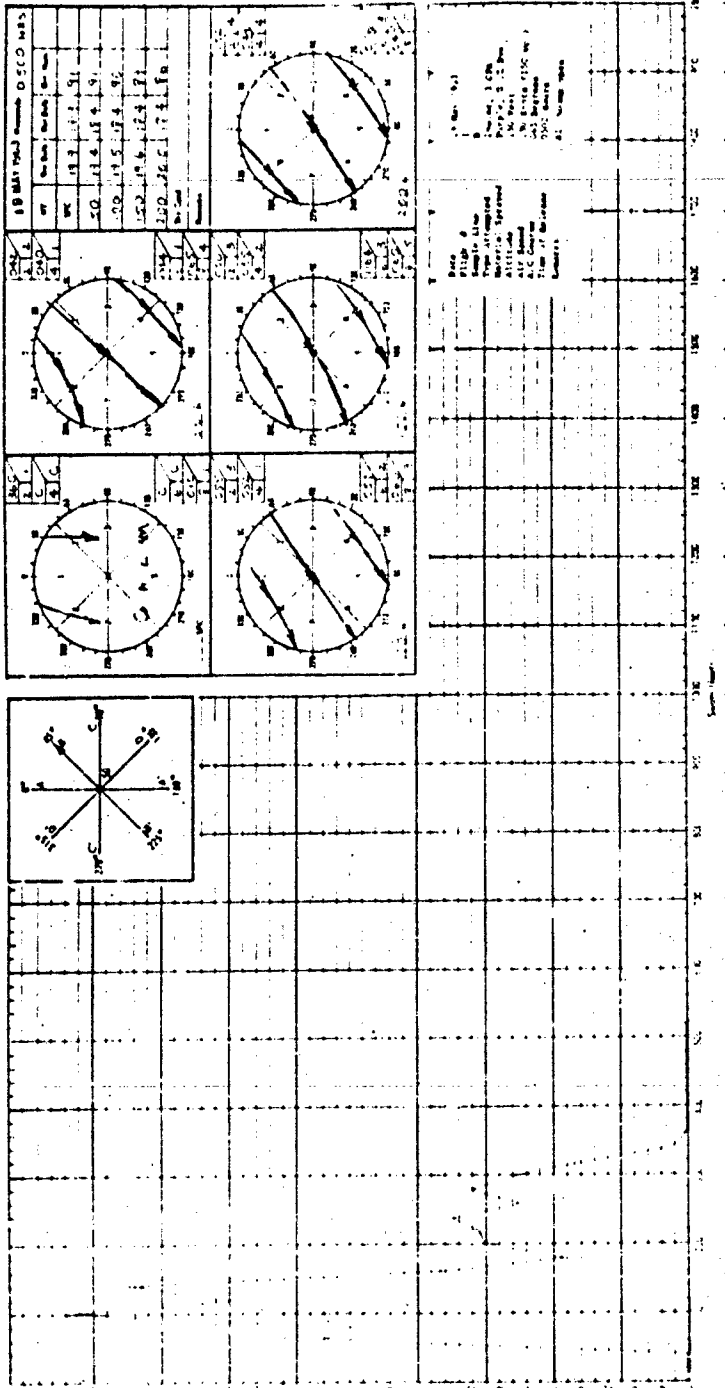
<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1	2800	74	36	---
2	2800	74	36	360
3	2800	74	36	320
4	2800	74	36	280
5	2800	74	36	290

REMARKS: Teflon diaphragm inserts again plugged nozzles.

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 424 GPM
 DATE: 19 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0502 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 15 seconds WIND VECTOR: 051⁰ / 2.4 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-28 blank		29	0.0	54	0.0		
		30	0.0	55	0.0		
		31	0.0	Stations 56-100 blank			
		32	0.0				
		33	0.0				
		34	0.0				
		35	0.0				
		36	0.0				
		37	0.0				
		38	0.2				
		39	1.7				
		40	2.5				
		41	3.2				
		42	2.7				
		43	3.5				
		44	3.1				
		45	3.0				
		46	1.8				
		47	1.8				
		48	3.7				
		49	8.3				
		50	6.8				
		51	9.2				
		52	4.7				
		53	5.4				

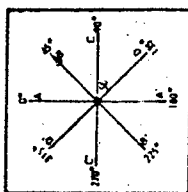
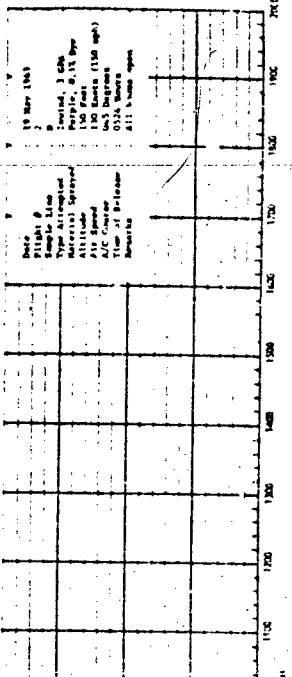
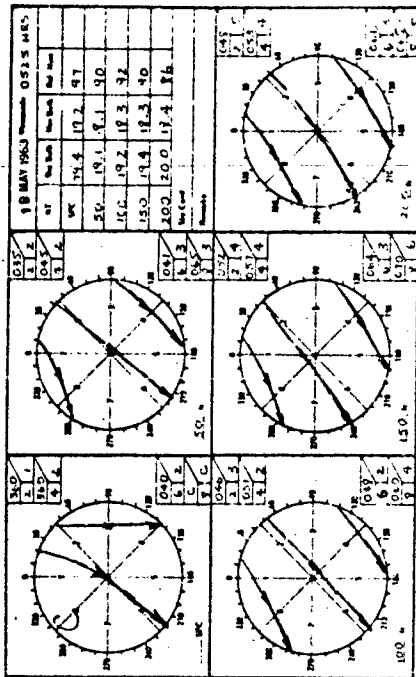


MASS DEPOSIT

MATERIAL: Purple
 DATE: 19 May 1963
 FLIGHT #: 2
 SAMPLE LINE: D
 TIME OF RELEASE: 0524 hours
 DURATION: 14 seconds

FLOW RATE: 360 GPM
 SYSTEM: C-123/HC-1
 AIRSPEED: 130 knots (150 mph)
 ALTITUDE: 150 feet
 AIRCRAFT COURSE: 045 degrees
 WIND VECTOR: 049° / 3.0 mph

STATION G.P.A.	STATION G.P.A.	STATION G.P.A.	STATION G.P.A.
Stations 1-63 blank		46	12.3
		47	5.8
		48	2.9
		49	6.9
		50	3.5
		51	2.6
		52	1.7
		53	2.9
		54	4.4
		55	2.9
		56	6.9
		57	3.6
		58	1.7
		59	0.7
		60	0.3
		61	0.1
		62	0.0
		63	0.1
		64	0.1
		65	0.0
		66	0.0
		67	0.0
		68	0.0
		69	0.0
		70	0.0
			Stations 71-100 blank



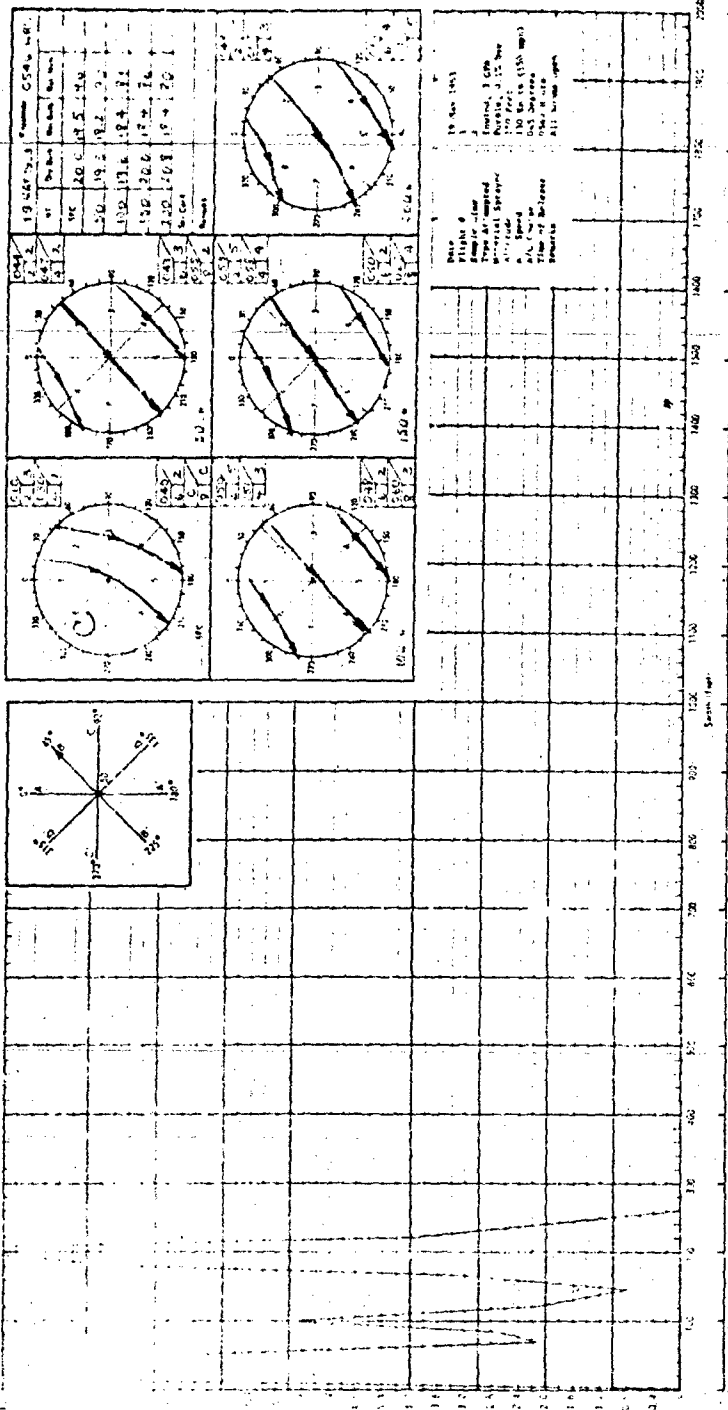
18 May 1963
 Sample Line
 Type of Sample
 Altitude
 Time of Release
 Remarks

Station Number	Scintillation
1500	
1510	
1520	
1530	
1540	
1550	
1560	
1570	
1580	
1590	
1600	
1610	
1620	
1630	
1640	
1650	
1660	
1670	
1680	
1690	
1700	
1710	
1720	
1730	
1740	
1750	
1760	
1770	
1780	
1790	
1800	

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 320 GPM
 DATE: 19 May 1963 SYSTEM: C-123/MC-1
 FLIGHT # 3 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE A ALTITUDE: 150 feet
 TIME OF RELEASE: 0545 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 13 seconds WIND VECTOR: 050° / 3.2 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-45	blank	46	12.9	47	8.9		
		48	2.1	49	2.7		
		50	5.7	51	2.1		
		52	0.8	53	3.2		
		54	8.5	55	10.8		
		56	4.0	57	1.1		
		58	0.0	59	0.0		
		60	0.0	61	0.0		
		62	0.0	63	0.0		
		Stations 64-100	blank				

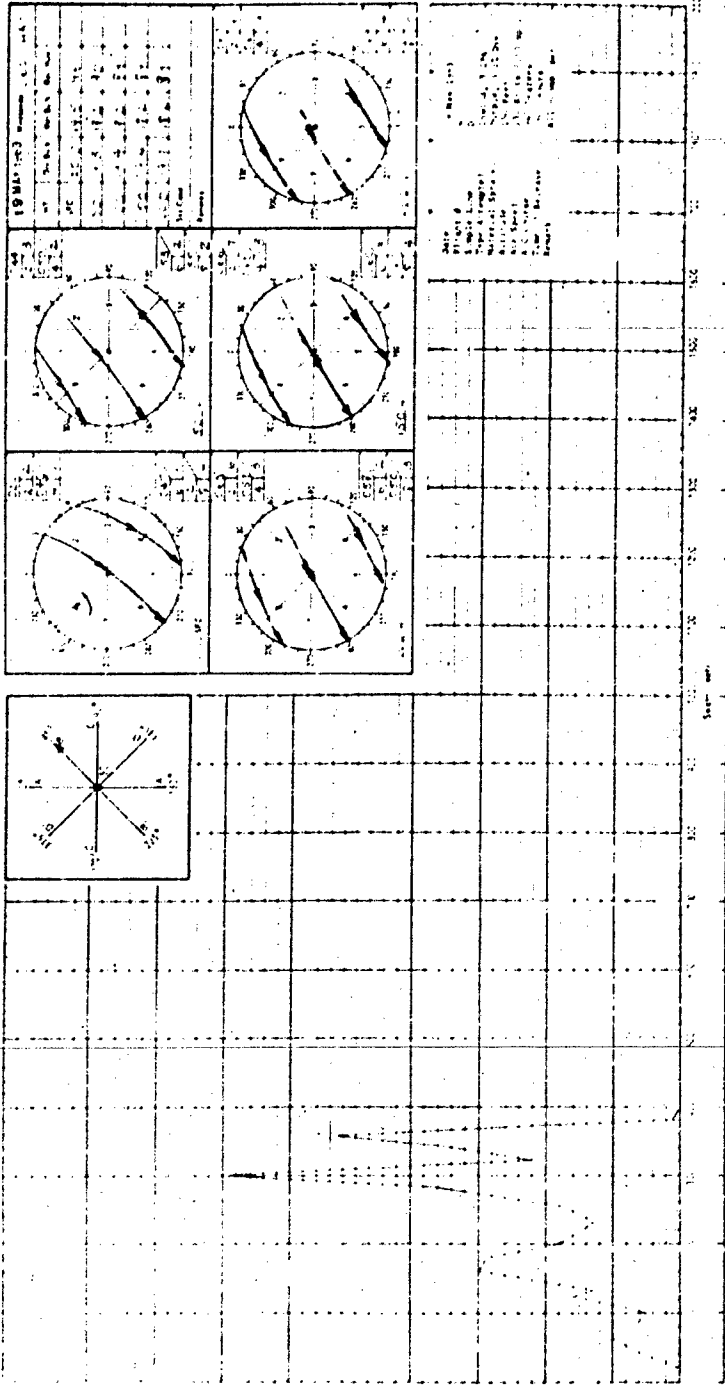


MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 280 GPM
 DATE: 19 May 1953 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0603 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 13 seconds WIND VECTOR: 057° / 3.1 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-43	blank	44	0.0	69	blank		
		45	0.0	70	blank		
		46	0.1	71	blank		
		47	5.1	72	blank		
		48	3.5	73	blank		
		49	2.2	74	blank		
		50	6.7	75	0.0		
		51	3.6	76	0.0		
		52	1.7	77	blank		
		53	1.3	78	blank		
		54	1.5	79	blank		
		55	1.8	80	blank		
		56	2.9	81	blank		
		57	3.0	82	blank		
		58	1.3	83	blank		
		59	1.6	84	blank		
		60	0.5	85	blank		
		61	0.7	86	0.0		
		62	1.0				
		63	0.6				
		64	0.0				
		65	0.0				
		66	0.0				
		67	blank				
		68	blank				

Stations 87-100 blank



19 MAY 1963

Scale: mm

Drawing Number

19 MAY 1963

Scale: mm

Drawing Number

19 MAY 1963

Scale: mm

Drawing Number

19 MAY 1963

Scale: mm

Drawing Number

19 MAY 1963

Scale: mm

Drawing Number

19 MAY 1963

Scale: mm

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19 MAY 1963

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Drawing Number

19 MAY 1963

Scale: mm

Drawing Number

19 MAY 1963

Scale: mm

Drawing Number

19 MAY 1963

Scale: mm

Drawing Number

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 290 GPM
 DATE: 19 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0028 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 13 seconds WIND VECTOR: 049° / 3.6 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-41	blank	42	0.0				
		43	0.0				
		44	0.0				
		45	1.4				
		46	9.2				
		47	3.9				
		48	1.0				
		49	1.8				
		50	3.9				
		51	3.0				
		52	1.0				
		53	1.5				
		54	3.6				
		55	6.5				
		56	3.9				
		57	3.0				
		58	2.9				
		59	0.0				
		60	0.0				
		61	0.0				
		62	0.0				
		Stations 63-100	blank				

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 19 May 1963 DATE TEST FLOWN: 20 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 72
NOZZLE TYPE: 3/8" check valve no tip LIQUID TEMP: 32° C
DURATION OF SPRAY: 16.4 Sec. PUMP PRESSURE: 80 psi before
40 psi during
PUMP R.P.M.: 3000 before 2500 during
NO. OF PUMPS: 2 FLOW METER READING: 450 GPM
TOTAL AMOUNT SPRAYED: 120.5 Gals. FLOW RATE CALIBRATED: 441 GPM
NOZZLE CONFIGURATION: WING: 1-9, 14-22, 31-43
TAIL: 1-3, 9-11, 17-19

OPERATIONAL DATA DURING FLIGHT

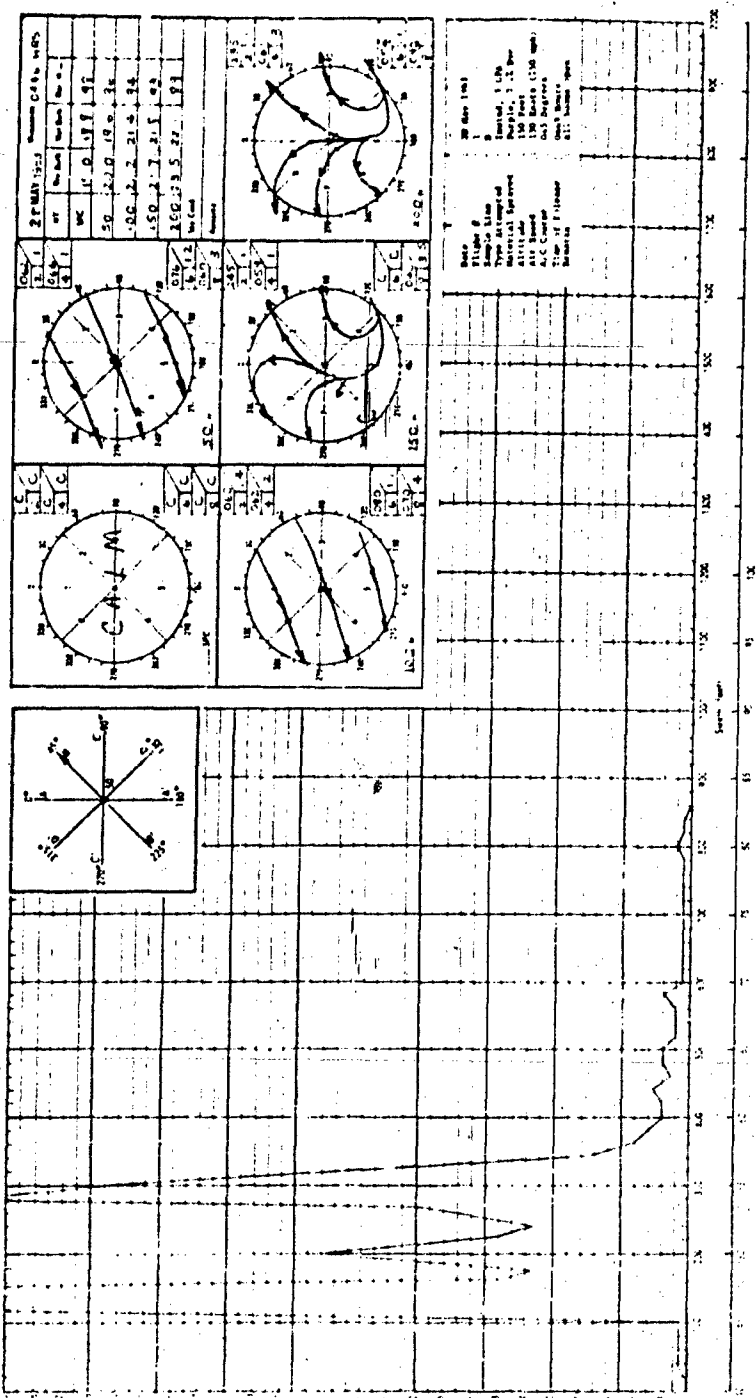
RUN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
1	3000	80	42	440

REMARKS: Mission cancelled due to ground fog.

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 440 GPM
 DATE: 20 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0449 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 12 seconds WIND VECTOR: 065°/1.7 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-41 blank		42	0.1	67	0.2		
		43	0.1	68	0.2		
		44	0.1	69	0.4		
		45	0.1	70	0.1		
		46	10.3	71	0.1		
		47	11.5	72	0.1		
		48	2.7	73	0.1		
		49	2.3	74	0.1		
		50	5.3	75	0.1		
		51	2.8	76	0.1		
		52	2.3	77	0.1		
		53	3.9	78	0.1		
		54	10.3	79	0.1		
		55	8.6	80	0.2		
		56	4.4	81	0.1		
		57	1.5	82	0.1		
		58	0.8	Stations 83-100 blank			
		59	0.6				
		60	0.4				
		61	0.4				
		62	0.5				
		63	0.3				
		64	0.4				
		65	0.4				
		66	0.2				



9.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 21 May 1963 DATE TEST FLOWN: 21 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 79
NOZZLE TYPE: 3/8" check valve no tip LIQUID TEMP: 31° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: No. 1 75 psi before
38 psi during
PUMP R.P.M.: 2800 : No. 2 75 psi before
38 psi during
NO. OF PUMPS: 2 FLOW METER READING: 435 GPM
TOTAL AMOUNT SPRAYED: 111 Gals. FLOW RATE CALIBRATED: 444 GPM
NOZZLE CONFIGURATION: WING: 1-9, 14-23, 31-45
TAIL: 1-4, 9-11, 16-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1	2800	75	38	425
2	2800	75	40	430
3	2800	75	36	420
4	2800	75	38	425
5	2800	75	38	425
6	2800	75	38	425

REMARKS:

MASS MEDIAN DIAMETER

93

DATE: 21 May 1967 CONVERSION FACTOR: 2.5
 FLIGHT #: 6 PAPER: Kromekote, white
 SAMPLE LINE: B MATERIAL: Purple
 FLOW RATE: 425 GPM SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
48	5	6300*			
48	2	6200			
48	1	6100			
48	3	6000			
48	4	5900			
48	6	5700			
55	9	5500			
48	8	5300			
48	7	5200			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(6300)}{2.5} = 388.8 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(6300) = 972.0 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 36.0 \text{ Microns}$$

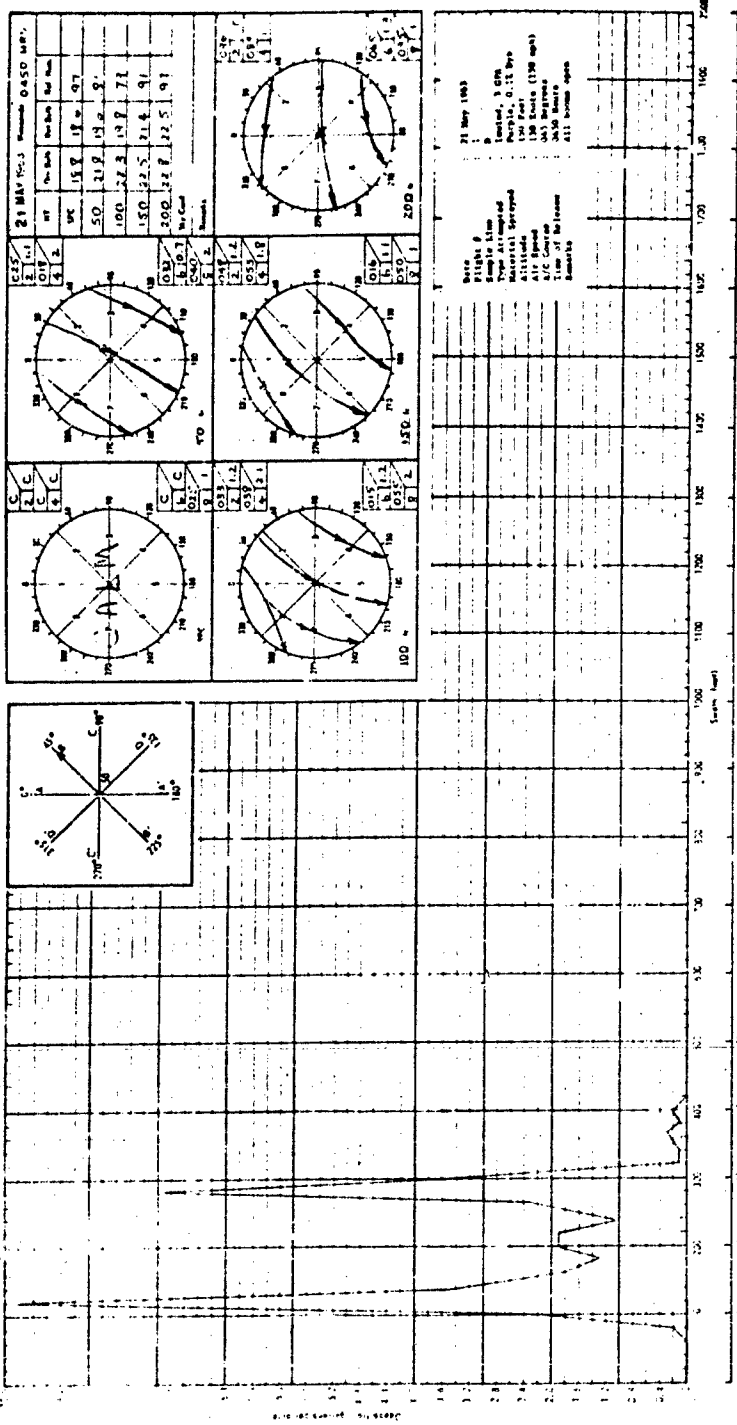
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 425 GPM
 DATE: 21 May 1963 SYSTEM: C-125/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0450 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 14 Seconds WIND VECTOR: 046°/1.0 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-38	Blank	39	0.0				
		40	0.2				
		41	0.1				
		42	0.3				
		43	0.1				
		44	0.1				
		45	3.5				
		46	7.7				
		47	2.3				
		48	1.0				
		49	1.9				
		50	1.9				
		51	1.3				
		52	1.8				
		53	3.5				
		54	9.8				
		55	2.1				
		56	0.2				
		Stations 57-100	Blank				

$$\% \text{ Recovery} = \frac{0.202 \times 150 \times 37.8 \times 20}{425} = 53.9$$

Total 37.8



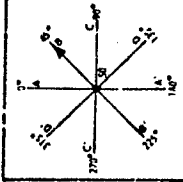
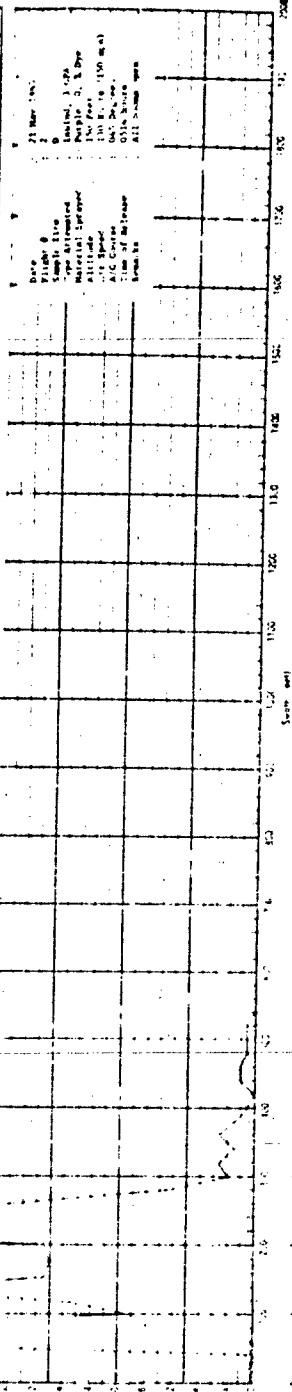
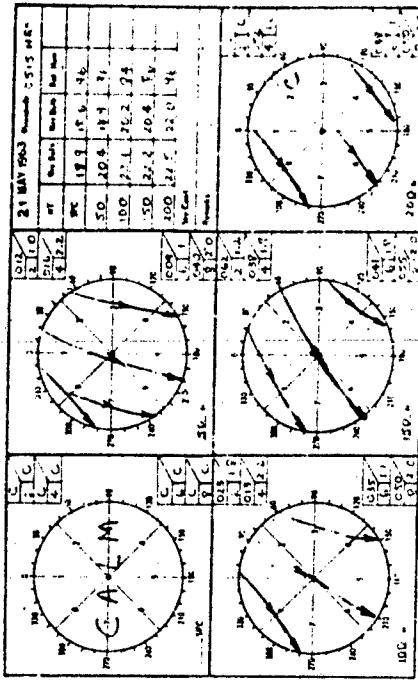
MASS DEPOSIT

MATERIAL: Purple
 DATE: 21 May 1963
 FLIGHT #: 2
 SAMPLE LINE: D
 TIME OF RELEASE: 0514 hours
 DURATION: 12 seconds

FLOW RATE: 430 GPM
 SYSTEM: C-123/MC-1
 AIRSPEED: 130 knots (150 mph)
 ALTITUDE: 150 feet
 AIRCRAFT COURSE: 045 degrees
 WIND VECTOR: 036° / 1.2 mph

STATION	G.P.A.	STATION	G.P.A.
Stations 1-27 blank		28	0.0
		29	0.1
		30	0.1
		31	0.1
		32	0.2
		33	0.2
		34	0.0
		35	0.1
		36	0.3
		37	0.5
		38	0.3
		39	0.5
		40	0.4
		41	1.3
		42	5.9
		43	8.6
		44	8.9
		45	3.1
		46	3.0
		47	3.1
		48	5.5
		49	2.7
		50	1.8
		51	8.4
		52	8.9

STATION	G.P.A.	STATION	G.P.A.
Stations 55-100 blank			



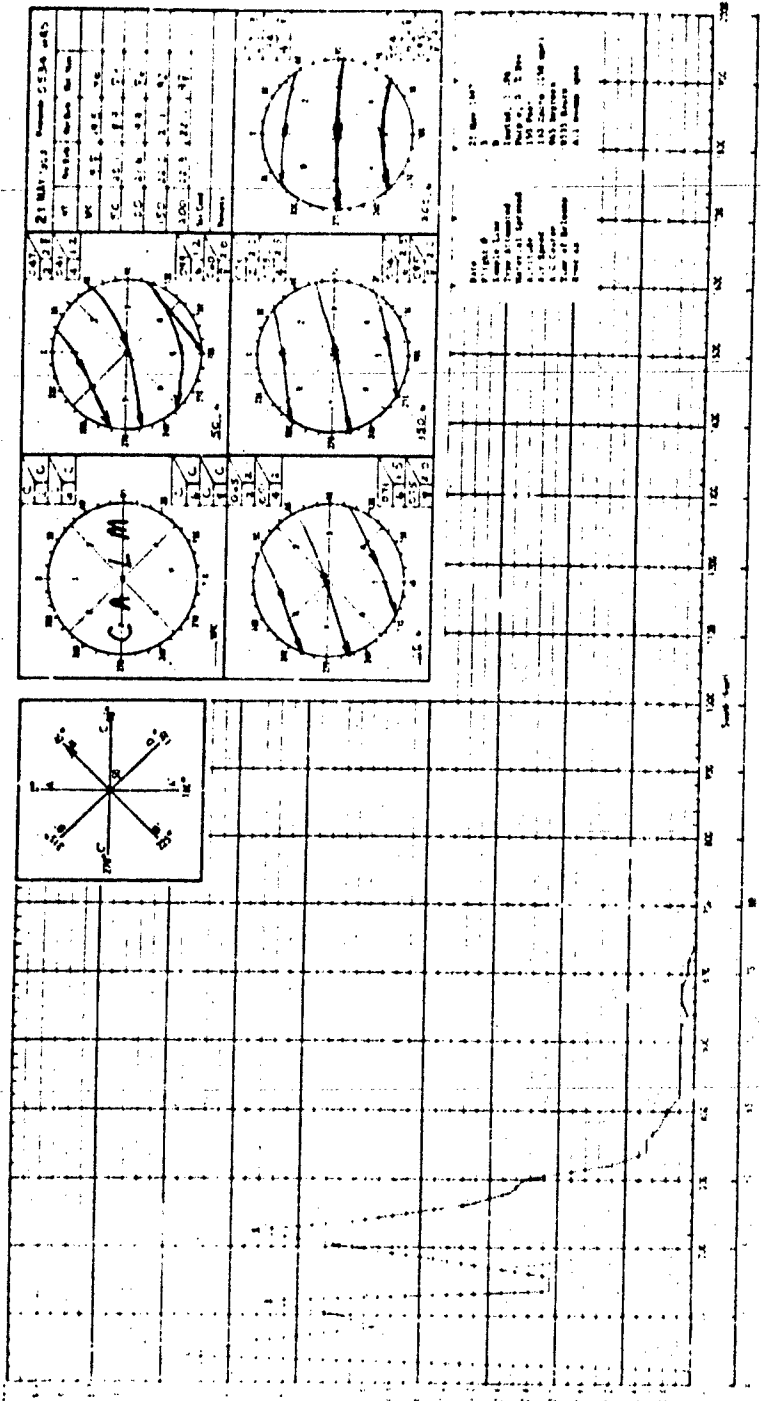
Station Number

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 420 GPM
 DATE: 21 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 3 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0535 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 13 seconds WIND VECTOR: 075° / 10 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-46	blank	47	7.5	72	0.1		
		48	6.4	73	0.2		
		49	4.1	74	0.2		
		50	5.2*	75	0.1		
		51	6.3	76	0.1		
		52	2.1	77	0.0		
		53	2.1	78	0.0		
		54	3.7	79	0.0		
		55	5.0	Stations			
		56	6.5	80-100	blank		
		57	4.9				
		58	3.3				
		59	2.7				
		60	2.5				
		61	1.2				
		62	0.7				
		63	0.7				
		64	0.5				
		65	0.4				
		66	0.2				
		67	0.2				
		68	0.2				
		69	0.2				
		70	0.2				
		71	0.2				

* Discolored - possible contamination



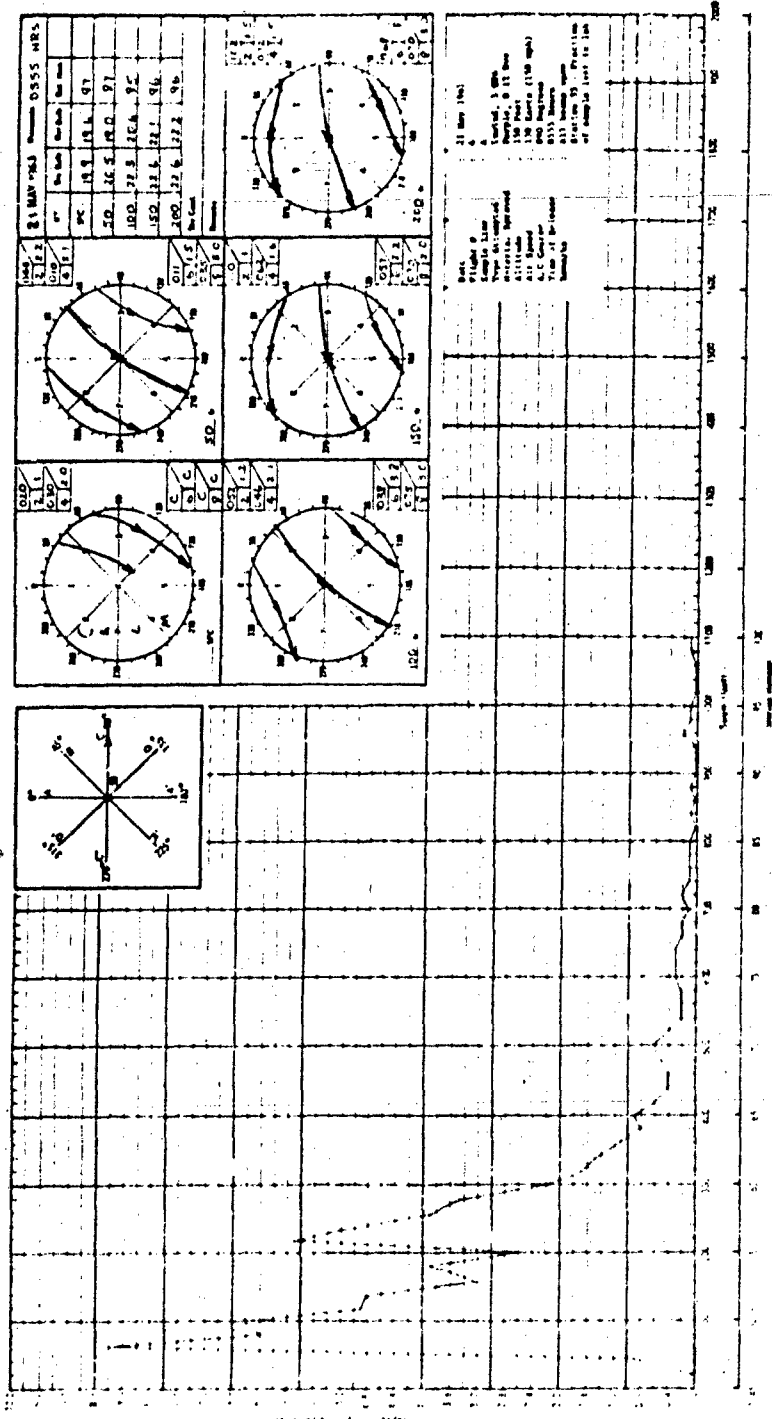
100

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 425 CPM
DATE: 21 May 1963 SYSTEM: G-123/MC-1
FLIGHT #: 4 AIRSPEED: 130 knots (150 mph)
SAMPLE LINE: A ALTITUDE: 150 feet
TIME OF RELEASE: 0255 hours AIRCRAFT COURSE: 090 degrees
DURATION: 11 seconds WIND VECTOR: 53° / 1.7 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-46 blank		47	0.9	72	0.2	97	0.0
		48	8.6	73	0.2	98	0.0
		49	6.4	74	0.2	99	0.1
		50	6.6	75	0.3	100	0.1
		51	4.9	76	0.3		
		52	4.8	77	0.3		
		53	3.2	78	0.2		
		54	3.9	79	0.2		
		55	2.6*	80	0.1		
		56	5.9	81	0.2		
		57	5.2	82	0.1		
		58	3.9	83	0.1		
		59	3.5	84	0.1		
		60	2.2	85	0.1		
		61	1.7	86	0.0		
		62	1.5	87	0.1		
		63	1.1	88	0.0		
		64	0.8	89	0.1		
		65	0.9	90	0.0		
		66	0.6	91	0.0		
		67	0.4	92	0.0		
		68	0.4	93	0.2		
		69	0.5	94	0.1		
		70	0.6	95	0.1		
		71	0.4	96	0.0		

* Spill

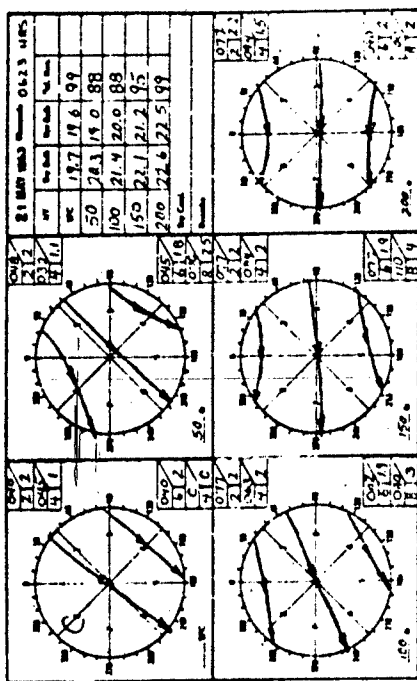


MASS DEPOSIT

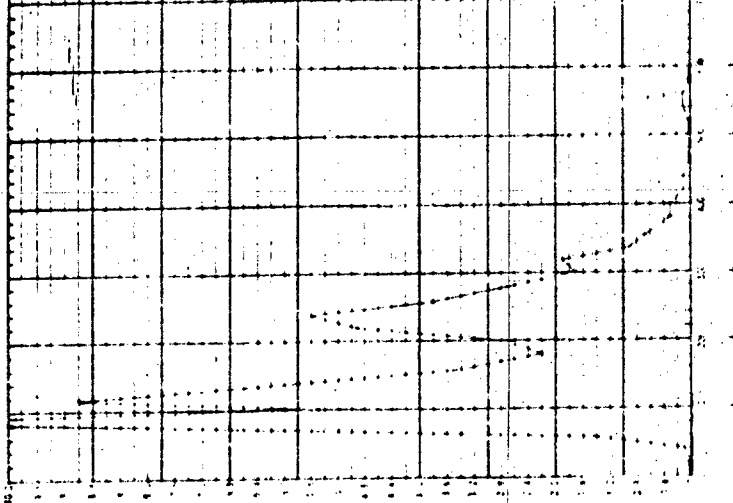
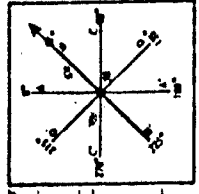
MATERIAL: Purple FLOW RATE: 425 GPM
 DATE: 21 May 1953 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 knots (150 rph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0623 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 10 seconds WIND VECTOR: 071^o / 1.8 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-46 blank		47	0.1	72	0.1		
		48	1.4	73	0.1		
		49	12.9	74	0.0		
		50	5.5	75	0.0		
		51	9.0*	Stations 76-100 blank			
		52	5.8				
		53	3.5				
		54	2.2				
		55	2.7				
		56	4.9				
		57	5.6				
		58	3.8				
		59	2.7				
		60	1.7				
		61	1.9				
		62	0.9				
		63	0.7				
		64	0.3				
		65	0.3				
		66	0.1				
		67	0.1				
		68	0.0				
		69	0.0				
		70	0.0				
		71	0.0				

* Contamination



Survey No.	Depth (Feet)	Temperature (°F)	Salinity (‰)	Specific Gravity	Direction (°)	Speed (kts)	Time (min)	Remarks
1	0	50.0	35.0	1.025	000	0.0	00	Start
2	10	49.5	35.0	1.025	000	0.0	05	
3	20	49.0	35.0	1.025	000	0.0	10	
4	30	48.5	35.0	1.025	000	0.0	15	
5	40	48.0	35.0	1.025	000	0.0	20	
6	50	47.5	35.0	1.025	000	0.0	25	
7	60	47.0	35.0	1.025	000	0.0	30	
8	70	46.5	35.0	1.025	000	0.0	35	
9	80	46.0	35.0	1.025	000	0.0	40	
10	90	45.5	35.0	1.025	000	0.0	45	
11	100	45.0	35.0	1.025	000	0.0	50	
12	110	44.5	35.0	1.025	000	0.0	55	
13	120	44.0	35.0	1.025	000	0.0	00	
14	130	43.5	35.0	1.025	000	0.0	05	
15	140	43.0	35.0	1.025	000	0.0	10	
16	150	42.5	35.0	1.025	000	0.0	15	
17	160	42.0	35.0	1.025	000	0.0	20	
18	170	41.5	35.0	1.025	000	0.0	25	
19	180	41.0	35.0	1.025	000	0.0	30	
20	190	40.5	35.0	1.025	000	0.0	35	
21	200	40.0	35.0	1.025	000	0.0	40	End

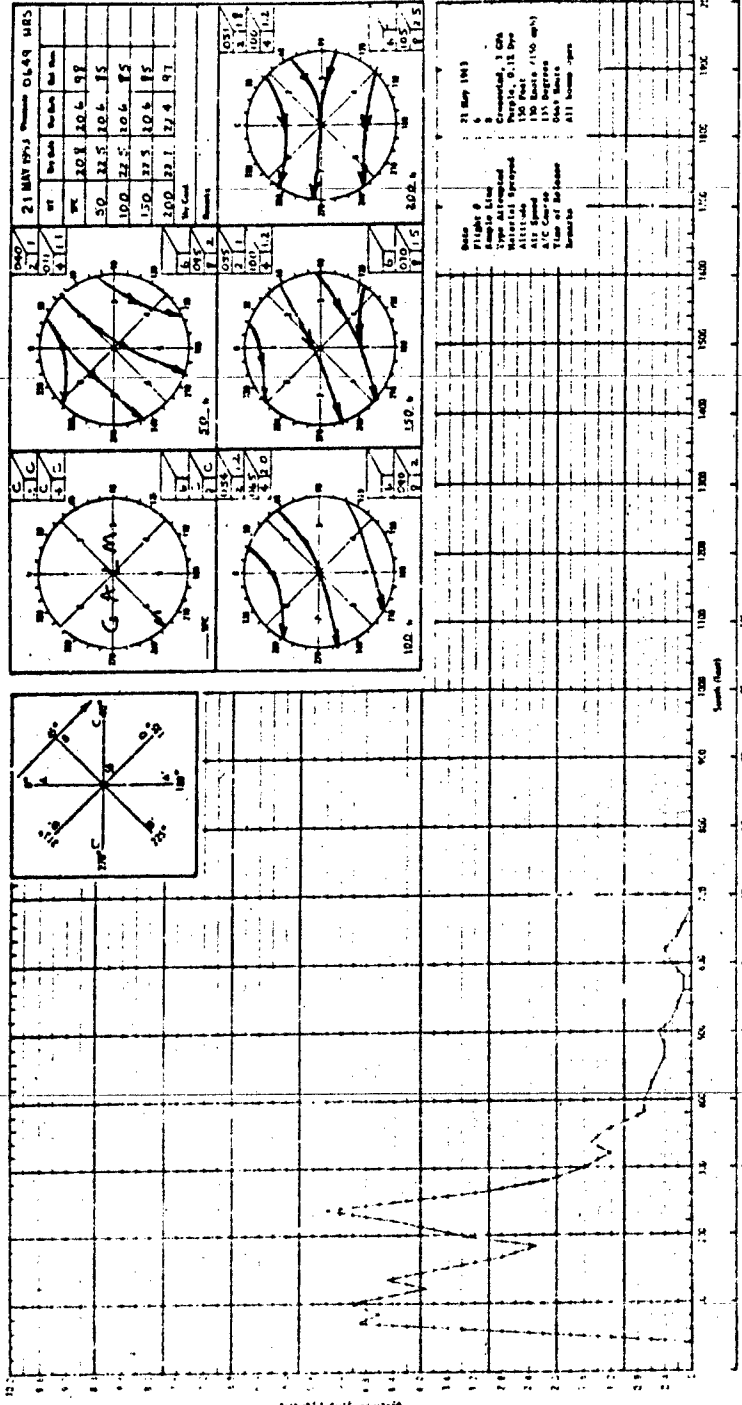


Survey No.	Depth (Feet)	Temperature (°F)	Salinity (‰)	Specific Gravity	Direction (°)	Speed (kts)	Time (min)	Remarks
1	0	50.0	35.0	1.025	000	0.0	00	Start
2	10	49.5	35.0	1.025	000	0.0	05	
3	20	49.0	35.0	1.025	000	0.0	10	
4	30	48.5	35.0	1.025	000	0.0	15	
5	40	48.0	35.0	1.025	000	0.0	20	
6	50	47.5	35.0	1.025	000	0.0	25	
7	60	47.0	35.0	1.025	000	0.0	30	
8	70	46.5	35.0	1.025	000	0.0	35	
9	80	46.0	35.0	1.025	000	0.0	40	
10	90	45.5	35.0	1.025	000	0.0	45	
11	100	45.0	35.0	1.025	000	0.0	50	
12	110	44.5	35.0	1.025	000	0.0	55	
13	120	44.0	35.0	1.025	000	0.0	00	
14	130	43.5	35.0	1.025	000	0.0	05	
15	140	43.0	35.0	1.025	000	0.0	10	
16	150	42.5	35.0	1.025	000	0.0	15	
17	160	42.0	35.0	1.025	000	0.0	20	
18	170	41.5	35.0	1.025	000	0.0	25	
19	180	41.0	35.0	1.025	000	0.0	30	
20	190	40.5	35.0	1.025	000	0.0	35	
21	200	40.0	35.0	1.025	000	0.0	40	End

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 425 GPM
 DATE: 21 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 6 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: B ALTITUDE: 150 feet
 TIME OF RELEASE: 0649 hours AIRCRAFT COURSE: 135 degrees
 DURATION: 10 seconds WIND VECTOR: 071° / 1.2 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-47	blank	48	4.9	73	0.1		
		49	4.6	74	0.1		
		50	5.0	75	0.3		
		51	3.9	76	0.4		
		52	4.5	77	0.2		
		53	2.8	78	0.1		
		54	2.3			Stations	
		55	3.4			79-100	
		56	4.5			blank	
		57	5.4				
		58	3.0				
		59	2.1				
		60	1.6				
		61	1.2				
		62	1.5				
		63	1.3				
		64	0.7				
		65	0.7				
		66	0.6				
		67	0.5				
		68	0.4				
		69	0.4				
		70	0.5				
		71	0.3				
		72	0.2				

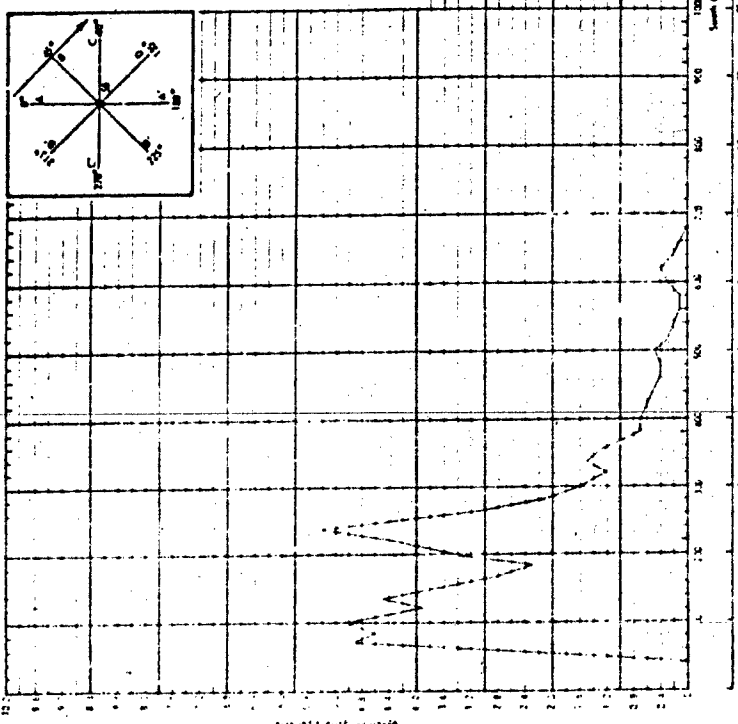
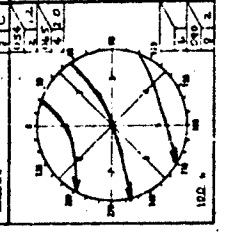
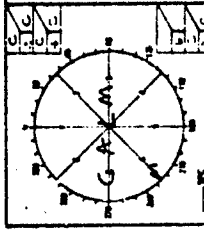
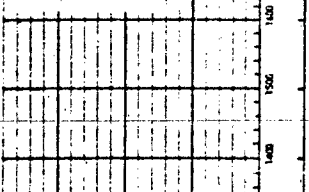
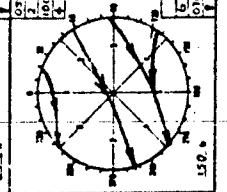
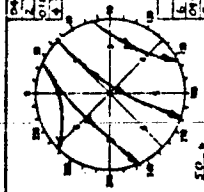
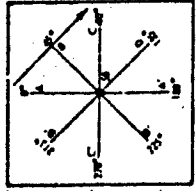


21 May 1943

WT	Bar	Bar	Bar
50	22.5	20.4	15
100	22.5	20.4	15
150	22.5	20.4	15
200	22.1	17.4	97

Bar	Bar	Bar
21.8	19.8	15
21.8	19.8	15
21.8	19.8	15

21 May 1943
 Computed, 3 GN
 Perip, 0.18 Dm
 150 Feet (100 mph)
 174 Degrees
 Day's Route
 All 10000 ft



C-123/MC-1 GROUND FLOW & FLIGHT DATA

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DATE CALIBRATED: 21 May 1963 DATE TEST FLOWN: 21 May 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 97
 NOZZLE TYPE: 3/8" check valve no tip LIQUID TEMP: 32° C
 DURATION OF SPRAY: 10 Sec. PUMP PRESSURE: 68 psi before
34 psi during
 PUMP R.P.M.: 2700
 NO. OF PUMPS: 2 FLOW METER READING: 430 GPM
 TOTAL AMOUNT SPRAYED: 74.5 Gals. FLOW RATE CALIBRATED: 447 GPM
 NOZZLE CONFIGURATION: WING: 1-9, 14-23, 28-48
TAIL: 1-4, 8-12, 16-19

OPERATIONAL DATA DURING FLIGHT

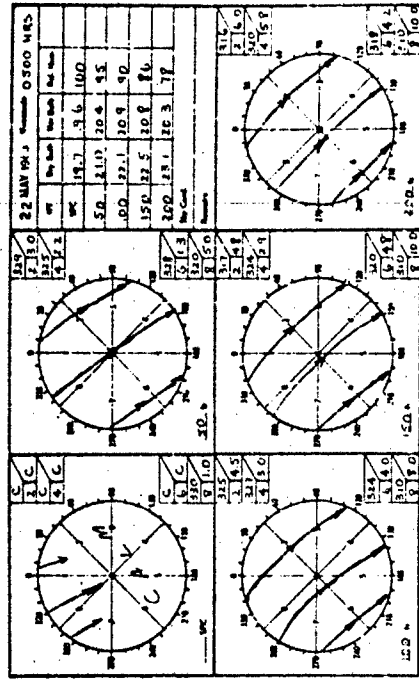
<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1	---	69	---	420
2	---	73	37	435
3	---	73	---	435
4	---	76	---	420
5	---	85	---	420

REMARKS: Tail boom cut off after 3 runs due to excessive leaking.

MASS DEPOSIT

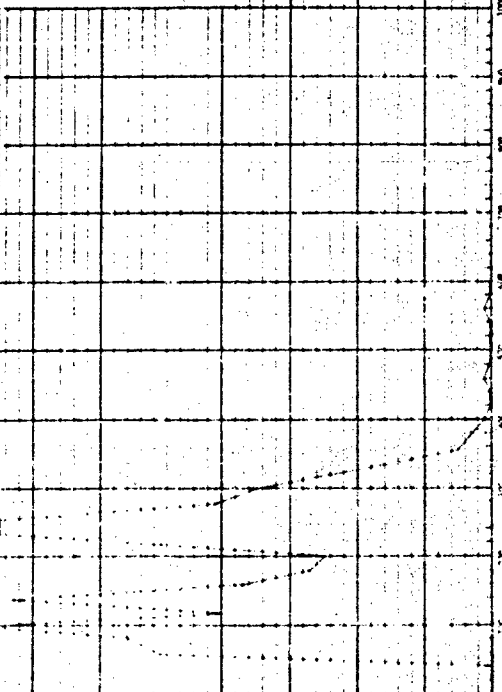
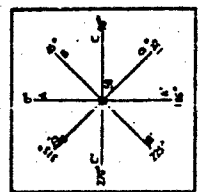
MATERIAL: Purple FLOW RATE: 420 GPM
 DATE: 22 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: B ALTITUDE: 156 feet
 TIME OF RELEASE: 0502 hours AIRCRAFT COURSE: 315 degrees
 DURATION: 10 seconds WIND VECTOR: 322°/4.7 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-46	blank			47	0.0	72	0.0
				48	4.9	73	0.1
				49	5.4	74	0.0
				50	7.6	75	0.0
				51	4.0	Stations	
				52	7.1	76-100	
				53	3.7	blank	
				54	2.7		
				55	2.5		
				56	4.9		
				57	7.3		
				58	7.3		
				59	4.1		
				60	3.5		
				61	2.4		
				62	1.4		
				63	0.5		
				64	0.3		
				65	2.1		
				66	0.0		
				67	0.0		
				68	0.1		
				69	0.0		
				70	0.0		
				71	0.0		



22 MAY 1943			
Alt	Temp	Humidity	Wind
10000	19.7	9.6	100
15000	2.1	20.4	4.5
20000	22.1	10.9	90
25000	22.5	10.8	80
30000	23.1	20.3	70

22 May 1943	
Flight #	1
Time	10:00
Thrust	3000
Material	Steel
Altitude	10000
AFC Control	111
Time of Test	10:00
Operator	...

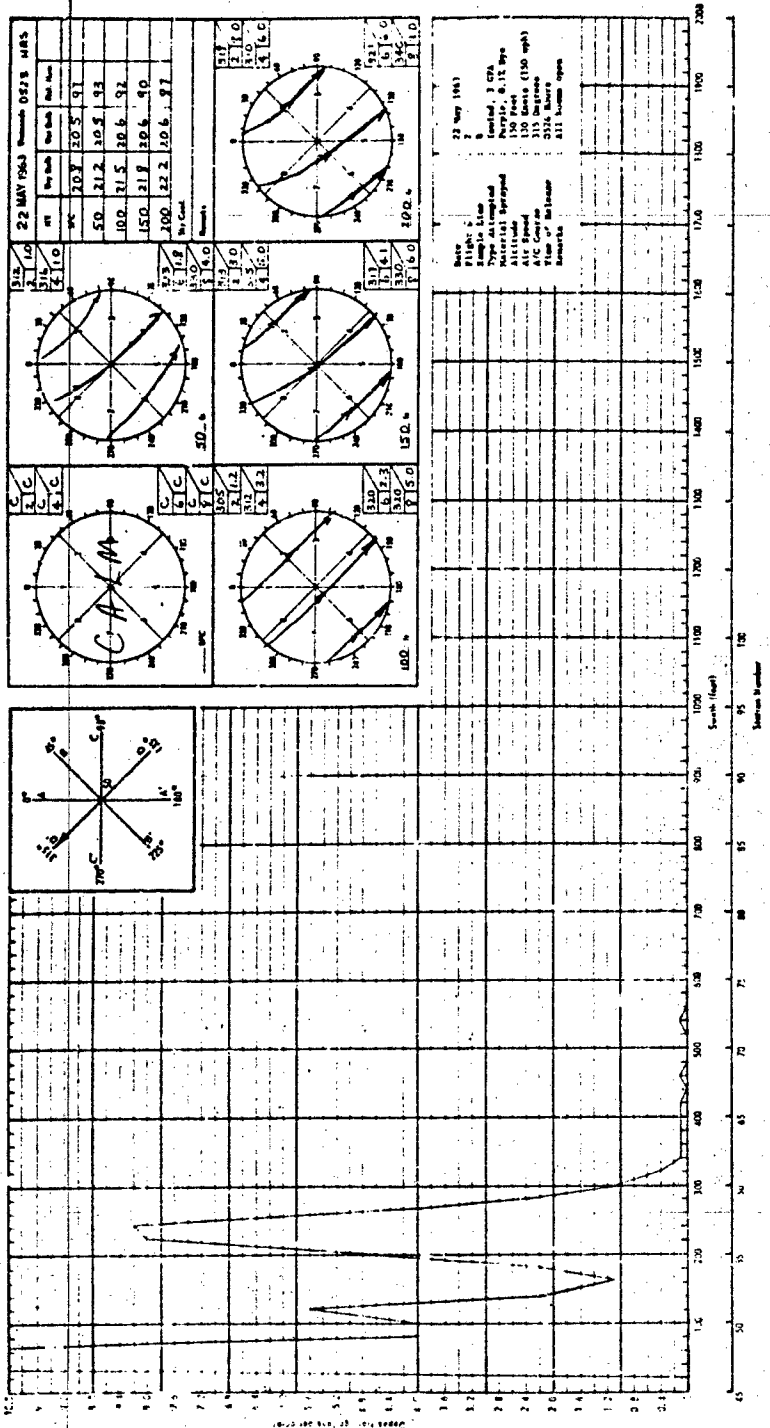


Time (s)	Speed (ft/s)
0	0
1	100
2	150
3	200
4	250
5	300
6	350
7	400
8	450
9	500
10	550

MASS DEPOSIT

MATERIAL. Purple FLW RATE: 435 GPM
 DATE: 22 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 uph)
 SAMPLE LINE: B ALTITUDE: 150 feet
 TIME OF RELEASE. 0524 hours AIRCRAFT COURSE. 315 degrees
 DURATION. 13 seconds WIND VECTOR: 319° / 4.4 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-45	blank	46	0.0	71	0.0		
		47	12.4	72	0.1		
		48	11.1	73	0.0		
		49	4.0	74	0.0		
		50	4.0			Stations	
		51	5.6			75-100	
		52	2.2			blank	
		53	1.1				
		54	2.3				
		55	4.5				
		56	8.0				
		57	8.2				
		58	3.9				
		59	2.2				
		60	1.1				
		61	0.4				
		62	0.1				
		63	0.1				
		64	0.1				
		65	0.1				
		66	0.1				
		67	0.0				
		68	0.1				
		69	0.0				
		70	0.0				



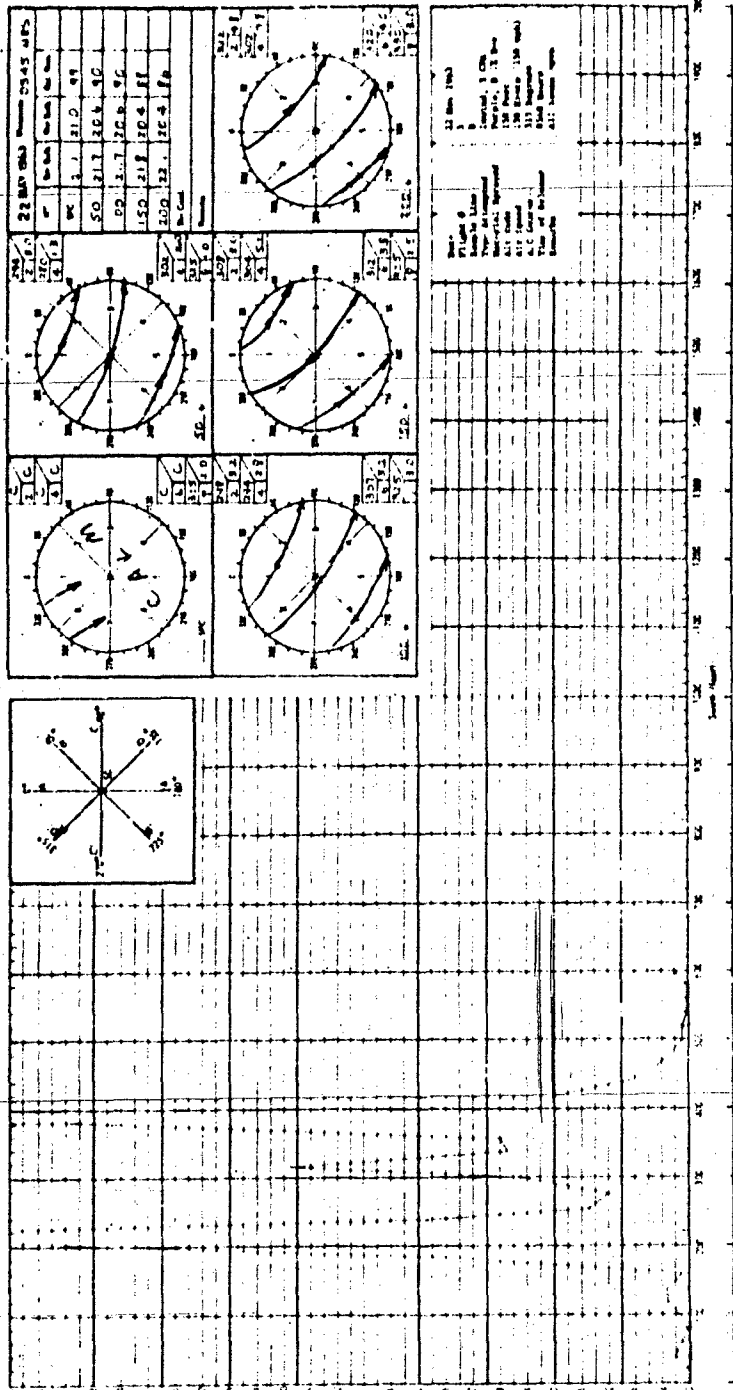
MASC DEPOSIT

MATERIAL: Purple FLOW RATE: 435 GPM
 DATE: 22 May 1963 SYSTEM: C-123/M.-1
 FLIGHT #: 3 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: B ALTITUDE: 150 Feet
 TIME OF RELEASE: 0548 Hours AIRCRAFT COURSE: 315 Degrees
 DURATION: 11 Seconds WIND VECTOR: 313°/2.9 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-34	blank	35	0.2	60	0.1		
		36	0.0	61	0.0		
		37	0.0	62	0.1		
		38	0.0	63	0.2		
		39	0.1	Stations 64-100 Blank			
		40	0.1				
		41	0.3				
		42	0.5				
		43	0.9				
		44	2.0				
		45	18.3				
		46	9.0				
		47	2.8				
		48	2.7				
		49	5.9				
		50	2.5				
		51	1.2				
		52	1.5				
		53	3.9				
		54	11.5				
		55	11.8				
		56	3.3				
		57	0.1				
		58	0.3				
		59	0.3				

% Recovery = $0.202 \times 150 \times 79.6 \times 20.00 = 110.9$

Total 79.6



22 May 1963
 W. Wright
 L. C. ...
 ...
 ...

Wright, L. C.
 ...
 ...
 ...

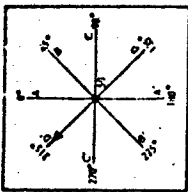
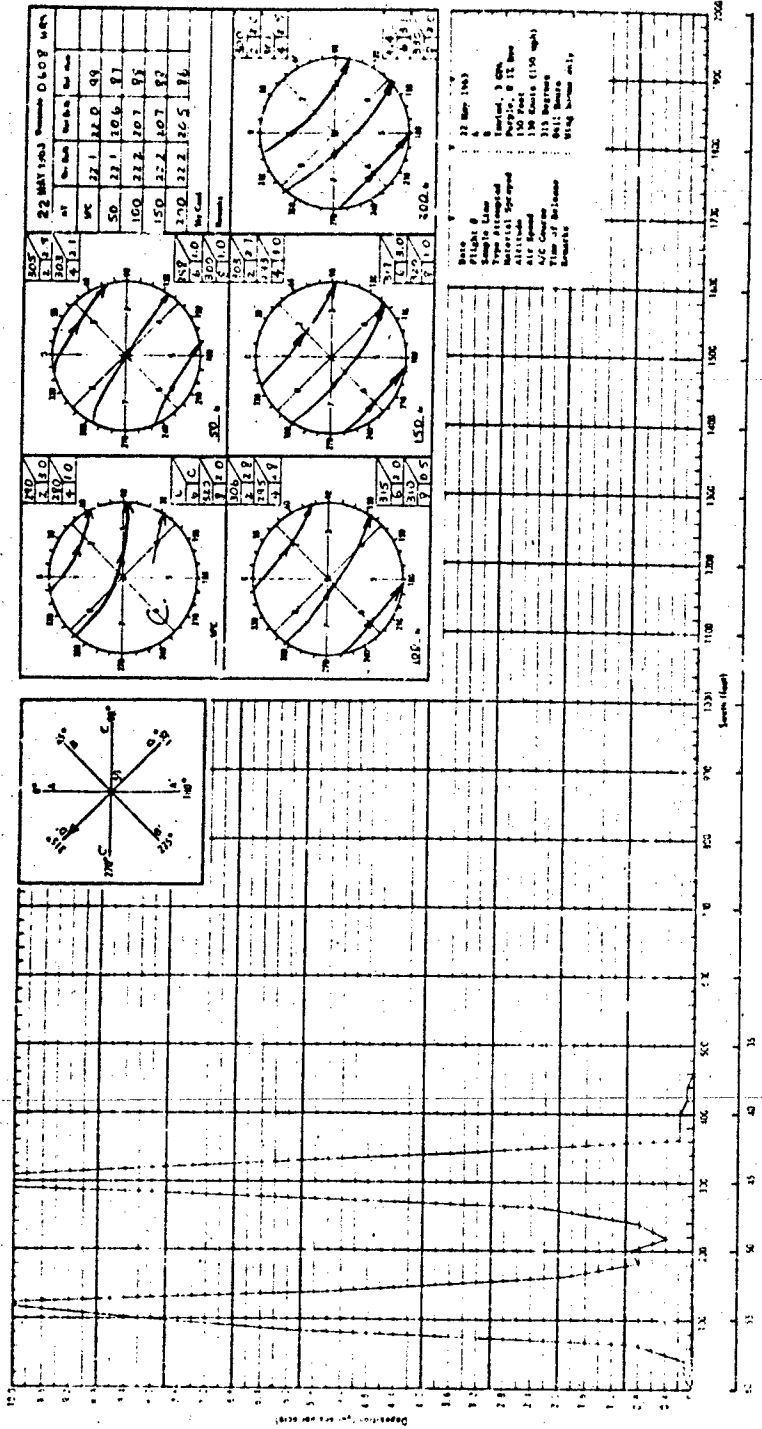
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MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 420 GPM
 DATE: 22 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: B ALTITUDE: 150 feet
 TIME OF RELEASE: 0611 hours AIRCRAFT COURSE: 315 degrees
 DURATION: 11 seconds WIND VECTOR: 306° / 2.0 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-32 blank		33	0.0	58	0.1		
		34	0.0	59	0.1		
		35	0.0	60	0.0		
		36	0.0	61	0.0		
		37	0.0	62	0.0		
		38	0.1	63	0.0		
		39	0.1	64	0.0		
		40	0.2	65	0.0		
		41	0.2	66	0.0		
		42	0.2	Stations 67-100 blank			
		43	3.1				
		44	7.2				
		45	14.0				
		46	8.0				
		47	2.3				
		48	0.8				
		49	0.4				
		50	0.9				
		51	0.8				
		52	1.9				
		53	5.4				
		54	10.8				
		55	8.2				
		56	5.8				
		57	0.9				



22 MAY 1963 Pressure DLOG WPL

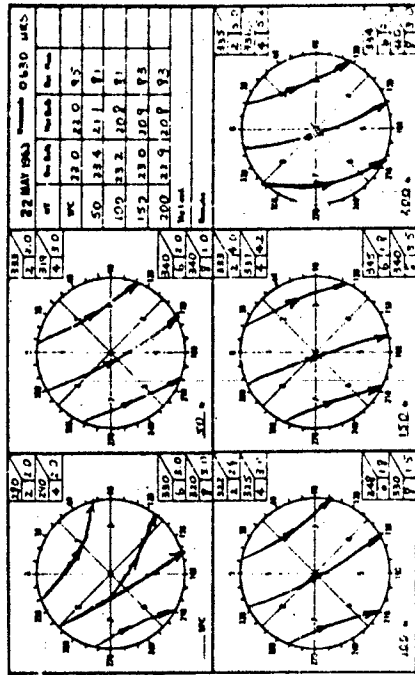
Surf	100	150	200
Surf	27.1	24.0	20.9
100	27.7	26.6	25.7
150	22.2	20.7	19.5
200	22.2	20.7	19.7

22 May 1963
 Sample Date
 Type Atmospheric
 Altitude 10000 ft
 A/C Number
 Remarks
 22 May 1963
 Location: 30°N
 Pressure: 8.12 bar
 136 km/s (110 mph)
 211 Degrees
 40.11 Bar (at 10000 ft)

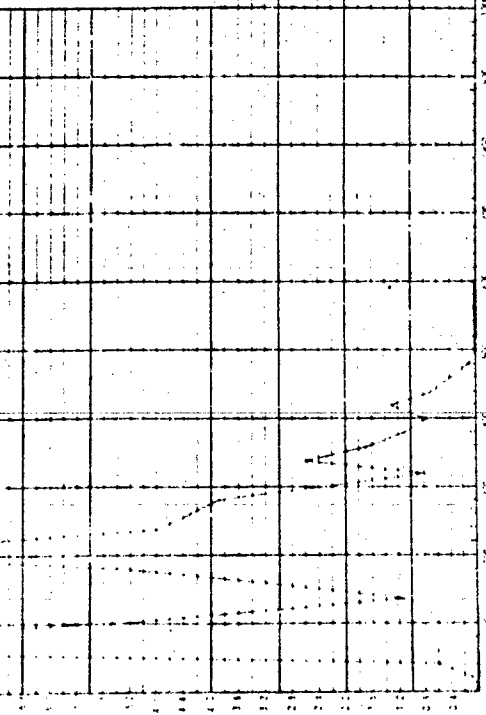
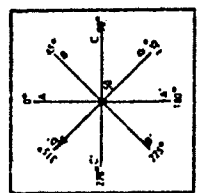
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 440 GPM
 DATE: 22 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: B ALTITUDE: 150 feet
 TIME OF RELEASE: 0632 hours AIRCRAFT COURSE: 315 degrees
 DURATION: 9 seconds WIND VECTOR: 332° / 2.8 mph

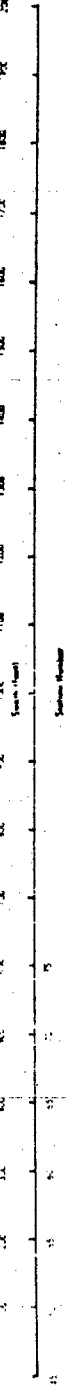
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-41	blank			42	0.0	67	0.7
				43	0.0	68	0.4
				44	0.0	69	0.1
				45	0.0	70	0.0
				46	0.0	71	0.0
				47	0.6	72	0.0
				48	9.8	73	0.0
				49	10.1	74	0.0
				50	5.5	75	0.0
				51	3.0	76	0.0
				52	1.1	77	0.0
				53	3.2	78	0.0
				54	5.2	79	0.0
				55	8.8	80	0.0
				56	7.6	81	0.0
				57	4.8	82	0.0
				58	4.3	83	0.0
				59	3.9	84	0.0
				60	2.4	85	0.0
				61	0.8	86	0.0
				62	2.6	87	0.0
				63	1.7	Stations 88-100	
				64	1.1	blank	
				65	0.8		
				66	1.3		



22 MAY 1963			
Time	Wind Dir	Wind Spd	Wind Spd
0000	090	10	10
0100	090	10	10
0200	090	10	10
0300	090	10	10
0400	090	10	10
0500	090	10	10
0600	090	10	10
0700	090	10	10
0800	090	10	10
0900	090	10	10
1000	090	10	10
1100	090	10	10
1200	090	10	10
1300	090	10	10
1400	090	10	10
1500	090	10	10
1600	090	10	10
1700	090	10	10
1800	090	10	10
1900	090	10	10
2000	090	10	10
2100	090	10	10
2200	090	10	10
2300	090	10	10
2400	090	10	10



Date: 22 May 1963
 Station: 1000
 Type: Airspeed
 Altitude: 1000 ft
 Air Speed: 10 knots (10 mph)
 ICAO Code: 1000
 Remarks: 1014 knots mph



C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 22 May 1963 DATE TEST FLOWN: 23 May 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 66
 NOZZLE TYPE: 3/8" check valve no tip LIQUID TEMP: 31.3° C
 DURATION OF SPRAY: 30 Sec. PUMP PRESSURE: 57 psi before
 PUMP R.P.M.: 2500 before 2000 during 26 psi during
 NO. OF PUMPS: 1 FLOW METER READING: 205 GPM
 TOTAL AMOUNT SPRAYED: 102.5 Gals. FLOW RATE CALIBRATED: 205 GPM
 NOZZLE CONFIGURATION: WING: 1-9, 14-22, 28-72
TAIL: No tail boom

OPERATIONAL DATA DURING FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
1	2500 before 2050 during	57	58	200
2	2500 before 2050 during	57	28	200
3	2500 before 2050 during	57	28	205
4	2500 before 2050 during	57	28	205

REMARKS: Approximation of configuration used for 1 1/2 gal/A as calibrated 62.

MASS MEDIAN DIAMETER

DATE: 23 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 4 PAPER: Kromelote, white
 SAMPLE LINE: A MATERIAL: Purple
 FLOW RATE: 205 GPM SYSTEM: G-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
47	5	6900*			
47	1	6700			
47	2	6600			
47	6	6500			
47	7	6400			
47	4	6300			
47	2	6200			
48	8	6100			
48	9	6000			
48	10	5900			

$$\text{MMD} = \frac{70.44 + 0.1431 \text{ Spot } D \text{ Max}}{\text{Con. Factor}} = \frac{70.44 + 0.1431(6900)}{2.5} = 423.1 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431 \text{ Max Spot} = 70.44 + 0.1431(6900) = 1057.8 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 36.0 \text{ Microns}$$

120

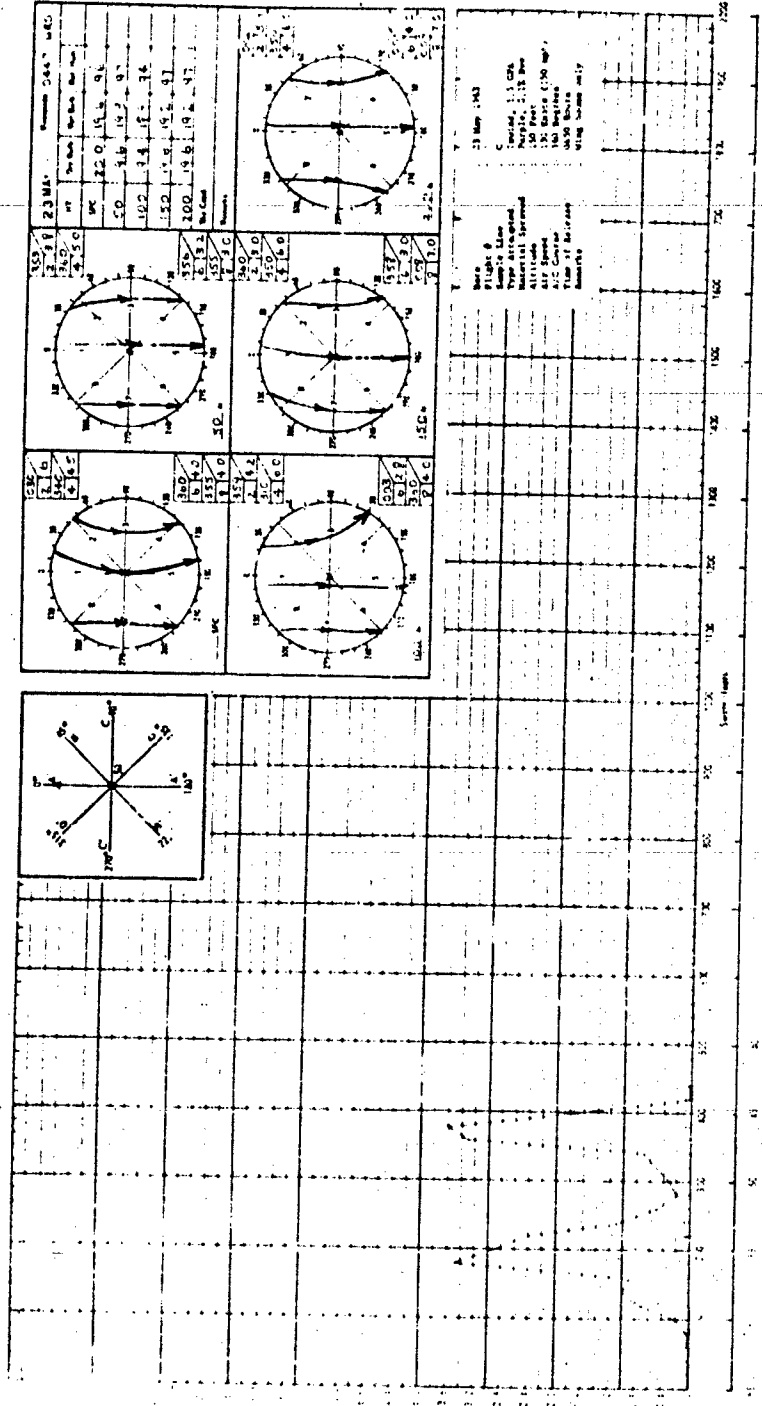
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 200 GPM
DATE: 23 May 1963 SYSTEM: C-123/AC-1
FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: C ALTITUDE: 150 Feet
TIME OF RELEASE: 0450 Hours AIRCRAFT COURSE: 360 Degrees
DURATION: 11 Seconds WIND VECTOR: 360°/4.7 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-42	Blank	43	0.0				
		44	0.0				
		45	1.7				
		46	3.6				
		47	3.3				
		48	0.7				
		49	0.5				
		50	0.3				
		51	0.2				
		52	0.5				
		53	1.1				
		54	2.4				
		55	2.9				
		56	3.5				
		57	0.9				
		58	1.0				
		59	0.7				
		60	0.2				
		61	0.0				
		62	0.0				
		Stations 63-100	Blank				

$$\% \text{ Recovery} = \frac{0.202 \times 150 \times 23.5 \times 20.00}{200} = 71.2$$

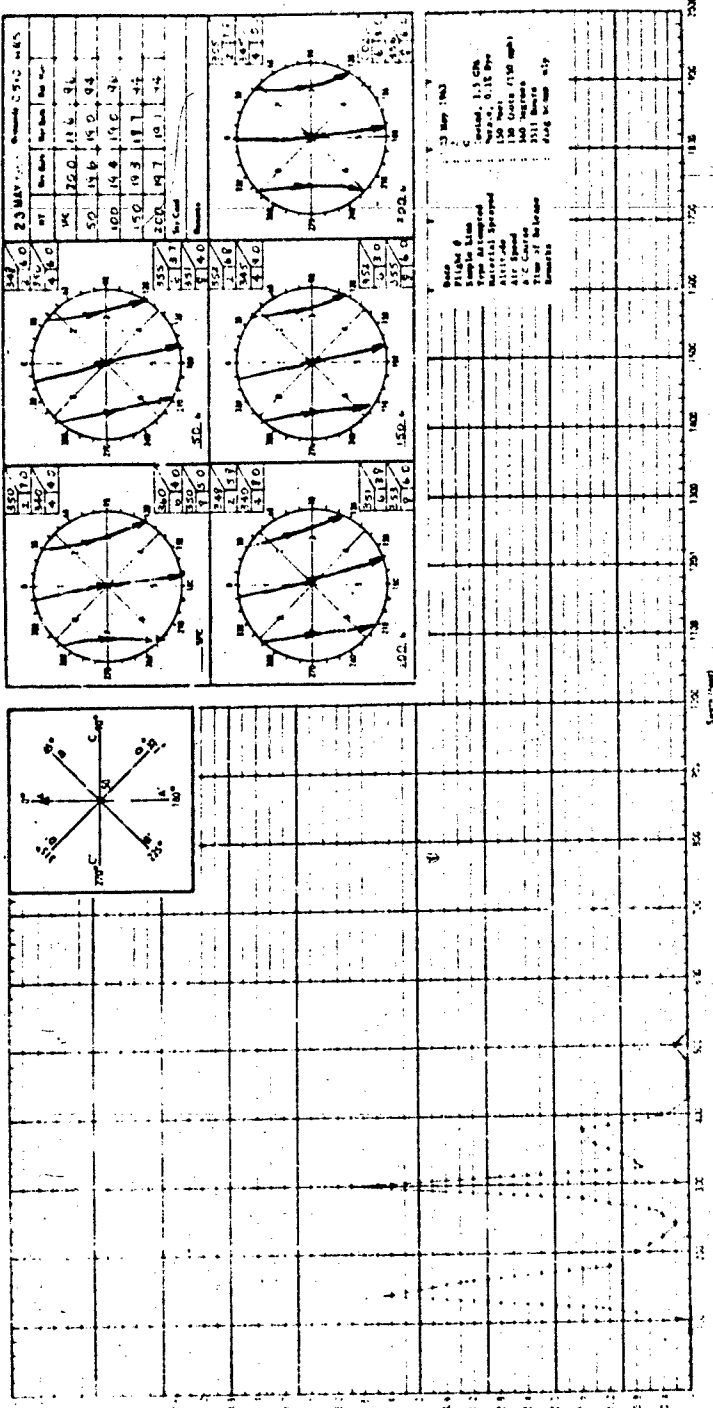
Total 23.5



MASS DEPOSIT

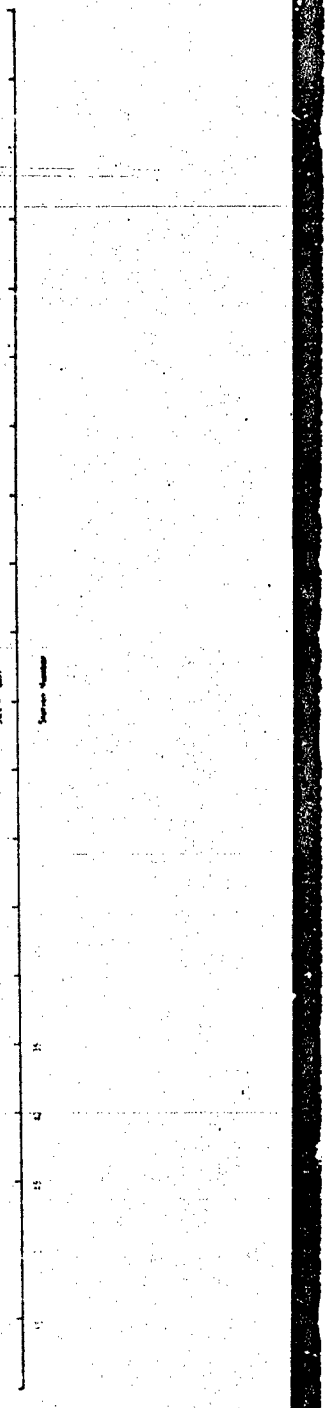
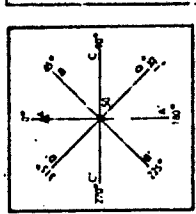
MATERIAL: Purple FLOW RATE: 200 GPM
 DATE: 23 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0511 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 12 seconds WIND VECTOR: 351° / 5.5 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-32	blank	33	0.0	Stations 57-100	blank		
		34	0.0				
		35	0.2				
		36	0.0				
		37	0.0				
		38	0.0				
		39	0.0				
		40	0.3				
		41	1.6				
		42	1.4				
		43	0.9				
		44	0.7				
		45	5.0				
		46	1.6				
		47	0.5				
		48	0.2				
		49	0.4				
		50	0.8				
		51	1.2				
		52	3.3				
		53	4.5				
		54	1.3				
		55	0.0				
		56	0.0				



Day	Time	Wind	Speed	Direction	Remarks
23 MAY	0600	100	148	115	
	0700	100	148	115	
	0800	100	148	115	
	0900	100	148	115	
	1000	100	148	115	
	1100	100	148	115	
	1200	100	148	115	
	1300	100	148	115	
	1400	100	148	115	
	1500	100	148	115	
	1600	100	148	115	
	1700	100	148	115	
	1800	100	148	115	
	1900	100	148	115	
	2000	100	148	115	
	2100	100	148	115	
	2200	100	148	115	
	2300	100	148	115	

Date: 23 May 1963
 Flight #:
 Sample Time:
 Material Spent:
 Altitude:
 A/C Control:
 Time of Release:
 Remarks:



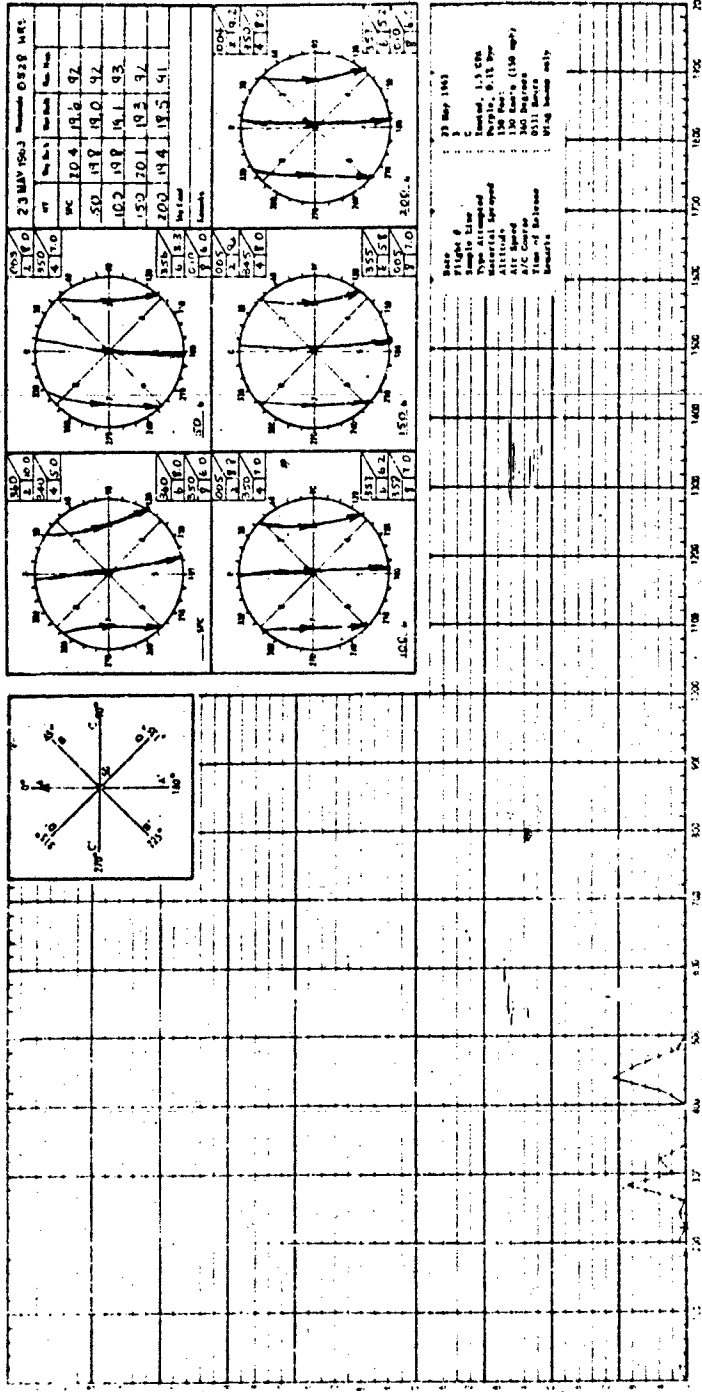
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 205 GPM
 DATE: 23 May 1963 SYSTEM: C-123/10-1
 FLIGHT #: 3 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0531 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 10 Seconds WIND VECTOR: 358°/7.5 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-43	Blank	44	0.0	69	0.1		
		45	0.0	70	0.0		
		46	0.1	71	0.0		
		47	0.7	72	0.0		
		48	1.1	73	0.0		
		49	0.3	74	0.0		
		50	0.0	75	0.0		
		51	0.0	76	0.0		
		52	0.0	77	0.0		
		53	0.0	78	0.0		
		54	0.4	79	0.0		
		55	0.2	80	0.0		
		56	0.9	81	0.0		
		57	0.0	82	0.0		
		58	0.1	83	0.0		
		59	0.0	84	0.0		
		60	0.1	85	0.0		
		61	0.0	86	0.0		
		62	0.0			Station 87-100	
		63	0.0			Blank	
		64	0.0				
		65	0.0				
		66	0.0				
		67	0.0				
		68	0.0				

$$\% \text{ Recovery} = \frac{0.202 \times 150 \times 4.0 \times 20.00}{205} = 11.8$$

Total 4.0



23 May 1963
 Flight # 1
 Sample Size 1000
 Horizontal Speed 100 ft/sec
 Altitude 10000 ft
 A/C Speed 1000 ft/min
 Time of Release 0:11:00
 Bomb(s) 100 lb

Altitude (ft) vs. Time (sec) graph showing a linear climb from 10,000 ft at 0 seconds to 20,000 ft at 20 seconds.

Roll, Pitch, and Yaw attitude diagrams showing constant values of 0 degrees throughout the flight.

Table of data points for Roll, Pitch, and Yaw, all showing 0 degrees.

Summary statistics for the flight test.

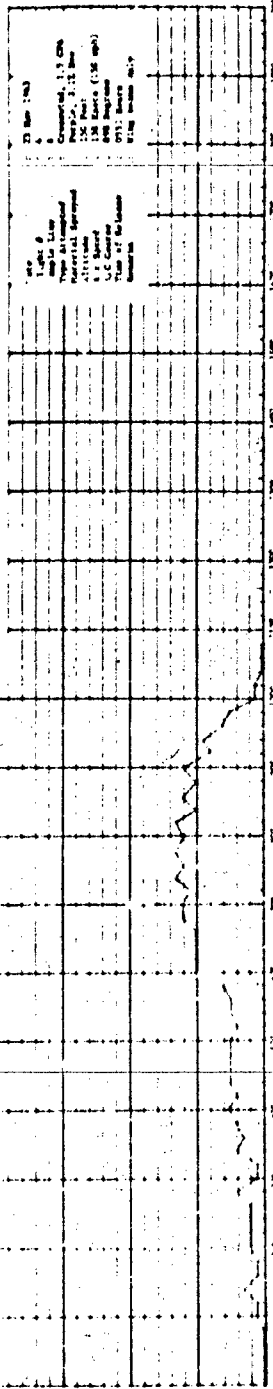
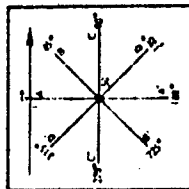
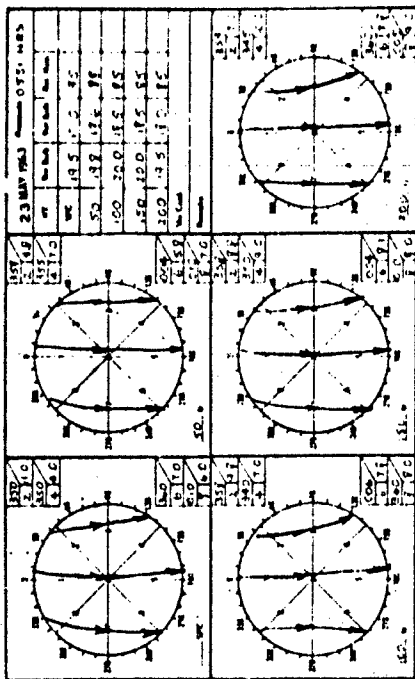
Final remarks and test results.

Signature and date.

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 205 GPM
 DATE: 23 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0553 hours AIRCRAFT COURSE: 090 degrees
 DURATION: 11 seconds WIND VECTOR: 358° / 7.5 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-41 blank		42	0.0	67	0.5	92	0.0
		43	0.0	68	0.5	93	0.0
		44	0.1	69	0.4	94	0.0
		45	0.1	70	0.5	95	0.0
		46	0.5	71	0.5	96	0.0
		47	0.6	72	0.5	97	0.0
		48	0.9	73	0.5	98	0.0
		49	0.8	74	0.4	99	0.0
		50	1.2	75	0.5	100	0.0
		51	1.0	76	0.4		
		52	1.2	77	0.3		
		53	1.0	78	0.4		
		54	1.3	79	0.1		
		55	1.2	80	0.1		
		56	1.3	81	0.4		
		57	1.2	82	0.2		
		58	1.3	83	0.2		
		59	1.1	84	0.2		
		60	1.2	85	0.2		
		61	1.2	86	0.1		
		62	1.0	87	0.1		
		63	1.0	88	0.3		
		64	1.0	89	0.1		
		65	1.0	90	0.1		
		66	0.6	91	0.0		



128

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 22 May 1963 DATE TEST FLOWN: 24 May 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 66
NOZZLE TYPE: 3/8" check valve no tip LIQUID TEMP: 31.3° C
DURATION OF SPRAY: 30 Sec. PUMP PRESSURE: 26 psi during
PUMP R.P.M.: 2500 before 2000 during : _____
NO. OF PUMPS: 1 FLOW METER READING: 205 GPM
TOTAL AMOUNT SPRAYED: 102.5 Gals. FLOW RATE CALIBRATED: 205 GPM
NOZZLE CONFIGURATION: WING: 1-9, 14-22, 28-42
TAIL: No tail boom

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
1	2500	57	30	100
2	2500	57	30	210
3	2500	57	30	210
4	2500	57	30	205
5	2500	57	28	205
6	2500	57	28	210

REMARKS:

MASS MEDIAN DIAMETER

DATE: 24 May 1963 CONVERSION FACTOR: 2.5
 FLIGHT #: 6 PAPER: Kromekote, white
 SAMPLE LINE: B MATERIAL: Purple
 FLOW RATE: 210 GPM SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
7	1	7600			
7	2	7300			
8	5	6700*			
8	4	6600			
8	3	6400			
8	6	6300			
8	7	6200			
8	8	6100			
9	9	6000			
9	10	5900			
9	11	5800			
9	13	5700			
9	12	5600			

MMD = $\frac{70.44+0.1431 \text{ Spot D Max}}{\text{Con. Factor}} = \frac{70.44+0.1431(6700)}{2.5} = 411.7 \text{ Microns}$

Max. Sph. Dia. = $70.44+0.1431 \text{ Max Spot} = 70.44+0.1431(7600) = 1029.2 \text{ Microns}$

Min. Sph. Dia. = 55 Microns

130

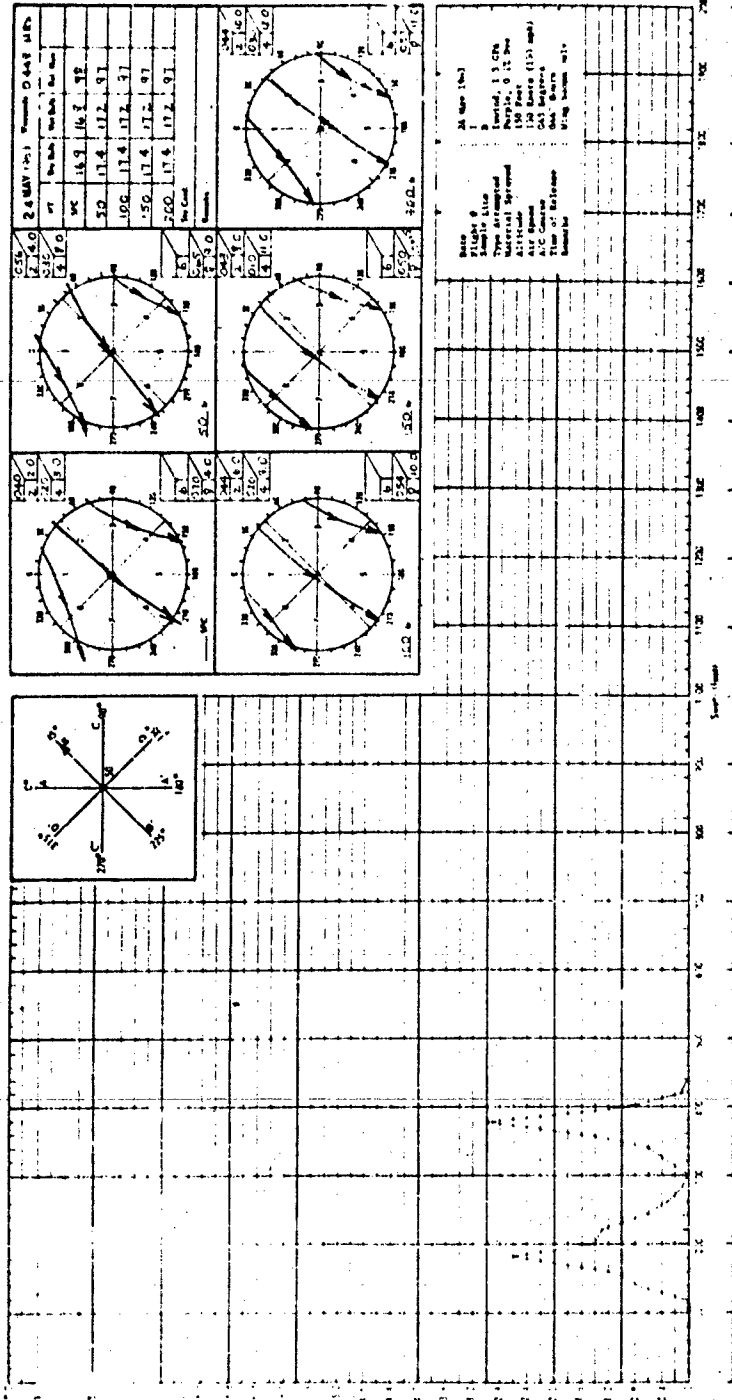
MASS DEPOSIT

MATERIAL: Purple
DATE: 24 May 1963
FLIGHT #: 1
SAMPLE LINE: D
TIME OF RELEASE: 0447 hours
DURATION: 12 seconds

FLOW RATE: 100 GPM
SYSTEM: C-123/MC-1
AIRSPEED: 130 knots (150 mph)
ALTITUDE: 150 feet
AIRCRAFT COURSE: 045 degrees
WIND VECTOR: 42° / 7.8 mph

STATION	G.P.A.	STATION	G.P.A.
Stations 1-42	blank	43	0.0
		44	0.1
		45	0.9
		46	3.0
		47	1.4
		48	0.6
		49	0.3
		50	0.0
		51	0.1
		52	0.3
		53	0.6
		54	1.3
		55	1.4
		56	2.6
		57	1.1
		58	0.7
		59	0.0
		60	0.0
		61	0.0
		62	0.0
		Stations 63-100	blank

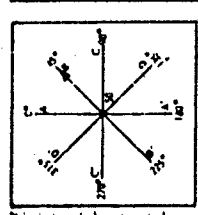
STATION G.P.A. STATION G.P.A.



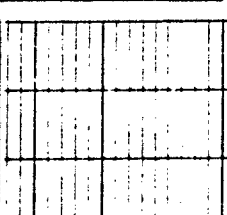
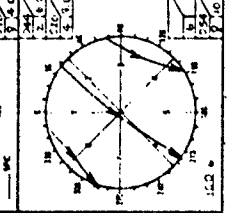
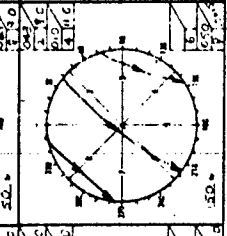
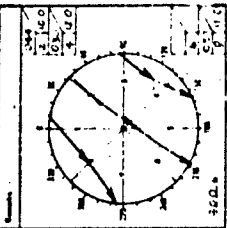
24 Hrs (hr)	Sample No.	Wt.	Wt. %	Wt. %	Wt. %	Wt. %
1	1	16.2	17.2	17.2	17.2	17.2
2	2	17.4	17.2	17.2	17.2	17.2
3	3	17.4	17.2	17.2	17.2	17.2
4	4	17.4	17.2	17.2	17.2	17.2
5	5	17.4	17.2	17.2	17.2	17.2
6	6	17.4	17.2	17.2	17.2	17.2
7	7	17.4	17.2	17.2	17.2	17.2
8	8	17.4	17.2	17.2	17.2	17.2
9	9	17.4	17.2	17.2	17.2	17.2
10	10	17.4	17.2	17.2	17.2	17.2
11	11	17.4	17.2	17.2	17.2	17.2
12	12	17.4	17.2	17.2	17.2	17.2

Site #	Sample No.	Type of Sample	Altitude	Air Name	T.C. Cont. No.	Date of Collection	Number of Samples
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12

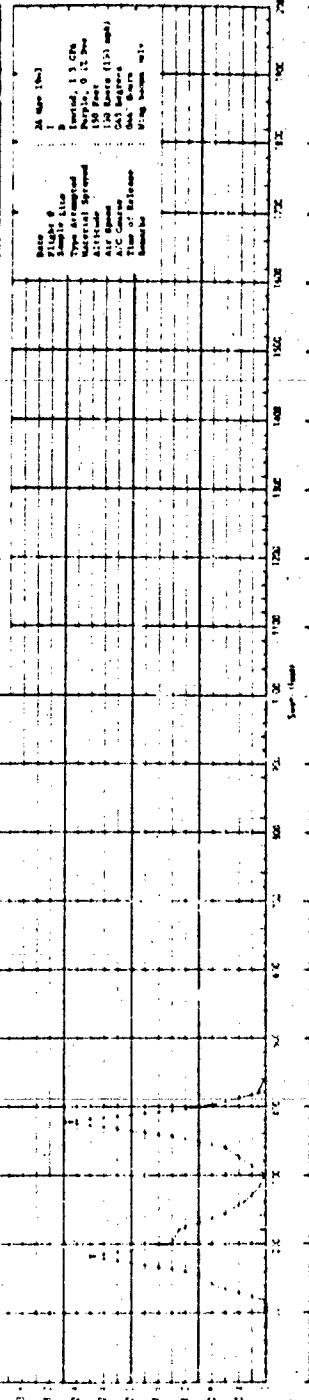
Date (Mo.)	Time (hr.)	Latitude	Longitude	Elevation (ft)	Wind Speed (kts)	Wind Direction	Weather	Remarks
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12



Site #
Sample No.
Type of Sample
Altitude
Air Name
T.C. Cont. No.
Date of Collection
Number of Samples



Site #
Sample No.
Type of Sample
Altitude
Air Name
T.C. Cont. No.
Date of Collection
Number of Samples

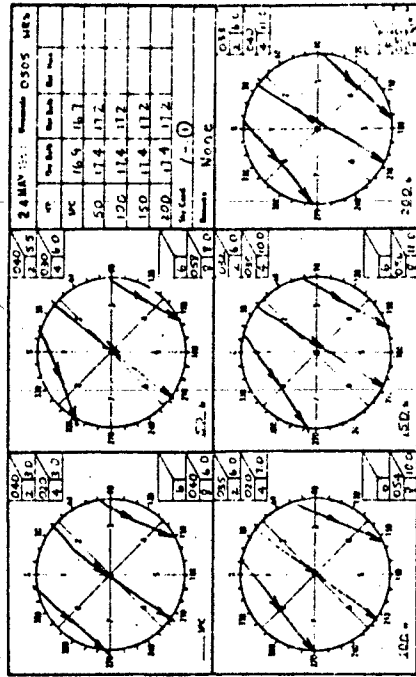


Sample Number

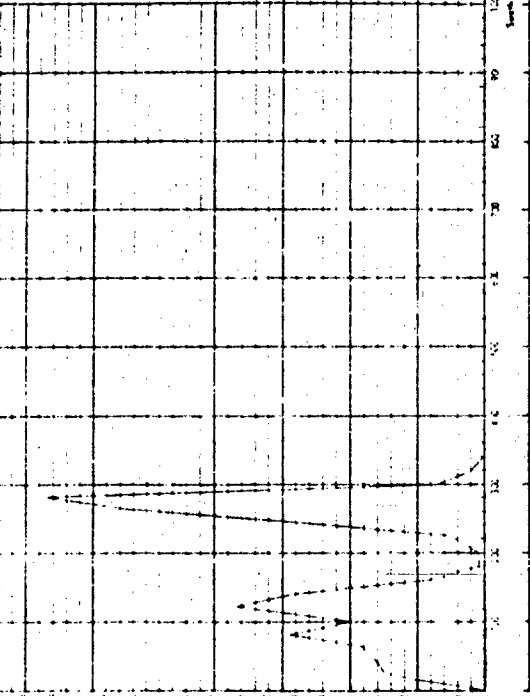
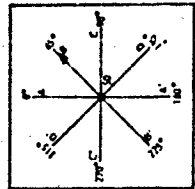
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 210 GPM
 DATE: 24 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0505 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 11 seconds WIND VECTOR: 39⁰ / 7.3 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-42	blank			43	0.0	68	0.0
				44	0.2	69	0.0
				45	0.7	70	0.0
				46	6.5	71	0.0
				47	5.3	72	0.0
				48	1.8	Stations	
				49	0.5	73-100	blank
				50	0.1		
				51	0.1		
				52	0.8		
				53	2.9		
				54	3.7		
				55	2.0		
				56	2.9		
				57	1.8		
				58	1.6		
				59	1.3		
				60	0.0		
				61	0.0		
				62	0.0		
				63	0.0		
				64	0.0		
				65	0.0		
				66	0.0		
				67	0.0		



Location	WC	WC	WC	WC
1	16.5	16.7	16.5	16.7
2	17.4	17.2	17.4	17.2
3	11.4	11.2	11.4	11.2
4	11.4	11.2	11.4	11.2



Distance (m)

Distance (m)

Location	WC	WC	WC	WC
1	16.5	16.7	16.5	16.7
2	17.4	17.2	17.4	17.2
3	11.4	11.2	11.4	11.2
4	11.4	11.2	11.4	11.2

Distance (m)

Distance (m)

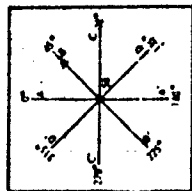
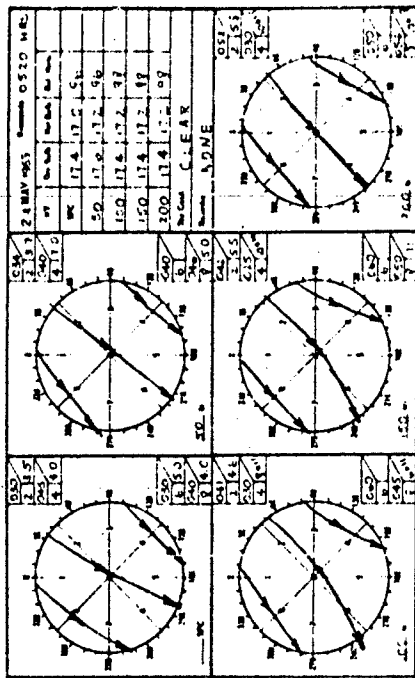
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 210 GPM
 DATE: 24 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 3 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0522 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 10 Seconds WIND VECTOR: 43°/6.6 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-40 Blank		41	0.0	66	0.0		
		42	0.0	67	0.0		
		43	0.5	68	0.0		
		44	2.7	Stations 69-100 Blank			
		45	3.6				
		46	4.2				
		47	1.6				
		48	0.5				
		49	0.8				
		50	0.3				
		51	0.6				
		52	0.8				
		53	3.7				
		54	8.6				
		55	3.5				
		56	1.1				
		57	0.9				
		58	0.9				
		59	0.0				
		60	0.0				
		61	0.0				
		62	0.0				
		63	0.0				
		64	0.0				
		65	0.0				

% Recovery = $\frac{0.202 \times 150 \times 34.3 \times 20.00}{210} = 99.0$

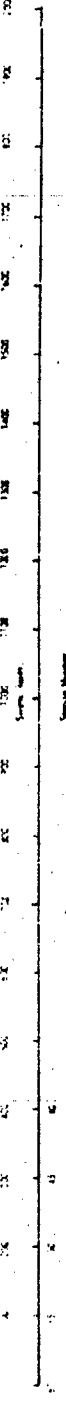
Total 34.3



2.18W-4051 Summary 0520 142			
WT	WT	WT	WT
17.4	17.2	17.2	17.2
150	17.6	17.2	17.2
150	17.4	17.2	17.2
200	17.4	17.2	17.2

Depth (m)	Temp (C)	Salinity	St. Dev.	Chlorophyll	Fluorescence	PAR	Light	Time
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
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14								
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96								
97								
98								
99								
100								

Date: 24 May 1963
 Pilot: J. J. O'Brien
 Sample: 1000 ft
 Location: 21° 15' N, 156° 15' W
 A. 1: 1000 ft
 A. 2: 1000 ft
 A. 3: 1000 ft
 A. 4: 1000 ft
 A. 5: 1000 ft
 A. 6: 1000 ft
 A. 7: 1000 ft
 A. 8: 1000 ft
 A. 9: 1000 ft
 A. 10: 1000 ft
 A. 11: 1000 ft
 A. 12: 1000 ft
 A. 13: 1000 ft
 A. 14: 1000 ft
 A. 15: 1000 ft
 A. 16: 1000 ft
 A. 17: 1000 ft
 A. 18: 1000 ft
 A. 19: 1000 ft
 A. 20: 1000 ft
 A. 21: 1000 ft
 A. 22: 1000 ft
 A. 23: 1000 ft
 A. 24: 1000 ft
 A. 25: 1000 ft
 A. 26: 1000 ft
 A. 27: 1000 ft
 A. 28: 1000 ft
 A. 29: 1000 ft
 A. 30: 1000 ft
 A. 31: 1000 ft
 A. 32: 1000 ft
 A. 33: 1000 ft
 A. 34: 1000 ft
 A. 35: 1000 ft
 A. 36: 1000 ft
 A. 37: 1000 ft
 A. 38: 1000 ft
 A. 39: 1000 ft
 A. 40: 1000 ft
 A. 41: 1000 ft
 A. 42: 1000 ft
 A. 43: 1000 ft
 A. 44: 1000 ft
 A. 45: 1000 ft
 A. 46: 1000 ft
 A. 47: 1000 ft
 A. 48: 1000 ft
 A. 49: 1000 ft
 A. 50: 1000 ft
 A. 51: 1000 ft
 A. 52: 1000 ft
 A. 53: 1000 ft
 A. 54: 1000 ft
 A. 55: 1000 ft
 A. 56: 1000 ft
 A. 57: 1000 ft
 A. 58: 1000 ft
 A. 59: 1000 ft
 A. 60: 1000 ft
 A. 61: 1000 ft
 A. 62: 1000 ft
 A. 63: 1000 ft
 A. 64: 1000 ft
 A. 65: 1000 ft
 A. 66: 1000 ft
 A. 67: 1000 ft
 A. 68: 1000 ft
 A. 69: 1000 ft
 A. 70: 1000 ft
 A. 71: 1000 ft
 A. 72: 1000 ft
 A. 73: 1000 ft
 A. 74: 1000 ft
 A. 75: 1000 ft
 A. 76: 1000 ft
 A. 77: 1000 ft
 A. 78: 1000 ft
 A. 79: 1000 ft
 A. 80: 1000 ft
 A. 81: 1000 ft
 A. 82: 1000 ft
 A. 83: 1000 ft
 A. 84: 1000 ft
 A. 85: 1000 ft
 A. 86: 1000 ft
 A. 87: 1000 ft
 A. 88: 1000 ft
 A. 89: 1000 ft
 A. 90: 1000 ft
 A. 91: 1000 ft
 A. 92: 1000 ft
 A. 93: 1000 ft
 A. 94: 1000 ft
 A. 95: 1000 ft
 A. 96: 1000 ft
 A. 97: 1000 ft
 A. 98: 1000 ft
 A. 99: 1000 ft
 A. 100: 1000 ft



Depth (m)

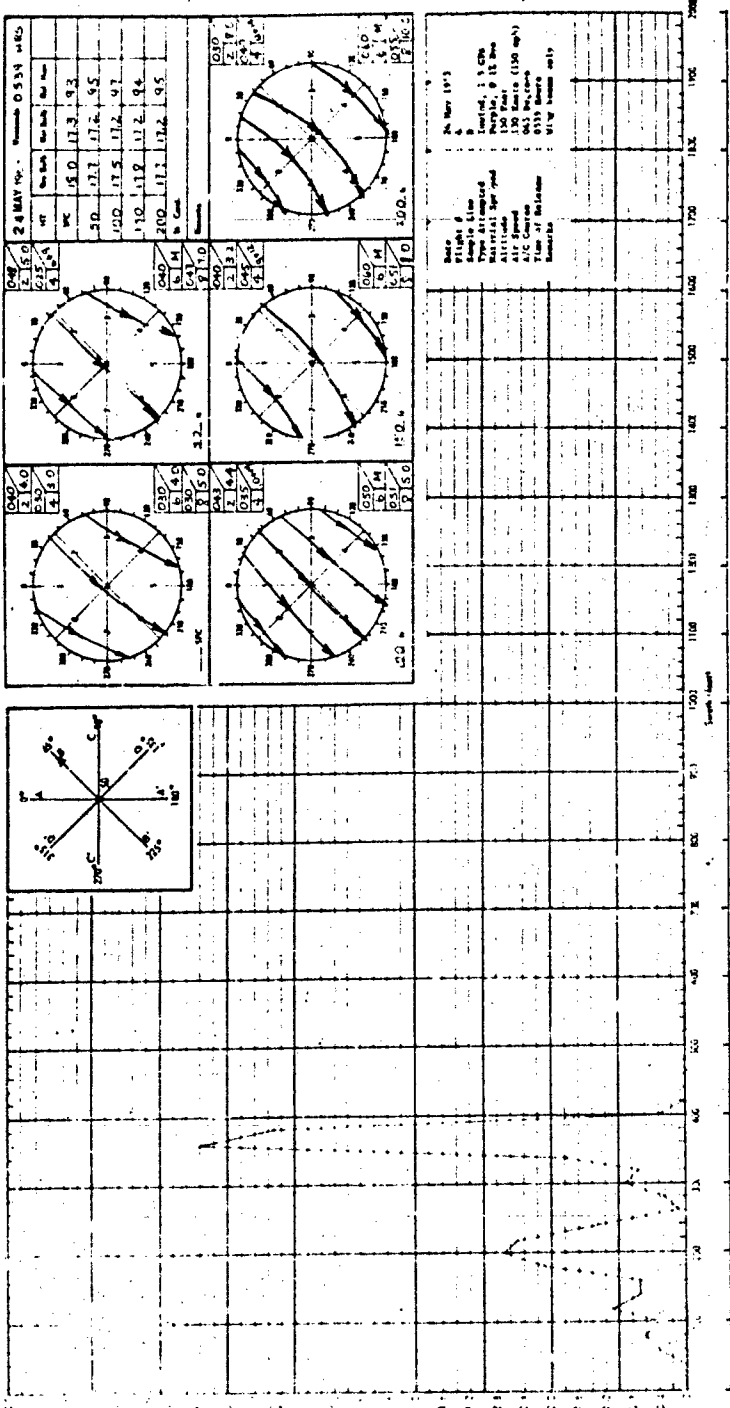
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 205 GPM
 DATE: 24 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0539 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 9 Seconds WIND VECTOR: 044°/6.6 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-43	Blank	44	0.0				
		45	0.4				
		46	6.1				
		27	7.2				
		48	1.8				
		49	0.7				
		50	0.9				
		51	0.3				
		52	0.1				
		53	1.3				
		54	2.5				
		55	2.7				
		56	2.1				
		57	0.7				
		58	0.7				
		59	1.1				
		60	0.4				
		61	0.6				
		62	0.4				
		63	0.0				
		Stations 64-100	Blank				

$$\% \text{ Recovery} = \frac{0.202 \times 150 \times 30.0 \times 20.00}{205} = 38.7$$

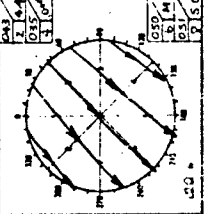
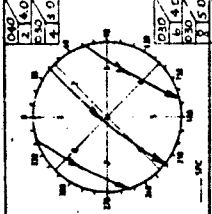
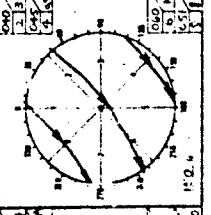
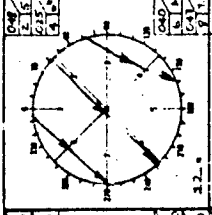
Total 30.0



24 MAY 1973

WT	Sec. 1	Sec. 2	Sec. 3
15.0	17.3	17.3	17.3
17.0	17.5	17.2	17.2
17.0	17.2	17.2	17.2
17.0	17.2	17.2	17.2

WT	Sec. 1	Sec. 2	Sec. 3
17.0	17.2	17.2	17.2
17.0	17.2	17.2	17.2
17.0	17.2	17.2	17.2
17.0	17.2	17.2	17.2



24 May 1973

Sample Site: ...

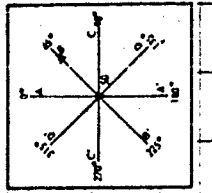
Type: ...

Material: ...

Air Speed: ...

A/C Control: ...

Remarks: ...



Length - feet

Surface Number

MASS DEPOSIT

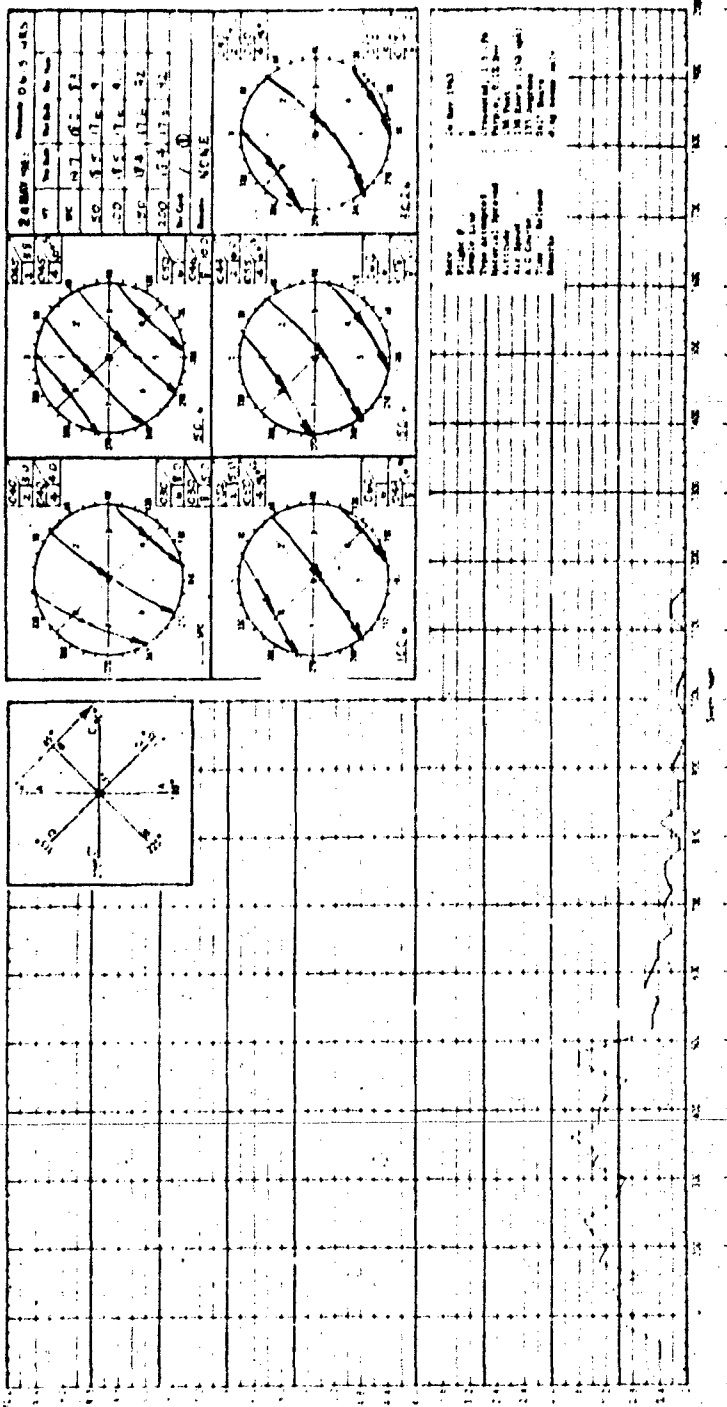
MATERIAL: Purple FLOW RATE: 205 GPM
 DATE: 24 May 1953 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 feet
 TIME OF RELEASE: 0557 hours AIRCRAFT COURSE: 045 degrees
 DURATION: 9 seconds WIND VECTOR: 050° / 7.3 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-40	blank			47	0.0	72	0.0
				48	0.7	Stations	
				49	4.2	73-100	
				50	3.1	blank	
				51	2.5		
				52	2.3		
				53	1.3		
				54	0.8		
				55	1.3		
				56	1.7		
				57	2.0		
				58	1.1		
				59	1.8		
				60	0.8		
				61	0.3		
				62	0.8		
				63	0.9		
				64	0.4		
				65	1.0		
				66	0.8		
				67	0.3		
				68	0.3		
				69	0.0		
				70	0.0		
				71	0.0		

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 210 GPM
 DATE: 24 May 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 6 AIRSPEED: 130 Knot's (150 mph)
 SAMPLE LINE: B ALTITUDE: 150 Feet
 TIME OF RELEASE: 0615 Hours AIRCRAFT COURSE: 135 Degrees
 DURATION: 12 Seconds WIND VECTOR: 052°/7.4 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-5	Blank	26	1.2	51	0.1	76	0.0
		27	0.9	52	0.0	77	0.0
		28	1.6	53	0.0	78	0.0
		29	1.6	54	0.0	79	0.0
		30	0.9	55	0.1	80	0.0
6	0.0	31	0.5	56	0.1	81	0.0
7	0.4	32	0.5	57	0.0	82	0.0
8	0.4	33	0.4	58	0.0	83	0.0
9	0.9	34	0.6	59	0.0	84	0.0
10	0.8	35	0.5	60	0.0	85	0.0
11	1.0	36	0.4	61	0.2	86	0.0
12	1.1	37	0.4	62	0.2	87	0.0
13	0.7	38	0.2	63	0.0	88	0.0
14	1.3	39	0.3	64	0.0	89	0.0
15	1.2	40	0.3	65	0.0	90	0.0
16	1.4	41	0.2	66	0.0	91	0.0
17	1.5	42	0.3	67	0.0	92	0.0
18	1.1	43	0.3	68	0.0	93	0.0
19	1.0	44	0.1	69	0.0	94	0.0
20	0.9	45	0.1	70	0.0	95	0.0
21	1.4	46	0.4	71	0.0	96	0.0
22	1.3	47	0.1	72	0.0	97	0.0
23	1.7	48	0.1	73	0.0	98	0.0
24	1.3	49	0.1	74	0.0	99	0.0
25	1.3	50	0.2	75	0.0	100	0.0



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C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 5 June 1963 DATE TEST FLOWN: 6 June 1963
LIQUID SPRAYED: Fuel Oil TOTAL NOZZLES OPEN: 76
NOZZLE TYPE: Check valve LIQUID TEMP: _____
DURATION OF SPRAY: 10 Sec. PUMP PRESSURE: 54 psi before
32 psi during
PUMP R.P.M.: 2800 before sprayer : _____
NO. OF PUMPS: 2 FLOW METER READING: 420 GPM
TOTAL AMOUNT SPRAYED: 70 Gals. FLOW RATE CALIBRATED: 420 GPM
NOZZLE CONFIGURATION: WING: 1-32
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>CFM FLOWMETER</u>
1	---	53	---	435
2	---	52	---	430

REMARKS: Boom pressures: Left wing 20#, Right wing 19#.

MASS MEDIAN DIAMETER

DATE: 6 June 1963 SPREAD FACTOR: 6.0
 FLIGHT #: 6 CONVERSION FACTOR: 2.5
 SAMPLE LINE: A PAPER: Kromekote, white
 FLOW RATE: 445 GPM MATERIAL: Fuel Oil
 SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
56	4	5000*			
53	1	4900			
56	5	4800			
56	6	4700			
56	7	4600			
53	2	4500			
53	3	4400			
54	10	4300			
54	9	4200			
54	8	4100			

$$\text{MMD} = \frac{\text{Spot D Max}}{\text{Spread Factor} \times \text{Con. Factor}} = \frac{5000}{6 \times 2.5} = 333.3 \text{ Microns}$$

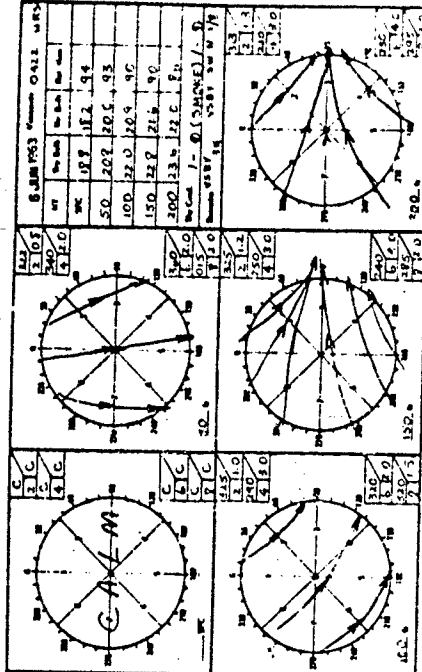
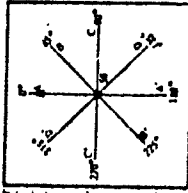
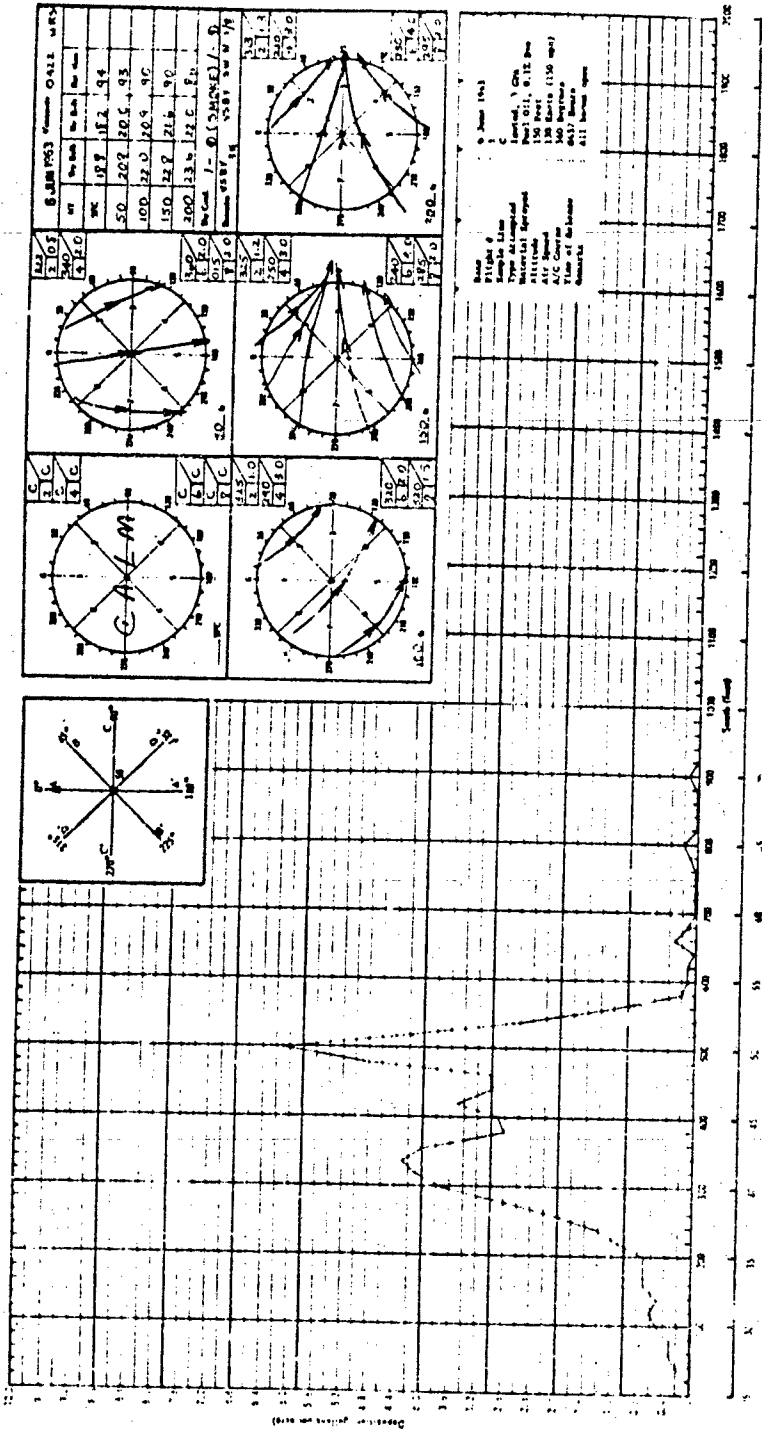
$$\text{Max. Sph. Dia.} = \frac{5000}{6} = 833.3 \text{ microns}$$

$$\text{Min. Sph. Dia.} = \frac{100}{6} = 16.7 \text{ microns}$$

MASS DEPOSIT

AIRCRAFT: F-101 FLOW RATE: 0.35 CPM
 DATE: 1 June 1963 SYSTEM: C-12/AG-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0457 hours AIRCRAFT COURSE: 260 degrees
 DURATION: 13 seconds WIND VECTOR: 292° / 1.9 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-25 blank		26	0.0	51	4.2		
		27	0.2	52	2.7		
		28	0.3	53	1.2		
		29	0.3	54	0.2		
		30	0.5	55	0.1		
		31	0.6	56	0.1		
		32	0.5	57	0.0		
		33	0.7	58	0.3		
		34	0.7	59	0.1		
		35	0.7	60	0.0		
		36	1.1	61	0.0		
		37	1.4	62	0.0		
		38	2.0	63	0.0		
		39	2.3	64	0.1		
		40	3.7	65	0.2		
		41	4.1	66	0.0		
		42	4.3	67	0.0		
		43	4.0	68	0.0		
		44	2.8	69	0.0		
		45	2.9	70	0.1		
		46	3.5			Stations 71-100 blank	
		47	3.0				
		48	3.0				
		49	4.9				
		50	6.1				

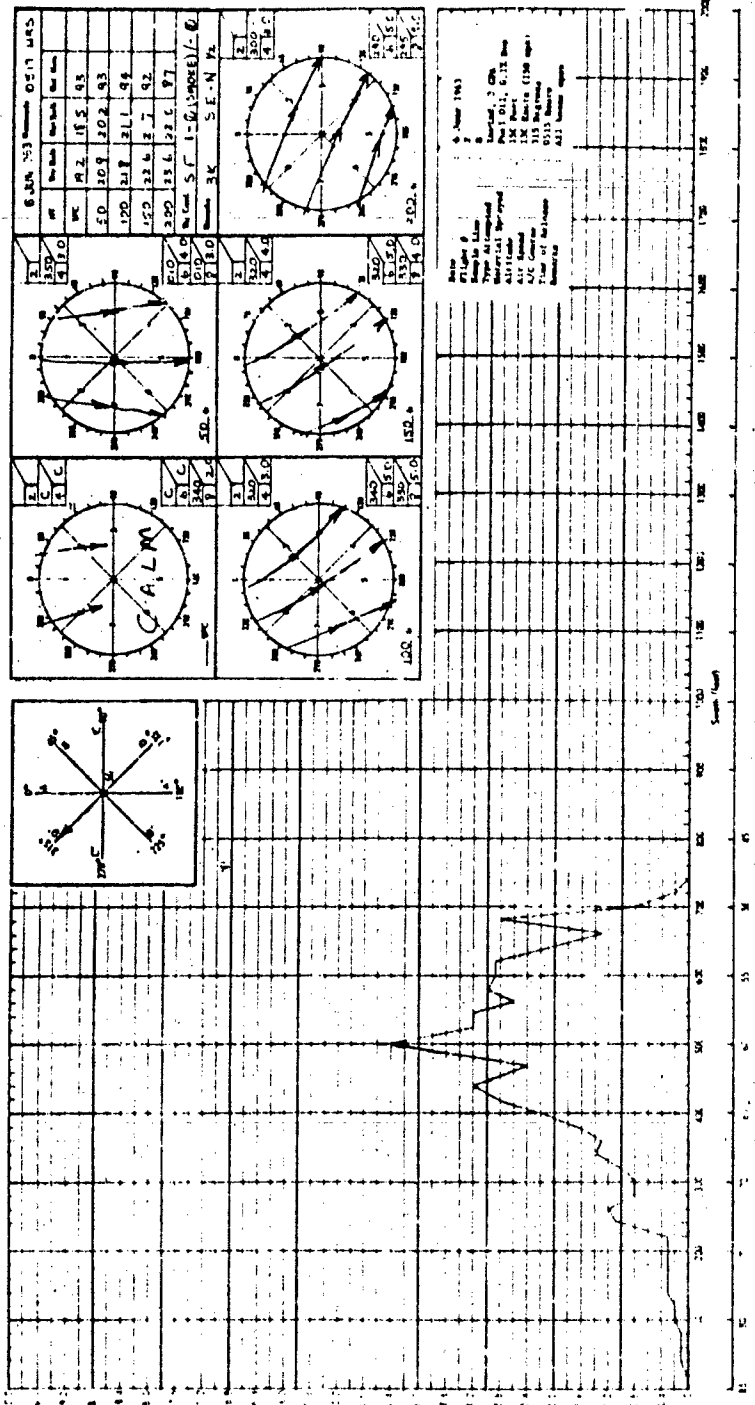


Item	Description	Value
1	Length	170.0
2	Beam	12.0
3	Depth	10.0
4	Displacement	1000.0
5	Speed	10.0
6	Power	1000.0
7	Efficiency	10.0
8	Resistance	10.0
9	Propulsion	10.0
10	Stability	10.0
11	Maneuverability	10.0
12	Seakeeping	10.0
13	Structural	10.0
14	Material	10.0
15	Construction	10.0
16	Maintenance	10.0
17	Operational	10.0
18	Performance	10.0
19	Reliability	10.0
20	Safety	10.0
21	Security	10.0
22	Compliance	10.0
23	Documentation	10.0
24	Quality Control	10.0
25	Project Management	10.0
26	Communication	10.0
27	Teamwork	10.0
28	Problem Solving	10.0
29	Decision Making	10.0
30	Leadership	10.0
31	Team Building	10.0
32	Conflict Resolution	10.0
33	Time Management	10.0
34	Resource Management	10.0
35	Risk Management	10.0
36	Change Management	10.0
37	Continuous Improvement	10.0
38	Customer Satisfaction	10.0
39	Employee Engagement	10.0
40	Organizational Culture	10.0
41	Strategic Planning	10.0
42	Business Development	10.0
43	Marketing	10.0
44	Sales	10.0
45	Customer Service	10.0
46	Product Development	10.0
47	Research and Development	10.0
48	Innovation	10.0
49	Patent Law	10.0
50	Intellectual Property	10.0
51	Contract Law	10.0
52	Real Estate	10.0
53	Construction Law	10.0
54	Insurance	10.0
55	Banking	10.0
56	Investment	10.0
57	Finance	10.0
58	Accounting	10.0
59	Law	10.0
60	Medicine	10.0
61	Engineering	10.0
62	Architecture	10.0
63	Design	10.0
64	Art	10.0
65	Music	10.0
66	Dance	10.0
67	Theater	10.0
68	Film	10.0
69	Television	10.0
70	Radio	10.0
71	Journalism	10.0
72	Public Relations	10.0
73	Advertising	10.0
74	Marketing	10.0
75	Sales	10.0
76	Customer Service	10.0
77	Product Development	10.0
78	Research and Development	10.0
79	Innovation	10.0
80	Patent Law	10.0
81	Intellectual Property	10.0
82	Contract Law	10.0
83	Real Estate	10.0
84	Construction Law	10.0
85	Insurance	10.0
86	Banking	10.0
87	Investment	10.0
88	Finance	10.0
89	Accounting	10.0
90	Law	10.0
91	Medicine	10.0
92	Engineering	10.0
93	Architecture	10.0
94	Design	10.0
95	Art	10.0
96	Music	10.0
97	Dance	10.0
98	Theater	10.0
99	Film	10.0
100	Television	10.0

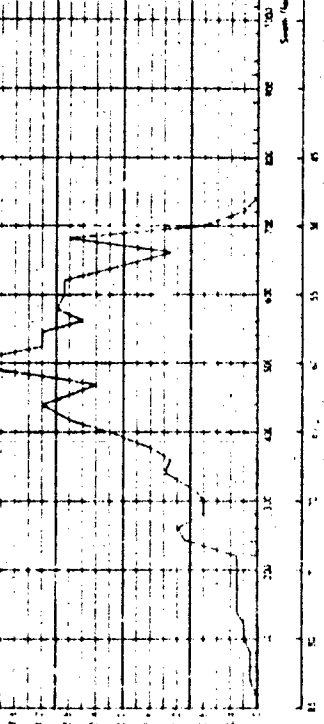
MASS DEPOSIT

MATERIAL: Fuel O-1 FLOW RATE: 430 GPM
 DATE: 6 Jan. 1953 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 mph)
 STATION LINE: _____ ALTITUDE: 150 feet
 TIME OF RELEASE: 01 hours AIRCRAFT COURSE: 315 degrees
 DURATION: 1 seconds WIND VECTOR: 324° / 3.0 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Station 1-10	blank	49	0.2	74	0.3		
		50	0.8	75	0.3		
		51	2.8	76	0.3		
		52	1.3	77	0.3		
		53	2.1	78	0.3		
		54	2.9	79	0.2		
		55	2.9	80	0.2		
		56	3.0	81	0.1		
		57	2.6	82	0.1		
		58	3.2	83	0.1		
		59	3.2			Station	
		60	4.4			84-100	
		61	3.0			blank	
		62	2.4				
		63	3.2				
		64	2.3				
		65	2.2				
		66	1.6				
		67	1.3				
		68	1.4				
		69	0.9				
		70	0.8				
		71	0.8				
		72	1.2				
		73	1.1				



W	SE	E	SW
11.0	11.5	12.0	12.5
13.0	13.5	14.0	14.5
15.0	15.5	16.0	16.5
17.0	17.5	18.0	18.5
19.0	19.5	20.0	20.5
21.0	21.5	22.0	22.5
23.0	23.5	24.0	24.5
25.0	25.5	26.0	26.5
27.0	27.5	28.0	28.5
29.0	29.5	30.0	30.5
31.0	31.5	32.0	32.5
33.0	33.5	34.0	34.5
35.0	35.5	36.0	36.5
37.0	37.5	38.0	38.5
39.0	39.5	40.0	40.5
41.0	41.5	42.0	42.5
43.0	43.5	44.0	44.5
45.0	45.5	46.0	46.5
47.0	47.5	48.0	48.5
49.0	49.5	50.0	50.5
51.0	51.5	52.0	52.5
53.0	53.5	54.0	54.5
55.0	55.5	56.0	56.5
57.0	57.5	58.0	58.5
59.0	59.5	60.0	60.5
61.0	61.5	62.0	62.5
63.0	63.5	64.0	64.5
65.0	65.5	66.0	66.5
67.0	67.5	68.0	68.5
69.0	69.5	70.0	70.5
71.0	71.5	72.0	72.5
73.0	73.5	74.0	74.5
75.0	75.5	76.0	76.5
77.0	77.5	78.0	78.5
79.0	79.5	80.0	80.5
81.0	81.5	82.0	82.5
83.0	83.5	84.0	84.5
85.0	85.5	86.0	86.5
87.0	87.5	88.0	88.5
89.0	89.5	90.0	90.5
91.0	91.5	92.0	92.5
93.0	93.5	94.0	94.5
95.0	95.5	96.0	96.5
97.0	97.5	98.0	98.5
99.0	99.5	100.0	100.5



W

SE

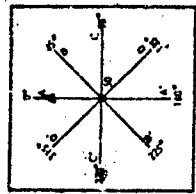
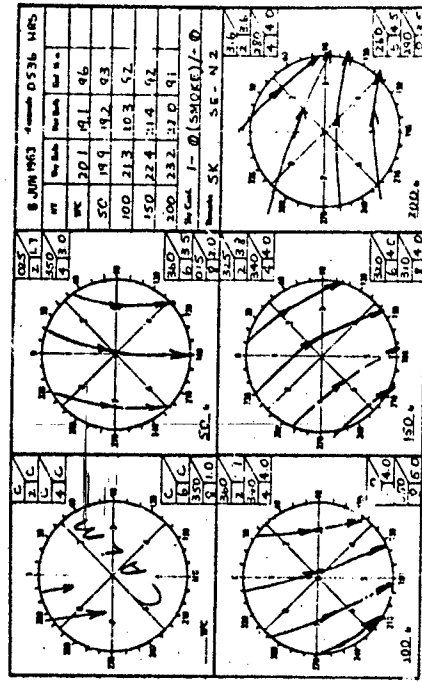
E

SW

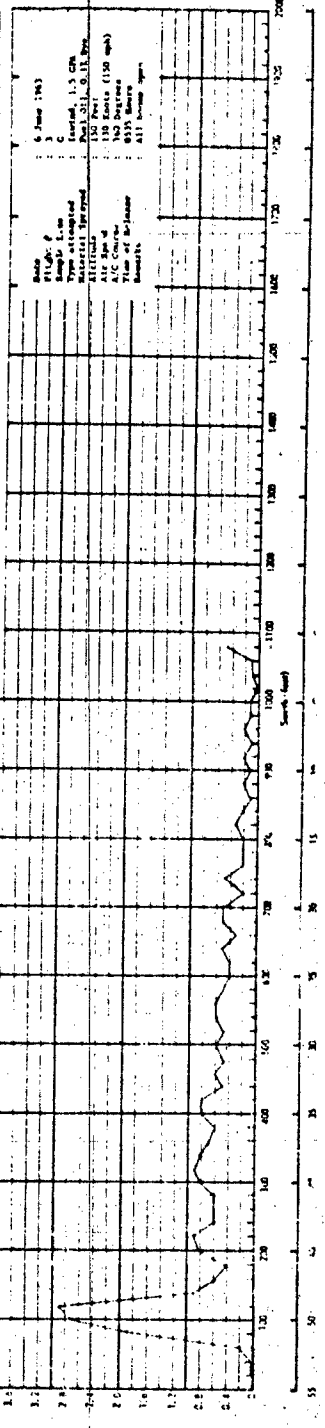
MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 235 GPM
 DATE: June 1953 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0:35 hours AIRCRAFT COURSE: 300 degrees
 DURATION: 15 seconds WIND VECTOR: 327° / 3.0 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.3	25	0.5	51	1.9		
2	0.2	27	0.6	52	0.2		
3	0.2	28	0.6	53	0.0		
4	0.0	29	0.5	54	0.0		
5	0.1	30	0.6	Stations 55-100 blank			
6	0.1	31	0.5				
7	0.2	32	0.6				
8	0.1	33	0.5				
9	0.2	34	0.8				
10	0.1	35	0.8				
11	0.2	36	0.6				
12	0.1	37	0.7				
13	0.2	38	0.8				
14	0.3	39	0.9				
15	0.2	40	0.8				
16	0.2	41	0.6				
17	0.2	42	0.6				
18	0.5	43	0.6				
19	0.2	44	0.9				
20	0.5	45	0.8				
21	0.5	46	0.4				
22	0.3	47	0.6				
23	0.5	48	0.9				
24	0.5	49	2.9				
25	0.4	50	2.7				



8 JUN 1963		Station D536 HRS	
Time	Wind Dir	Wind Spd	Wind Spd
055	210	19.1	9.6
065	199	18.2	9.3
075	100	21.3	10.3
085	150	22.4	11.4
095	200	23.2	11.6
105	200	23.2	11.6
115	200	23.2	11.6
125	200	23.2	11.6
135	200	23.2	11.6
145	200	23.2	11.6
155	200	23.2	11.6
165	200	23.2	11.6
175	200	23.2	11.6
185	200	23.2	11.6
195	200	23.2	11.6
205	200	23.2	11.6
215	200	23.2	11.6
225	200	23.2	11.6
235	200	23.2	11.6
245	200	23.2	11.6
255	200	23.2	11.6
265	200	23.2	11.6
275	200	23.2	11.6
285	200	23.2	11.6
295	200	23.2	11.6
305	200	23.2	11.6
315	200	23.2	11.6
325	200	23.2	11.6
335	200	23.2	11.6
345	200	23.2	11.6
355	200	23.2	11.6
365	200	23.2	11.6
375	200	23.2	11.6
385	200	23.2	11.6
395	200	23.2	11.6
405	200	23.2	11.6
415	200	23.2	11.6
425	200	23.2	11.6
435	200	23.2	11.6
445	200	23.2	11.6
455	200	23.2	11.6
465	200	23.2	11.6
475	200	23.2	11.6
485	200	23.2	11.6
495	200	23.2	11.6
505	200	23.2	11.6
515	200	23.2	11.6
525	200	23.2	11.6
535	200	23.2	11.6
545	200	23.2	11.6
555	200	23.2	11.6
565	200	23.2	11.6
575	200	23.2	11.6
585	200	23.2	11.6
595	200	23.2	11.6
605	200	23.2	11.6
615	200	23.2	11.6
625	200	23.2	11.6
635	200	23.2	11.6
645	200	23.2	11.6
655	200	23.2	11.6
665	200	23.2	11.6
675	200	23.2	11.6
685	200	23.2	11.6
695	200	23.2	11.6
705	200	23.2	11.6
715	200	23.2	11.6
725	200	23.2	11.6
735	200	23.2	11.6
745	200	23.2	11.6
755	200	23.2	11.6
765	200	23.2	11.6
775	200	23.2	11.6
785	200	23.2	11.6
795	200	23.2	11.6
805	200	23.2	11.6
815	200	23.2	11.6
825	200	23.2	11.6
835	200	23.2	11.6
845	200	23.2	11.6
855	200	23.2	11.6
865	200	23.2	11.6
875	200	23.2	11.6
885	200	23.2	11.6
895	200	23.2	11.6
905	200	23.2	11.6
915	200	23.2	11.6
925	200	23.2	11.6
935	200	23.2	11.6
945	200	23.2	11.6
955	200	23.2	11.6
965	200	23.2	11.6
975	200	23.2	11.6
985	200	23.2	11.6
995	200	23.2	11.6



Made: 6 June 1963
 Flight: C
 Sample Time: 150 Per
 Material Stripped: 150 Per
 Altitude: 150 Per
 A/C Crew: 150 Per
 Time of Release: 0815 Hours
 Remarks: All Sample Open

MASS DEPOSIT

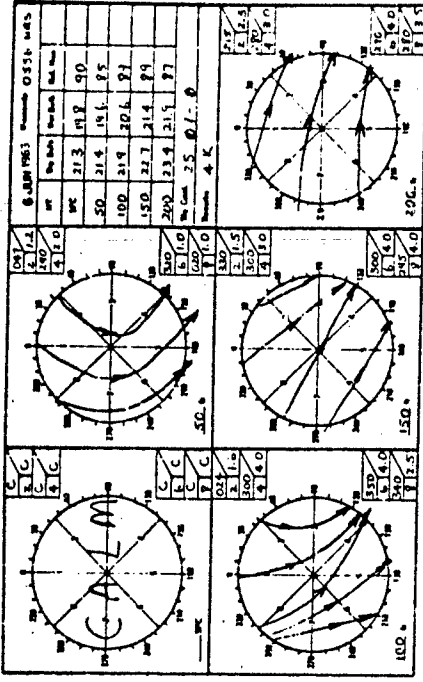
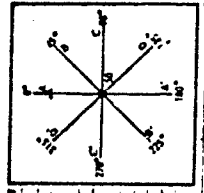
MATERIAL: Fuel Oil FLOW RATE: 2
 DATE: 6 June 1963 SYSTEM: C-123
 FLIGHT #: 4 AIRSPEED: 130 kt
 SAMPLE LINE: C ALTITUDE: 150
 TIME OF RELEASE: 0553 hours AIRCRAFT COURSE: _____
 DURATION: 13 seconds WIND VECTOR: 314

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-12 blank		13	0.1	38	1.0
		14	0.1	39	1.2
		15	0.1	40	1.2
		16	0.1	41	1.1
		17	0.1	42	0.7
		18	0.2	43	0.7
		19	0.2	44	0.7
		20	0.2	45	0.8
		21	0.2	46	0.8
		22	0.2	47	1.3
		23	0.3	48	2.8
		24	0.3	49	1.6
		25	0.3	50	2.8
		26	0.4	51	2.6
		27	0.4	52	0.5
		28	0.5	53	0.5
		29	0.5	Stations 54-100	
		30	0.6		
		31	0.6		
		32	0.8		
		33	0.8		
		34	0.7		
		35	0.7		
		36	0.7		
		37	0.7		

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 235 GPM
 DATE: 6 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0553 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 13 seconds WIND VECTOR: 314° / 2.4 mph

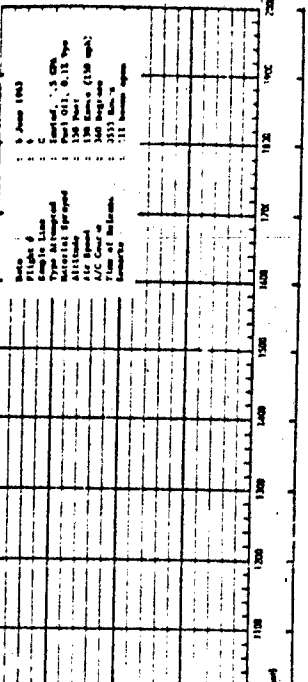
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-12 blank		13	0.1	38	1.0		
		14	0.1	39	1.2		
		15	0.1	40	1.2		
		16	0.1	41	1.1		
		17	0.1	42	0.7		
		18	0.2	43	0.7		
		19	0.2	44	0.7		
		20	0.2	45	0.8		
		21	0.2	46	0.8		
		22	0.2	47	1.3		
		23	0.3	48	2.8		
		24	0.3	49	1.6		
		25	0.3	50	2.8		
		26	0.4	51	2.6		
		27	0.4	52	0.5		
		28	0.5	53	0.5		
		29	0.5	Stations 54-100 blank			
		30	0.6				
		31	0.6				
		32	0.8				
		33	0.8				
		34	0.7				
		35	0.7				
		36	0.7				
		37	0.7				



6. ABW 1963

Alt	Wind Speed	Wind Dir
100	21.2	170
150	21.4	191
200	21.9	206
250	22.7	214

Wind Speed: 4 K
Wind Dir: 2.5 - 0.1 - 0



6. ABW 1963

Alt	Wind Speed	Wind Dir
100	21.2	170
150	21.4	191
200	21.9	206
250	22.7	214

Wind Speed: 4 K
Wind Dir: 2.5 - 0.1 - 0

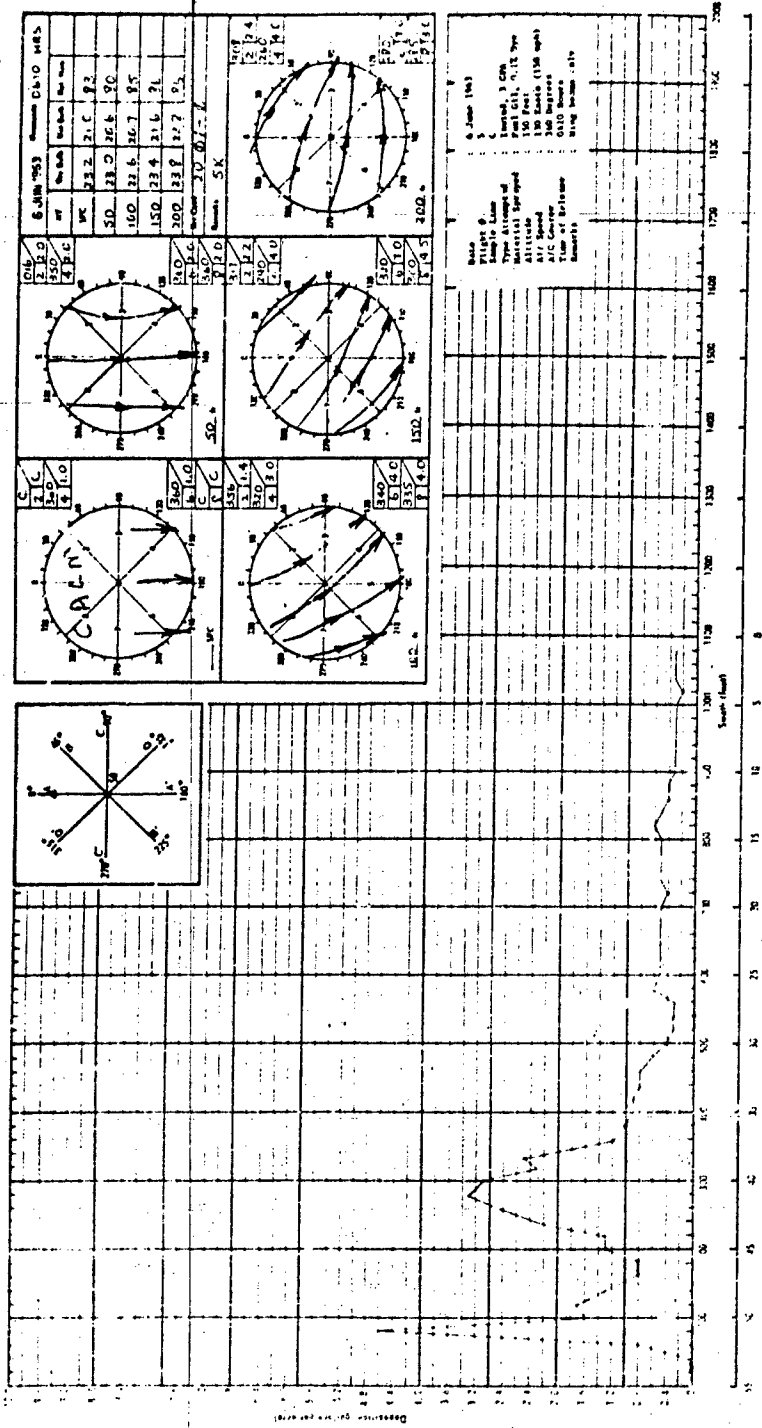
Alt	Wind Speed	Wind Dir
100	21.2	170
150	21.4	191
200	21.9	206
250	22.7	214

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MASS DEPOSIT

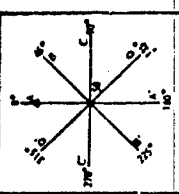
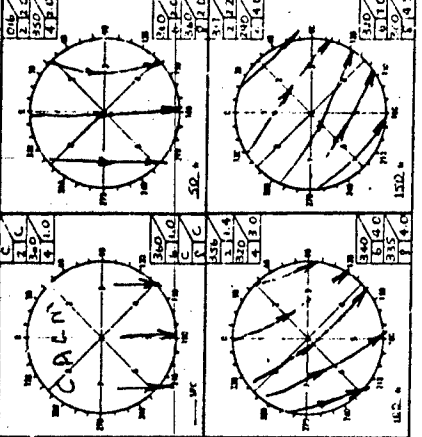
MATERIAL: Fuel Oil FLOW RATE: 445 GPM
 DATE: 6 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE 0610 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 10 seconds WIND VECTOR: 315° / 2.5 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.3	26	0.6	51	4.6		
2	0.3	27	0.3	52	0.8		
3	0.3	28	0.3	53	0.2		
4	0.2	29	0.3	Stations 54-100 blank			
5	0.3	50	0.4				
6	0.3	31	0.6				
7	0.3	32	0.8				
8	0.3	33	0.8				
9	0.3	34	0.9				
10	0.3	35	0.9				
11	0.4	36	1.0				
12	0.4	37	1.2				
13	0.5	38	2.5				
14	0.6	39	2.3				
15	0.5	40	3.1				
16	0.5	41	3.3				
17	0.5	42	2.8				
18	0.5	43	2.2				
19	0.4	44	1.3				
20	0.5	45	1.3				
21	0.5	46	0.8				
22	0.5	47	0.8				
23	0.5	48	1.3				
24	0.5	49	1.7				
25	0.5	50	1.6				



6 JUN 1953				Mission DATA				MRS			
Time	Altitude	Speed	Direction	Time	Altitude	Speed	Direction	Time	Altitude	Speed	Direction
00	1000	232	210	02	700	210	210	04	500	200	210
06	300	234	210	08	100	234	210	10	0	234	210
12	0	237	210	14	0	237	210	16	0	237	210

Flight 6
 Sample Run
 Instrument Surveyed
 Altitude
 100 Feet (100 mph)
 300 Feet (300 mph)
 500 Feet (500 mph)
 1000 Feet (1000 mph)
 1500 Feet (1500 mph)
 2000 Feet (2000 mph)



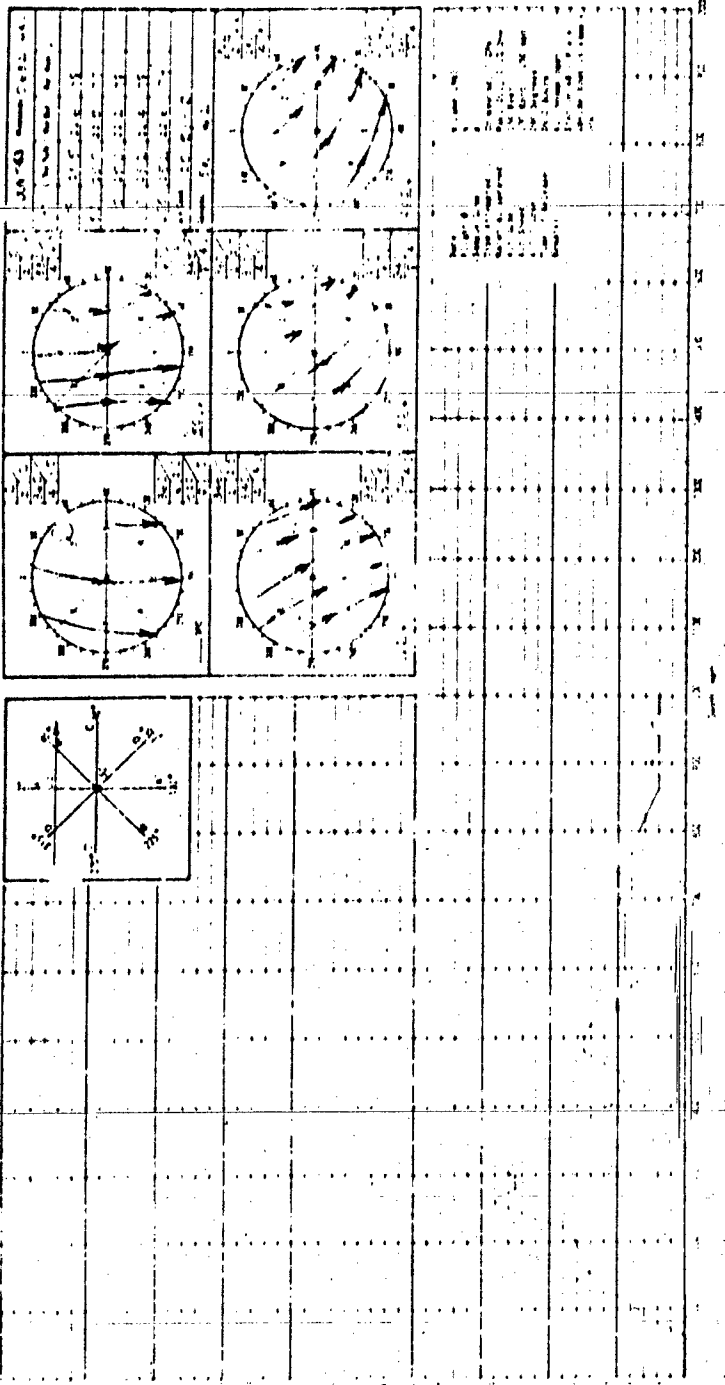
Direction of Wind (Mph)

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 445 GPM
 DATE: 6 June 1963 SYSTEM: C-123, MC-1
 FLIGHT #: 6 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0632 Hours AIRCRAFT COURSE: 090 Degrees
 DURATION: 13 Seconds WIND VECTOR: 3:1⁰/3.7 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-53	Blank					76	1.4
						77	1.0
						78	1.0
		54	0.4			79	0.7
		55	0.7			80	0.9
		56	0.9			81	0.9
		57	1.7			82	0.9
		58	1.4			83	0.9
		59	1.5			84	0.9
		60	1.6			85	1.0
		61	1.7			86	0.7
		62	2.3			87	1.0
		63	2.8			88	0.9
		64	2.5			89	0.7
		65	2.5			90	0.7
		66	3.0			91	0.6
		67	3.0			92	0.5
		68	*			93	0.4
		69	1.5			94	0.4
		70	1.1			95	0.5
		71	1.0			96	0.4
		72	0.9			98	0.4
		73	1.0			98	0.5
		74	1.5			99	0.4
		75	1.5			100	0.4

* Not sprayed



C-123/MC-1 GROUND FLOW & FLIGHT DATA

159

DATE CALIBRATED: 9 June 1963 DATE TEST FLOWN: 11 June 1963
LIQUID SPRAYED: Fuel Oil TOTAL NOZZLES OPEN: 76
NOZZLE TYPE: Check valve LIQUID TEMP: 33^o C
DURATION OF SPRAY: 10 Sec. PUMP PRESSURE: 55 psi before
PUMP R.P.M.: 2800 before spray 32 psi during
NO. OF PUMPS: 2 FLOW METER READING: 420 GPM
TOTAL AMOUNT SPRAYED: 69.5 Gals. FLOW RATE CALIBRATED: 417 GPM
NOZZLE CONFIGURATION: WING: 1-12
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING FLIGHT

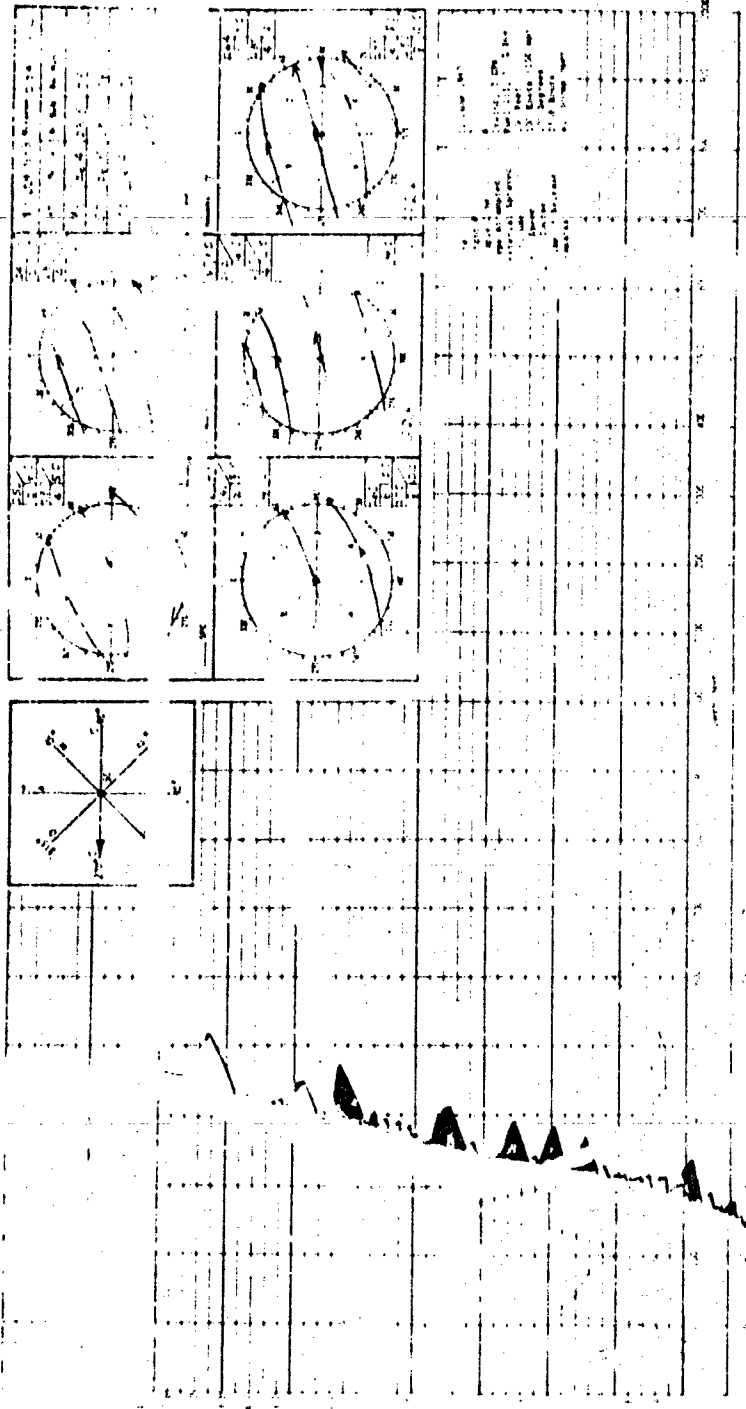
<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>1</u>	<u>2900</u>	<u>56</u>	<u>33</u>	<u>435</u>

REMARKS: Boom pressure: Left wing 20#, Right wing 20#, Tail 22#.

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 435 GPM
 DATE: 11 June 1963 SYSTEM: C-123/
 FLIGHT #: 7 AIRSPEED: 130 knots
 SAMPLE LINE: A ALTITUDE: 150 feet
 TIME OF RELEASE: 0538 hours AIRCRAFT COURSE: _____ degrees
 DURATION: 11 seconds WIND VECTOR: 252 / _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-19 blank		20	0.2	45	1.0		
		21	0.3	46	1.4		
		22	0.3	47	1.5		
		23	0.6	48	1.6		
		24	0.8	49	1.9		
		25	1.1	50	0.4		
		26	0.9	51	0.3		
		27	0.7	Stations 52-100 blank			
		28	0.9				
		29	0.4				
		30	0.3				
		31	0.3				
		32	0.3				
		33	0.3				
		34	0.5				
		35	0.5				
		36	0.7				
		37	1.0				
		38	1.4				
		39	2.2				
		40	2.0				
		41	3.0				
		42	3.0				
		43	1.9				
		44	1.2				



C-123/RC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 June 1963 DATE TEST FLOWN: 11 June 1963
LIQUID SPRAYED: Fuel Oil TOTAL NOZZLES OPEN: 76
NOZZLE TYPE: Check valve no tip LIQUID TEMP: 33° C
DURATION OF SPRAY: 10 Sec. PUMP PRESSURE: 55 psi before
PUMP R.P.M.: 2800 32 psi during
NO. OF PUMPS: 2 FLOW METER READING: 420 GPM
TOTAL AMOUNT SPRAYED: 69.5 Ga. FLOW RATE CALIBRATED: 417 GPM
NOZZLE CONFIGURATION: WING: 1-32
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM BEFORE</u>	<u>RPM DURING</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>1</u>	<u>3000</u>	<u>2600</u>	<u>60</u>	<u>34</u>	<u>455</u>
<u>2</u>	<u>3000</u>	<u>2500</u>	<u>No. 1 54</u>	<u>33</u>	<u>430</u>
<u>6</u>	<u>2850</u>	<u>2500</u>	<u>No. 2 53</u>	<u>30</u>	
			<u>51</u>	<u>32</u>	<u>425</u>

NOTE: Boom pressure: Left wing 20#, Right wing 20#, Tail 22#. Due to vibrato pump pressure could not be controlled to specified pressures.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: <u>8 June 1961</u>	DATE TEST FLOWN: <u>13 June 1961</u>
LIQUID SPRAYED: <u>Fuel Oil</u>	TOTAL NOZZLES OPEN: <u>76</u>
NOZZLE TYPE: <u>Check valve no tip</u>	LIQUID TEMP: <u>33° C</u>
DURATION OF SPRAY: <u>10 Sec.</u>	PUMP PRESSURE: <u>46 psi before</u> <u>22 psi during</u>
PUMP R.P.M.: <u>2500</u>	
NO. OF PUMPS: <u>1</u>	FLOW METER READING: <u>230 GPM</u>
TOTAL AMOUNT SPRAYED: <u>36.5 Gals.</u>	FLOW RATE CALIBRATED: <u>219 GPM</u>
NOZZLE CONFIGURATION: <u>WING: 1-32</u> <u>TAIL: 1-6, 14-19</u>	

OPERATIONAL DATA DURING FLIGHT

<u>RUN #</u>	<u>RPM BEFORE</u>	<u>RPM DURING</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
3	2700	2300	47	22	240
4	2600	2000	45	22	230

REMARKS: Boom pressure: Left wing 13#, Tail 177.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

105

DATE CALIBRATED: 8 June 1963 DATE TEST FLOWN: 13 June 1963
LIQUID SPRAYED: Fuel Oil TOTAL NOZZLES OPEN: 64
NOZZLE TYPE: Check valve no tip LIQUID TEMP: 33° C
DURATION OF SPRAY: 10 Sec. PUMP PRESSURE: 65 psi before
40 psi during
PUMP R.P.M.: 3200
NO. OF PUMPS: 2 FLOW METER READING: 420 GPM
TOTAL AMOUNT SPRAYED: 69 Gals. FLOW RATE CALIBRATED: 414 GPM
NOZZLE CONFIGURATION: WING: 1-32
TAIL:

OPERATIONAL DATA DURING FLIGHT

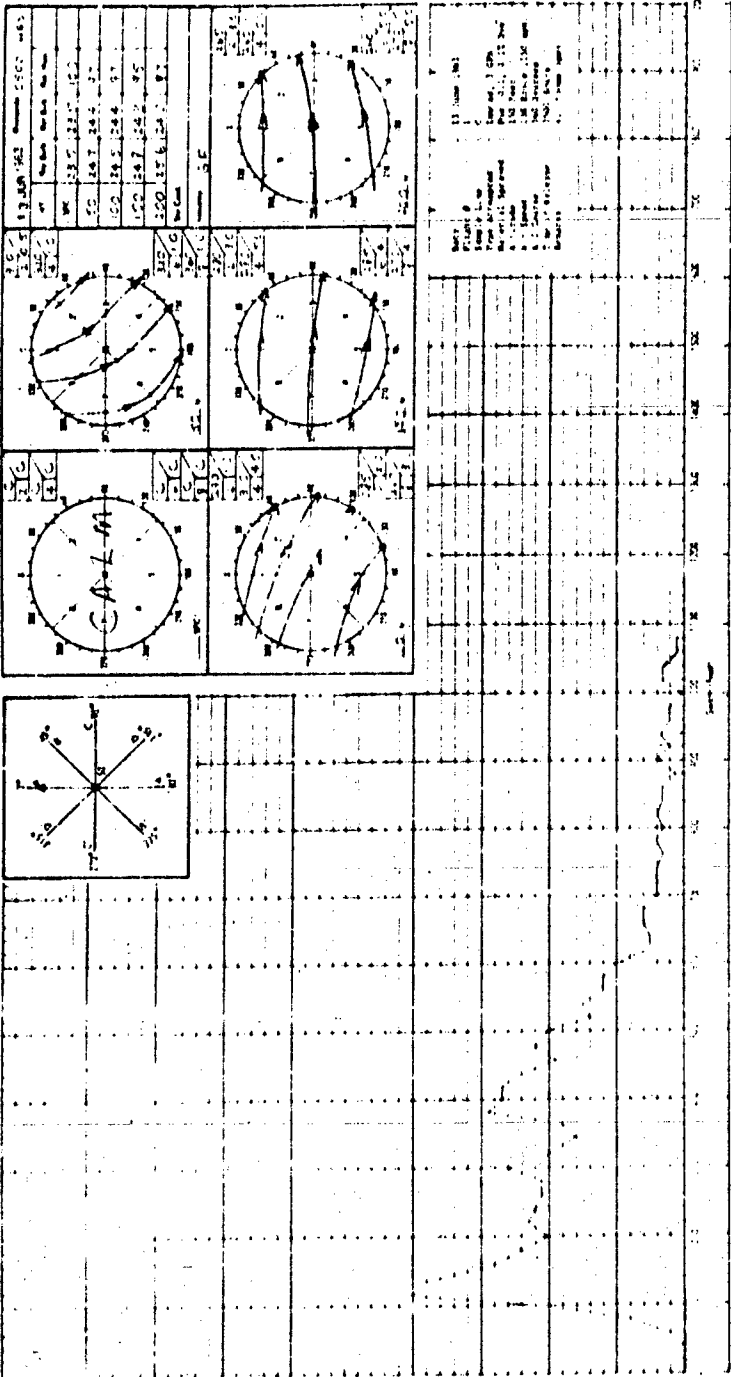
<u>RUN #</u>	<u>RPM BEFORE</u>	<u>RPM DURING</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>5</u>	<u>3200</u>		<u>No. 1 65</u>	<u>40</u>	<u>455</u>
			<u>No. 2 67</u>	<u>40</u>	

REMARKS: Boom pressure: Left wing 23#, Right wing 23#.

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 455 GPM
 DATE: 13 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0500 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 18 Seconds WIND VECTOR: 279°/2.3 mph

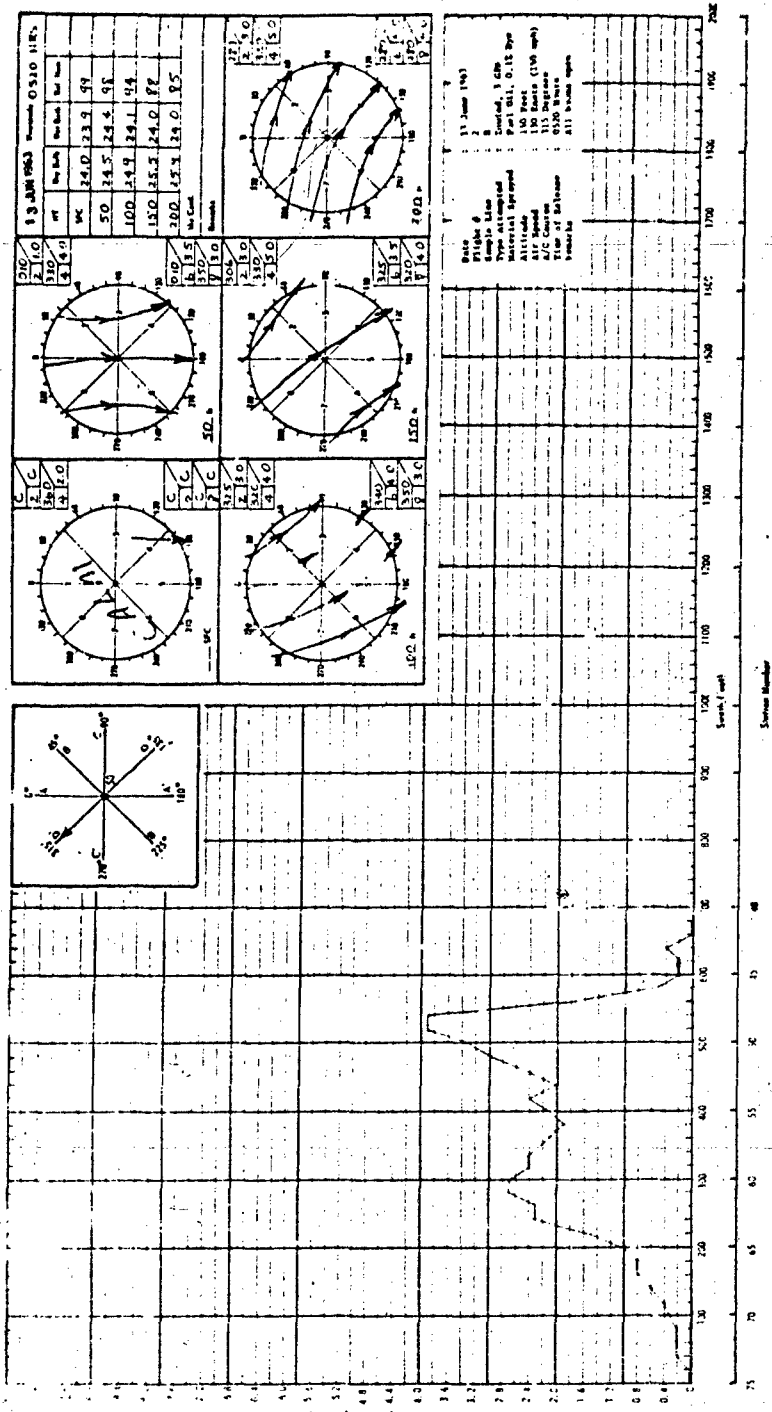
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.1	26	1.2	51	0.8		
2	0.1	27	1.2	52	0.2		
3	0.3	28	1.5	53	0.0		
4	0.3	29	1.4	Stations 54-100 Blank			
5	0.0	30	2.0				
6	0.2	31	2.2				
7	0.2	32	1.9				
8	0.3	33	2.5				
9	0.2	34	2.7				
10	0.4	35	2.7				
11	0.1	36	2.9				
12	0.3	37	1.8				
13	0.3	38	1.6				
14	0.4	39	2.0				
15	0.3	40	2.6				
16	0.6	41	2.1				
17	0.3	42	2.1				
18	0.4	43	2.2				
19	0.4	44	2.3				
20	0.4	45	2.0				
21	0.6	46	2.4				
22	0.6	47	2.8				
23	0.5	48	3.8				
24	0.5	49	4.0				
25	1.0		4.0				



MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 430 GPM
 DATE: 17 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: B ALTITUDE: 150 feet
 TIME OF RELEASE: 0520 hours AIRCRAFT COURSE: 315 degrees
 DURATION: 10 seconds WIND VECTOR: 323⁰ / 2.7 mph

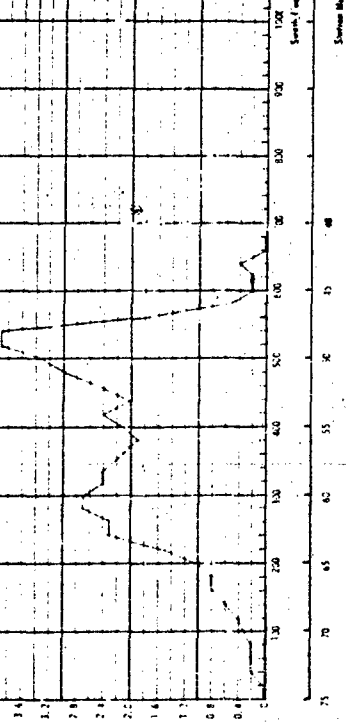
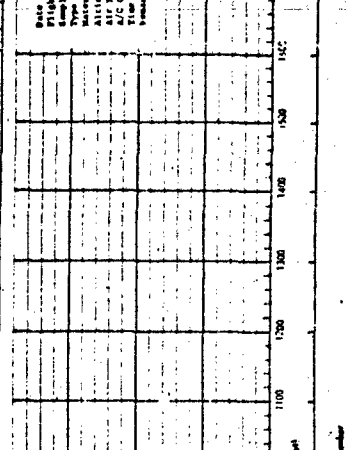
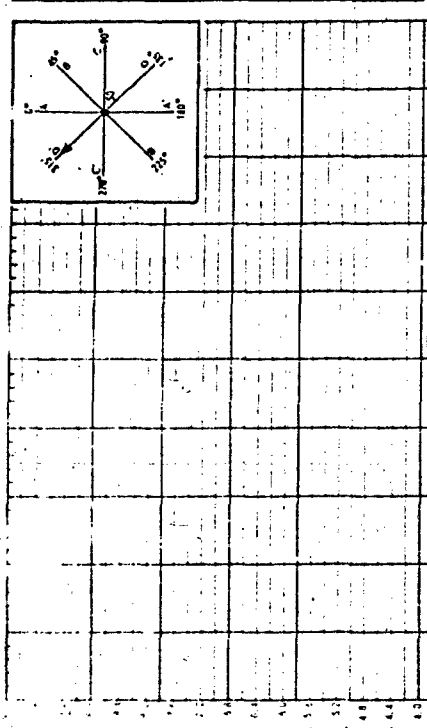
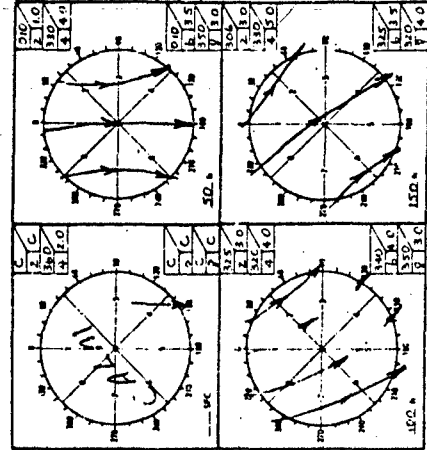
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-42	blank			43	0.3	68	0.6
				44	0.2	69	0.4
				45	0.2	70	0.3
				46	0.5	71	0.2
				47	1.9	72	0.2
				48	3.9	73	0.2
				49	3.9	Stations	
				50	3.3	74-100	
				51	3.0	blank	
				52	2.4		
				53	2.0		
				54	2.4		
				55	2.1		
				56	1.9		
				57	2.1		
				58	2.4		
				59	2.4		
				60	2.7		
				61	2.7		
				62	2.3		
				63	2.3		
				64	1.5		
				65	1.0		
				66	0.8		
				67	0.8		



13 JAN 1963

WT	WT	WT	WT
24.0	23.9	24.5	24.1
24.0	24.1	24.0	24.0
24.0	24.0	24.0	24.0

11-Jan-1963
Sample Size
Material
Altitude
Time of Day
Time of Collection
Remarks



Deposits in feet

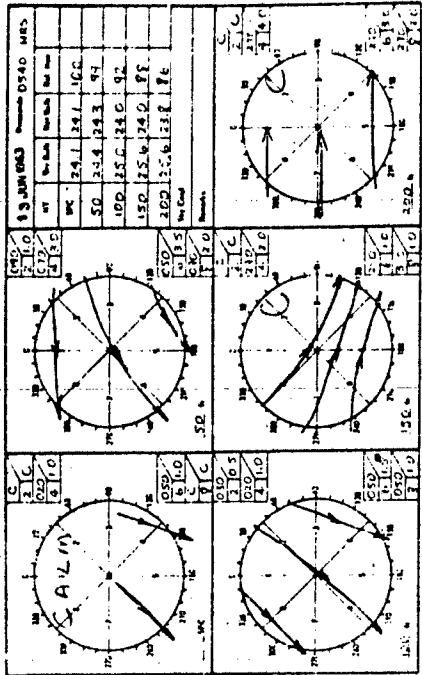
Square Feet

Scale Number

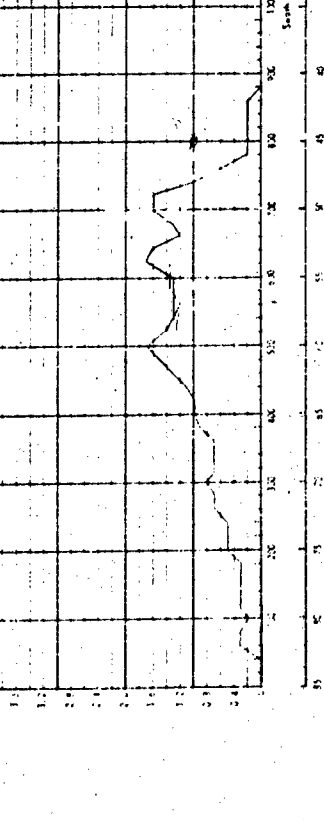
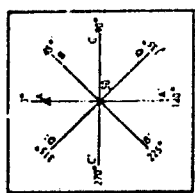
MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 240 GPM
 DATE: 13 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 3 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0542 hours AIRCRAFT COURSE: 360 degrees
 DURATION: 19 seconds WIND VECTOR: 016° / 0.5 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-41 blank		42	0.2	67	0.7		
		43	0.2	68	0.7		
		44	0.2	69	0.7		
		45	0.2	70	0.8		
		46	0.2	71	0.7		
		47	0.5	72	0.7		
		48	1.0	73	0.5		
		49	1.6	74	0.5		
		50	1.6	75	0.5		
		51	1.3	76	0.3		
		52	1.2	77	0.3		
		53	1.6	78	0.3		
		54	1.7	79	0.3		
		55	1.3	80	0.2		
		56	1.3	81	0.3		
		57	1.2	82	0.3		
		58	1.3	Stations 83-100 blank			
		59	1.4				
		60	1.7				
		61	1.5				
		62	1.3				
		63	1.1				
		64	1.0				
		65	1.0				
		66	0.9				



13 JUN 63			
WT	WIND	TEMP	MOIST
24.1	34.1	100	
50	35.4	94.3	97
100	35.0	92	
150	35.0	92	
200	35.0	92	
250	35.0	92	
300	35.0	92	
350	35.0	92	
400	35.0	92	
450	35.0	92	
500	35.0	92	
550	35.0	92	
600	35.0	92	
650	35.0	92	
700	35.0	92	
750	35.0	92	
800	35.0	92	
850	35.0	92	
900	35.0	92	
950	35.0	92	
1000	35.0	92	
1050	35.0	92	
1100	35.0	92	
1150	35.0	92	
1200	35.0	92	
1250	35.0	92	
1300	35.0	92	
1350	35.0	92	
1400	35.0	92	
1450	35.0	92	
1500	35.0	92	
1550	35.0	92	
1600	35.0	92	
1650	35.0	92	
1700	35.0	92	
1750	35.0	92	
1800	35.0	92	
1850	35.0	92	
1900	35.0	92	
1950	35.0	92	
2000	35.0	92	



Date: 13 June 1963
 Flight #: 13
 Pilot: J. J. G. [unclear]
 Observer: [unclear]
 Altitude: 150 Feet
 Time of Day: 11:00 (11:00 AM)
 Time of Release: 11:00
 Remarks: All items open

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MASS DEPOSIT

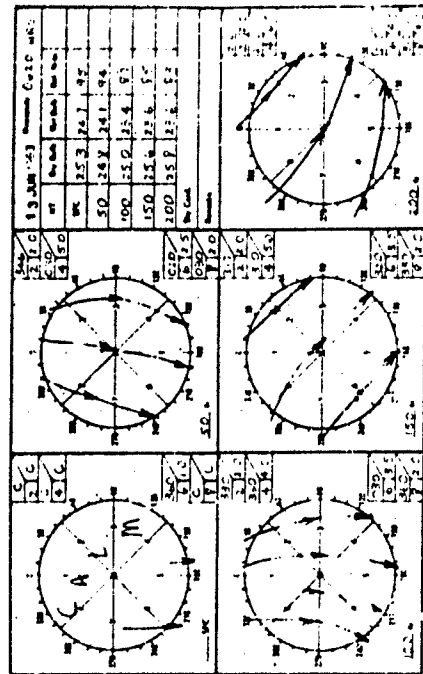
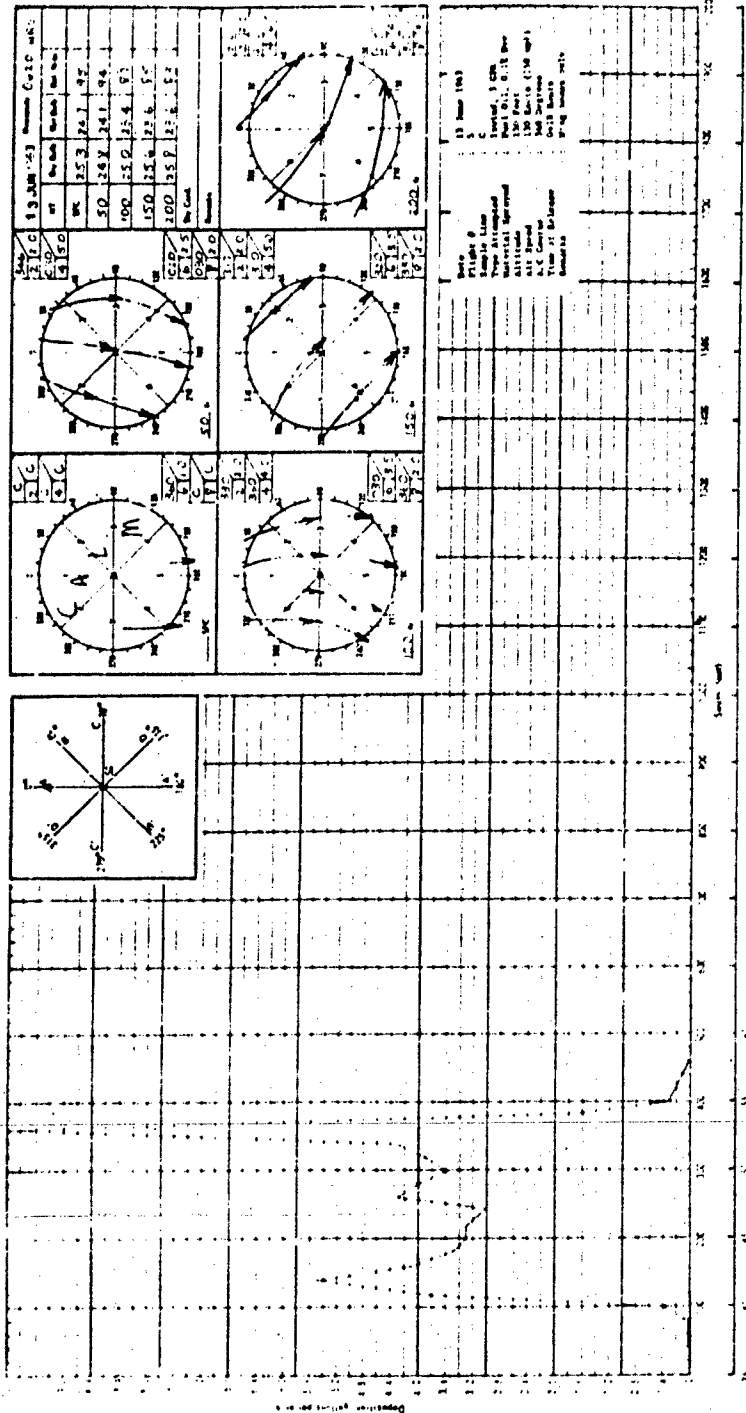
MATERIAL Fuel Oil FLOW RATE: 230 GPM
 DATE 13 June 1963 SYSTEM: C-12J/MC-1
 FLIGHT # 4 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0601 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 13 Seconds WIND VECTOR: 312°/1.7 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-2	Blank	26	0.2	51	0.2		
		27	0.2	52	0.0		
3	0.0	28	0.4			Stations 53-100	Blank
4	0.0	29	0.3				
5	0.0	30	0.3				
6	0.0	31	0.3				
7	0.0	32	0.3				
8	0.0	33	0.4				
9	0.0	34	0.7				
10	0.0	35	0.8				
11	0.0	36	0.8				
12	0.0	37	0.8				
13	0.0	38	0.9				
14	0.0	39	1.5				
15	0.0	40	1.1				
16	0.1	41	0.8				
17	0.1	42	0.8				
18	0.2	43	0.7				
19	0.2	44	0.7				
20	0.2	45	0.8				
21	0.2	46	1.0				
22	0.3	47	2.0				
23	0.2	48	2.7				
24	0.3	49	1.8				
25	0.3	50	0.2				

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 455 GPM
 DATE: 13 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 feet
 TIME OF RELEASE: 0618 hours AIRCRAFT COURSE 360 degrees
 DURATION: 12.5 seconds WIND VECTOR: 344° / 2.2 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1-36 blank		37	0.0				
		38	0.0				
		39	0.0				
		40	0.4				
		41	3.8				
		42	5.5				
		43	4.1				
		44	3.5				
		45	3.3				
		46	3.3				
		47	3.0				
		48	4.3				
		49	4.0				
		50	3.6				
		51	3.9				
		52	4.3				
		53	10.0				
		54	1.6				
		55	0.3				
		56	0.2				
		57	0.1				
		Stations 58-100 blank					

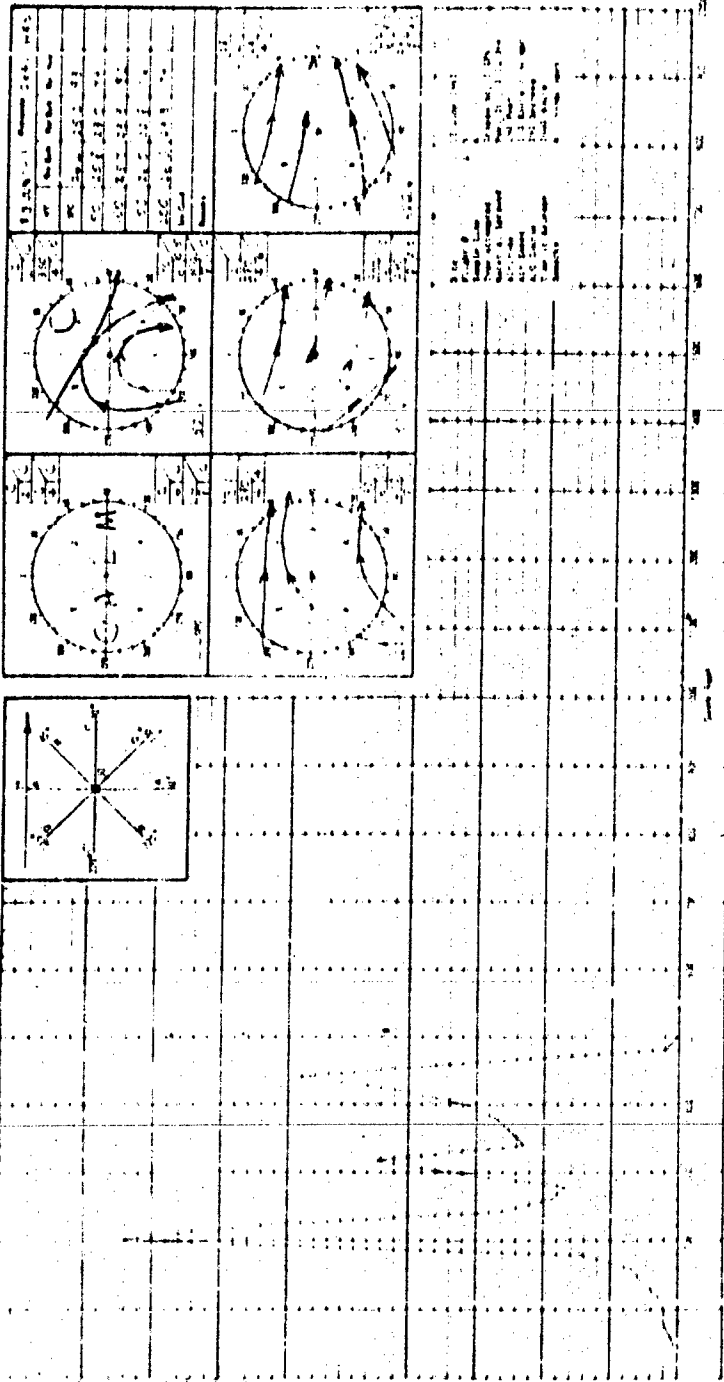


Project # _____
 Sample No. _____
 Date of Collection _____
 Altitude _____
 Time of Day _____
 Name of Observer _____
 Name of Institution _____
 Name of Ship _____
 Name of Officer _____
 Name of Deck Officer _____
 Name of Steward _____
 Name of Cook _____
 Name of Engineer _____
 Name of Radio Officer _____
 Name of Navigator _____
 Name of Doctor _____
 Name of Pharmacist _____
 Name of Quartermaster _____
 Name of Gunner _____
 Name of Yeoman _____
 Name of Stewardess _____
 Name of Cabin Boy _____
 Name of Boy _____
 Name of Dog _____
 Name of Cat _____
 Name of Monkey _____
 Name of Pig _____
 Name of Horse _____
 Name of Cow _____
 Name of Sheep _____
 Name of Goat _____
 Name of Chicken _____
 Name of Duck _____
 Name of Fish _____
 Name of Bird _____
 Name of Insect _____
 Name of Plant _____
 Name of Mineral _____
 Name of Fossil _____
 Name of Rock _____
 Name of Soil _____
 Name of Water _____
 Name of Air _____
 Name of Light _____
 Name of Sound _____
 Name of Heat _____
 Name of Electricity _____
 Name of Magnetism _____
 Name of Gravity _____
 Name of Friction _____
 Name of Pressure _____
 Name of Temperature _____
 Name of Humidity _____
 Name of Wind _____
 Name of Cloud _____
 Name of Rain _____
 Name of Snow _____
 Name of Ice _____
 Name of Fog _____
 Name of Mist _____
 Name of Dew _____
 Name of Frost _____
 Name of Hail _____
 Name of Thunder _____
 Name of Lightning _____
 Name of Earthquake _____
 Name of Volcano _____
 Name of Comet _____
 Name of Meteor _____
 Name of Asteroid _____
 Name of Planet _____
 Name of Star _____
 Name of Galaxy _____
 Name of Universe _____

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 425 GPM
 DATE: 13 June 1963 SYSTEM: C-127/MC-1
 FLIGHT #: 6 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0640 Hours AIRCRAFT COURSE 090° Degrees
 DURATION: 12 Seconds WIND VECTOR: 263°/2.1 mph

STATION	G.P.A.	STATION	G.P.A.	STATION	C.P.A.	STATION	G.P.A.
Stations 1-24	Blank	26	0.0				
		27	0.0				
		28	0.1				
		29	0.2				
		30	0.2				
		31	0.3				
		32	0.5				
		33	0.7				
		34	1.4				
		35	8.3				
		36	6.5				
		37	2.7				
		38	1.9				
		39	1.7				
		40	3.4				
		41	4.5				
		42	2.3				
		43	2.5				
		44	2.7				
		45	3.2				
		46	4.1				
		47	5.7				
		48	3.7				
		49	0.2				
25	0.0	50	0.0				



G-1, 1/2G-1 GROUND FLOW & FLIGHT DATA

NOZZLE CALIBRATED: <u>21 June 1963</u>	DATE TEST FLOWN: <u>24 June 1963</u>
FLUID SPRAYED: <u>Fuel Oil</u>	TOTAL NOZZLES OPEN: <u>12</u>
NOZZLE TYPE: <u>Check valves only</u>	LIQUID TEMP: _____
OPERATION OF SPRAY: <u>15 Sec</u>	PUMP PRESSURE: <u>58-66</u>
TYPE OF PUMP: <u>100-200</u>	FLOW METER READING: <u>415 GPM</u>
NOZZLE HEIGHT SPRAYED: <u>1-2</u> <u>6-16</u>	FLOW RATE CALIBRATED: <u>608 GPM</u>
NOZZLE CONFIGURATION: <u>WING 1-7, 13-21, 29-40</u> <u>Under</u>	
<u>TAIL: 1-3, 37-40</u>	

OPERATIONAL DATA DURING FLIGHT

SEC	PSI	PSI BEFORE	PSI DURING	GPM FLOWMETER
1	37-70	58	58	425
	40-47	60	38	645

NOZZLE TYPE: Check valves - 0145
 NOZZLE HEIGHT: 1-2, 6-16

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 21 June 1963 DATE TEST FLOWN: 24 June 1963
 LIQUID SPRAYED: Fuel Oil TOTAL NOZZLES OPEN: 84
 NOZZLE TYPE: Check valves only LIQUID TEMP: _____
 DURATION OF SPRAY: 15 Sec PUMP PRESSURE: 52 - 32
 PUMP R.P.M.: 2900 - 2500 : _____
 NO. OF PUMPS: 2 FLOW METER READING: 425 GPM
 TOTAL AMOUNT SPRAYED: 108 Gals FLOW RATE CALIBRATED: 432 GPM
 NOZZLE CONFIGURATION: WING: 1-7, 13-21, 29-40 Under
 TAIL: 1-4, 37-40 Aft
 TAIL: 1-6, 14-19

OPERATIONAL DATA DURING FLIGHT

<u>RUN</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
3	2900-2500	52	32	425

REMARKS: Right wing check valves - 6145
 Left wing & tail check valves - 6150

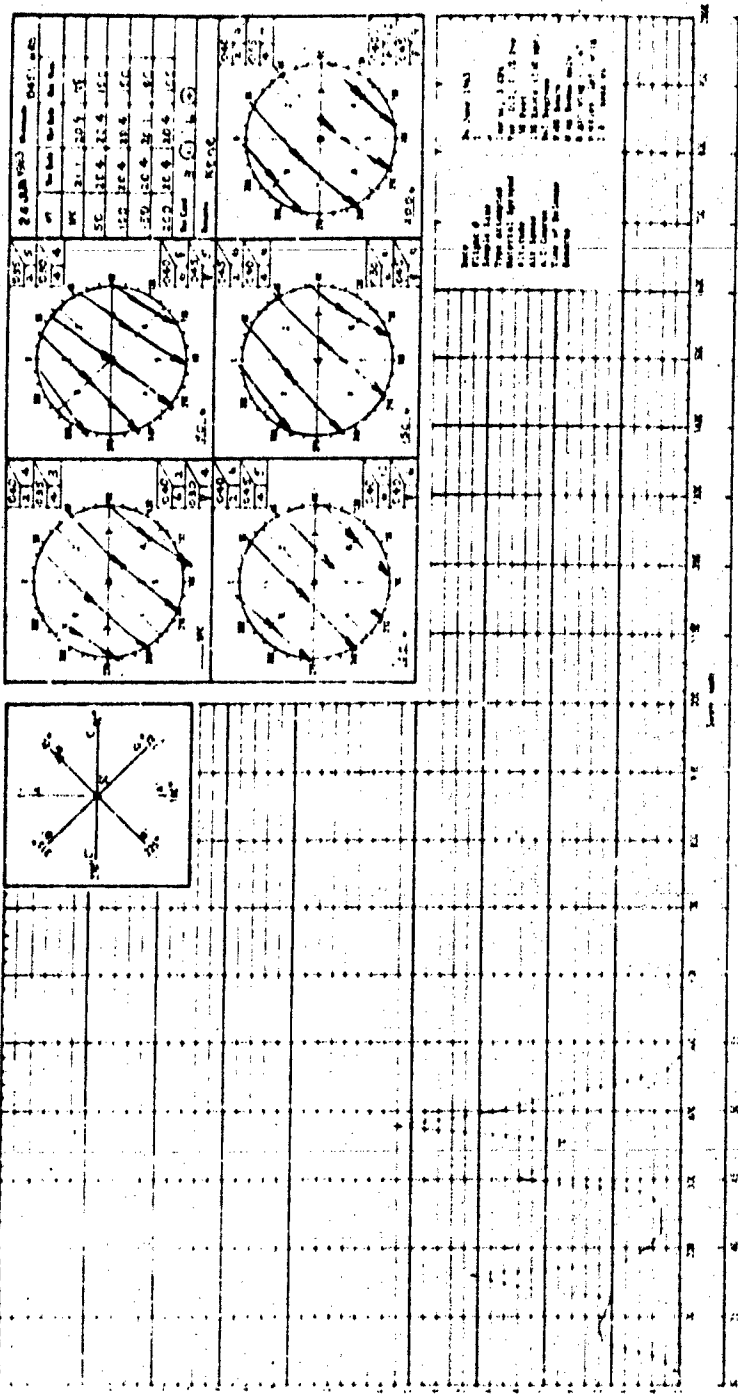
180

MASS D. PCN11

MATERIAL: Fuel Oil FLOW RATE: 4.2 GPM
DATE: 26 June 1961 SYSTEM: E-131/BC-1
FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
SAMPLE TIME: D ALTITUDE: 150 Feet
TIME OF RELEASE: 0500 Hours AIRCRAFT COURSE: 35 Degrees
DURATION: 15 Seconds WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 29 Blank		30	0.0				
		31	0.0				
		32	0.3				
		33	1.1				
		34	1.7				
		35	1.1				
		36	1.3				
		37	2.2				
		38	3.1				
		39	0.9				
		40	0.5				
		41	0.3				
		42	0.3				
		43	0.3				
		44	0.3				
		45	2.5				
		46	2.1				
		47	2.0				
		48	1.7				
		49	2.3				
		50	1.7				
		51	1.0				
		52	1.2				
		53	1.0				
		Stations 54 - 100 Blank					

Total 30.0

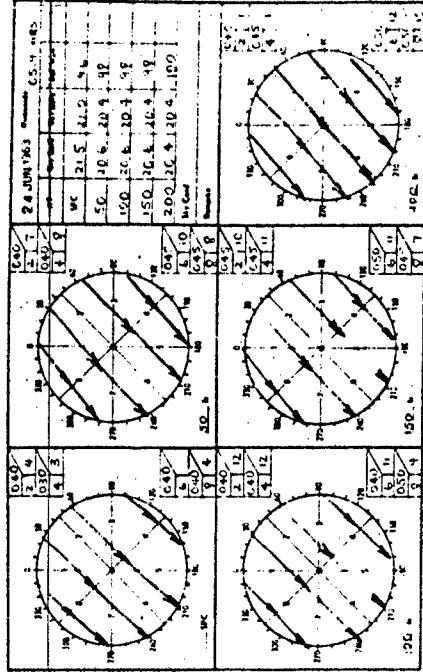


MASS DEPOSIT

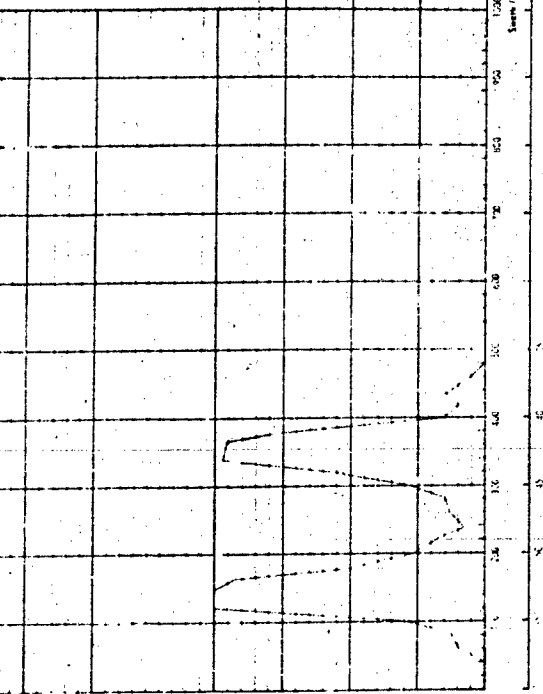
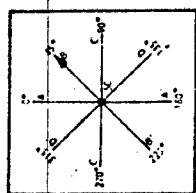
MATERIAL: Fuel Oil FLOW RATE: 44.5 GPM
 DATE: 24 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0518 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 12 Seconds WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 35	Blank	37	0.2				
		38	0.6				
		39	0.4				
		40	0.6				
		41	3.1				
		42	3.8				
		43	3.9				
		44	2.1				
		45	1.1				
		46	0.6				
		47	0.5				
		48	0.3				
		49	0.7				
		50	1.1				
		51	2.1				
		52	3.7				
		53	4.0				
		54	4.0				
		55	1.2				
		56	0.5				
		57	0.4				
		58	0.0				
		Stations 59 - 100	Blank				

Total 34.9



Sample No.	Depth (ft)	Moisture (%)	Specific Gravity	Void Ratio	Compaction	Notes
10	0-10	21.5	2.65	1.00	92	
11	10-20	20.9	2.65	1.00	92	
12	20-30	20.4	2.65	1.00	92	
13	30-40	19.8	2.65	1.00	92	
14	40-50	19.2	2.65	1.00	92	
15	50-60	18.6	2.65	1.00	92	
16	60-70	18.0	2.65	1.00	92	
17	70-80	17.4	2.65	1.00	92	
18	80-90	16.8	2.65	1.00	92	
19	90-100	16.2	2.65	1.00	92	



Soils (ft) 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Moisture (%)

2.4 JUN 1963
 21.5
 20.9
 20.4
 19.8
 19.2
 18.6
 18.0
 17.4
 16.8
 16.2

10 11 12 13 14 15 16 17 18 19

0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 80-90 90-100

21.5 20.9 20.4 19.8 19.2 18.6 18.0 17.4 16.8 16.2

2.65 2.65 2.65 2.65 2.65 2.65 2.65 2.65 2.65 2.65

1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

92 92 92 92 92 92 92 92 92 92

Notes

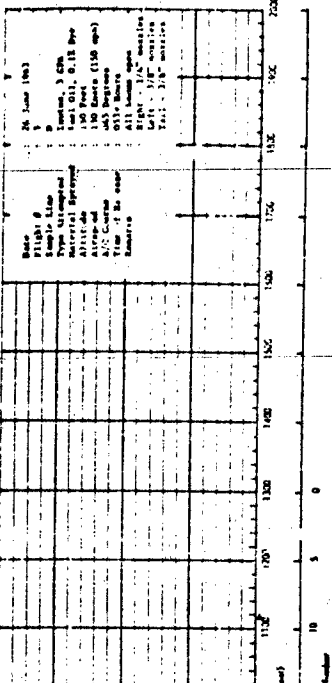
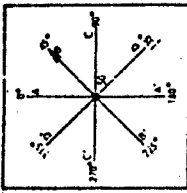
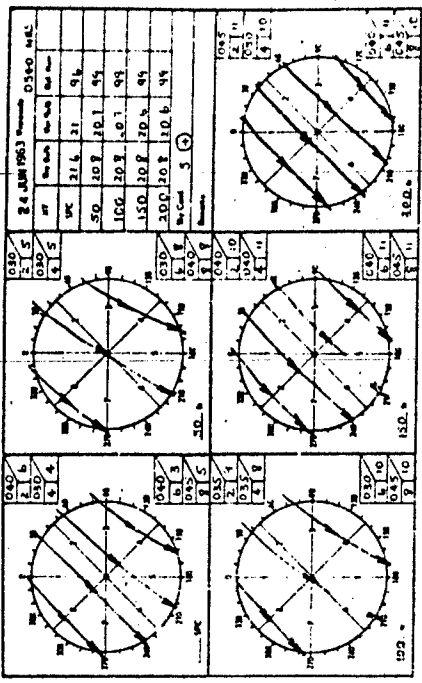
184

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 425 GPM
DATE: 24 June 1963 SYSTEM: C-123/MC-1
FLIGHT #: 3 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: D ALTITUDE: 150 Feet
TIME OF RELEASE: 0539 Hours AIRCRAFT COURSE: 045 Degrees
DURATION: 12.80 Seconds WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 38	Blank	39	0.0				
		40	0.1				
		41	0.7				
		42	1.1				
		43	0.9				
		44	1.3				
		45	3.0				
		46	1.9				
		47	3.6				
		48	2.9				
		49	1.6				
		50	1.3				
		51	1.3				
		52	1.5				
		53	1.2				
		54	1.5				
		55	1.3				
		56	2.1				
		57	1.6				
		58	1.5				
		59	0.9				
		60	0.5				
		61	0.1				
		62	0.2				
		Stations 63 - 100	Blank				

Total 32.1



Date: 24 June 1963
 Flight #:
 Sample Size:
 Material:
 Altitude:
 Location:
 Time of Day:
 Remarks:
 No. Lanes: 3
 Lanes: 1, 2, 3
 100 Feet
 150 Feet (150 cm)
 200 Feet (200 cm)
 All lanes open
 Left - 1/4" scale
 Right - 1/4" scale

Depth in Feet

C-1 1/AC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 21 June 1963 DATE TEST FLOW: 25 June 1963
LIQUID SPRAYED: Fuel Oil TOTAL NOZZLES OPEN: 7
NOZZLE TYPE: Circ. valves only LIQUID TEMP: _____
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 58 - 36
PUMP R.P.M.: 3300-2000
NO. OF PUMPS: 2 FLOW METER READING: 415 GPM
TOTAL AMOUNT SPRAYED: 1.02 Gal. FLOW RATE CALIBRATED: 4.3 GPM
NOZZLE CONFIGURATION: WING: 1-7, 13-11, 29-40 Underside
TAIL: 1-4, 37-60 All side

OPERATIONAL DATA DURING FLIGHT

<u>RUN</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>1</u>	<u>3000-2600</u>	<u>58</u>	<u>38</u>	<u>425</u>
<u>2</u>	<u>3200-2700</u>	<u>59</u>	<u>37</u>	<u>435</u>

REMARKS: All odd numbered openings on underside of boom have 1/2" check valve #143.
All even numbered openings on underside of boom have 1/2" check valve #6135.
All openings on all side have 1/2" check valve #614.
Wing boom only.

6-1-48 3 HOUR FLOW & FLOW AREA

DATE CALIBRATED: 21 June 1963 DATE TEST FLOW: 25 June 1963
 LIQUID SPRAYED: Fuel Oil TOTAL TORQUES OPEN: 25
 NOZZLE TYPE: check valves only LIQUID TEMP: _____
 VELOCITY OF SPRAY: 15 Sec. PUMP PRESSURE: 52 - 32
 PUMP R.P.M.: 2100-2500 _____
 NO. OF PUMPS: 2 FLOW METER READING: 625 GPM
 TOTAL AMOUNT SPRAYED: 1.8 Gal. FLOW RATE CALIBRATED: 612 GPM
 NOZZLE CONFIGURATION: WING: 1-7, 13-31, 29-40 Under side
TAIL: 1-6, 37-40 aft side
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLOW

RON	RPM	PRI BEGINS	PRI ENDS	GPM FLOWMETER
3	3000-2600	52	32	612
4	3100-2500	55	32	615

All odd numbered openings on underside of boom are 1/2" check valve #615.
 All even numbered openings on underside of boom have 1/2" check valve #615.
 All openings on aft side have 1/2" check valve #615.
 All openings on tail boom are on aft side. 9 other number 1-6 are 1/2" check valve #615. Openings number 5-15 are 1/2" check valve #615.

C-119/C-1 GROUND FLOW & FLIGHT DATA

METER CALIBRATED:	<u>25 June 1963</u>	DATE TEST FLOWN:	<u>25 June 1963</u>
LIQUID SPRAYED:	<u>Fuel Oil</u>	TOTAL NOZZLES OPEN:	<u>10</u>
NOZZLE TYPE:	<u>Check valves only</u>	LIQUID TEMP:	_____
DURATION OF SPRAY:	<u>15</u> sec.	PUMP PRESSURE:	<u>42 - 2</u>
PUMP R.P.M.:	<u>2500-11</u>	_____	_____
NO. OF PUMPS:	<u>1</u>	FLOW METER READING:	<u>215</u> GPM
TOTAL AMOUNT SPRAYED:	<u>53</u> Gal.	FLOW RATE CALIBRATED:	<u>212</u> GPM
NOZZLE CONFIGURATION:	<u>WING: 1-7, 13-21, 29-40 Underside</u> <u>TAIL: 1-6, 37-40 Aft side</u>		

OPERATIONAL DATA DURING FLIGHT

Speed	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
7	2500-12	4	22	210

REMARKS: All doors closed.
 Check valves same as Run 3 and 4.



MASS MEDIAN DIAMETER

DATE: 25 June 1963 SPREAD FACTOR: 6.0
 FLIGHT #: 1 CONVERSION FACTOR: 2.5
 SAMPLE LINE: B PAPER: Kromekote, white
 FLOW RATE: 425 GPM MATERIAL: Fuel Oil
 SYSTEM: C-131/SC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
51	5	5900			
51	4	5800			
51	2	5100*			
51	1	5000			
51	3	4900			
55	8	4800	100	1	100 Microns
56	7	4600			(smallest)
54	6	4500			
51	10	44.0			
53	9	4300			
52	12	4200			
51	11	41.0			

MMD = $\frac{7.44 \times 10^{11} \text{ Spots}}{6.0 \times 2.5} = 49.6 \times 10^9 = 49.6 \text{ Billion}$
 Con. Factor = 2.5

Max. Sph. Dia. = $70.44 \times 10^3 \text{ Max Spot} = 70.44 \times 10^3 (5100) = 358,104$
 Microns

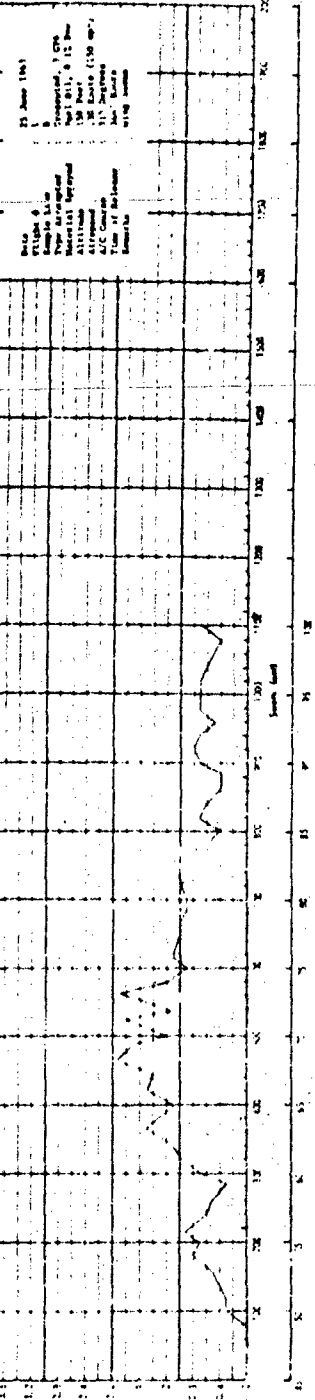
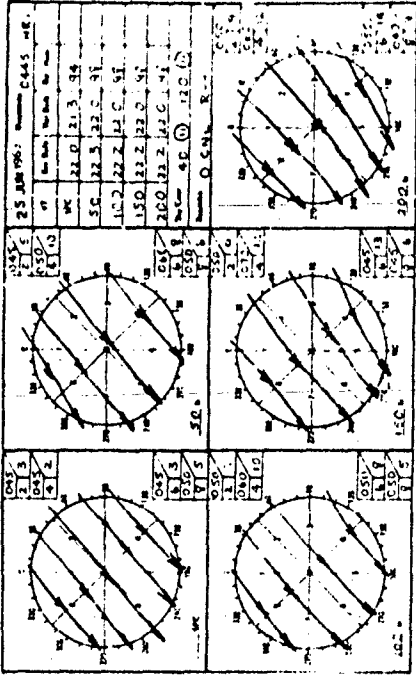
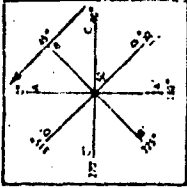
Min. Sph. Dia. = 16.7 Microns

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 425 GPM
 DATE: 23 June 1963 SYSTEM: C-125/MC-1
 FLIGHT #: 1 AIRSPEED: 130 knots (15 mph)
 SAMPLE LINE: B ALTITUDE: 150 Feet
 TIME OF RELEASE: 0447 Hour AIRCRAFT COURSE: 315 Degree
 DURATION: 12 Sec. WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Station 1 - 50 Blank				51	0.3	76	1.1
				52	0.6	77	1.0
				53	0.5	78	1.0
				54	0.6	79	1.1
				55	0.7	80	0.9
				56	0.9	81	1.0
				57	1.0	82	0.8
				58	0.5	83	0.6
				59	0.3	84	0.6
				60	0.7	85	0.6
				61	1.0	86	0.7
				62	1.1	87	0.6
				63	1.5	88	0.7
				64	1.3	89	0.7
				65	1.1	90	0.7
				66	1.5	91	0.7
				67	1.4	92	0.7
				68	1.2	93	0.7
				69	1.7	94	0.7
				70	1.7	95	1.7
				71	1.8	96	0.7
				72	1.1	97	1.0
				73	1.0	98	0.5
				74	1.0	99	0.7
				75	1.0	100	0.7

Total: _____



MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 4.5 GPM
 DATE: 25 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0508 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 12 Sec. WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 37	Blank	38	0.2	63	0.1	Stations 64 - 100	Blank
		39	0.2				
		40	0.2				
		41	0.4				
		42	2.6				
		43	3.6				
		44	4.2				
		45	2.2				
		46	1.2				
		47	1.6				
		48	0.5				
		49	0.9				
		50	0.5				
		51	1.5				
		52	1.9				
		53	2.3				
		54	3.3				
		55	3.8				
		56	4.4				
		57	3.2				
		58	1.6				
		59	1.2				
		60	1.1				
		61	1.1				
		62	0.6				

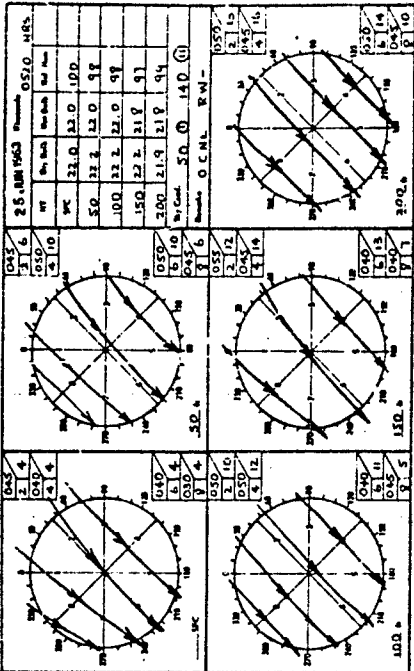
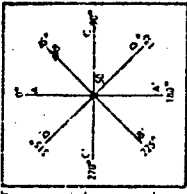
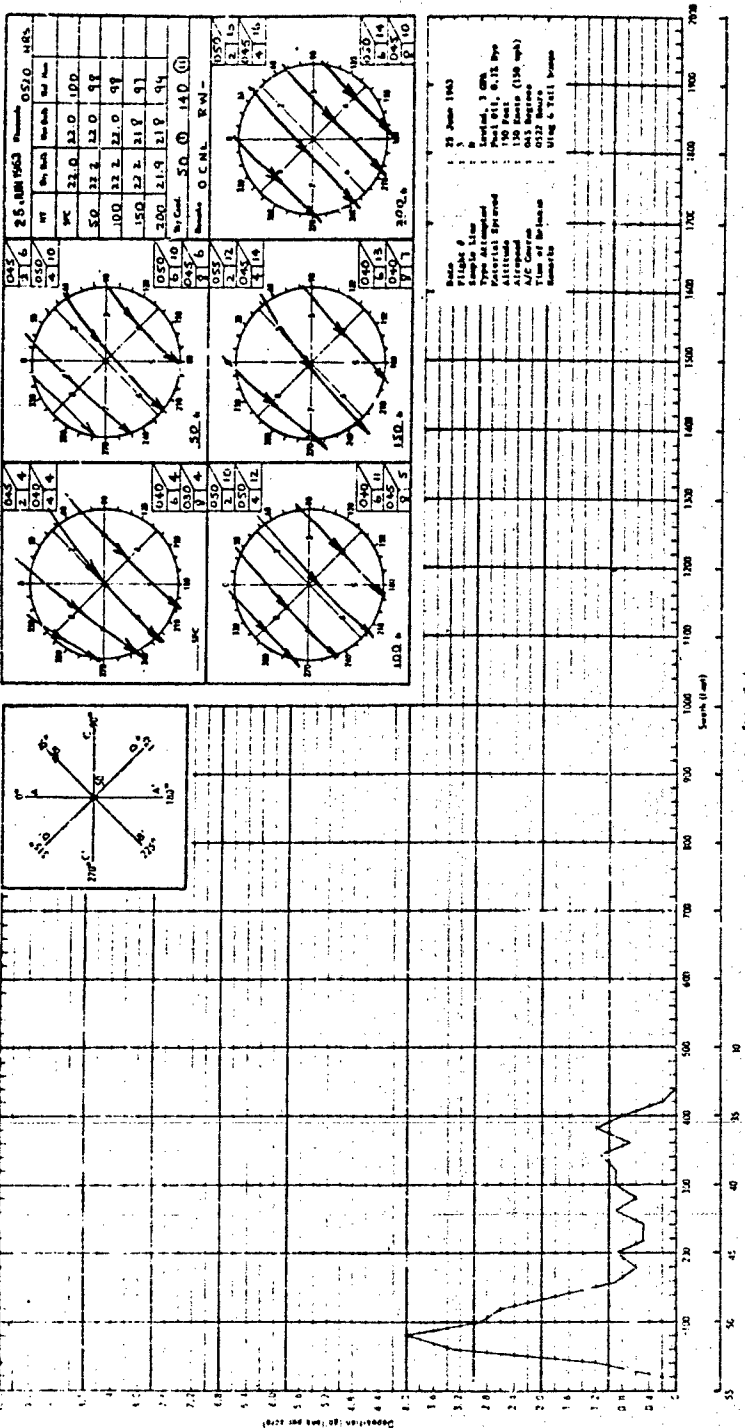
Total 44.4

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 420 GPM
 DATE: 25 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 3 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0522 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 11 Sec. WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 32	Blank	33	0.0				
		34	0.2				
		35	0.8				
		36	1.2				
		37	0.7				
		38	1.1				
		39	0.9				
		40	0.9				
		41	0.6				
		42	0.9				
		43	0.5				
		44	0.5				
		45	0.9				
		46	0.6				
		47	0.9				
		48	1.7				
		49	2.6				
		50	2.9				
		51	4.0				
		52	3.3				
		53	1.2				
		54	0.2				
		Stations 55 - 100	Blank				

Total 26.6



25 June 1963	
Flight #	0510
Type of Mission	Standard
Altitude	10000
Time of Day	0510
Location	0510
Remarks	O.C.H.L. R.N.

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 445 GPM
 DATE: 25 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0539 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 13 Sec. WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 18	Blank	26	0.4	Stations 51 - 100	Blank		
		27	1.2				
		28	1.6				
		29	0.8				
		30	1.0				
		31	0.8				
		32	0.9				
		33	1.2				
		34	1.4				
		35	1.4				
		36	1.9				
		37	1.6				
		38	2.4				
		39	1.9				
		40	1.4				
		41	1.9				
		42	1.9				
		43	2.4				
19	0.0	44	2.6				
20	0.2	45	2.3				
21	0.2	46	1.9				
22	0.2	47	0.9				
23	0.1	48	0.7				
24	0.1	49	0.3				
25	0.2	50	0.1				

Total 36.1

MASS DEPOSIT

MATERIAL: Fuel Oil FLOW RATE: 215 GPM
 DATE: 25 June 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0555 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 8 Sec. WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 5	Blank	51	0.1	76	0.1		
		52	0.3	77	0.1		
		53	0.4	78	0.1		
		54	1.0	Stations 79 - 100			
		55	0.9		Blank		
		56	0.7				
		57	0.4				
		58	0.4				
		59	0.4				
		60	0.5				
		61	0.7				
		62	0.5				
		63	0.8				
		64	0.5				
		65	0.7				
		66	0.8				
		67	0.8				
		68	0.5				
		69	0.4				
		70	0.3				
		71	0.3				
		72	0.1				
		73	0.1				
		74	0.1				
		75	0.1				

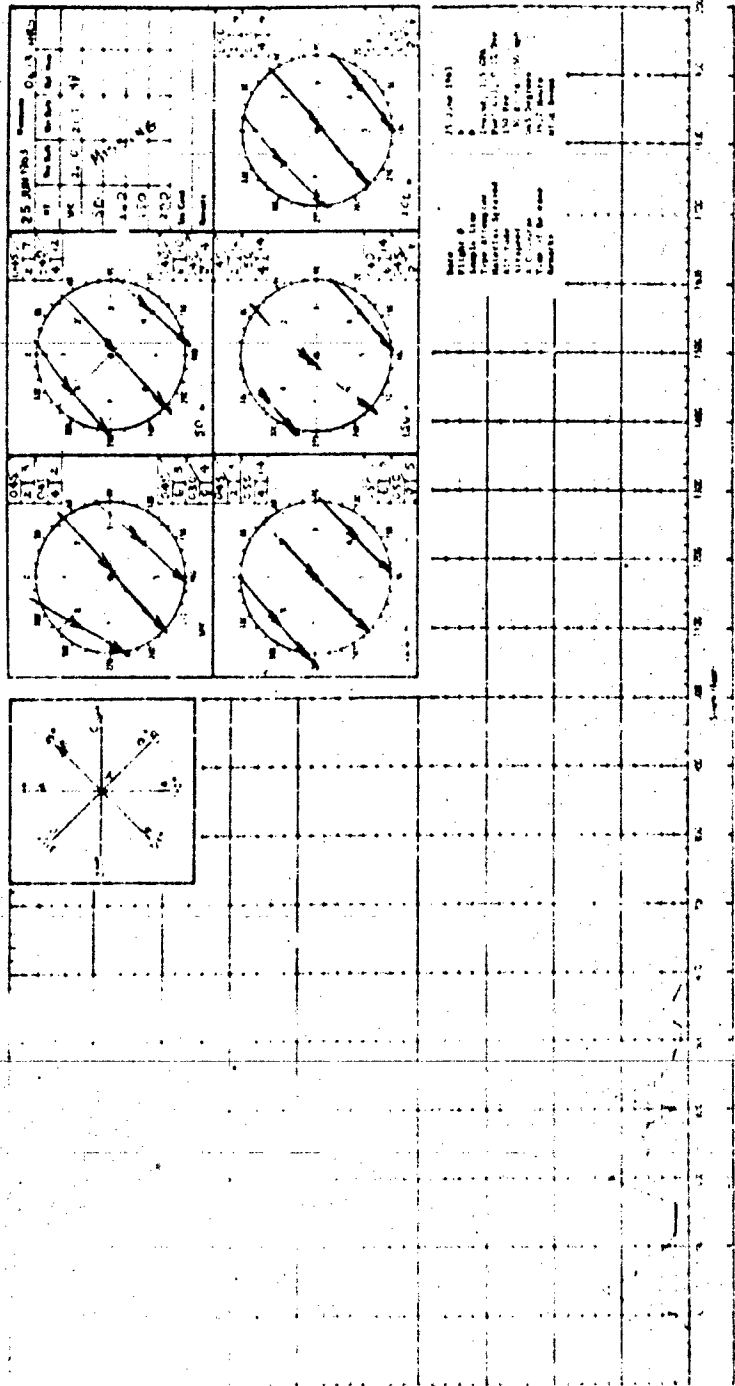
Total 1.1

MASS DEPOSIT

MATERIAL: <u>Fuel Oil</u>	FLOW RATE: <u>2.5</u> GPM
DATE: <u>25 June 1963</u>	SYSTEM: <u>C-123/MC-1</u>
FLIGHT #: <u>6</u>	AIRSPED: <u>13</u> Knots (15 mph)
SAMPLE LINE: <u>D</u>	ALTITUDE: <u>150</u> Feet
TIME OF RELEASE: <u>612</u> Hours	AIRCRAFT COURSE: <u>045</u> Degrees
DURATION: <u>13</u> Sec.	WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 43 Blank		44	0.0	69	0.1	Stations 70 - 100 Blank	
		45	0.2				
		46	0.9				
		47	1.3				
		48	0.8				
		49	0.7				
		50	0.3				
		51	0.2				
		52	0.2				
		53	0.2				
		54	0.7				
		55	1.2				
		56	0.7				
		57	0.6				
		58	0.7				
		59	0.6				
		60	0.2				
		61	1.1				
		62	0.5				
		63	0.3				
		64	0.2				
		65	0.1				
		66	0.1				
		67	0.5				
		68	0.7				

Total 12.5



MASS DEPOSIT

MATERIAL: <u>Foot Oil</u>	FLOW RATE: <u>10</u> GPM
DATE: <u>25 June 1963</u>	SYSTEM: <u>C-123/MC-1</u>
FLIGHT #: <u>7</u>	AIRSPEED: <u>130 Knots (150 mph)</u>
SAMPLE LINE: <u>D</u>	ALTITUDE: <u>150</u> Feet
TIME OF RELEASE: <u>0637</u> Hours	AIRCRAFT COURSE: <u>045</u> Degrees
DURATION: <u>13</u> Sec.	WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 50 Blank		51	0.3	76	0.3		
		52	0.3	77	0.3		
		53	0.5	78	0.3		
		54	0.8	79	0.2		
		55	0.8	80	0.1		
		56	0.7	Stations 81 - 100			
		57	0.6	Blank			
		58	0.6				
		59	0.6				
		60	0.4				
		61	0.5				
		62	0.3				
		63	0.4				
		64	0.4				
		65	0.2				
		66	0.2				
		67	0.2				
		68	0.2				
		69	0.2				
		70	0.3				
		71	0.3				
		72	0.2				
		73	0.3				
		74	0.2				
		75	0.2				

Total 1.0

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 29 June 1963 DATE TEST FLOWN: 1 July 1963
 LIQUID SPRAYED: 1 Part Purple, 2 Parts Fuel Oil TOTAL NOZZLES OPEN: 84
 NOZZLE TYPE: Check valves LIQUID TEMP: 28.5° C
 DURATION OF SPRAY: 15 Secs PUMP PRESSURE: 54-32
 PUMP R.P.M.: 2800-2400
 NO. OF PUMPS: 2 FLOW METER READING: 415 GPM
 TOTAL AMOUNT SPRAYED: 105 Gal FLOW RATE CALIBRATED: 425 GPM
 NOZZLE CONFIGURATION: 1-7, 13-21, 29-40 Underside
 HING. 1-4, 37-40 Aft side
 TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>1</u>	<u>2800-26</u>	<u>54</u>	<u>32</u>	<u>415</u>

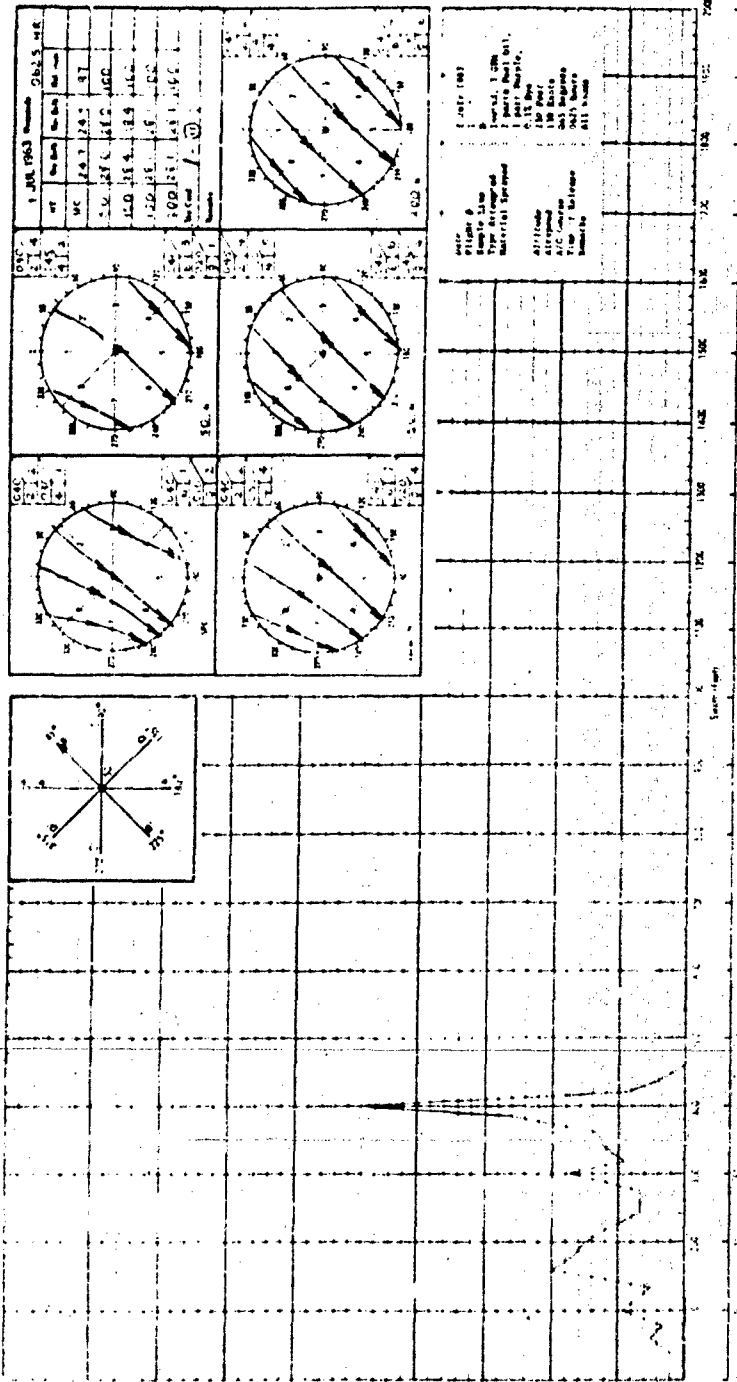
REMARKS: All odd numbered openings on underside of fuselage have 1" check valve #017.
 All even numbered openings on underside of fuselage have 1" check valve #013.
 All openings on aft side have 1" check valve #014.
 Opening numbers 1-4, 10-12 are 2" check valve #13.
 All other openings on tail are #013.

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 415 GPM.
 DATE: 1 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 230 Knots (150 mph)
 SAMPLE LINE: D ALTITUDE: 1500 Feet
 TIME OF RELEASE: 0625 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 07 Sec. WIND VECTOR: _____

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 36	Blank	37	0.2				
		38	0.5				
		39	0.3				
		40	0.9				
		41	0.7				
		42	0.5				
		43	2.0				
		44	1.7				
		45	1.5				
		46	1.1				
		47	0.9				
		48	0.7				
		49	1.7				
		50	1.7				
		51	0.9				
		52	1.3				
		53	1.3				
		54	2.6				
		55	0.7				
		56	0.7				
		57	0.7				
		58	0.7				
		59	0.7				
		60	0.7				
		61	0.7				
		62	0.7				
		63	0.7				
		64	0.7				
		65	0.7				
		66	0.7				
		67	0.7				
		68	0.7				
		69	0.7				
		70	0.7				
		71	0.7				
		72	0.7				
		73	0.7				
		74	0.7				
		75	0.7				
		76	0.7				
		77	0.7				
		78	0.7				
		79	0.7				
		80	0.7				
		81	0.7				
		82	0.7				
		83	0.7				
		84	0.7				
		85	0.7				
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		87	0.7				
		88	0.7				
		89	0.7				
		90	0.7				
		91	0.7				
		92	0.7				
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		101	0.7				
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		103	0.7				
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		107	0.7				
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		117	0.7				
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		119	0.7				
		120	0.7				
		121	0.7				
		122	0.7				
		123	0.7				
		124	0.7				
		125	0.7				
		126	0.7				
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		129	0.7				
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		133	0.7				
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		138	0.7				
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		141	0.7				
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		158	0.7				
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		160	0.7				
		161	0.7				
		162	0.7				
		163	0.7				
		164	0.7				
		165	0.7				
		166	0.7				
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		168	0.7				
		169	0.7				
		170	0.7				
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		176	0.7				
		177	0.7				
		178	0.7				
		179	0.7				
		180	0.7				
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		190	0.7				
		191	0.7				
		192	0.7				
		193	0.7				
		194	0.7				
		195	0.7				
		196	0.7				
		197	0.7				
		198	0.7				
		199	0.7				
		200	0.7				

total 5.3



Instrument Panel

Flight Deck
 Instrument Panel
 Material Specimen

Altitude
 Airspeed
 Time to Altitude
 Time to Airspeed

1 JUN 1963

Serial 120
 Serial 135
 Serial 150
 Serial 165

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 23 June 1963 DATE TEST FLOWN: 4 July 1963
 LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 72
 NOZZLE TYPE: Check valve only LIQUID TEMP: _____
 DURATION OF SPRAY: 15 Secs PUMP PRESSURE: 64 - 40
 RPM R.T.M.: 3300-2600 _____
 NO. OF PUMPS: 2 FLOW METER READING: 420 GPM
 TOTAL AMOUNT SPRAYED: 106 Gal. FLOW RATE CALIBRATED: 424 GPM
 NOZZLE CONFIGURATION: WING: 1-7, 13-21, 29-40 Underside
 TAIL: 1-4, 37-40 Aft side

OPERATIONAL DATA DURING FLIGHT

RLN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
	3300-2600	64	40	405
	3100-2600	64	40	410

REMARKS: All odd numbered openings on underside of boom have 1/2" check valve #614.
 All even numbered openings on underside of boom have 1/2" check valve #615.
 All openings on aft side have 1/2" check valve #616.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: <u>29 June 1963</u>	DATE TEST FLOWN: <u>4 July 1963</u>
LIQUID SPRAYED: <u>2 Fuel Oil, 1 Purple</u>	TOTAL NOZZLES OPEN: <u>8</u>
NOZZLE TYPE: <u>Check valves only</u>	LIQUID TEMP: <u>28.5° C (83° F)</u>
DURATION OF SPRAY: <u>15 Sec.</u>	PUMP PRESSURE: <u>54 - 32</u>
PUMP R.P.M.: <u>2000-2400</u>	
NO. OF PUMPS: <u>2</u>	FLOW METER READING: <u>415 GPM</u>
TOTAL AMOUNT SPRAYED: <u>1.5 Gal.</u>	FLOW RATE CALIBRATED: <u>420 GPM</u>
NOZZLE CONFIGURATION: WING: <u>1-7, 13-21, 29-30 Underside</u>	
TAIL: <u>1-4, 37-40 Aft side</u>	
	TAIL: <u>1-6, 14-19</u>

OPERATIONAL DATA DURING TEST FLIGHT

<u>ROW #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
3	2800-2600	56	34	400
4	2700-2500	58	36	475

REMARKS: All odd numbered openings on underside of boom have 1/2" check valve #614.
 All even numbered openings on underside of boom have 1/2" check valve #6135.
 All openings on aft side have 1/2" check valve #6135.
 All openings on tail boom are on aft side. Opening number 1-4 and 10-1 are 1/2" check valve #6135. Openings number 5-15 are 1/2" check valve #614.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

LATE CALIBRATED: <u>29 June 1963</u>	DATE TEST FLOW: <u>4 July 1963</u>
LIQUID SPRAYED: <u>2 Fuel Oil, 1 Purple</u>	TOTAL NOZZLES OPEN: <u>72</u>
NOZZLE TYPE: <u>Check valves only</u>	LIQUID TEMP: _____
DURATION OF SPRAY: <u>15</u> Sec.	PUMP PRESSURE: <u>48 - 24</u>
PUMP R.P.M.: <u>2600-2200</u>	_____
NO. OF PUMPS: <u>1</u>	FLOW METER READING: <u>215</u> GPM
TOTAL AMOUNT SPRAYED: _____	FLOW RATE CALIBRATED: <u>200</u> GPM
NOZZLE CONFIGURATION: <u>WING: 1-7, 13-21, 23-40 Underside</u> <u>1-4, 37-40 Aftside</u>	

OPERATIONAL DATA DURING TEST FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
5	2700-2300	50	25	215
6	2600-2300	50	25	215

NOZZLE TYPE: Check valves only as runs #1 and #2.

C-125/NC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 29 June 1963 DATE TEST FLOWN: 4 July 1963
LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 72
NOZZLE TYPE: Check valves only LIQUID TEMP: _____
DURATION OF SPRAY: 15 sec PUMP PRESSURE: 64 - 25
PUMP R.P.M.: 2500-2100 _____
NO. OF PUMPS: 1 FLOW METER READING: 220 GPM
TOTAL AMOUNT SPRAYED: 57.6 Gal. FLOW RATE CALIBRATED: 230 GPM
NOZZLE CONFIGURATION: WING: 1-7, 13-21, 29-40 Underside
 TAIL: 1-4, 37-40 Aftside
 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>7</u>	<u>2500-2100</u>	<u>44</u>	<u>25</u>	<u>215</u>
<u>8</u>	<u>2500-2100</u>	<u>44</u>	<u>25</u>	<u>215</u>

REMARKS: Openings same as Runs #3 and #4.

WAS DEPOT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 455 GPM
 DATE: 4 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0443 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 58 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 28 Blank		29	0.4	54	0.4	Stations 55 - 100 Blank	
		30	0.4				
		31	0.4				
		32	0.4				
		33	0.5				
		34	0.4				
		35	0.9				
		36	0.9				
		37	0.3				
		38	0.9				
		39	2.3				
		40	2.8				
		41	2.4				
		42	3.8				
		43	3.5				
		44	3.5				
		45	1.9				
		46	1.2				
		47	1.1				
		48	1.3				
		49	1.2				
		50	1.0				
		51	3.6				
		52	7.3				
		53	6.1				

Total 49.4

216

MASS DEPOSIT

WATER: Encl. 01, 1 Sample

FLOW RATE: 41

DATE: 6 July 1963

SYSTEM: G-1, 1 SC-1

DEPTH:

AIR SPEED: 13 Knots (15 mph)

WATER LINE: C

ALTITUDE: 15

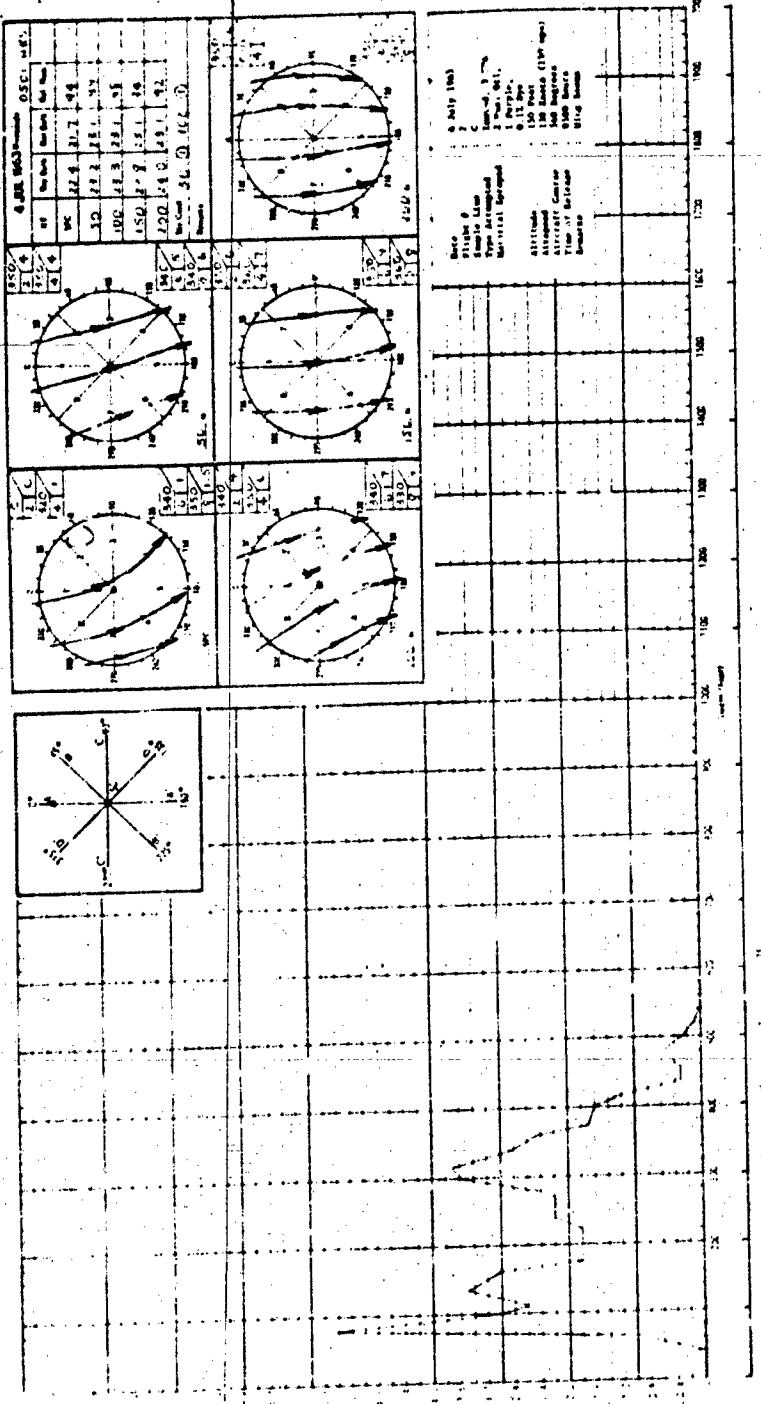
TIME OF RELEASE: 05 00 Hours

AIRCRAFT COURSE: 300 Degrees

DURATION: 30 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 8 (incl)		9	0.1				
		10	0.5				
		11	0.6				
		12	0.3				
		13	0.3				
		14	1.3				
		15	1.6				
		16	1.7				
		17	2.5				
		18	2.8				
		19	3.7				
		20	4.6				
		21	4.6				
		22	4.2				
		23	4.2				
		24	1.8				
		25	1.8				
		26	1.7				
		27	1.7				
		28	1.5				
		29	1.5				
		30	1.5				
		31	3.5				
		32	1.5				

Stations 33 - 40 (incl)



4 JUL 1963
 05C: 14E:
 22.4 21.7 5.4
 32 22.2 22.1 2.3
 100 21.3 22.1 3.5
 150 21.7 22.1 3.6
 200 24.0 23.1 3.2
 300 31.0 31.0 1.0

0.5
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10

0.5
 1
 2
 3
 4
 5
 6
 7
 8
 9
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 1
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 10

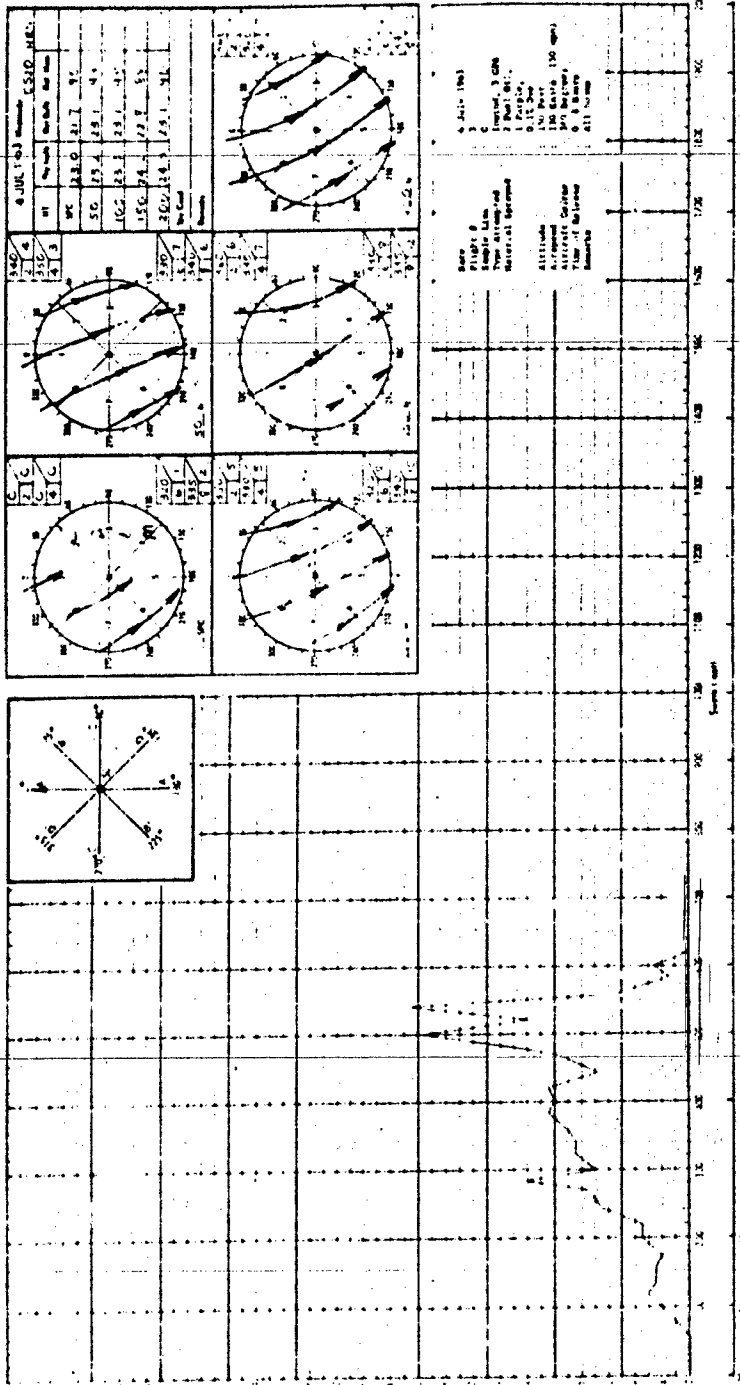
218

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 400 GPM
DATE: 4 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 3 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: C ALTITUDE: 150 Feet
TIME OF RELEASE: 0518 Hours AIRCRAFT COURSE: 360 Degrees
DURATION: 11 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 23	Blank	26	0.6	Stations 51 - 100	Blank		
		27	0.5				
		28	0.5				
		29	0.4				
		30	0.7				
		31	0.7				
		32	1.3				
		33	1.5				
		34	2.4				
		35	1.4				
		36	1.7				
		37	1.7				
		38	1.8				
		39	2.1				
		40	2.0				
		41	2.1				
		42	1.4				
		43	1.9				
		44	2.6				
		45	3.9				
		46	2.4				
		47	4.1				
		48	1.1				
		49	0.3				
		50	0.5				

Total 34.2



Scale: 1 cm = 1000 ft

Direction: True

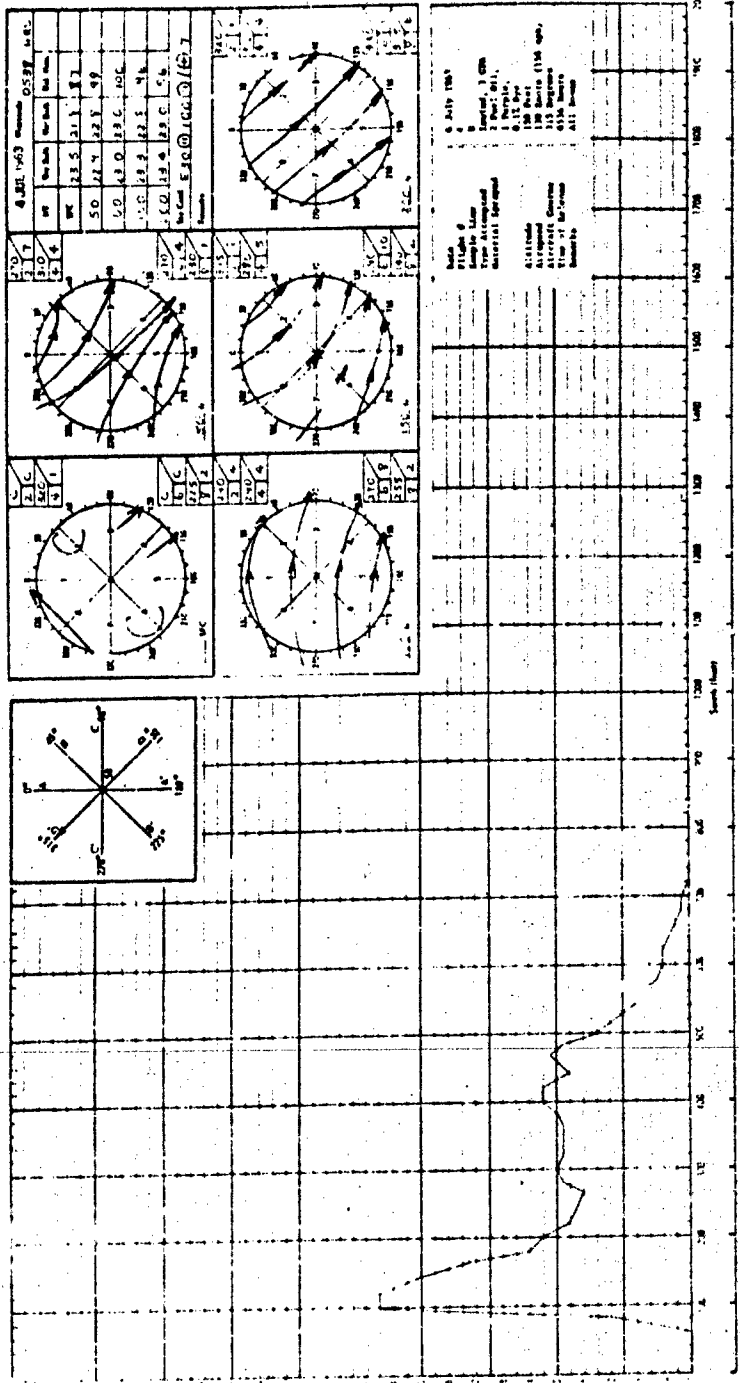
220

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 425 GPM
DATE: 4 July 1961 SYSTEM: C-123/MC 1
FLIGHT #: 4 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: B ALTITUDE: 150 ft
TIME OF RELEASE: 0536 Hours AIRCRAFT COURSE: _____
DURATION: 15 Sec

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 19	Blank	20	0.1	45	2.2		
		21	0.1	46	2.4		
		22	0.2	47	3.3		
		23	0.3	48	4.0		
		24	0.4	49	5.6		
		25	0.4	50	4.6		
		26	0.5	51	1.2		
		27	0.7	52	0.0		
		28	0.8	Stations 53 - 100	Blank		
		29	1.1				
		30	1.4				
		31	1.7				
		32	2.1				
		33	1.8				
		34	2.2				
		35	2.2				
		36	2.0				
		37	1.9				
		38	1.9				
		39	1.9				
		40	2.0				
		41	1.9				
		42	1.6				
		43	1.7				
		44	1.8				

Total 50.2



222

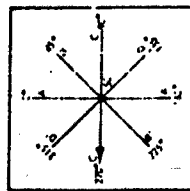
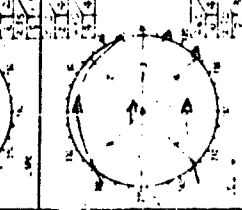
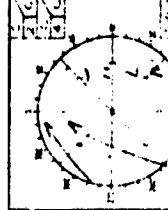
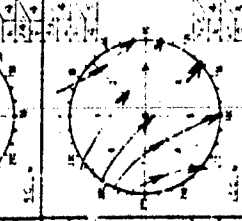
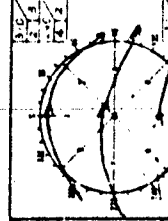
MASS DEPCSI

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 2.5 GPM
DATE: 4 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 5 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0555 Hours AIRCRAFT COURSE: 270 Degrees
DURATION: 11.4 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 26 Blank				51	0.8		
		27	0.3	52	1.0		
		28	0.2	53	0.4		
		29	0.3	54	0.5		
		30	0.3	55	0.6		
		31	0.6	56	0.9		
		32	0.3	57	0.3		
		33	0.6	Stations 58 - 100 Blank			
		34	0.5				
		35	0.7				
		36	0.6				
		37	0.8				
		38	1.3				
		39	1.1				
		40	1.0				
		41	1.2				
		42	1.3				
		43	1.6				
		44	1.3				
		45	0.9				
		46	1.1				
		47	1.6				
		48	1.4				
		49	1.7				
		50	1.4				

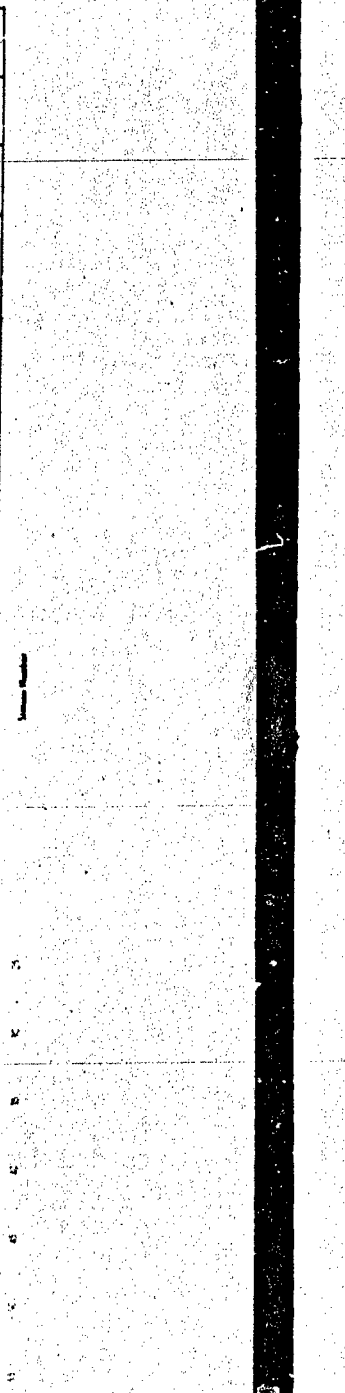
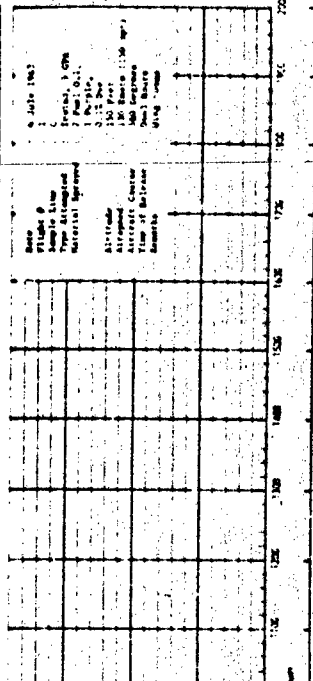
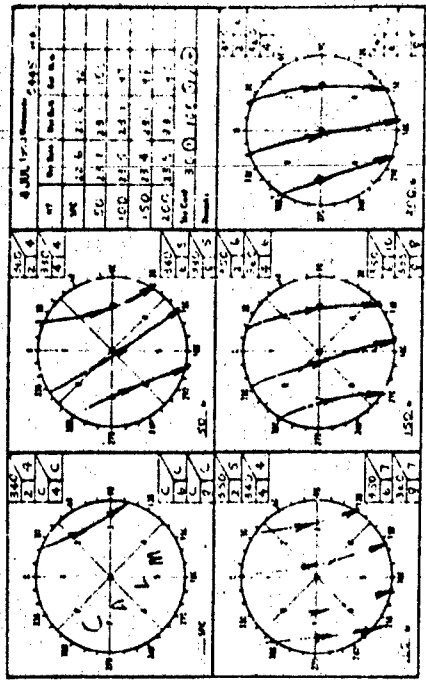
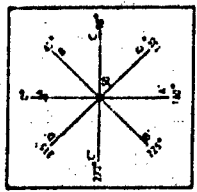
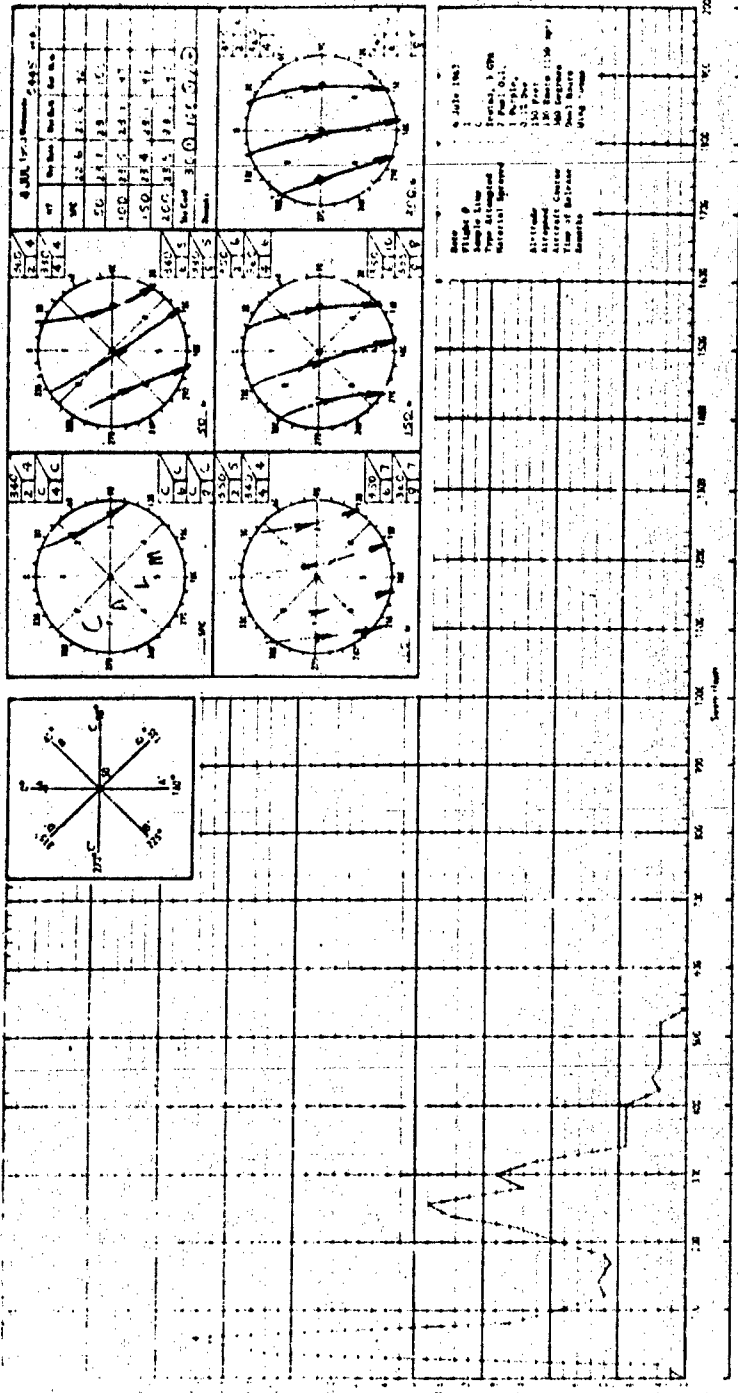
Total 26.1

U.S. S.	4 JAN 1951	64153	W.P.	S.W.	W.P.
41	17	10	10	10	10
50	17	10	10	10	10
55	17	10	10	10	10
56	17	10	10	10	10
57	17	10	10	10	10



U.S. S.	4 JAN 1951	64153	W.P.	S.W.	W.P.
41	17	10	10	10	10
50	17	10	10	10	10
55	17	10	10	10	10
56	17	10	10	10	10
57	17	10	10	10	10

10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	



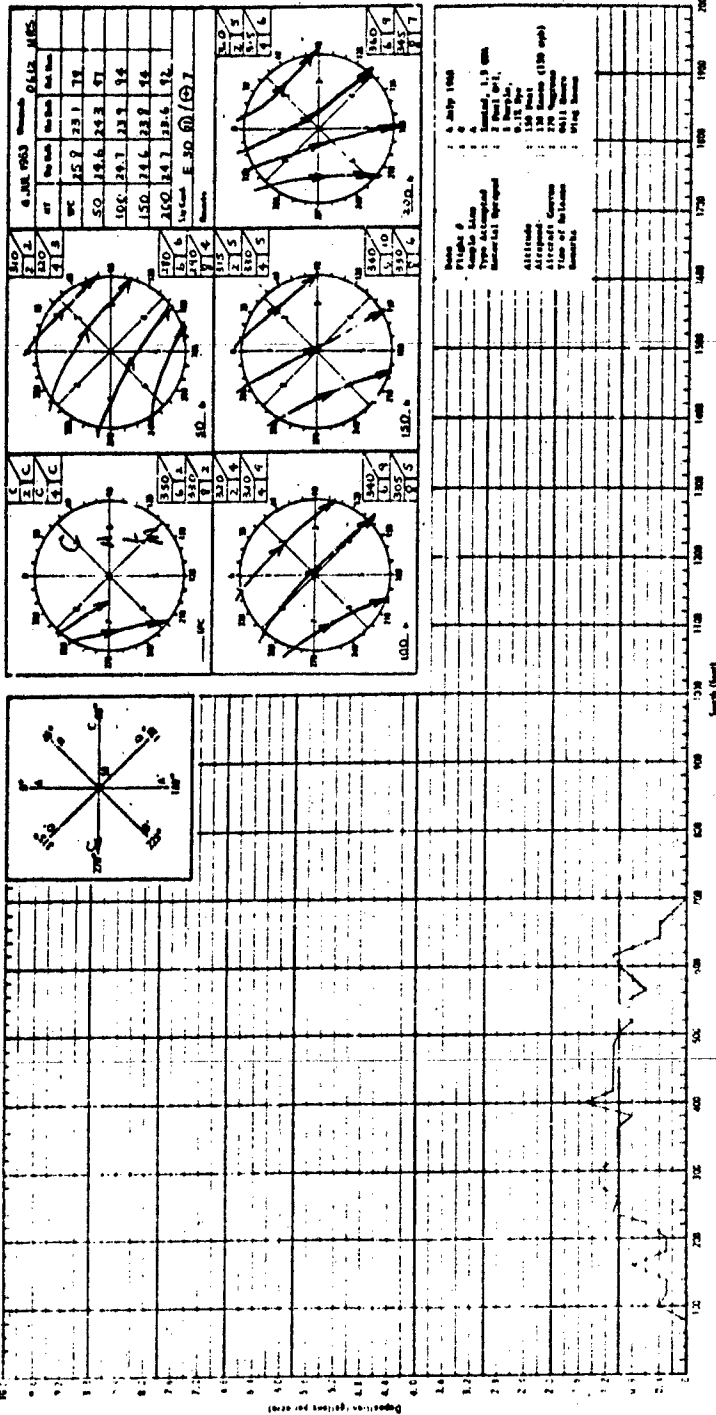
224

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 220 GPM
DATE: 4 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 6 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0611 Hours AIRCRAFT COURSE: 270 Degrees
DURATION: 12.4 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 50	Blank	51	0.2	76	0.3		
		52	0.4	77	0.8		
		53	0.4	78	0.3		
		54	1.1	79	0.3		
		55	1.0	80	0.4		
		56	0.8	81	0.0		
		57	0.6	Stations 82 - 100			
		58	1.1	Blank			
		59	0.8				
		60	1.0				
		61	1.1				
		62	1.1				
		63	1.1				
		64	1.1				
		65	1.5				
		66	0.8				
		67	1.0				
		68	1.0				
		69	1.0				
		70	1.3				
		71	1.3				
		73	1.1				
		74	0.6				
		75	0.3				

Total 13.4



UO	UO	UO	UO
530	530	530	530
535	535	535	535
540	540	540	540
545	545	545	545
550	550	550	550
555	555	555	555
560	560	560	560
565	565	565	565
570	570	570	570
575	575	575	575
580	580	580	580
585	585	585	585
590	590	590	590
595	595	595	595
600	600	600	600
605	605	605	605
610	610	610	610
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655	655	655	655
660	660	660	660
665	665	665	665
670	670	670	670
675	675	675	675
680	680	680	680
685	685	685	685
690	690	690	690
695	695	695	695
700	700	700	700
705	705	705	705
710	710	710	710
715	715	715	715
720	720	720	720
725	725	725	725
730	730	730	730
735	735	735	735
740	740	740	740
745	745	745	745
750	750	750	750
755	755	755	755
760	760	760	760
765	765	765	765
770	770	770	770
775	775	775	775
780	780	780	780
785	785	785	785
790	790	790	790
795	795	795	795
800	800	800	800
805	805	805	805
810	810	810	810
815	815	815	815
820	820	820	820
825	825	825	825
830	830	830	830
835	835	835	835
840	840	840	840
845	845	845	845
850	850	850	850
855	855	855	855
860	860	860	860
865	865	865	865
870	870	870	870
875	875	875	875
880	880	880	880
885	885	885	885
890	890	890	890
895	895	895	895
900	900	900	900
905	905	905	905
910	910	910	910
915	915	915	915
920	920	920	920
925	925	925	925
930	930	930	930
935	935	935	935
940	940	940	940
945	945	945	945
950	950	950	950
955	955	955	955
960	960	960	960
965	965	965	965
970	970	970	970
975	975	975	975
980	980	980	980
985	985	985	985
990	990	990	990
995	995	995	995
1000	1000	1000	1000

226

MASS DEPOSIT

MATERIAL 2 Fuel Oil, 1 Purple FLOW RATE: 215 GPM
DATE: 4 July 1963 SYSTEM: C-12J/MC-1
FLIGHT #: 7 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: B ALTITUDE: 150 Feet
TIME OF RELEASE: 0631 Hours AIRCRAFT COURSE: 315 Degrees
DURATION: 13.6 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 25 Blank		26	0.1	51	1.4		
		27	0.2	52	1.3		
		28	0.3	53	2.6		
		29	0.4	54	0.6		
		30	0.6	55	0.4		
		31	0.7	Stations 56 - 100 Blank			
		32	0.4				
		33	0.4				
		34	0.3				
		35	0.2				
		36	0.8				
		37	0.5				
		38	0.8				
		39	0.8				
		40	0.6				
		41	1.2				
		42	0.8				
		43	1.2				
		44	0.8				
		45	0.6				
		46	0.8				
		47	0.9				
		48	1.0				
		49	1.5				
		50	1.5				

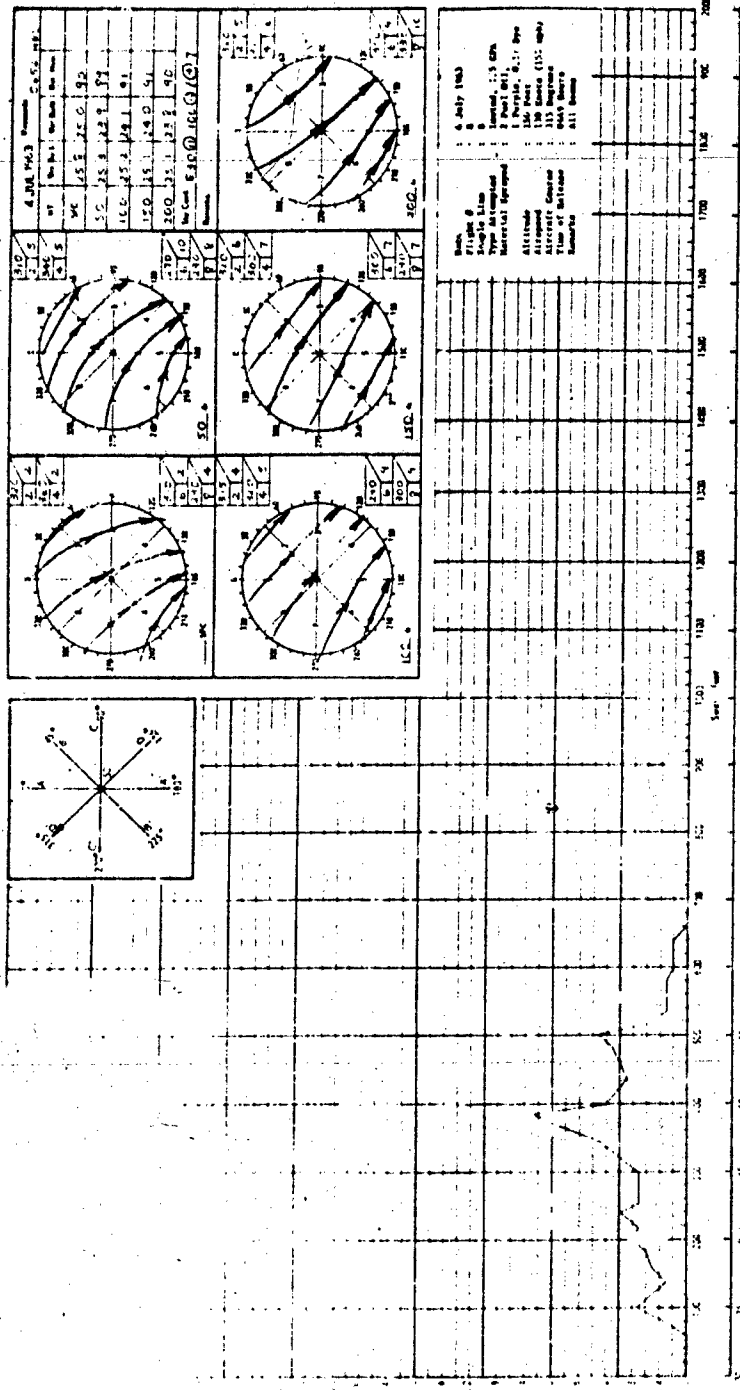
Total 23.9

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 15 GPM
 DATE: 4 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 8 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: B ALTITUDE: 150 Feet
 TIME OF RELEASE: 0649 Hours AIRCRAFT COURSE: 315 Degrees
 DURATION: 13.2 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 32	Blank	33	0.0	58	0.3		
		34	0.3	59	0.3		
		35	0.7	60	0.2		
		36	0.5	61	0.2		
		37	0.3	62	0.2		
		38	0.5	Stations 63 - 100 Blank			
		39	0.6				
		40	0.8				
		41	0.7				
		42	1.0				
		43	0.7				
		44	0.7				
		45	0.7				
		46	1.0				
		47	1.3				
		48	1.9				
		49	2.3				
		50	1.2				
		51	1.0				
		52	0.9				
		53	1.0				
		54	1.1				
		55	1.3				
		56	0.6				
		57	0.3				

Total 22.6



Survey Marker

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 5 July 1963 DATE TEST FLOWN: 6 July 1963
 LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 72
 NOZZLE TYPE: Check valve only LIQUID TEMP: 36° C @1500
 DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 86-54
 PUMP R.P.M.: 3500-3100 FLOW METER READING: 510 GPM
 NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 520 GPM
 TOTAL AMOUNT SPRAYED: 130 Gal.
 NOZZLE CONFIGURATION: WING: 1-7, 13-21, 29-40 Underside
1-4, 37-40 Aft side

OPERATIONAL DATA DURING FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
1	3400-3100	88	54	455
2	3500-2900	90	58	470

REMARKS: All odd numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6143.
 All even numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6135.
 All openings on aft side have $\frac{1}{2}$ " check valve #6140.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 5 July 1963 DATE TEST FLOWN: 6 July 1963

LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 84

NOZZLE TYPE: Check valves only LIQUID TEMP: 36° C @1515

DURATION OF SPRAY: 15 Secs. PUMP PRESSURE: 74-40

PUMP R.P.M.: 3200-2700 FLOW METER READING: 495 GPM

NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 488 GPM

NOZZLE CONFIGURATION: 1-4, 37-40 Aft side

WING: 1-7, 13-21, 29-40 Underside

TAIL: 1-6, 14-19

OPERATIONAL DATA DURING FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
3	3200-2600	75	42	460
4		76	42	460

REMARKS: All odd numbered openings on underside of boom have 1/2" check valve #6140.
 All even numbered openings on underside of boom have 1/2" check valve #6135.
 All openings on aft side have 1/2" check valve #6140.
 All openings on tail boom are on aft side. Opening number 1-4 and 16-19 are 1/2" check valve #6135.
 Openings numbered 5-15 are 1/2" check valve #6140.

U-123/PC-1 GROUND FLOW & FLOWMETER DATA

TEST DATE: 5 July 1963

DATE TEST FLOWN: 6 Jul, 1963

NO. OF SPRAYERS: 1 Fuel Oil, 1 Purple

TOTAL NOZZLES OPEN: 72

METER TYPE: Check valves only

LIQUID TEMP: 36° C

DURATION OF SPRAY: 15 Sec.

PUMP PRESSURE: 75-30

LINE NO. P.N. 3300-2700

FLOW METER READING: 295 GPM

NO. OF PUMPS: 1

FLOW RATE CALIBRATED: 296 GPM

VOLUME OF FUEL SPRAYED: 7.5 Gal

METER LINE LOCATION: WINGS: 1-7, 12-21, 28-49 Underside
1-9, 37-40 Aft side

RING #	PSI	PSI BEFORE	PSI DURING	GPM FLOWMETER
5	3300-2700	75	30	290
6	3400-2800	77	30	300

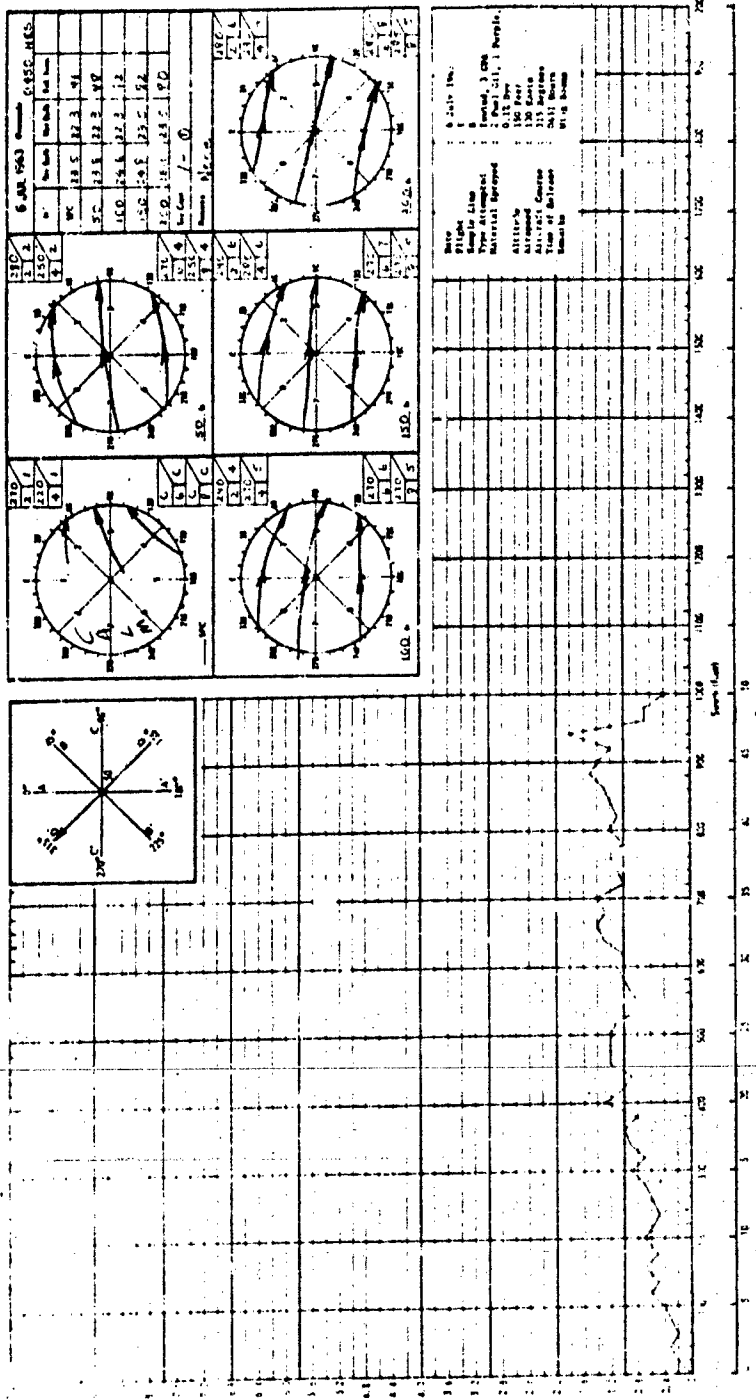
234

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 455 GPM
DATE: 6 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 1 AIRSPEED: 130 Knots (150 mph)
SAMPLE LINE: B ALTITUDE: 150 Feet
TIME OF RELEASE: 0451 Hour AIRCRAFT COURSE: 315 Degrees
DURATION: 08.2 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.2	26	1.1	Stations 51 - 100 Blank			
2	0.3	27	0.7				
3	0.2	28	0.9				
4	0.3	29	1.0				
5	0.4	30	1.1				
6	0.6	31	1.0				
7	0.5	32	1.3				
8	0.7	33	1.4				
9	0.5	34	1.3				
10	0.7	35	1.4				
11	0.6	36	1.0				
12	0.5	37	1.1				
13	0.6	38	1.2				
14	0.7	39	1.0				
15	0.9	40	1.2				
16	0.7	41	1.1				
17	0.9	42	1.2				
18	1.0	43	1.3				
19	0.8	44	1.5				
20	1.3	45	1.4				
21	1.0	46	1.2				
22	0.9	47	1.8				
23	1.2	48	0.7				
24	1.2	49	0.7				
25	1.2	50	0.4				

Total 46.2



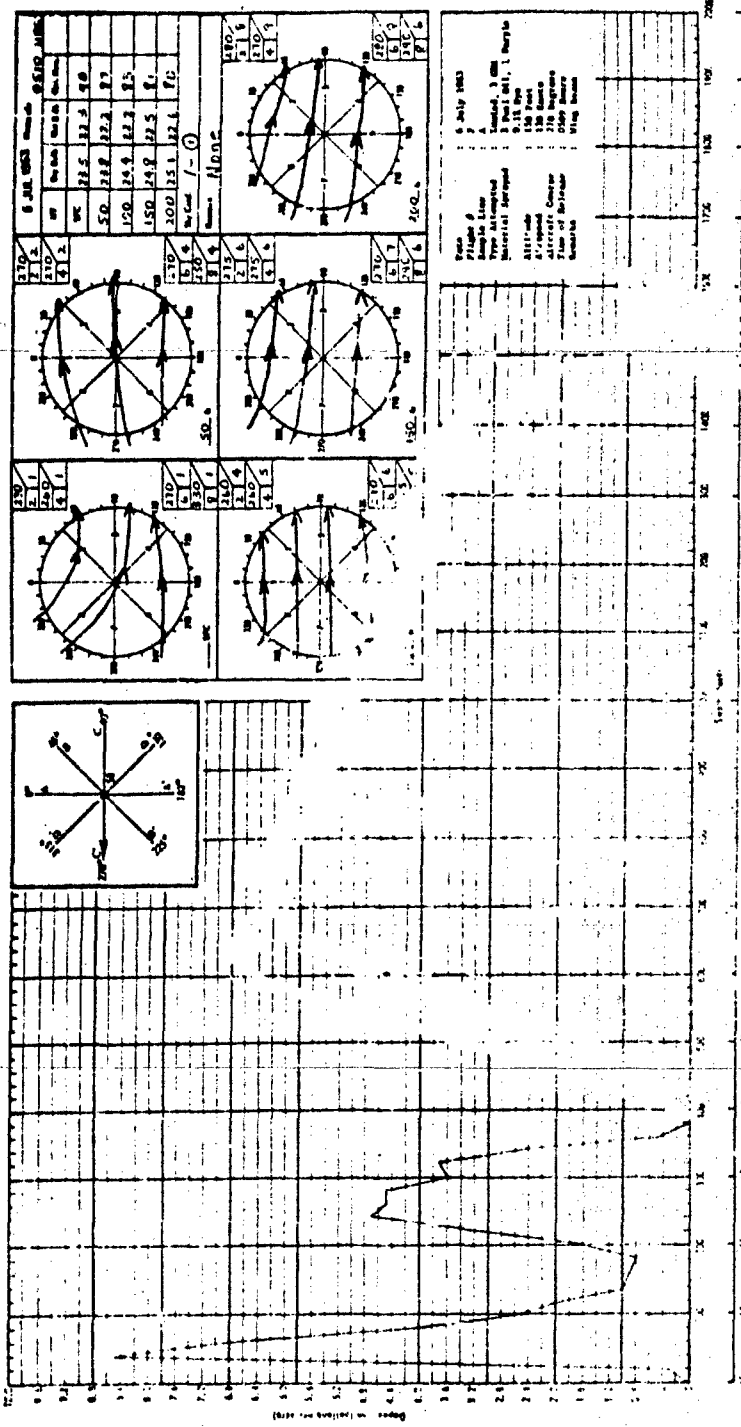
Deposited - 6/15/63

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 470 GPM
 DATE: 6 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots (150 mph)
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0509 Hours AIRCRAFT COURSE: 270 Degrees
 DURATION: 13 Sec.

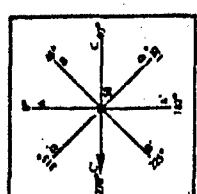
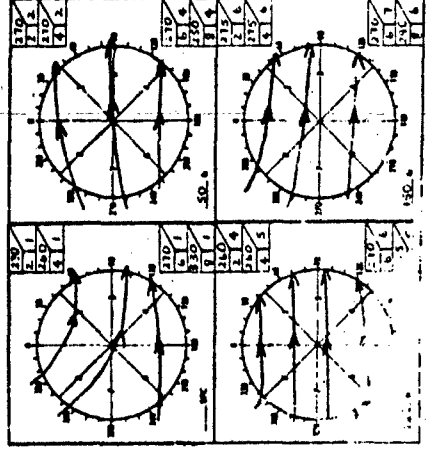
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 44	Blank			45	0.0		
				46	0.3		
				47	8.5		
				48	7.0		
				49	4.1		
				50	2.5		
				51	1.9		
				52	1.0		
				53	0.9		
				54	0.8		
				55	1.6		
				56	3.1		
				57	4.7		
				58	4.5		
				59	4.5		
				60	3.6		
				61	3.7		
				62	2.4		
				63	0.5		
				64	0.0		
				65	0.0		
				Stations 66 - 100	Blank		

Total 55.6



Propeller RPM	Tip Speed (ft/min)	Tip Speed (mph)	Tip Speed (m/sec)
1000	1570	10.4	3.2
1200	1884	12.5	3.8
1400	2198	14.6	4.4
1600	2512	16.7	5.0
1800	2826	18.8	5.6
2000	3140	20.9	6.2

Date: 5 July 1963
 Propeller #:
 Sample Line:
 Type of Material:
 Number of Blades: 3
 Pitch: 12.5
 Diameter: 26.0
 Airspeed:
 Altitude:
 Flow of Air:
 Number of Revolutions:
 Wing Span:



Propeller Efficiency vs. Propeller RPM
 2000
1800
1600
1400
1200
1000
800
600
400
200
0

238

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple

FLOW RATE: 460 GPM

DATE: 6 July 1963

SYSTEM: C-123/MC-1

FLIGHT #: 3

AIRSPPEED: 130 Knots

SAMPLE LINE: A 1

ALTITUDE: 150 Feet

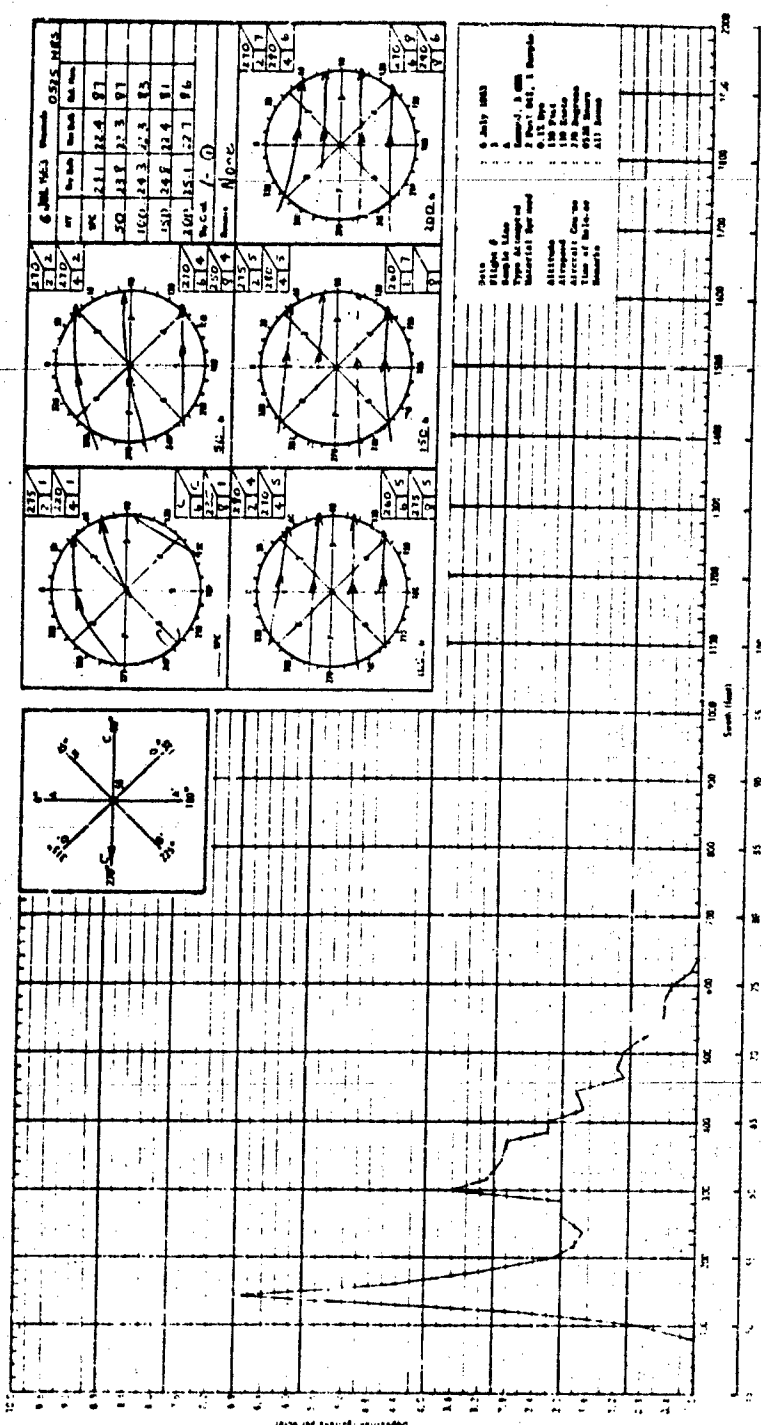
TIME OF RELEASE: 0528 Hours

AIRCRAFT COURSE: 270 Degrees

DURATION: 12.4 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 49	Blank	50	0.8	75	0.4		
		51	2.6	76	0.1		
		52	6.7	Stations 77 - 100			
		53	4.4	Blank			
		54	3.1				
		55	2.1				
		56	1.8				
		57	1.7				
		58	2.0				
		59	2.0				
		60	3.6				
		61	3.1				
		62	2.9				
		63	2.8				
		64	2.2				
		65	2.2				
		66	1.7				
		67	1.8				
		68	1.1				
		69	1.2				
		70	1.1				
		71	0.9				
		72	0.6				
		73	0.5				
		74	0.5				

Total 53.9



240

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 460 GPM
DATE: 6 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 4 AIRSPEED: 130 Knots
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0547 Hours AIRCRAFT COURSE: 270 Degrees
DURATION: 11.8 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 47	Blank	51	5.9	Stations 76 - 100			
		52	4.5		Blank		
		53	3.0				
		54	1.9				
		55	1.9				
		56	1.9				
		57	2.4				
		58	3.2				
		59	3.5				
		60	3.9				
		61	2.8				
		62	2.3				
		63	2.0				
		64	1.8				
		65	1.3				
		66	0.9				
		67	0.8				
		68	0.6				
		69	0.6				
		70	0.5				
		71	0.8				
		72	0.8				
		73	0.5				
		74	0.1				
		75	0.3				
		48	0.3				
		49	2.4				
		50	7.1				

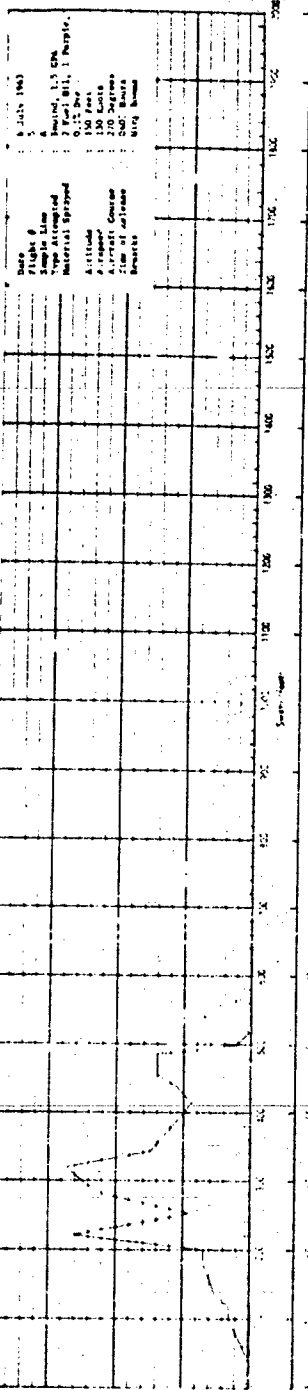
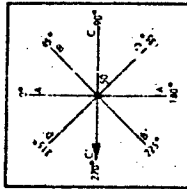
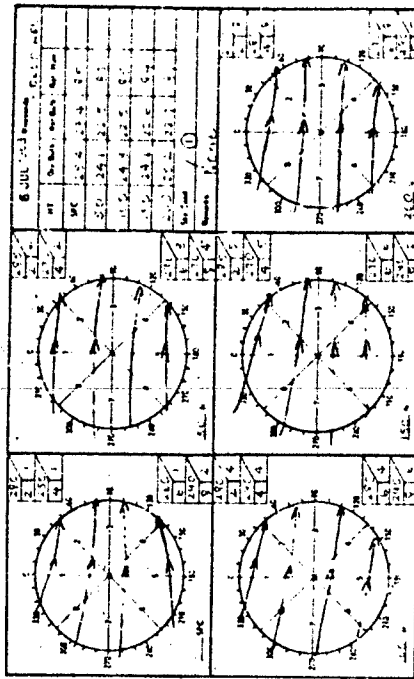
Total 56.4

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 290 GPM
 DATE: 6 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0603 Hours AIRCRAFT COURSE: 270 Degrees
 DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 49	Blank			50	0.2		
				51	1.4		
				52	1.4		
				53	1.1		
				54	0.9		
				55	1.0		
				56	1.2		
				57	1.5		
				58	1.7		
				59	2.7		
				60	2.5		
				61	2.2		
				62	0.9		
				63	1.4		
				64	2.6		
				65	0.7		
				66	0.7		
				67	0.6		
				68	0.5		
				69	0.3		
				70	0.3		
				71	0.2		
				72	0.1		
				Stations 73 - 100	Blank		

Total 26.1



8 JUL 1963
 Flight # 1
 Sample Time 13:00
 Instrumental Spread 1
 Altitude 150
 Altitude Error 200
 Time of Day 13:00
 Date 8 JUL 1963

8 JUL 1963
 Flight # 1
 Sample Time 13:00
 Instrumental Spread 1
 Altitude 150
 Altitude Error 200
 Time of Day 13:00
 Date 8 JUL 1963

8 JUL 1963
 Flight # 1
 Sample Time 13:00
 Instrumental Spread 1
 Altitude 150
 Altitude Error 200
 Time of Day 13:00
 Date 8 JUL 1963

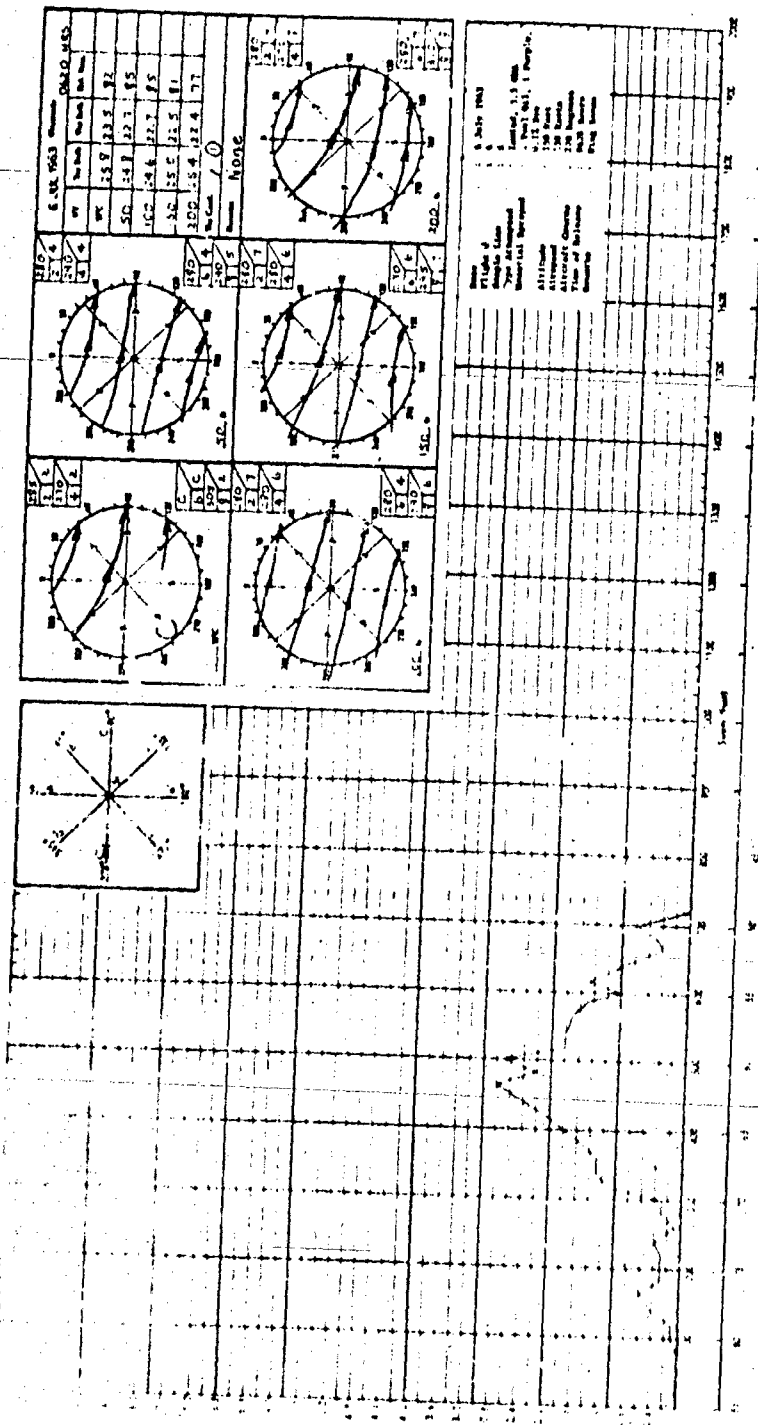
244

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 300 GPM
DATE: 6 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 6 AIRSPEED: 130 Knots
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0620 Hours AIRCRAFT COURSE: 270 Degrees
DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 49	Blank:	50	0.8	75	0.3		
		51	0.5	76	0.3		
		52	0.4	77	0.6		
		53	1.0	78	0.4		
		54	1.5	79	0.1		
		55	1.0	80	0.1		
		56	1.5	Stations 81 - 100			
		57	1.7	Blank			
		58	1.8				
		59	1.8				
		60	2.7				
		61	2.2				
		62	2.8				
		63	2.4				
		64	2.0				
		65	1.8				
		66	1.5				
		67	1.3				
		68	1.3				
		69	1.1				
		70	0.3				
		71	0.3				
		72	0.1				
		73	0.4				
		74	0.3				

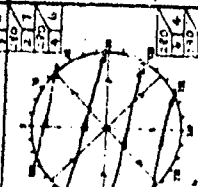
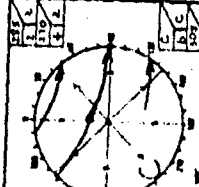
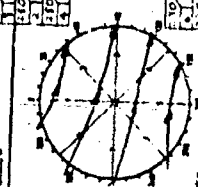
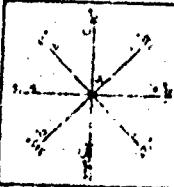
Total 34.3



E. 88, 1963

Wt	Wet Weight	Dry Weight
100	133.3	92
150	177.7	138
200	222.2	184
250	266.7	230
300	311.1	276
350	355.6	322
400	400.0	368
450	444.4	414
500	488.9	460
550	533.3	506
600	577.8	552
650	622.2	598
700	666.7	644
750	711.1	690
800	755.6	736
850	800.0	782
900	844.4	828
950	888.9	874
1000	933.3	920

Date: 10/10/63
 Location: 115 000
 Instrument: 115 000
 Operator: 115 000
 Station: 115 000
 Time: 115 000
 Wind: 115 000
 Temp: 115 000
 Humidity: 115 000
 Pressure: 115 000
 Visibility: 115 000
 Clouds: 115 000
 Remarks: 115 000



Time	Temp	Humidity	Pressure	Wind	Clouds	Remarks
00						
05						
10						
15						
20						
25						
30						
35						
40						
45						
50						
55						
60						
65						
70						
75						
80						
85						
90						
95						
100						

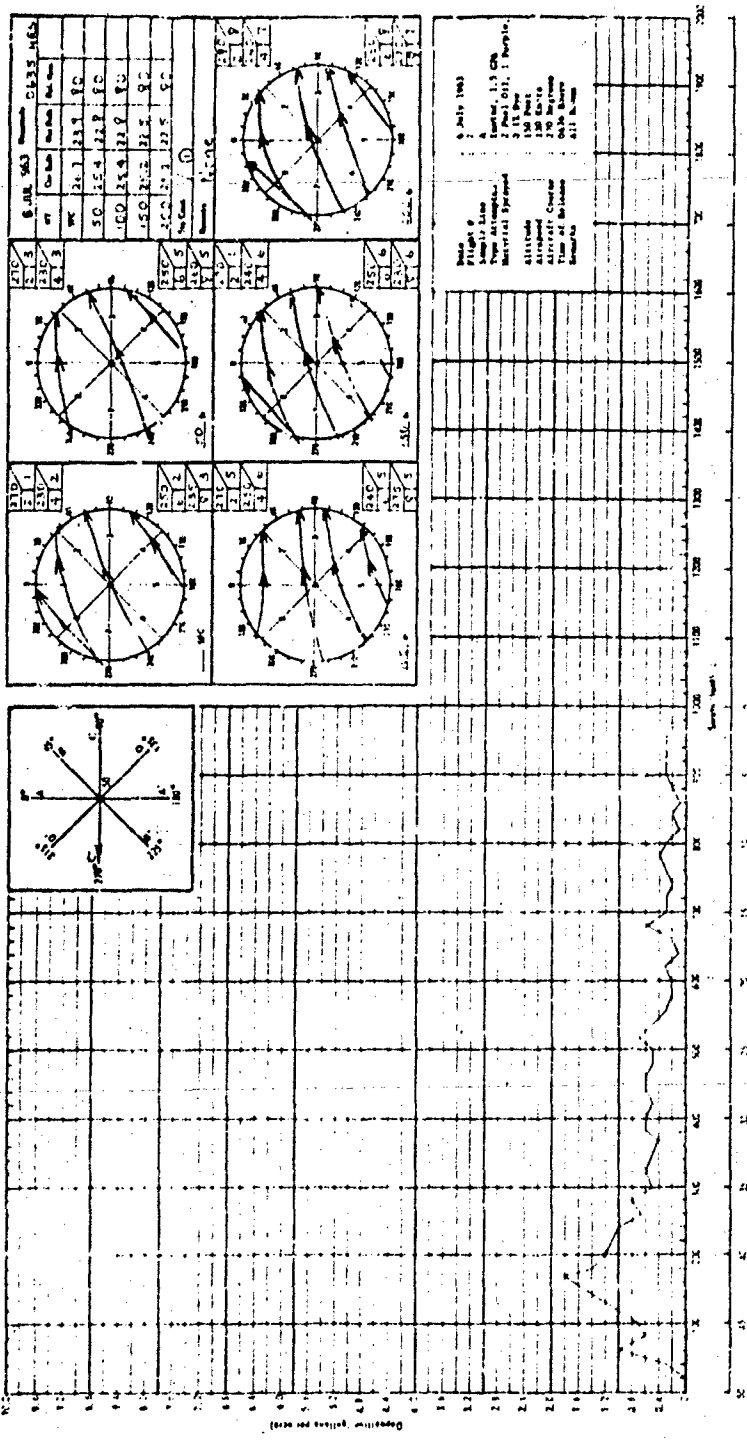
246

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 31 GPM
 DATE: 6 July 1963 SYSTEM: C-123/M. 1
 FLIGHT #: 7 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0616 Hours AIRCRAFT COURSE: 270 Degrees
 DURATION: 12.8 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	0.2	26	0.5				
2	0.3	27	0.6				
3	0.3	28	0.6				
4	0.3	29	0.5				
5	0.3	30	0.6				
6	0.2	31	0.6				
7	0.1	32	0.4				
8	0.2	33	0.5				
9	0.1	34	0.6				
10	0.3	35	0.5				
11	0.4	36	0.8				
12	0.3	37	0.7				
13	0.7	38	1.0				
14	0.3	39	1.1				
15	0.3	40	1.2				
16	0.6	41	1.4				
17	0.7	42	1.8				
18	0.1	43	1.4				
19	0.3	44	1.7				
20	0.2	45	0.7				
21	0.2	46	0.6				
22	0.3	47	1.0				
23	0.5	48	0.3				
24	0.7	Total from 49 - 100 Blank					
25	0.7						

Total: 25.8



Deposited (gullion per cent)

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 July 1963 DATE TEST FLOWN: 9 July 1963
 LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 96 PEN: _____
 NOZZLE TYPE: Check valve only LIQUID TEMP: 33° C 33°
 DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 74-40 74-
 PUMP R.P.M.: 3250-2700 FLOW METER READING: 500 GPM NG: _____
 NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 512 GPM MATED: _____
 NOZZLE CONFIGURATION: 1-7, 13-21, 29-42 Underside
WING: 1-4, 19-22, 37-40 Aft side
TAIL: 1-6, 14-17

OPERATIONAL DATA DURING TEST FLIGHT

RUN#	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER	MPM FL
1	3200-2600	75	36	450	45
5	3550-3000	84	50	530	53

REMARKS: All odd numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6140.
 All even numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6135.
 All openings on aft side have $\frac{1}{2}$ " check valve #6140.
 All openings on tail boom are on aft side.
 Opening number 1-4 and 16-19 are $\frac{1}{2}$ " check valve #6135.
 Openings numbered 5-15 are $\frac{1}{2}$ " check valve #6140.
 Tail check valves flow are perpendicular to air stream.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATA

DATE CALIBRATED: 8 July 1963 DATE TEST FLOWN: 9 July 1963
 LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 84 ES CFI
 NOZZLE TYPE: Check valve only LIQUID TEMP: 34° C
 DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 73-28 PSI
 PUMP R.P.M.: 3250-2650 FLOW METER READING: 290 GPM
 NO. OF PUMPS: 1 FLOW RATE CALIBRATED: 292 GALIBR.
 TOTAL AMOUNT SPRAYED: 73 GAL

NOZZLE CONFIGURATION: 1-7, 13-21, 29-42 Underside
WING: 1-4, 19-22, 37-40 Aft side

OPERATIONAL DATA DURING TEST FLIGHT

FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER 3</u>
<u>2</u>	<u>1500-7</u>	<u>87</u>		<u>315</u>

REMARKS: All odd numbered openings on underside of boom have $\frac{1}{2}$ " check valve have #6140.
 All even numbered openings on underside of boom have $\frac{1}{2}$ " check valve have #6135.
 All openings on aft side have $\frac{1}{2}$ " check valve #6140. 140.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 July 1963 DATE TEST FLOWN: _____
LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: _____
NOZZLE TYPE: Check valve only LIQUID TEMP: _____
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: _____
PUMP R.P.M.: 3250-2600 FLOW METER READING: _____
NO. OF PUMPS: 1 FLOW RATE CALIBRA: _____
TOTAL AMOUNT SPRAYED: 72.5 Gal.
NOZZLE CONFIGURATION: WING: 1-7, 13-21, 29-42 Underside
TAIL: 1-4, 19-22, 37-40 Aft side
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM</u>
<u>3</u>	<u>3400-3000</u>	<u>84</u>	<u>28</u>	

REMARKS: Nozzles same as Runs #1 and #5.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 July 1963 DATE TEST FLOW: 9 July 1963
 LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN 96
 NOZZLE TYPE: Check valve only LIQUID TEMP: _____
 DURATION OF SPAY: 15 Sec. PUMP PRESSURE: 72-24
 PUMP R.P.M.: 3250-2600 FLOW METER READING: 300 GPM
 NO. OF PUMPS: 1 FLOW RATE CALIBRATED: 290 GPM
 TOTAL AMOUNT SPRAYED: 72.5 Gal.

NOZZLE CONFIGURATION: 1-7, 13-21, 29-42 Underside
WING: 1-4, 19-22, 37-40 Aft side
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>3</u>	<u>3400-3000</u>	<u>84</u>	<u>28</u>	<u>320</u>

REMARKS: Nozzles same as Run #1 and #5.

C-1.3/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 July 1963 DATE TEST FLOWN: 9 July 1963
LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 84
NOZZLE TYPE: Check valves only LIQUID TEMP: 31° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 83-48
PUMP R.P.M.: 3500-2900 FLOW METER READING: 500 GPM
NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 494 GPM
TOTAL AMOUNT SPRAYED: 123.5 Gal.
NOZZLE CONFIGURATION: 1-7, 13-21, 29-42 Underside
WING: 1-4, 19-22, 37-40 Aft side

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>4</u>	<u>3500-2900</u>	<u>85</u>	<u>50</u>	<u>460</u>

REMARKS: Check valves same as Run #2.

MASS MEDIAN DIAMETER

DATE: 9 July 1963CONVERSION FACTOR: 2.5FLIGHT #: 5PAPER: Kromekote, whiteSAMPLE LINE: AMATERIAL: 2 Fuel Oil, 1 PurpleFLOW RATE: 530 CPMSYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
49	1	9000			
57	8	6700			
51	3	6100*			
61	9	5000			
51	2	5800	70	1A	100(smallest)
50	4	5700			
53	6	5000			
64	10	5500			
51	5	5400			
50	7	5300			
50	11	5200			

$$\text{MMD} = \frac{67.72 \pm 0.1420 (\text{Spot D Max})}{\text{Con. Factor} = 2.5} = \frac{6100}{6.355 \times 2.2} = 373.6 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = \frac{67.72 \pm 0.1420 (0000)}{6.430} = \frac{9000}{6.430} = 1395.7 \text{ Microns}$$

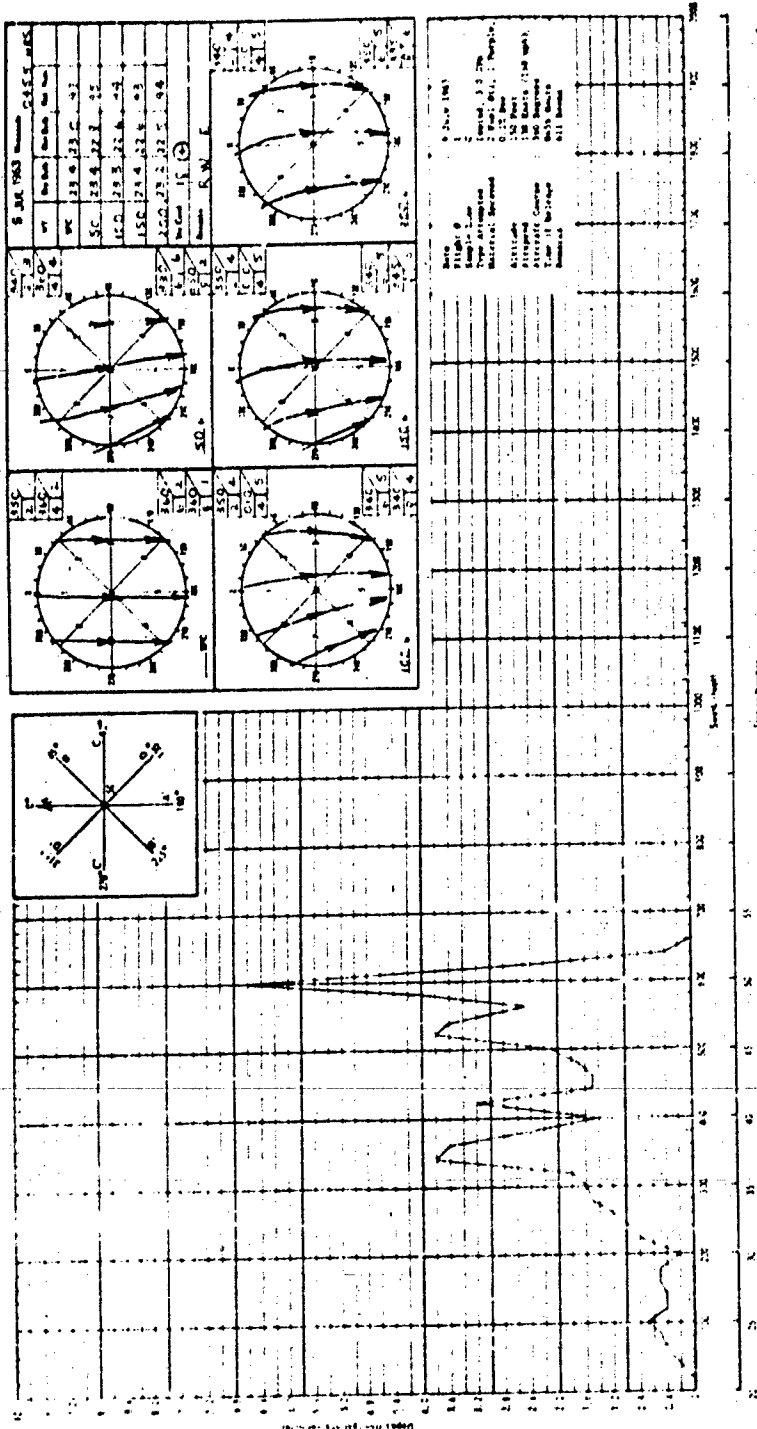
$$\text{Min. Sph. Dia.} = 63 \text{ Microns}$$

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 450 GPM
 DATE: 9 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0456 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 12 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 21	Blank	22	0.2	47	3.6		
		23	0.4	48	2.5		
		24	0.5	49	4.0		
		25	0.7	50	6.6		
		26	0.4	51	2.5		
		27	0.4	52	0.4		
		28	0.5	Stations 53 - 100 Blank			
		29	0.5				
		30	0.2				
		31	0.8				
		32	1.0				
		33	1.3				
		34	1.5				
		35	1.6				
		36	1.8				
		37	3.8				
		38	3.6				
		39	7.5				
		40	1.4				
		41	3.2				
		42	1.5				
		43	1.5				
		44	1.7				
		45	2.1				
		45	3.8				

Total 56.5

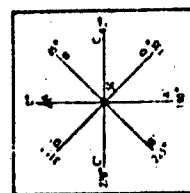


5 APR 1963

Item	Description	Value
1	Deck	23.2
2	SC	22.8
3	ISC	22.4
4	Deck	22.0

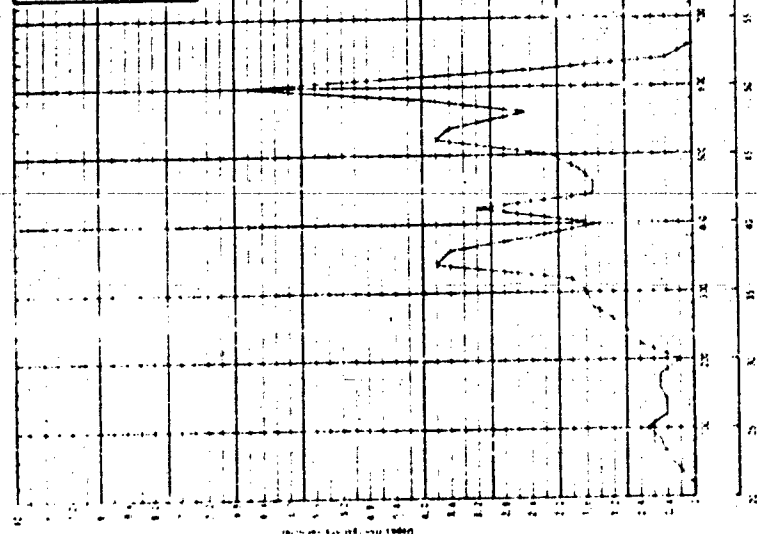
Station	Deck	SC	ISC
1	23.2	22.8	22.4
2	23.2	22.8	22.4
3	23.2	22.8	22.4
4	23.2	22.8	22.4

Station	Deck	SC	ISC
1	23.2	22.8	22.4
2	23.2	22.8	22.4
3	23.2	22.8	22.4
4	23.2	22.8	22.4



Station	Deck	SC	ISC
1	23.2	22.8	22.4
2	23.2	22.8	22.4
3	23.2	22.8	22.4
4	23.2	22.8	22.4

Station	Deck	SC	ISC
1	23.2	22.8	22.4
2	23.2	22.8	22.4
3	23.2	22.8	22.4
4	23.2	22.8	22.4



Deck Level

Station Number

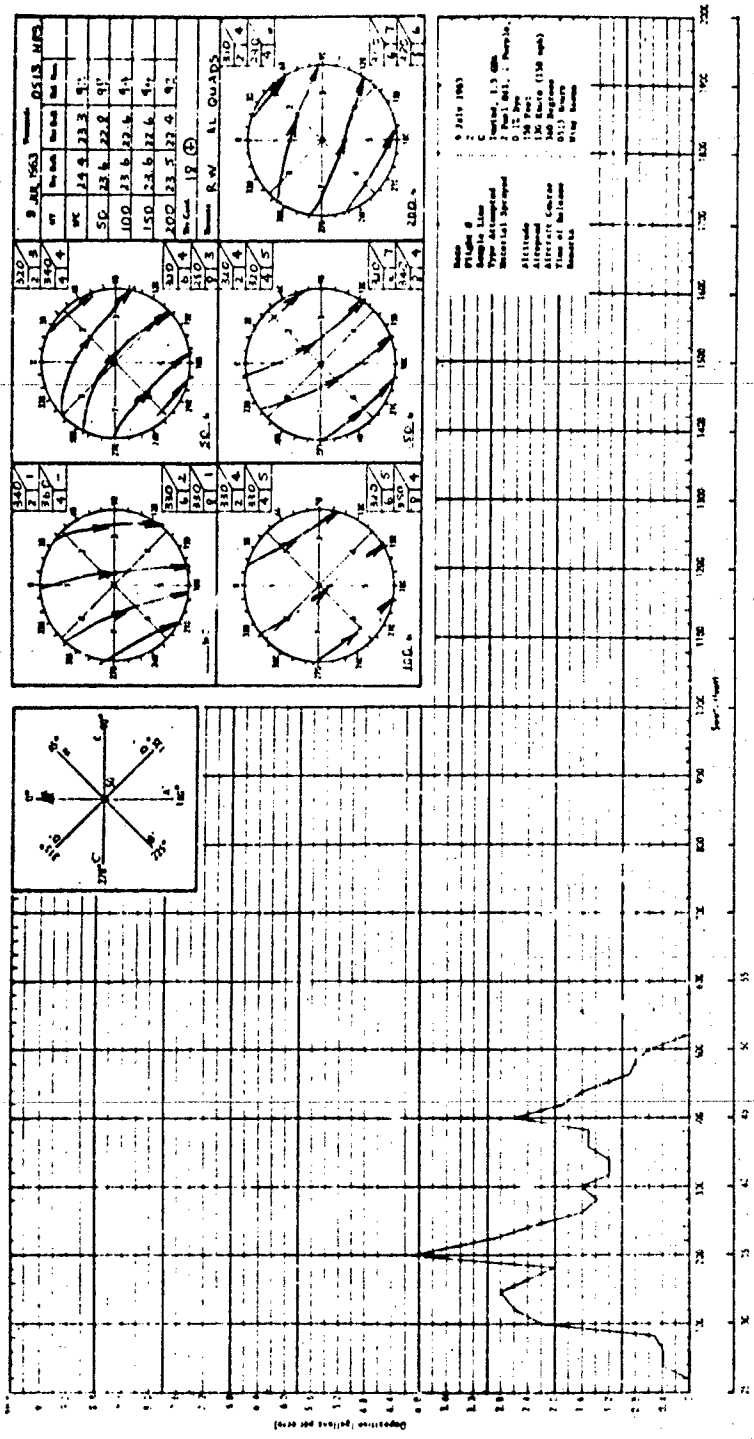
256

MASS DEPOSITS

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 315 GPM
DATE: 7 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 2 AIRSPEED: 130 Knots
SAMPLE LINE: C ALTITUDE: 150 Feet
TIME OF RELEASE: 0513 Hours AIRCRAFT COURSE: 360 Degrees
DURATION: 12 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 25	Blank	26	0.0				
		27	0.4				
		28	0.4				
		29	0.5				
		30	2.2				
		31	2.6				
		32	2.8				
		33	2.4				
		34	2.0				
		35	4.1				
		36	2.9				
		37	2.2				
		38	1.6				
		39	1.4				
		40	1.6				
		41	1.2				
		42	1.2				
		43	1.5				
		44	1.5				
		45	2.6				
		46	1.9				
		47	1.6				
		48	0.9				
		49	0.8				
		50	0.6				

Total 40.9



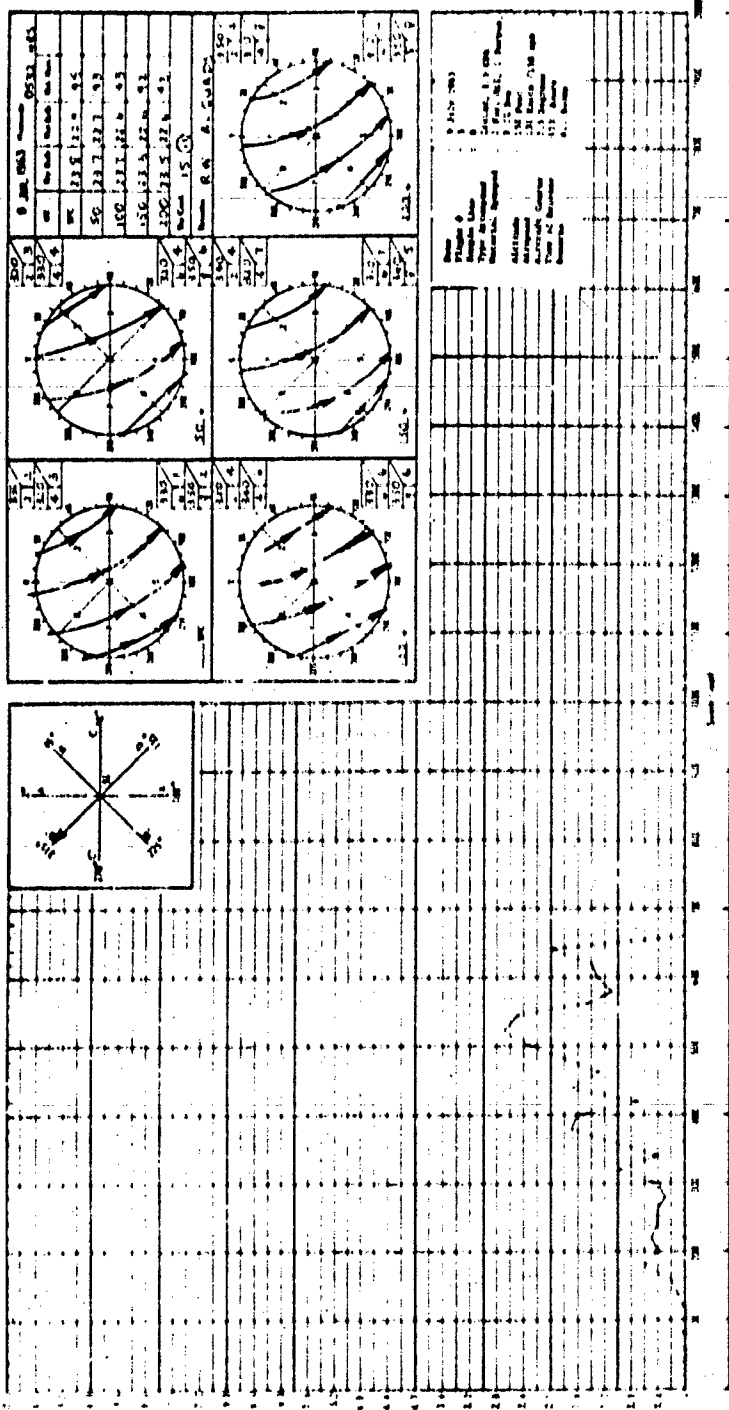
258

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 320 GPM
DATE: 9 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 3 AIRSPEED: 130 Knots
SAMPLE LINE: B ALTITUDE: 150 Feet
TIME OF RELEASE: 0535 Hours AIRCRAFT COURSE: 315 Degrees
DURATION: 15 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 46	Blank			52	1.5		
				53	2.5		
				54	2.7		
				55	2.3		
				56	1.8		
				57	1.3		
				58	1.7		
				59	0.7		
				60	1.6		
				61	1.7		
				62	1.1		
				63	0.4		
				64	1.0		
				65	0.4		
				66	0.3		
				67	0.4		
				68	0.4		
				69	0.5		
				70	0.4		
				71	0.6		
				72	0.2		
		47	0.0	73	0.1		
		48	2.0	74	0.0		
		49	1.4	75	0.0		
		50	1.3	76	0.0		
		51	1.1				

Total 29.4

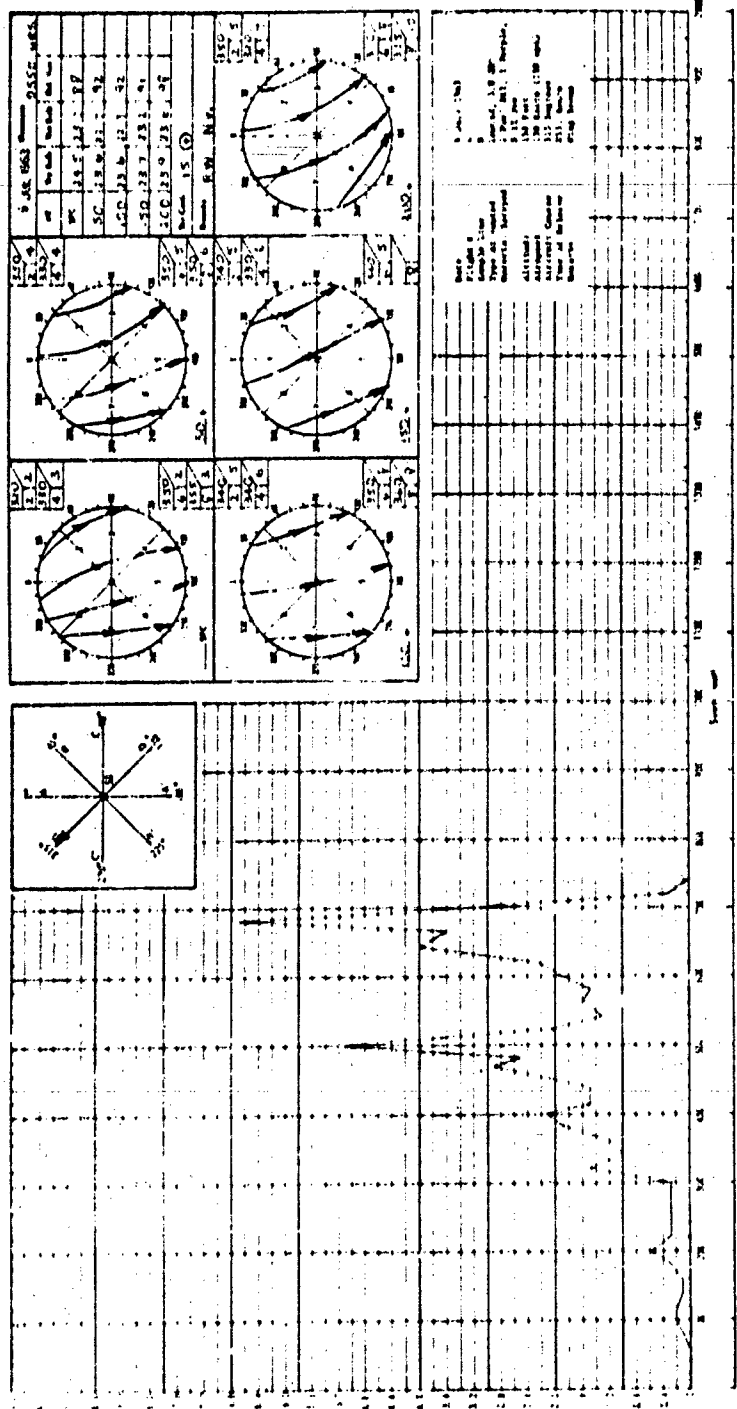


Department of the Interior

MASS DEPOSITMATERIAL: 2 Fuel Oil, 1 PurpleFLOW RATE: 460 GPMDATE: 9 July 1963SYSTEM: C-121/MC-1FLIGHT #: 4AIRSPEED: 130 KnotsSAMPLE LINE: BALTITUDE: 150 FeetTIME OF RELEASE: 0551 HoursAIRCRAFT COURSE: 315 DegreesDURATION: 13 Sec.

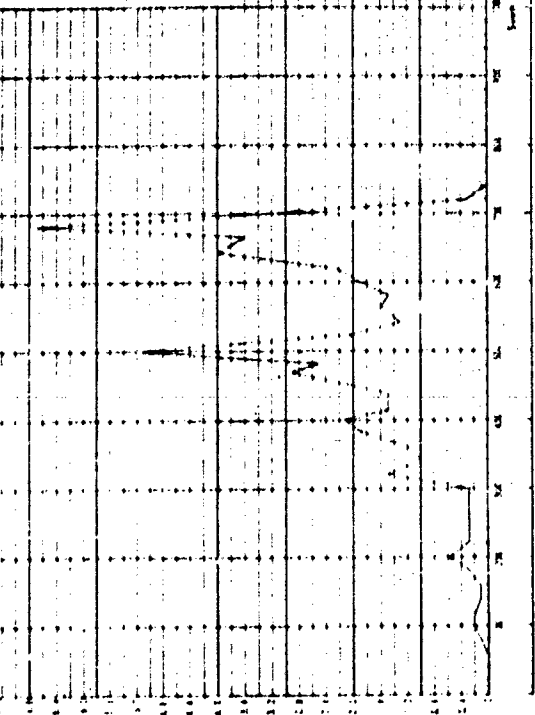
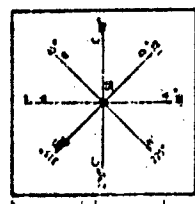
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 48 Blank				49	0.3	74	0.3
		50	3.1	75	0.6		
		51	6.7	76	0.3		
		52	3.6	77	0.1		
		53	4.0	78	0.1		
		54	2.2	79	0.2		
		55	1.9	80	0.2		
		56	1.5	81	0.1		
		57	1.6	82	0.0		
		58	1.3	83	0.0		
		59	2.0	84	0.0		
		60	5.1	Stations 85 - 100			
		61	2.5	Blank			
		62	2.9				
		63	1.5				
		64	1.5				
		65	2.1				
		66	1.9				
		67	1.2				
		68	1.0				
		69	1.5				
		70	0.3				
		71	0.3				
		72	0.3				
		73	0.3				

Total 52.5



SECTION		DIMENSIONS		MATERIAL		WEIGHT	
NO.	DESCRIPTION	LENGTH	WIDTH	THICKNESS	WEIGHT	WEIGHT	WEIGHT
1	Deck	100	10	1/2	150	150	150
2	Structure	100	10	1/2	150	150	150
3	Structure	100	10	1/2	150	150	150
4	Structure	100	10	1/2	150	150	150
5	Structure	100	10	1/2	150	150	150
6	Structure	100	10	1/2	150	150	150
7	Structure	100	10	1/2	150	150	150
8	Structure	100	10	1/2	150	150	150
9	Structure	100	10	1/2	150	150	150
10	Structure	100	10	1/2	150	150	150

SECTION		DIMENSIONS		MATERIAL		WEIGHT	
NO.	DESCRIPTION	LENGTH	WIDTH	THICKNESS	WEIGHT	WEIGHT	WEIGHT
11	Structure	100	10	1/2	150	150	150
12	Structure	100	10	1/2	150	150	150
13	Structure	100	10	1/2	150	150	150
14	Structure	100	10	1/2	150	150	150
15	Structure	100	10	1/2	150	150	150
16	Structure	100	10	1/2	150	150	150
17	Structure	100	10	1/2	150	150	150
18	Structure	100	10	1/2	150	150	150
19	Structure	100	10	1/2	150	150	150
20	Structure	100	10	1/2	150	150	150

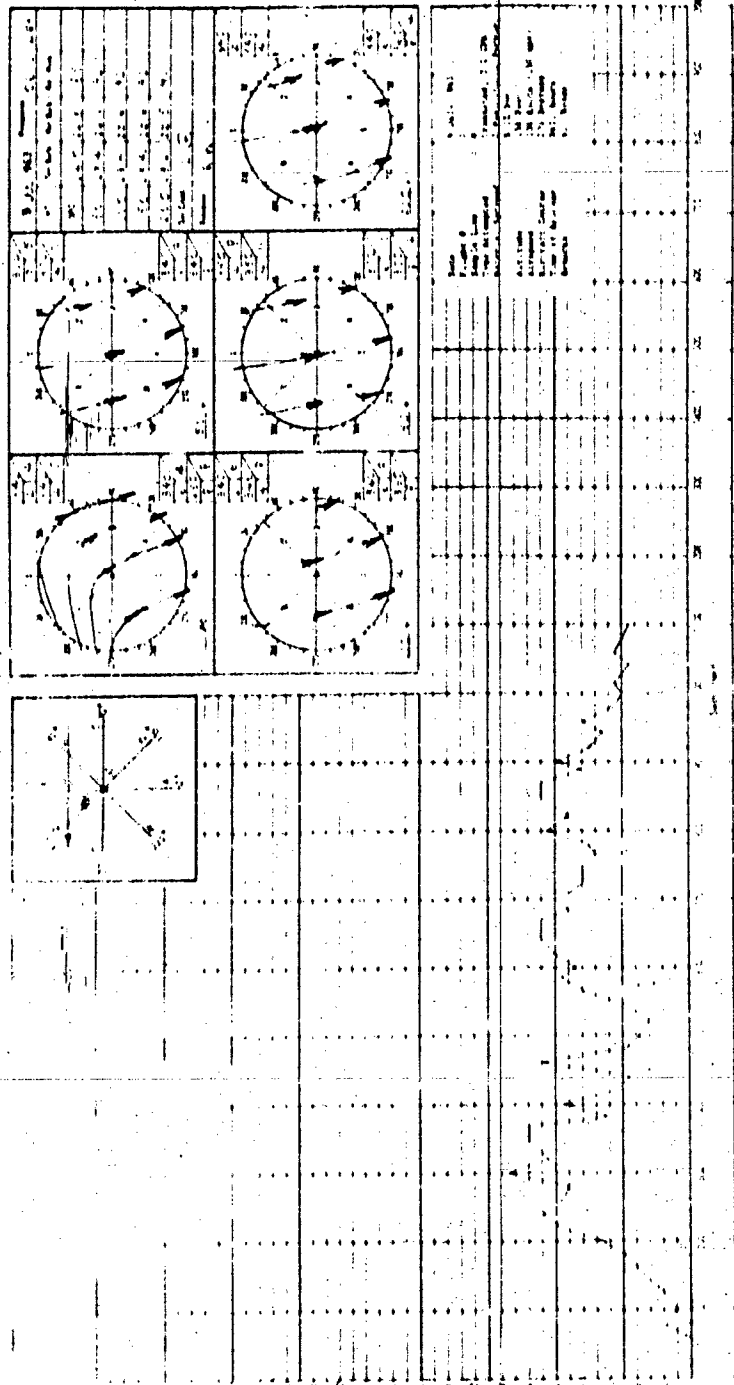


MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 530 GPM
 DATE: 9 July 1963 SYSTEM: G-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0611 Hours AIRCRAFT COURSE: 270 Degrees
 DURATION: 12 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 48 Black		51	0.3	76	2.0		
		52	0.5	77	2.2		
		53	0.7	78	2.2		
		54	1.0	79	1.8		
		55	1.3	80	1.9		
		56	1.9	81	1.6		
		57	2.2	82	1.6		
		58	1.9	83	1.4		
		59	1.8	84	1.5		
		60	2.7	85	2.1		
		61	2.1	86	1.8		
		62	2.4	87	2.2		
		63	2.4	88	2.2		
		64	1.7	89	1.6		
		65	1.9	90	2.0		
		66	1.1	91	1.5		
		67	0.9	92	1.3		
		68	2.2	93	1.6		
		69	0.9	94	1.1		
		70	0.7	95	1.0		
		71	0.6	96	1.1		
		72	0.9	97	0.9		
		73	1.6	98	1.1		
		74	1.9	99	1.0		
		75	1.7	100	0.9		
		49	0.4				
		50	0.2				

Total 77.0



C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 July 1961 DATE TEST FLOWN: 17 July 1961
 LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 96
 NOZZLE TYPE: Check valve only LIQUID TEMP: 33° C
 DURATION OF SPRAY: 15 Sec PUMP PRESSURE: 74-40
 PUMP R.P.M.: 1250-2700 FLOW METER READING: 500 GPM
 NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 512 GPM
 TOTAL AMOUNT SPRAYED: 138 Gal
 NOZZLE CONFIGURATION: WING: 1-7, 13-21, 29-42 Underside
1-4, 19-22, 37-40 Aft side
 TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
1	3550-3000	86	64	570
4	3400-2200	76	28	460

REMARKS: All odd numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6140.
 All even numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6135.
 All openings on aft side have $\frac{1}{2}$ " check valve #6140.
 All openings on tail boom are on aft side. Opening number 1-4 and 16-19 are $\frac{1}{2}$ " check valve #6135. Openings numbered 5-15 are $\frac{1}{2}$ " check valve #6140.
 Tail check valves flow are perpendicular to aft stream.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 July 1963 DATE TEST FLOWN: 17 July 1963

LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 35

NOZZLE TYPE: Check valve only LIQUID TEMP: 31 C

DURATION OF SPRAY: 15 Sec PUMP PRESSURE: 83-68

PUMP R.P.M.: 3500-2900 FLOW METER READING: 500 GPM

NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 930 GPM

TOTAL AMOUNT SPRAYED: 121.5 Gal

NOZZLE CONFIGURATION: WING: 1-7, 13-21 29-42 Under-side
1-4, 19-22, 37-40 Aft side

OPERATIONAL DATA DURING TEST FLIGHT

RUN	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
2	3100-3000	83	52	470
3	3500-2000	83	54	425

REMARKS: All odd numbered openings on underside of main tank 2" check valve model #0140
 All even numbered openings on underside of tank have 2" check valve model #0135
 All openings on aft side have 2" check valve #0140

C-121/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: <u>8 July 1961</u>	DATE TEST FLOWN: <u>17 July 1961</u>
LIQUID SPRAYED: <u>2 Fuel Oil, 1 Purple</u>	TOTAL NOZZLES OPEN: <u>96</u>
NOZZLE TYPE: <u>Check valve only</u>	LIQUID TEMP: <u>----</u>
DURATION OF SPRAY: <u>15</u> Sec.	PUMP PRESSURE: <u>72-24</u>
PUMP R.P.M.: <u>3250-2600</u>	FLOW METER READING: <u>300</u> GPM
NO. OF PUMPS: <u>1</u>	FLOW RATE CALIBRATED: <u>290</u> GPM
TOTAL AMOUNT SPRAYED: <u>72.5 Gal.</u>	
NOZZLE CONFIGURATION: <u>1-7, 13-21, 29-42 Underside</u>	
<u>WING: 1-4, 19-22, 37-40 Aft side</u>	
<u>TAIL: 1-6, 14-19</u>	

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>5</u>	<u>3300-2800</u>	<u>Pressure gauge out on forward pump</u>		<u>305</u>
<u>7</u>	<u>3300-2800</u>	<u>Same as Run #5</u>		<u>300</u>

REMARKS: Same as Run #1 and #4.

C-121/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 8 July 1961 DATE TEST FLOWN: 17 July 1961
LIQUID SPRAYED: 2 Fuel Oil, 1 Purple TOTAL NOZZLES OPEN: 84
NOZZLE TYPE: Check valve only LIQUID TEMP: 14°C
DURATION OF SPRAY: 15 Sec PUMP PRESSURE: 11.28
GMP R.P.M.: 1250-2650 FLOW METER READING: 290 GPM
NO. OF PUMPS: 1 FLOW RATE CALIBRATED: 292 GPM
TOTAL AMOUNT SPRAYED: 73 Gal

NOZZLE CONFIGURATION: WING: 1-7, 13-21, 29-32 Baseline
1-4, 19-22, 37-40 Aft side

OPER. LOGAL DATA DURING TEST FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
6	1300-2800	Pressure gauge out on forward pump		295

REMARKS: No. 11 numbers same as Run #2 and #3

268

MASS MEDIAN DIAMETER

DATE: 17 July 1963 CONVERSION FACTOR: 2.5
FLIGHT NO: 7 PAPER: Kromekote, white
SAMPLE LINE: C MATERIAL: 2 Fuel Oil, 1 Purple
FLOW RATE: 300 GPM SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
13	1	7300			
14	2	6300			
20	3	5500			
16	5	5100*			
22	4	5000			
28	6	4800	99	1A	100(smallest)
20	7	4700			
16	9	4500			
23	8	4300			
24	10	4200			
24	11	4100			
26	12	4000			

$$\text{MMD} = \frac{67.72 + 0.1420(\text{Spot D Max})}{\text{Con. Factor}} = \frac{5100}{6.355 \times 2.5} = 316.7 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = \frac{67.72 + 0.1420(7300)}{6.430} = \frac{7300}{6.430} = 1104.3 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 63 \text{ Microns}$$

MASS MEDIAN DIAMETER

DATE: 17 July 1963 CONVERSION FACTOR: 1.13
 FLIGHT #: 6 PAPER: Kromekote, white
 SAMPLE LINE: C MATERIAL: 2 Fuel Oil, 1 Purple
 FLOW RATE: 295 GPM SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
44	7	5300			
37	1	4900*			
38	4	4800			
43	6	4700			
37	2	4500	88	1A	100 (smallest)
35	3	4400			
41	5	4300			
39	9	4200			
37	8	4000			
36	10	3900			

$$\text{MMD} = \frac{67.72 + 0.1470(\text{Spot D Max})}{2.5} = \frac{4900}{6.355 \times 2.5} = 305.4 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = \frac{67.72 + 0.1420(5300)}{6.430} = \frac{5300}{6.430} = 820.3 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 63 \text{ Microns}$$

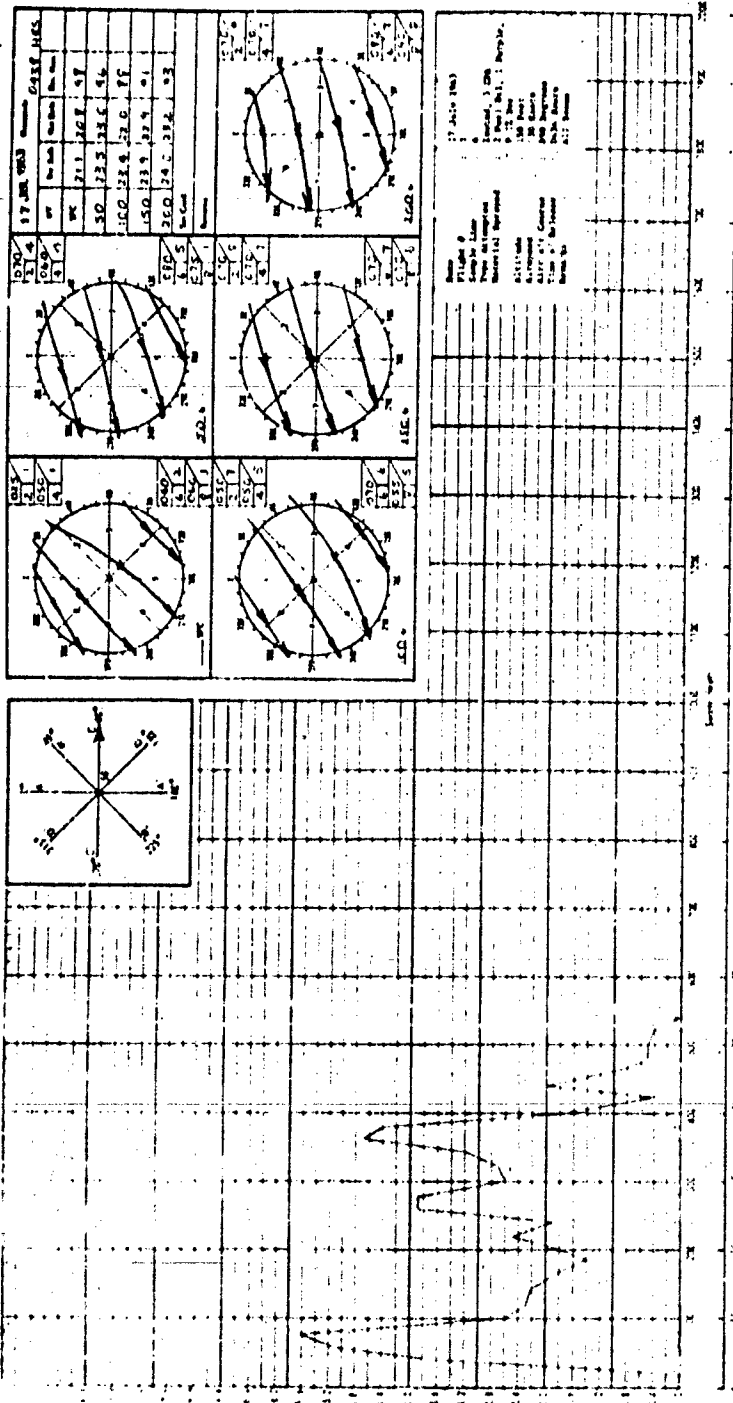
270

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 570 GPM
DATE: 17 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 1 AIRSPEED: 130 Knots
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0434 Hours AIRCRAFT COURSE: 090 Degrees
DURATION: 15 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 46	Blank			47	3.8	Stations 72 - 100	
				48	5.1		Blank
				49	5.6		
				50	2.6		
				51	2.3		
				52	2.2		
				53	1.8		
				54	1.4		
				55	1.8		
				56	2.5		
				57	1.9		
				58	3.9		
				59	3.9		
				60	2.6		
				61	2.7		
				62	3.2		
				63	4.7		
				64	4.4		
				65	1.7		
				66	0.4		
				67	2.0		
				68	0.9		
				69	0.5		
				70	0.5		
				71	0.4		

Total 64.9



17 JUL 1953		0412 HRS	
Time	Temp	Wind	Dir
1500	21.3	16	SE
1530	21.3	16	SE
1600	21.4	16	SE
1630	21.4	16	SE
1700	21.4	16	SE
1730	21.4	16	SE
1800	21.4	16	SE

17 JUL 1953
 Location: 3 20N
 Time: 17 00 Hrs
 1800 Hrs
 1900 Hrs
 2000 Hrs
 2100 Hrs
 2200 Hrs
 2300 Hrs
 2400 Hrs

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MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple

FLOW RATE: 470 GPM

GPM

DATE: 17 July 1963

SYSTEM: G-123/MC-1

FLIGHT #: 2

AIRSPEED: 130 Knots

Knots

SAMPLE LINE: D

ALTITUDE: 150 Feet

Feet

TIME OF RELEASE: 0454 Hours

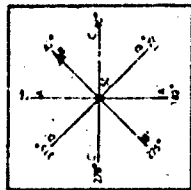
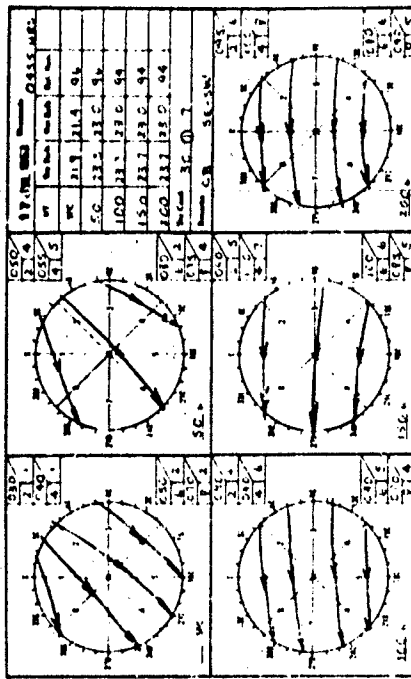
AIRCRAFT COURSE: 045 Degrees

Degrees

DURATION: 11 Sec.

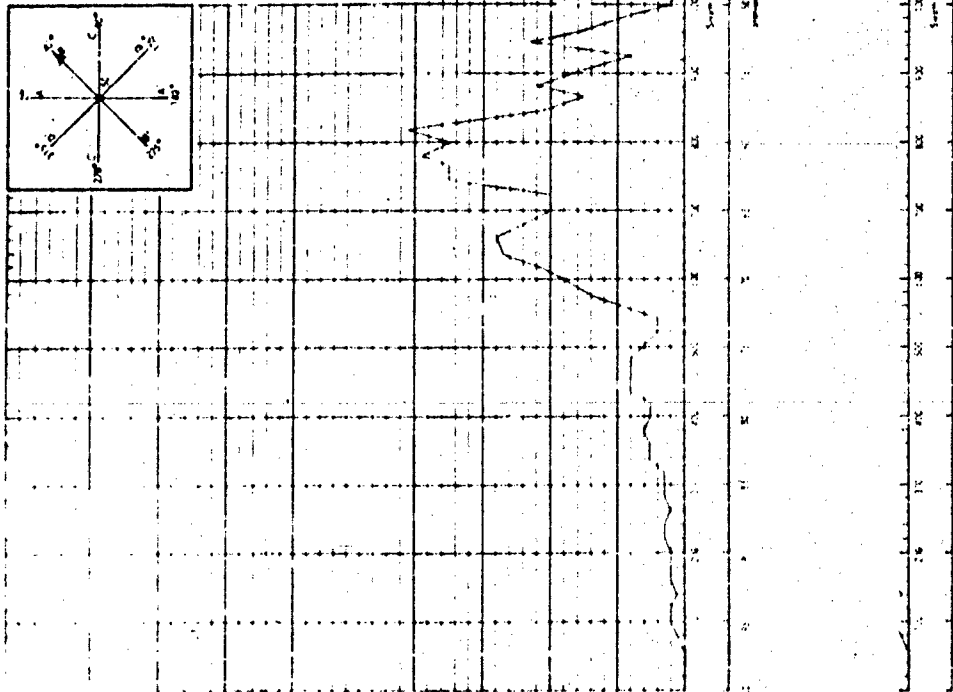
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 48	Blank			51	0.8	76	0.8
				52	1.6	77	0.8
				53	2.3	78	0.8
				54	0.8	79	0.5
				55	1.7	80	0.5
				56	2.2	81	0.6
				57	1.5	82	0.5
				58	2.1	83	0.5
				59	4.1	84	0.3
				60	3.5	85	0.3
				61	3.9	86	0.3
				62	3.5	87	0.2
				63	3.5	88	0.3
				64	2.0	89	0.3
				65	2.0	90	0.2
				66	2.4	91	0.2
				67	2.8	92	0.2
				68	2.7	93	0.1
				69	2.1	94	0.2
				70	1.8	95	0.2
				71	1.4	96	0.1
				72	0.8	97	0.0
				73	0.4	98	0.0
		49	0.1	74	0.4	99	0.0
		50	0.2	75	0.6	100	Blank

Total 58.9



STATION	DATE	TIME	TEMPERATURE	WIND DIRECTION	WIND VELOCITY	SEA STATE	REMARKS
114	11/14	11.4	94				
115	11/15	11.5	94				
116	11/16	11.6	94				
117	11/17	11.7	94				
118	11/18	11.8	94				
119	11/19	11.9	94				
120	11/20	12.0	94				
121	11/21	12.1	94				
122	11/22	12.2	94				
123	11/23	12.3	94				
124	11/24	12.4	94				
125	11/25	12.5	94				
126	11/26	12.6	94				
127	11/27	12.7	94				
128	11/28	12.8	94				
129	11/29	12.9	94				
130	11/30	13.0	94				

Date: 17 July 1961
 Station: 114
 Time: 11.4
 Temperature: 94
 Wind Direction: 114
 Wind Velocity: 11.4
 Sea State: 114
 Remarks: 114



114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130

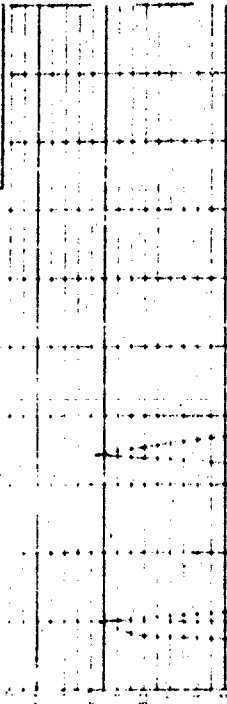
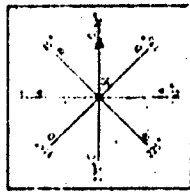
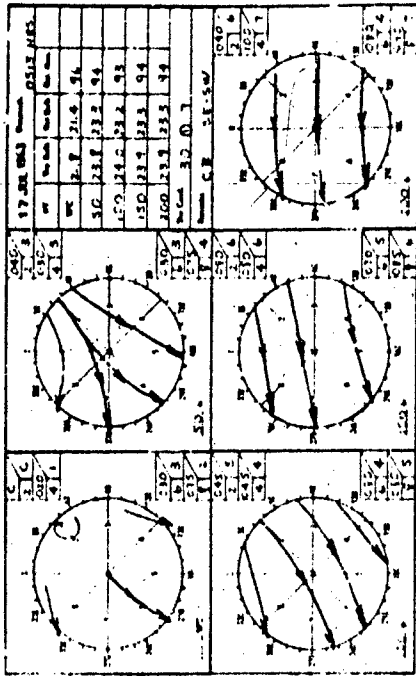
MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 475 GPM
 DATE: 17 July 1963 SYSTEM: C-123/MC-1 C
 FLIGHT #: 3 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0511 Hours AIRCRAFT COURSE: 090 Degree
 DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 47	Blank			48	1.4		
				49	5.3		
				50	5.9		
				51	3.0		
				52	2.8		
				53	1.9		
				54	1.4		
				55	1.0		
				56	1.3		
				57	2.0		
				58	2.0		
				59	2.0		
				60	3.0		
				61	2.8		
				62	6.2		
				63	4.3		
				64	2.3		
				65	1.6		
				66	1.1		
				67	0.6		
				68	0.2		
				69	0.4		
				70	0.5		
		Stations 71 - 100	Blank				10 Bl.

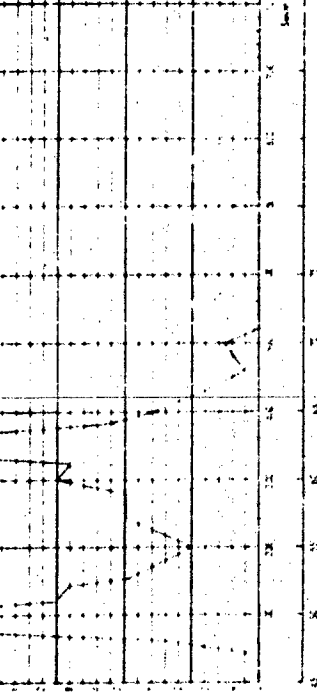
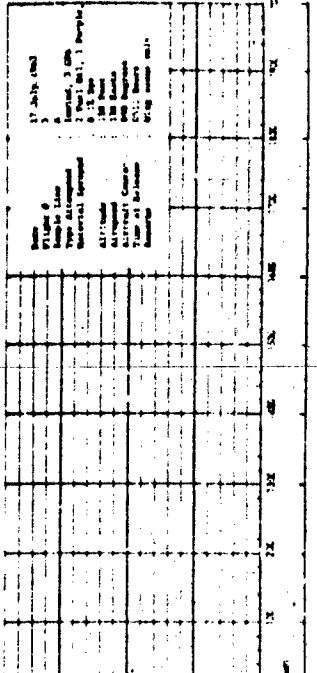
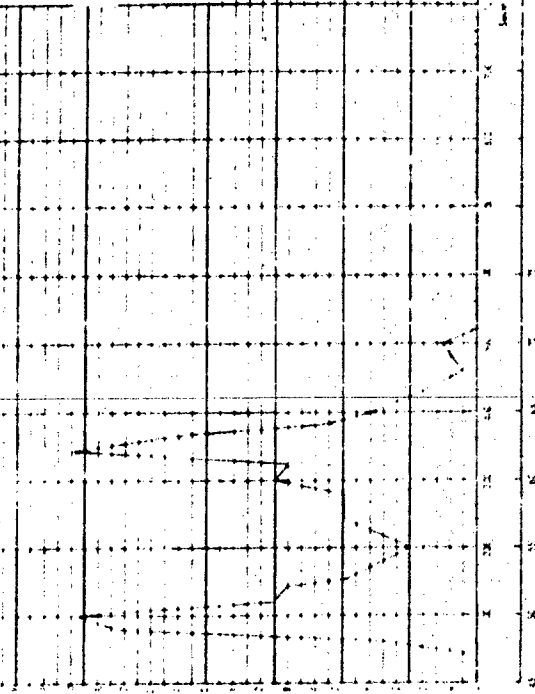
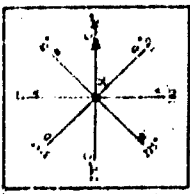
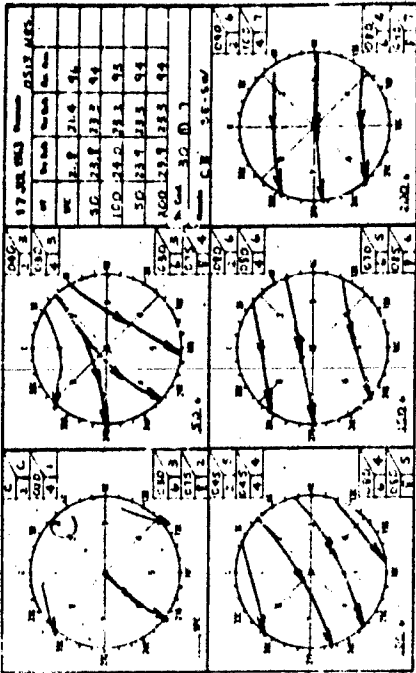
Total 53.2

1 10 10 10 10 1



Station	17 JUL 1963	0512 MET
W	2.8	21.6
SE	3.0	23.2
E	3.0	24.2
NE	3.0	23.2
N	3.0	23.2
NW	3.0	23.2
SW	3.0	23.2
W	3.0	23.2

Date: 17 JUL 1963
 Station: 0512 MET
 Time: 0512 MET
 Observer: [Name]
 Instrument: [Type]
 Remarks: [Notes]



17 JUL 1963
 0512 UTC
 000
 010
 020
 030
 040
 050
 060
 070
 080
 090
 100
 110
 120
 130
 140
 150
 160
 170
 180
 190
 200
 210
 220
 230
 240
 250
 260
 270
 280
 290
 300

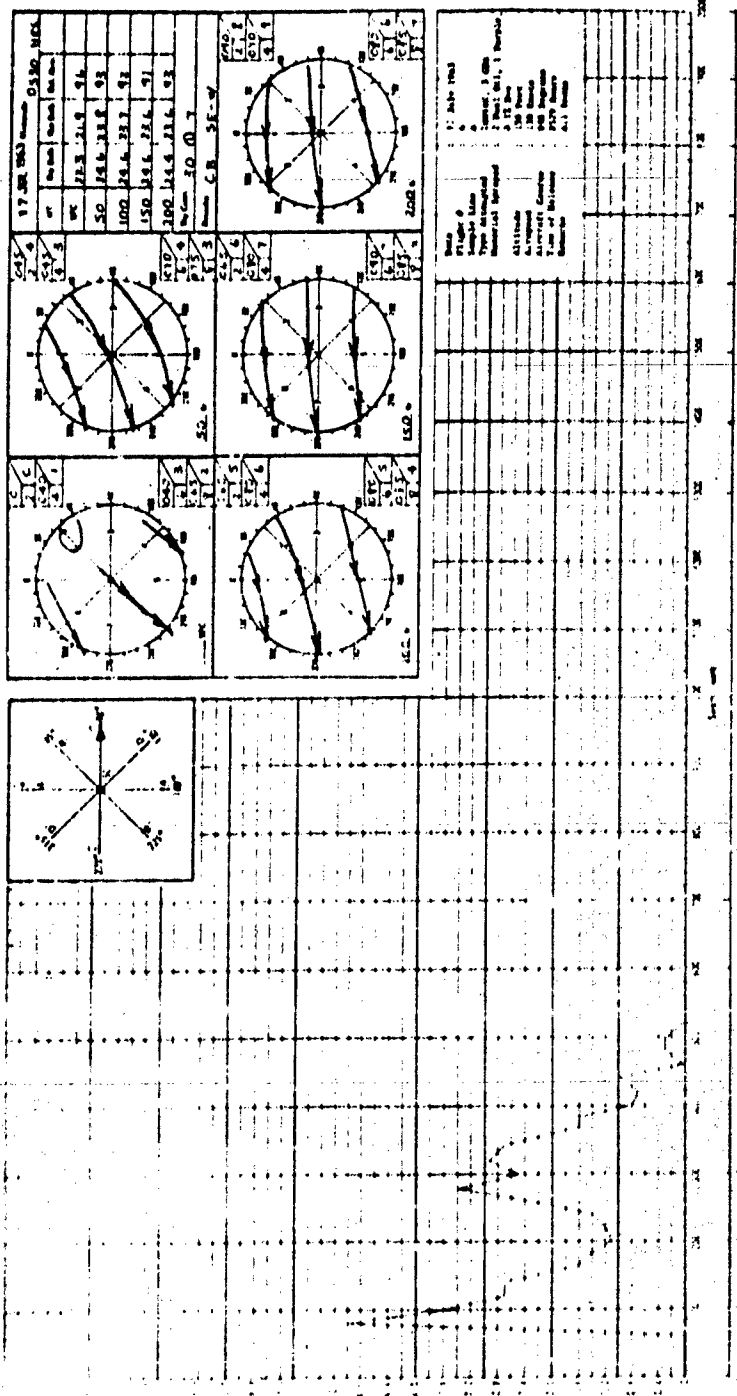
27b

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 460 GPM
DATE: 17 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 4 AIRSPEED: 130 Knots
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0529 Hours AIRCRAFT COURSE: 090 Degrees
DURATION: 13 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 47	Blank			48	0.0		
				49	5.0		
				50	3.6		
				51	2.7		
				52	2.7		
				53	1.6		
				54	1.4		
				55	1.1		
				56	1.2		
				57	1.4		
				58	2.6		
				59	3.4		
				60	2.5		
				61	2.9		
				62	2.7		
				63	1.6		
				64	1.6		
				65	0.8		
				66	0.7		
				67	1.0		
				68	0.0		
				69	0.3		
				70	0.3		
				Stations 71 - 100	Blank		

Total 41.1



278

MASS DEPOSIT

MATERIAL: 2 Fuel Oil, 1 Purple

FLOW RATE: 105 GPM

DATE: 17 July 1963

SYSTEM: C-123/MC-1

FLIGHT #: 5

AIRSPPEED: 130 Knots

SAMPLE LINE: A

ALTITUDE: 150 Feet

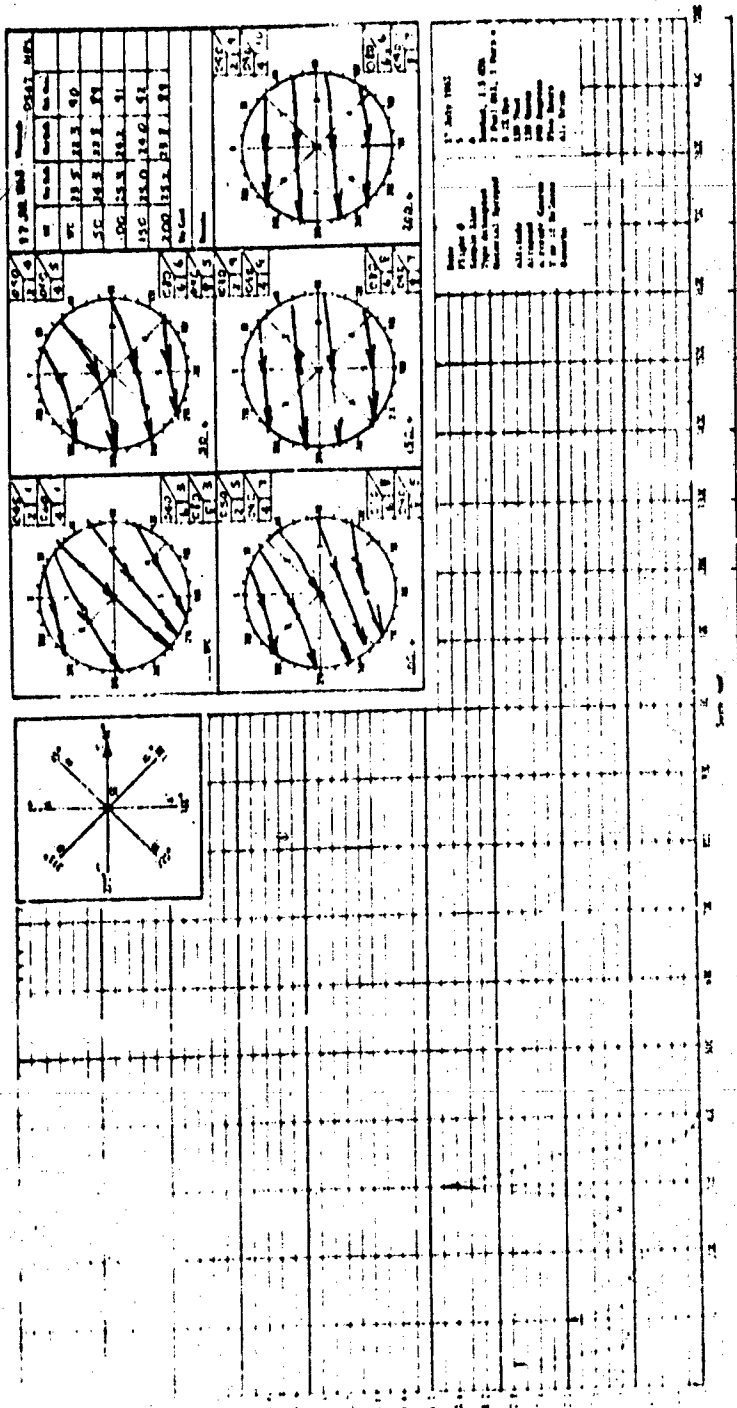
TIME OF RELEASE: 0546 Hours

AIRCRAFT COURSE: 090 Degrees

DURATION: 12 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Station 1 - 40	Blank	41	0.2	42	0.3	43	2.1
		44	2.9	45	3.8	46	1.4
		47	1.2	48	1.6	49	1.3
		50	0.9	51	0.9	52	1.1
		53	0.7	54	1.2	55	2.0
		56	1.1	57	1.2	58	2.8
		59	0.9	60	0.0		
		Stations 61	100	Blank			

Total 27.6



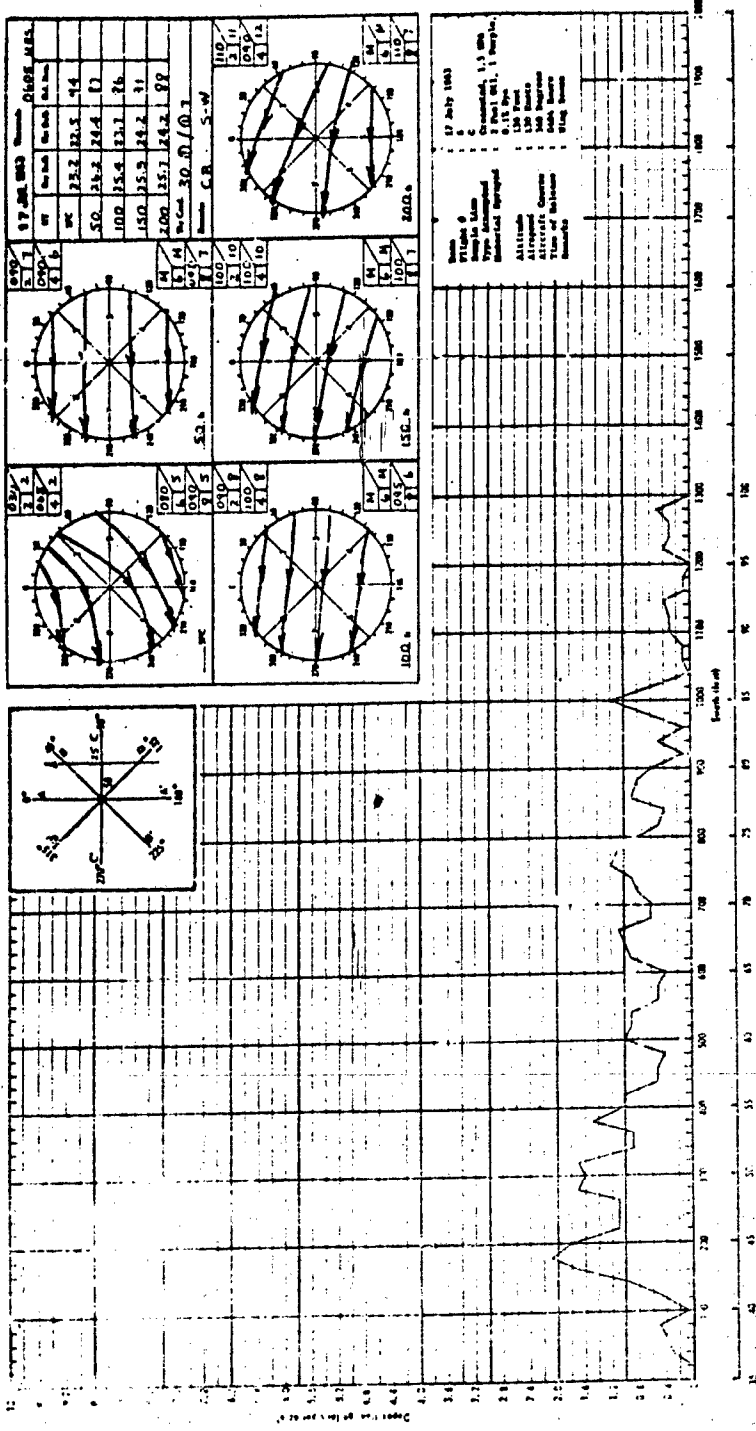
Scale 1:100

MASS DEFICIT

MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 295 CPM
 DATE: 17 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 6 AIRSPEED: 130 Knots
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0604 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 08 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 36 Blank				51	1.7	76	0.5
				52	0.9	77	0.4
				53	0.9	78	0.9
				54	1.5	79	0.8
				55	1.0	80	0.6
				56	1.0	81	0.1
				57	0.5	82	0.5
				58	0.5	83	0.1
				59	0.4	84	0.6
				60	1.0	85	1.2
				61	0.9	86	0.6
		37	0.3	62	0.9	87	0.0
		38	0.4	63	0.5	88	0.1
		39	0.5	64	0.5	89	0.1
		40	0.1	65	0.4	90	0.3
		41	0.5	66	0.9	91	0.3
		42	1.0	67	1.0	92	0.4
		43	1.7	68	1.1	93	0.1
		44	2.1	69	0.6	94	0.1
		45	1.8	70	0.6	95	0.0
		46	1.1	71	0.8	96	0.4
		47	1.1	72	0.9	97	0.3
		48	1.1	73	1.2	98	0.3
		49	1.7	74	1.1	99	0.5
		50	1.6	75	0.8	100	0.0

Total 45.8

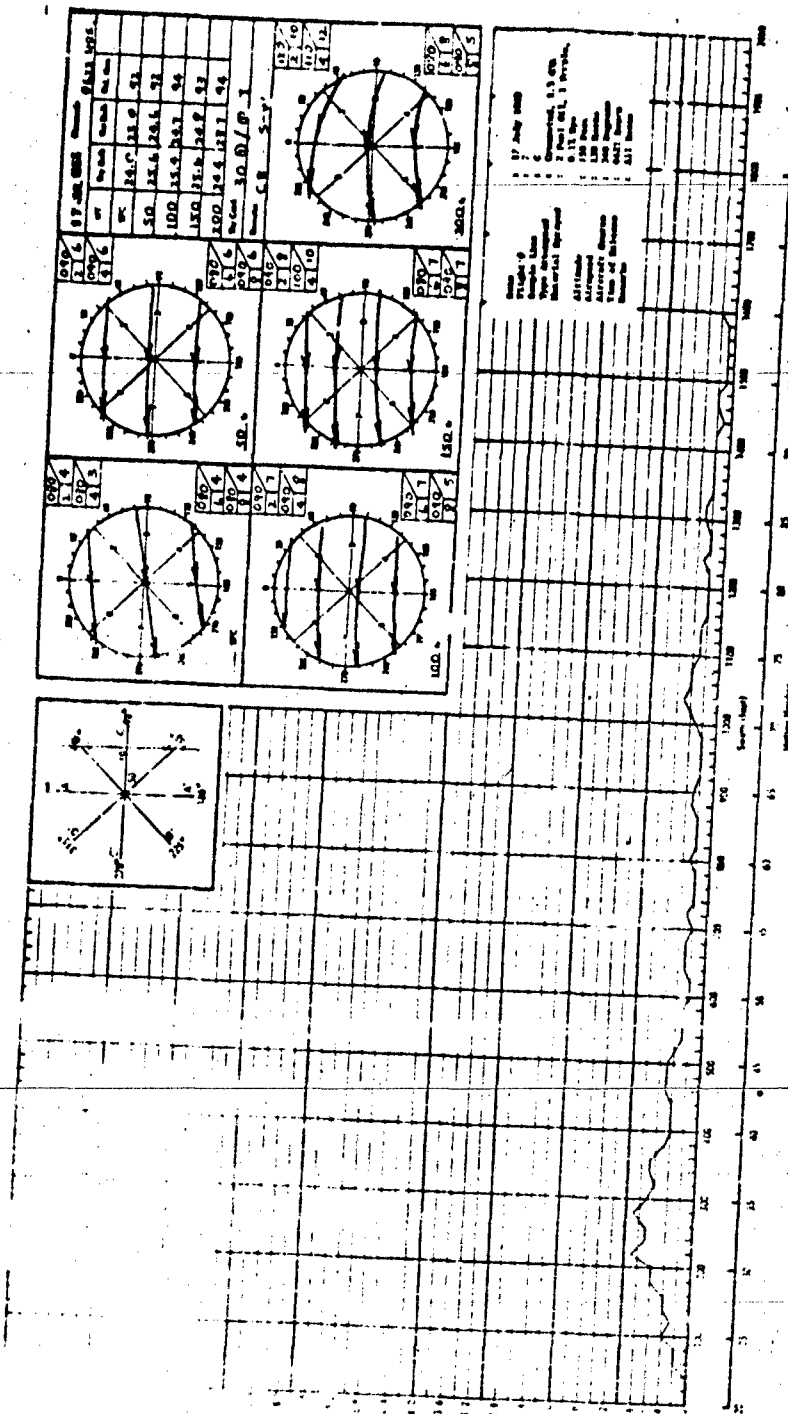


MASS DEPOSIT

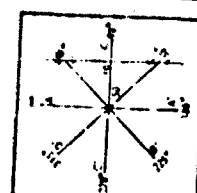
MATERIAL: 2 Fuel Oil, 1 Purple FLOW RATE: 300 GPM
 DATE: 17 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 7 AIR SPEED: 130 Knots
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0621 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 06 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 22	Blank	26	0.3	51	0.2	76	0.3
		27	0.4	52	0.3	77	0.3
		28	0.4	53	0.3	78	0.2
		29	0.6	54	0.3	79	0.2
		30	0.6	55	0.2	80	0.2
		31	0.9	56	0.3	81	0.2
		32	0.7	57	0.2	82	0.3
		33	0.7	58	0.2	83	0.2
		34	0.9	59	0.2	84	0.2
		35	0.7	60	0.3	85	0.3
		36	0.6	61	0.2	86	0.3
		37	0.7	62	0.2	87	0.2
		38	0.7	63	0.2	88	0.2
		39	0.5	64	0.3	89	0.2
		40	0.4	65	0.3	90	0.2
		41	0.4	66	0.2	91	0.2
		42	0.4	67	0.2	92	0.1
		43	0.5	68	0.2	93	0.2
		44	0.5	69	0.2	94	0.2
		45	0.5	70	0.3	95	0.1
		46	0.4	71	0.4	96	0.1
		47	0.3	72	0.5	97	0.1
23	0.2	48	0.3	73	0.4	98	0.1
24	0.2	49	0.3	74	0.4	99	0.1
25	0.4	50	0.2	75	0.3	100	0.2

Total 25.4



17 July 1958
 2 Point, 1 Station
 1.17 ft
 1.18 ft
 1.19 ft
 1.20 ft
 1.21 ft
 1.22 ft



C-123/NC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 18 July 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 110
NOZZLE TYPE: Check valve only LIQUID TEMP: 35° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-44
PUMP R.P.M.: 3200-2600 FLOW METER READING: 475 GPM
NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 480 GPM
TOTAL AMOUNT SPRAYED: 120 Gal.
NOZZLE CONFIGURATION: 1-7, 13-42 Underside
 WING: 1-4, 19-22, 37-40 Aft side
 TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

MIN #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
1	3200	90	40	400
4	3200	90	44	460
6	3100	90	44	460

REMARKS: All booms, 1 inch.
All check valve openings on underside of boom have 1" check valve #6140.
All boom numbered openings on underside of boom have 1" check valve #6135.
All openings on aft side have 1" check valve #6140.
All openings on tail boom are on aft side. Opening number 1-4 & 10-11
are 1" check valve #6135. Openings numbered 5-15 are 1" check valve #6140.
Tail check valves flow are perpendicular to air stream.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: <u>17 July 1963</u>	DATE TEST FLOWN: <u>18 July 1963</u>
LIQUID SPRAYED: <u>Purple</u>	TOTAL NOZZLES OPEN: <u>98</u>
NOZZLE TYPE: <u>Check valve only</u>	LIQUID TEMP: <u>34.5° C</u>
DURATION OF SPRAY: <u>15</u> Sec.	PUMP PRESSURE: <u>90-95</u>
RPM: <u>1200-2550</u>	FLOW METER READING: <u>4.5</u> GPM
AMOUNT SPRAYED: <u>110.5</u> Gal.	FLOW RATE CALIBRATED: <u>4.5</u> GPM
NO. OF CYCLES: <u>2</u>	

NOZZLE CONFIGURATION: WING: 1-7, 13-42 Underside
1-4, 19-22, 37-40 Aft side

OPERATIONAL DATA DURING TEST FLIGHT

ROW #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
2	3200	90	40	4.5
3	1200	90	39	4.5

REMARKS: Check valve only, 1 GPA.
All odd numbered openings on underside of boom have 1/2" check valve #0140.
All even numbered openings on underside of boom have 1/2" check valve #0140.
All openings on aft side have 1/2" check valve #0140.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 18 July 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 110
NOZZLE TYPE: Check valve only LIQUID TEMP: 36^o C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-28
PUMP R.P.M.: 3200-2400 FLOW METER READING: 285 GPM
NO. OF PUMPS: 1 FLOW RATE CALIBRATED: 278.0 GPM
TOTAL AMOUNT SPRAYED: 69.5 Gal
NOZZLE CONFIGURATION: 1-7, 13-42 Underside
WING: 1-4, 19-22, 37-40 Aft side
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	CPM FLOWMETER
5	3200	90		280
7	3200	90	34	280

REMARKS: Nozzle arrangement same as Runs #1, #4, & #8.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963
 LIQUID SPRAYED: Purple
 NOZZLE TYPE: Check valves only
 DURATION OF SPRAY: 15 Sec.
 P.M.P. R.P.M.: 3200-2500
 NO. OF PUMPS: 1
 TOTAL AMOUNT SPRAYED: 70 Gal.

DATE TEST FLOWN: 18 July 1963
 TOTAL NOZZLES OPEN: 22
 LIQUID TEMP: 36° C
 PUMP PRESSURE: 90-32
 FLOW METER READING: 280 GPM
 FLOW RATE CALIBRATED: 280 GPM

NOZZLE CONFIGURATION: WING: 1-7, 13-42 Underside
1-4, 19-22, 37-40 Alt side

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>CFM FLOWMETER</u>
<u>6</u>	<u>3200</u>	<u>90</u>		<u>260</u>

REMARKS: Nozzle arrangement same as Runs #2 and #3.

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MASS MEDIAN DIAMETER

DATE: 18 July 1963

CONVERSION FACTOR: 2.5

FLIGHT #: 7

PAPER: Kromekote, white

SAMPLE LINE: C

MATERIAL: Purple

FLOW RATE: 280 GPM

SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
10	4	7800			
10	3	7500			
2	2	6800*			
12	6	6700			
10	9	6600	100	1A	100 (smallest)
2	1	6400			
12	5	6300			
12	7	6200			
12	8	6100			
3	10	5900			
3	11	5800			

$$\text{MMD} = \frac{70.44 + 0.1431(\text{Spot D Max})}{\text{Con. Factor}} = \frac{70.44 + 0.1431(6800)}{2.5} = 417.4 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431(\text{Max Spot}) = 70.44 + 0.1431(7800) = 1186.6 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 63 \text{ Microns}$$

MASS MEDIAN DIAMETER

DATE: 18 July 1963CONVERSION FACTOR 1FLIGHT #: 8PAPER: Arnomaketa, W. 1SAMPLE LINE: CMATERIAL: FluorFLOW RATE: 460 GPMSYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
6	1	8900			
7	3	7000*			
14	4	6900			
7	2	6700			
7	7	6500	100	1A	100(27.4)...
16	10	6400			
7	6	6200			
7	5	6100			
7	9	6000			
7	8	5800			

$$MMD = \frac{70.44 + 0.1431(\text{Spot D Max})}{\text{Con. Factor}} = \frac{70.44 + 0.1431(7000)}{2.5} = 422.8 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = 70.44 + 0.1431(\text{Max Spot}) = 70.44 + 0.1431(8900) = 1311.0 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 63 \text{ Microns}$$

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 400 CPM
DATE: 18 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 1 AIRSPEED: 130 Knots
SAMPLE LINE: D ALTITUDE: 150 Feet
TIME OF RELEASE: 0436 Hours AIRCRAFT COURSE: 045 Degrees
DURATION: 06 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 46 Blank				47	2.8		
		48	2.2				
		49	4.5				
		50	2.6				
		51	1.5				
		52	0.9				
		53	1.6				
		54	1.9				
		55	2.7				
		56	2.8				
		57	2.3				
		58	2.3				
		59	1.9				
		60	1.1				
		61	2.5				
		62	0.5				
		63	0.5				
		64	0.4				
				Stations 65 - 100 Blank			

Total 35.0

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 430 GPM
 DATE: 18 July 1963 SYSTEM: C-173/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knot
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0454 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 13 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 49 Blank							
50	0.1	75	0.5				
51	0.3	76	0.5				
52	0.6	77	0.6				
53	1.5	78	0.7				
54	2.4	79	0.3				
55	1.7	80	0.5				
56	1.1	81	0.3				
57	1.5	82	0.3				
58	1.7	83	0.3				
59	1.9	84	0.3				
60	2.1	85	0.3				
61	1.5	86	0.3				
62	1.5	87	0.3				
63	1.9	88	0.3				
64	2.2	89	0.3				
65	1.7	90	0.0				
66	0.6	Stations 91 - 100					
66	2.2	Blank					
68	1.9						
69	0.9						
70	0.8						
71	0.7						
72	0.8						
73	0.7						
74	0.5						

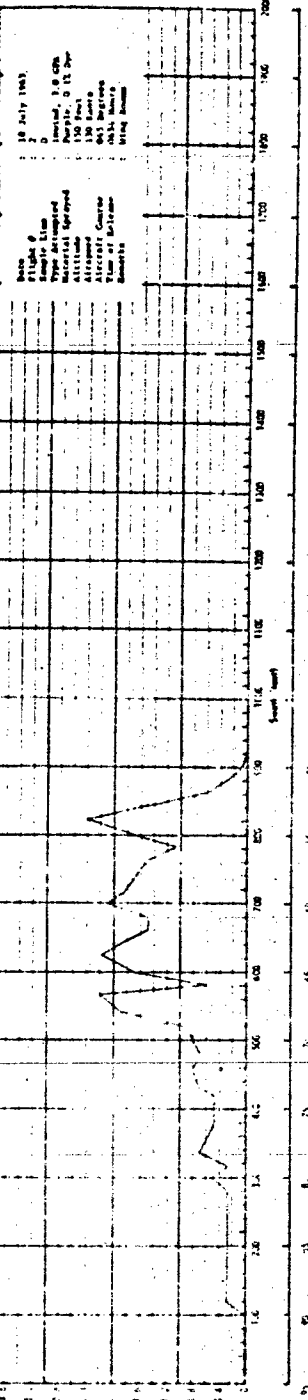
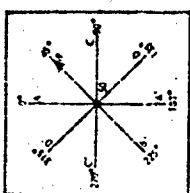
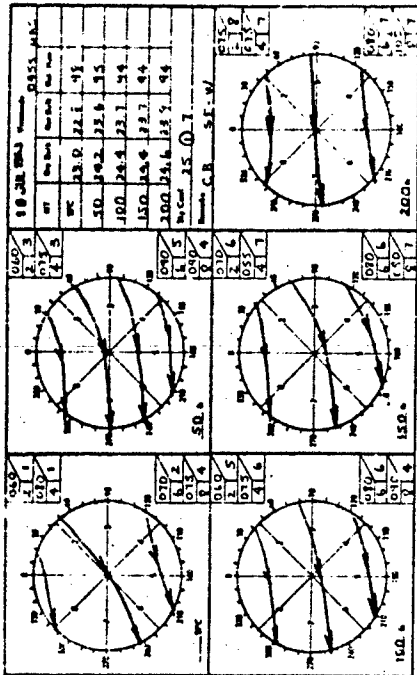
Total 38.5

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 430 GPM
 DATE: 18 July 1963 SYSTEM: C-173/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knot
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0454 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 13 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 49	Blank	50	0.7	75	0.5		
		51	0.3	76	0.5		
		52	0.6	77	0.6		
		53	1.5	78	0.7		
		54	2.4	79	0.3		
		55	1.7	80	0.5		
		56	1.1	81	0.3		
		57	1.5	82	0.3		
		58	1.7	83	0.3		
		59	1.9	84	0.3		
		60	2.1	85	0.3		
		61	1.5	86	0.3		
		62	1.5	87	0.3		
		63	1.9	88	0.3		
		64	2.2	89	0.3		
		65	1.7	90	0.0		
		66	0.6	Stations 91 - 100			
		66	2.2	Blank			
		68	1.9				
		69	0.9				
		70	0.8				
		71	0.7				
		72	0.8				
		73	0.7				
		74	0.5				

Total 38.5



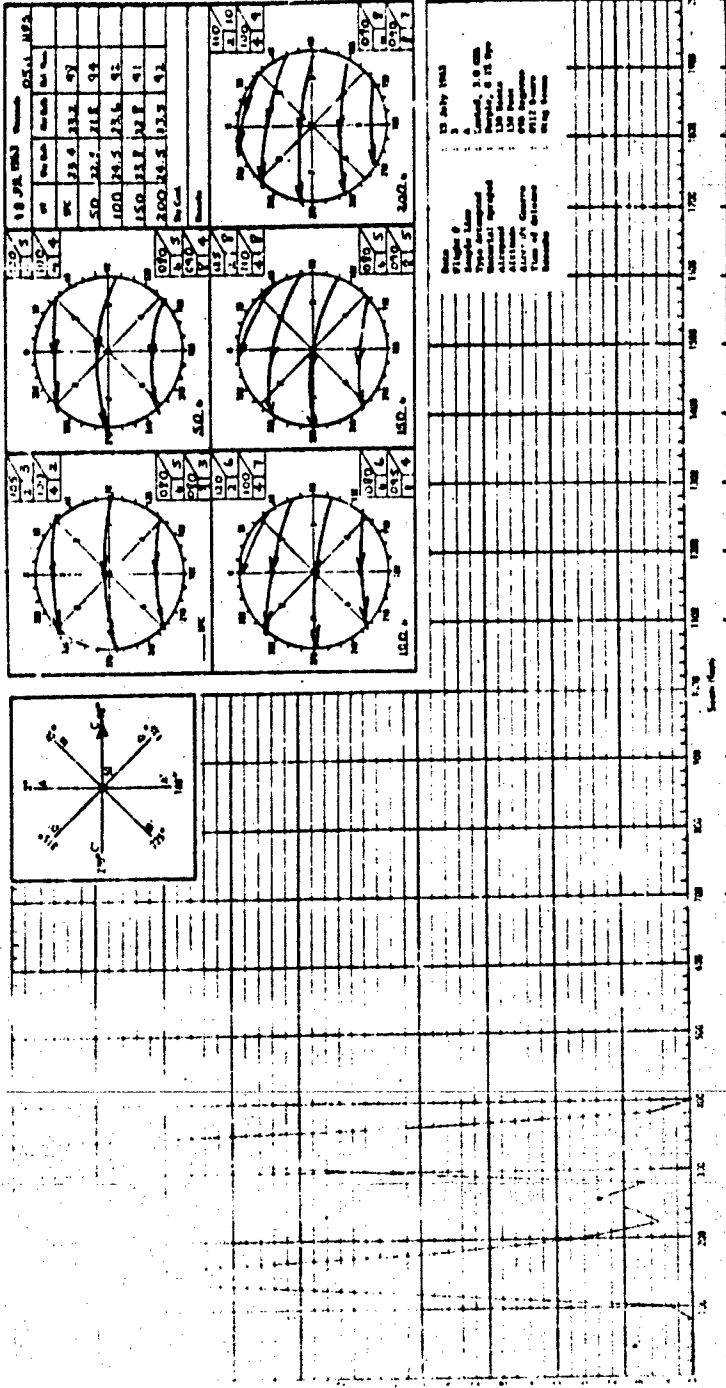
Date: 18 July 1963
 Flight #:
 Sample Time:
 Sample Rate:
 Material: 150 ft
 Altitude:
 Aircraft:
 Altitude Gauge:
 Time of Release:
 Remarks:

MASS DEPOSIT

MATERIAL: <u>Purple</u>	FLOW RATE: <u>425</u> GPM
DATE: <u>18 July 1963</u>	SYSTEM: <u>C-123/MC-1</u>
FLIGHT #: <u>3</u>	AIRSPEED: <u>130</u> Knots
SAMPLE LINE: <u>A</u>	ALTITUDE: <u>150</u> Feet
TIME OF RELEASE: <u>0512</u> Hours	AIRCRAFT COURSE: <u>090</u> Degrees
DURATION: <u>12</u> Sec.	

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 45 Blank				46	0.6		
				47	4.1		
				48	11.0		
				49	8.4		
				50	4.7		
				51	0.7		
				52	1.4		
				53	0.8		
				54	0.5		
				55	1.6		
				56	3.8		
				57	7.7		
				58	8.9		
				59	4.3		
				60	0.3		
				Stations 61 - 100 Blank			

Total 58.7



Date: 10 July 1943
 Title: ...
 Project: ...
 Author: ...
 Edition: ...
 File of data: ...
 Drawings: ...

Fig. 1

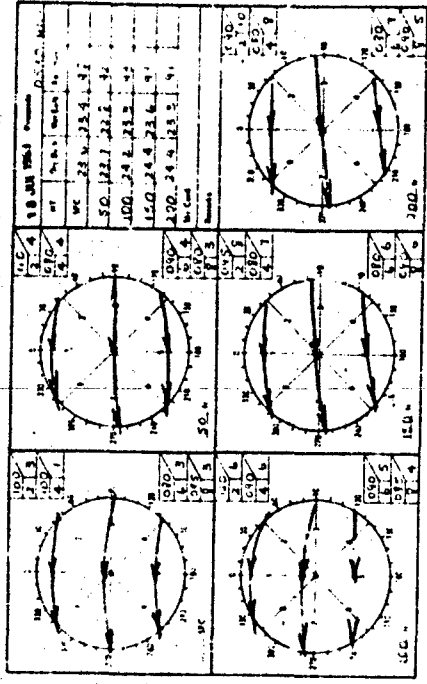
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 460 GPM
 DATE: 18 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 4 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0529 Hours AIRCRAFT COURSE: 090 Degrees
 DURATION: 11 Sec.

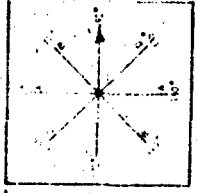
STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 46	Blank			47	0.0		
				48	0.9		
				49	0.7		
				50	0.2		
				51*	2.1		
				52	0.4		
				53	1.4		
				54	0.6		
				55	0.2		
				56	0.9		
				57	0.7		
				58	0.6		
				59	3.4		
				60	3.9		
				61	2.5		
				62	1.0		
				63	1.0		
				64	0.2		
				Stations 65 - 100	Blank		

*Contaminated Sample

Total 21.1



Altitude	Time of Release	Time of Impact	Time of Burst	Time of Landing	Time of Recovery	Time of Evacuation	Time of Ejection	Time of Parachute	Time of Landing	Time of Recovery	Time of Evacuation	Time of Ejection	Time of Parachute
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Altitude	Time of Release	Time of Impact	Time of Burst	Time of Landing	Time of Recovery	Time of Evacuation	Time of Ejection	Time of Parachute	Time of Landing	Time of Recovery	Time of Evacuation	Time of Ejection	Time of Parachute
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Scale in Feet

100 150 200 250 300 350 400 450 500 550 600 650 700 750

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

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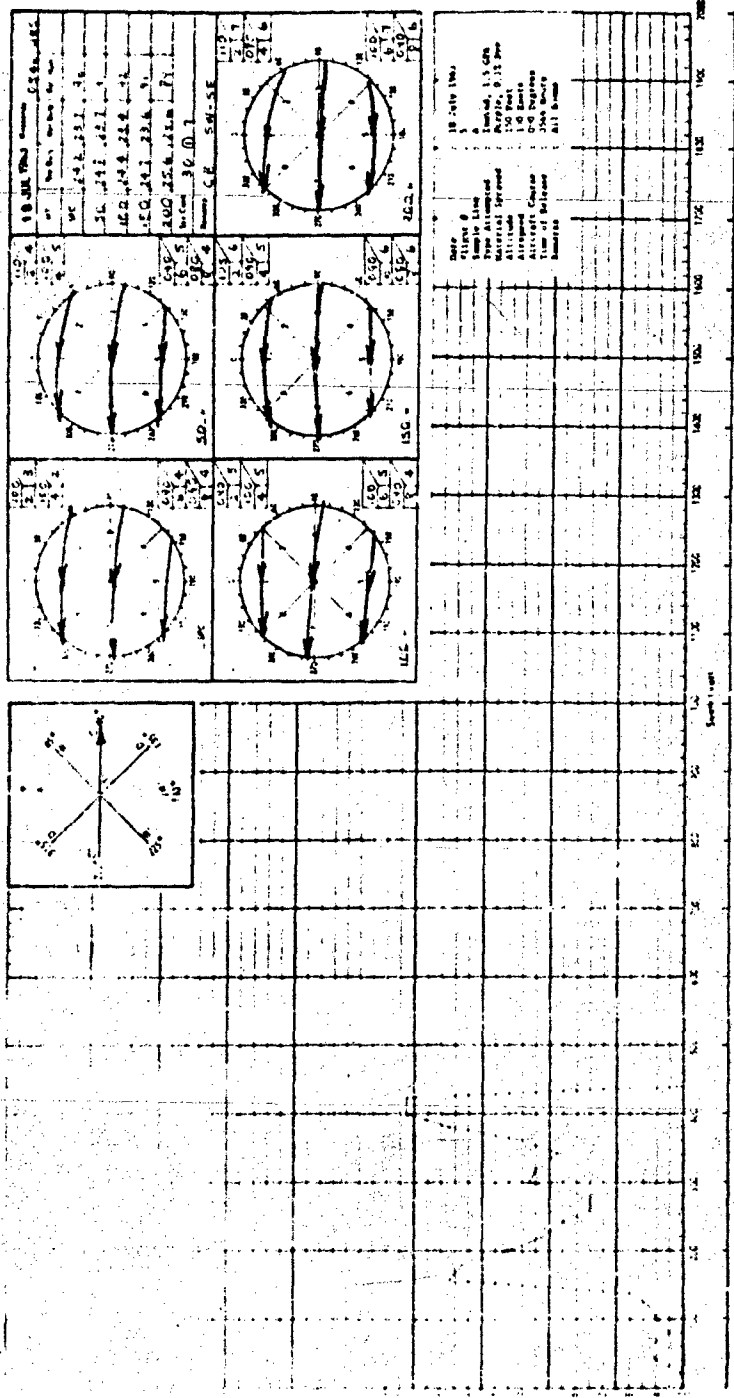
10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 280 GPM
 DATE: 18 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 5 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0546 Hours AIRCRAFT COURSE: 090 Degrees
 DURATION: 11 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 48	Blank			49	4.1		
				50	4.1		
				51	3.5		
				52	2.5		
				53	1.9		
				54	2.2		
				55	2.3		
				56	1.4		
				57	1.4		
				58	1.8		
				59	2.1		
				60	2.6		
				61	3.3		
				62	3.5		
				63	0.8		
				64	0.5		
				65	0.4		
				66	0.2		
				67	0.5		
				68	0.4		
				Stations 69 - 100	Blank		

Total 39.5



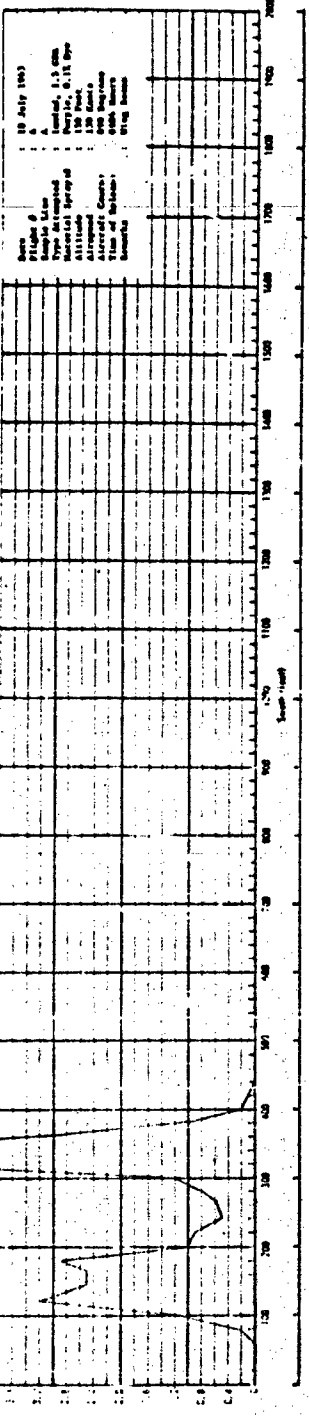
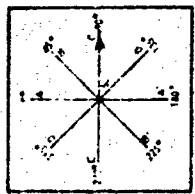
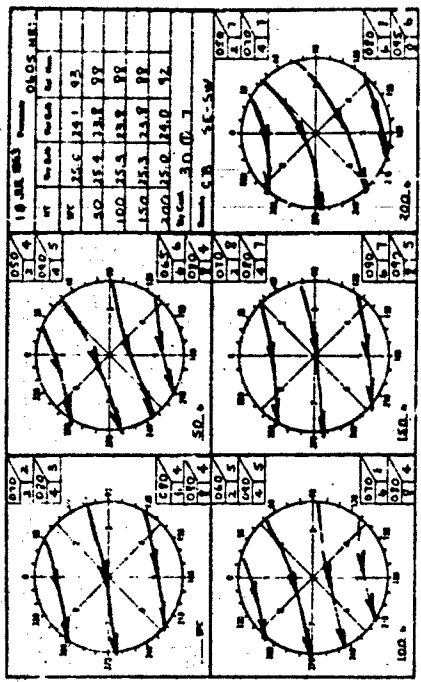
300

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 260 GPM
DATE: 18 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 6 AIRSPEED: 130 Knots
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0604 Hours AIRCRAFT COURSE: 090 Degrees
DURATION: 12 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 43	Blank			44	0.1		
				45	0.2		
				46	0.9		
				47	2.8		
				48	6.5		
				49	5.8		
				50	1.2		
				51	0.8		
				52	0.6		
				53	0.5		
				54	0.9		
				55	1.0		
				56	2.9		
				57	2.5		
				58	2.5		
				59	3.2		
				60	1.1		
				61	0.2		
				Stations 62 - 100	Blank		

Total 33.7



Time	Deposition (grams per sq m)
0100	0.1
0200	0.1
0300	0.1
0400	0.1
0500	0.1
0600	0.1
0700	0.1
0800	0.1
0900	0.1
1000	0.1
1100	0.1
1200	0.1
1300	0.1
1400	0.1
1500	0.1
1600	0.1
1700	0.1
1800	1.5
1900	1.2
2000	0.8
2100	0.5
2200	0.3
2300	0.2
2400	0.1

18 JUL 1953
 1000 1500 2000 2400
 0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400

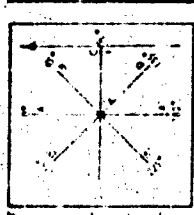
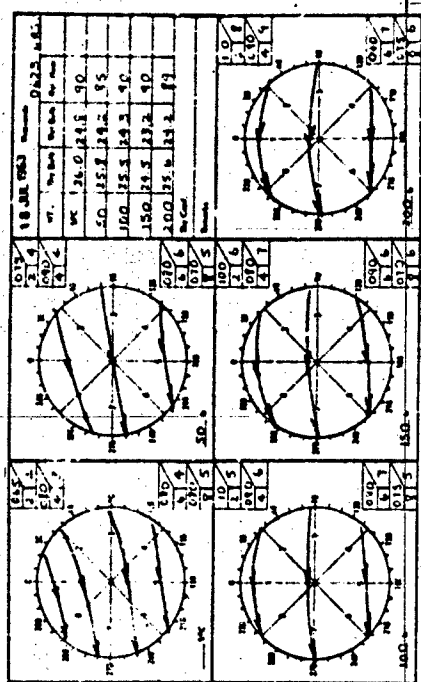
10 July 1953
 1000 1500 2000 2400
 0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400

MASS DEPOSIT

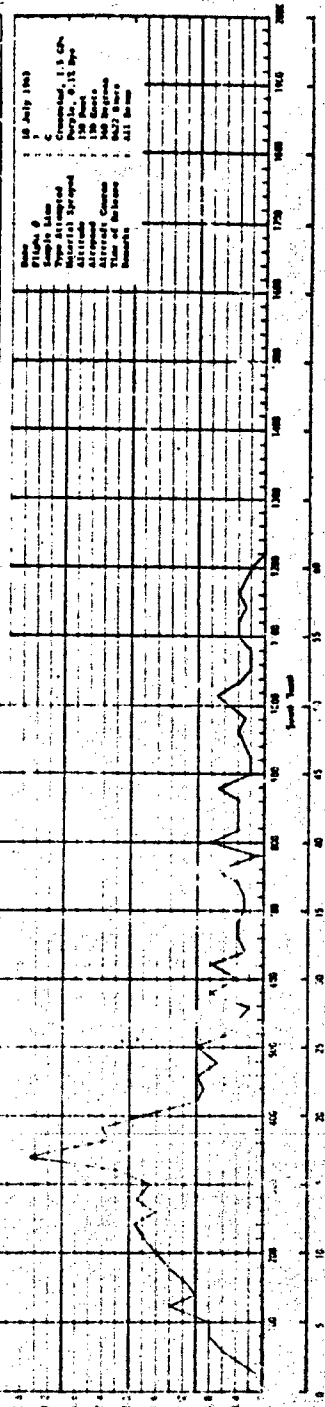
MATERIAL: Purple FLGW RATE: 280 GPM
 DATE: 18 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 7 AIRSPEED: 130 Knots
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0622 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
1	Blank	26	0.5	51	0.7		
2	0.3	27	0.4	52	0.4		
3	0.6	28	0.2	53	0.2		
4	0.8	29	0.8	54	0.2		
5	0.8	30	0.4	55	0.4		
6	1.4	31	0.8	56	0.4		
7	1.0	32	0.3	57	0.3		
8	1.1	33	0.4	58	0.4		
9	1.4	34	0.4	59	0.3		
10	1.6	35	0.3	60	0.2		
11	1.8	36	0.3	Stations 61 - 100 Blank.			
12	1.9	37	0.4				
13	1.6	38	0.7				
14	1.9	39	0.1				
15	1.7	40	0.8				
16	2.1	41	0.4				
17	3.5	42	0.4				
18	2.3	43	0.4				
19	2.4	44	0.7				
20	1.8	45	0.2				
21	1.0	46	0.2				
22	0.9	47	0.3				
23	1.0	48	0.4				
24	0.7	49	0.3				
25	1.0	50	0.5				

Total 48.7



WT.	Per. Sec.	Per. Min.	Per. Hour	Per. Day	Per. Week	Per. Month	Per. Year
50	155.2	29.2	95				
100	310.4	58.4	190				
150	465.6	87.6	285				
200	620.8	116.8	380				



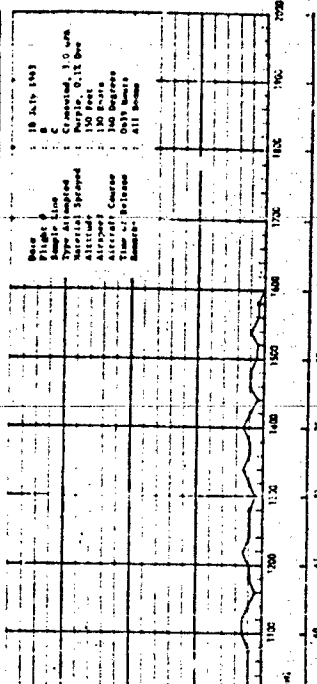
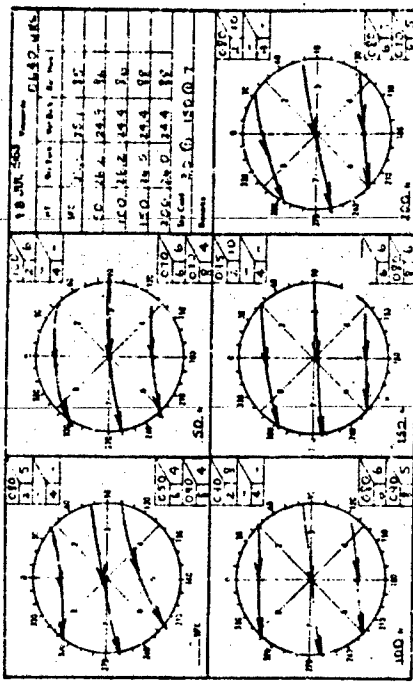
Date: 18 July 1963
 Flight: 6
 Type: Altitude
 Material: Strapped
 Altitude: 100
 Altitude: 100
 Year of Release: 1963
 Number: 121

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 460 GPM
 DATE: 18 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 8 ALTITUDE: 130 Knots
 SAMPLE LINE: C AIRSPEED: 150 Feet
 TIME OF RELEASE: 0639 Hour AIRCRAFT COURSE: 360 Degrees
 DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 6	Blank	26	2.3	51	0.2	76	0.2
		27	2.3	52	0.2	77	0.1
		28	2.1	53	0.2	78	0.2
		29	1.6	54	0.2	69	0.2
		30	0.8	55	0.2	80	0.1
		31	0.7	56	0.2	81	0.1
7	0.5	32	0.8	57	0.2	82	0.2
8	2.0	33	0.8	58	0.2	83	0.1
9	1.7	34	0.9	59	0.2	84	0.1
10	2.3	35	0.8	60	0.3	Stations 85 - 100	
11	2.3	36	0.9	61	0.3	Blank	
12	2.4	37	0.9	62	0.2		
13	3.0	38	0.9	63	0.1		
14	2.9	39	0.5	64	0.2		
15	3.0	40	0.4	65	0.2		
16	3.4	41	0.6	66	0.3		
17	5.1	42	0.5	67	0.2		
18	4.3	43	0.4	68	0.2		
19	4.6	44	0.4	69	0.2		
20	5.2	45	0.3	70	0.1		
21	5.1	46	0.3	71	0.2		
22	4.3	47	0.3	72	0.3		
23	3.1	48	0.3	73	0.2		
24	3.2	49	0.3	74	0.2		
25	2.4	50	0.2	75	0.3		

Total 87.7



18 JUN 1958

Barometric Pressure

100 110 120 130 140 150 160 170 180 190 200

Time of Day

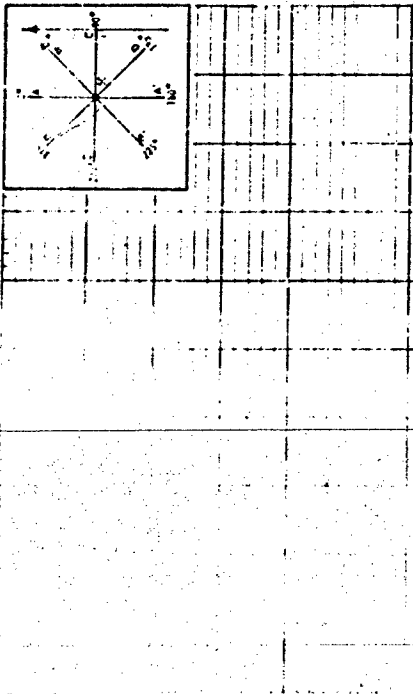
0 15 30 45 60 75 90 105 120 135 150 165 180 195 210 225 240

Barometric Pressure

100 110 120 130 140 150 160 170 180 190 200

Time of Day

0 15 30 45 60 75 90 105 120 135 150 165 180 195 210 225 240



18 JUN 1958

Barometric Pressure

100 110 120 130 140 150 160 170 180 190 200

Time of Day

0 15 30 45 60 75 90 105 120 135 150 165 180 195 210 225 240

Barometric Pressure

100 110 120 130 140 150 160 170 180 190 200

Time of Day

0 15 30 45 60 75 90 105 120 135 150 165 180 195 210 225 240

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 19 July 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 98
 NOZZLE TYPE Check valves only LIQUID TEMP: 34.5° C
 DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-45
 PUMP R.P.M.: 3200-2550 FLOW METER READING: 435 GPM
 NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 442 GPM
 TOTAL AMOUNT SPRAYED: 110.5 Gal.

NOZZLE CONFIGURATION: WING: 1-7, 13-42 Underside
1-4, 19-22, 37-40 Aft side

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>1</u>	<u>3200</u>	<u>90</u>		<u>430</u>
<u>7</u>	<u>3200-2600</u>	<u>90</u>	<u>52</u>	<u>430</u>

REMARKS: Wings only, 3 GPA.
 All odd numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6140.
 All even numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6135.
 All openings on aft side have $\frac{1}{2}$ " check valve #6140.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 19 July 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 110
NOZZLE TYPE: Check valves only LIQUID TEMP: 35° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-44
PUMP R.P.M.: 3200-2600 FLOW METER READING: 475 GPM
NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 480 GPM
TOTAL AMOUNT SPRAYED: 120 Gal.
NOZZLE CONFIGURATION: 1-7, 13-42 Underside
 WING: 1-4, 19-22, 37-40 Aft side
 TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

RUN #	RPM	PSI DURING	PSI BEFORE	GPM FLOWMETER
2	3200		90	465
3	3200		90	465
6	3200		90	455
9	3100		85	445

REMARKS: All booms, 3 GPA.
All odd numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6140.
All even numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6135.
All openings on aft side have $\frac{1}{2}$ " check valve #6140.
All openings on tail boom are on aft side. Opening numbers 1-4 & 16-19 are $\frac{1}{2}$ " check valve #6135. Openings numbered 5-15 are $\frac{1}{2}$ " check valve #6140.
Tail check valves flow are perpendicular to air stream.

C-125/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST :LOWN: 19 July 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 12
 NOZZLE TYPE: Check valves only LIQUID TEMP: -----
 DURATION OF SPRAY: ----- PUMP PRESSURE: -----
 PUMP R.P.M.: ----- FLOW METER READING: -----
 NO. OF PUMPS: 1 FLOW RATE CALIBRATED: -----
 TOTAL AMOUNT SPRAYED: -----
 NOZZLE CONFIGURATION: TAIL. 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

<u>Run #</u>	<u>RPM</u>	<u>PSI Before</u>	<u>PSI During</u>	<u>GPM Flowmeter</u>
4		98		95
5		98		95

REMARKS: Tail only.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 19 July 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 110
 NOZZLE TYPE: Check valves only LIQUID TEMP: 36° C
 DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-28
 PUMP R.P.M.: 3200-2400 FLOW METER READING: 285 GPM
 NO. OF PUMPS: 1 FLOW RATE CALIBRATED: 278 GPM
 TOTAL AMOUNT SPRAYED: 69.5 Gal.

NOZZLE CONFIGURATION: 1-7, 13-42 Underside
 WING: 1-4, 19-22, 37-40 Aft side
 TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
8	3300-2500	96	36	290

REMARKS: Nozzle arrangement same as Runs #2, #3, #6, and #9.

MASS MEDIAN DIAMETER

DATE: 19 July 1964 CONVERSION FACTOR: 2.5
 FLIGHT #: 7 PAPER: Kromekote, white
 SAMPLE LINE: C MATERIAL: Purple
 FLOW RATE: 445 GPH SYSTEM: C-123/MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
7	1	8500			
7	2	7700			
7	4	6900*			
7	3	6700			
7	5	6600			
6	11	6500	28	1A	100 (smallest)
7	7	6400			
7	6	6300			
7	9	6200			
7	8	6100			
7	10	6000			

$$\text{MMD} = \frac{70.44 \pm 0.1431 (\text{Spot D Max})}{\text{Con. Factor}} = \frac{70.44 \pm 0.1431 (6900)}{2.5} = 423.1 \text{ Microns}$$

$$\text{Max. Sph. Dia.} = \frac{70.44 \pm 0.1431 (\text{Max Spot})}{\text{Con. Factor}} = \frac{70.44 \pm 0.1431 (6500)}{2.5} = 377.8 \text{ Microns}$$

$$\text{Min. Sph. Dia.} = 63 \text{ Microns}$$

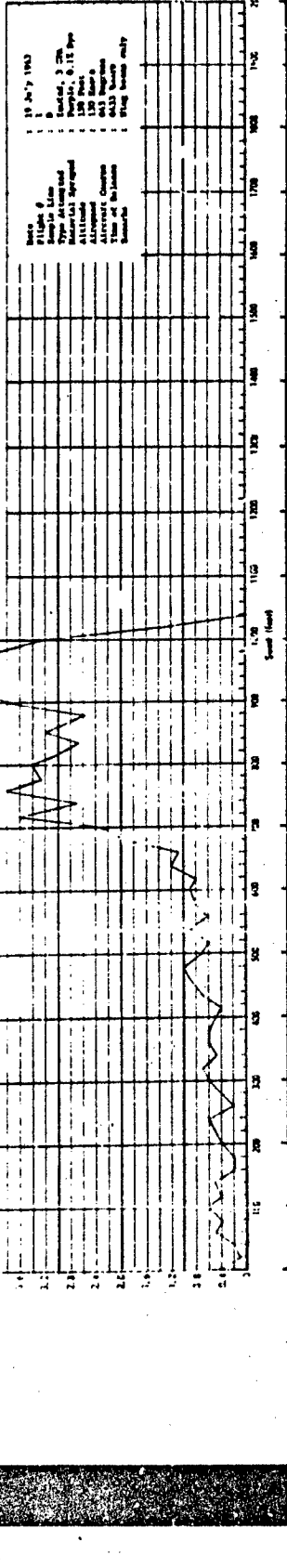
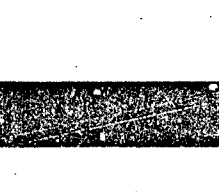
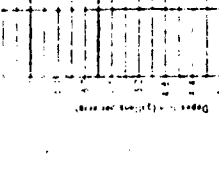
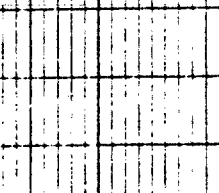
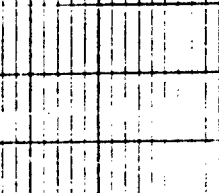
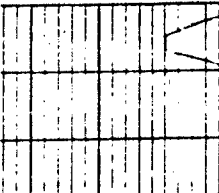
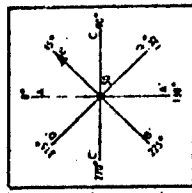
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 430 GPM
 DATE: 19 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0433 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 10 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 48	Blank			51	4.2	76	1.0
				52	4.8	77	0.9
				53	4.8	78	0.7
				54	4.2	79	0.4
				55	3.8	80	0.5
				56	2.6	81	0.6
				57	3.2	82	0.6
				58	2.7	83	0.5
				59	3.0	84	0.7
				60	3.4	85	0.6
				61	3.3	86	0.4
				62	3.8	87	0.2
				63	2.7	88	0.6
				64	3.6	89	0.5
				65	2.3	90	0.4
				66	1.9	91	0.2
				67	1.1	92	0.2
				68	1.2	93	0.5
				69	0.8	94	0.4
				70	0.9	95	0.6
				71	0.8	96	0.4
				72	0.6	97	0.5
				73	0.9	98	0.2
		49	1.4	74	0.6	99	0.1
		50	3.3	75	0.7	100	0.4

Total 78.7

19-247 083		0432		1183	
WT	Per Sec	Per Sec	Per Sec	Per Sec	Per Sec
2.5	23.7	22.3	9.1		
0.5	50	15.0	M	M	
0.5	100	25.5	M	M	
0.5	150	25.6	M	M	
0.5	200	15.8	M	M	
0.5	250	15.8	M	M	
0.5	300	15.8	M	M	
0.5	350	15.8	M	M	
0.5	400	15.8	M	M	
0.5	450	15.8	M	M	
0.5	500	15.8	M	M	
0.5	550	15.8	M	M	
0.5	600	15.8	M	M	
0.5	650	15.8	M	M	
0.5	700	15.8	M	M	
0.5	750	15.8	M	M	
0.5	800	15.8	M	M	
0.5	850	15.8	M	M	
0.5	900	15.8	M	M	
0.5	950	15.8	M	M	
0.5	1000	15.8	M	M	



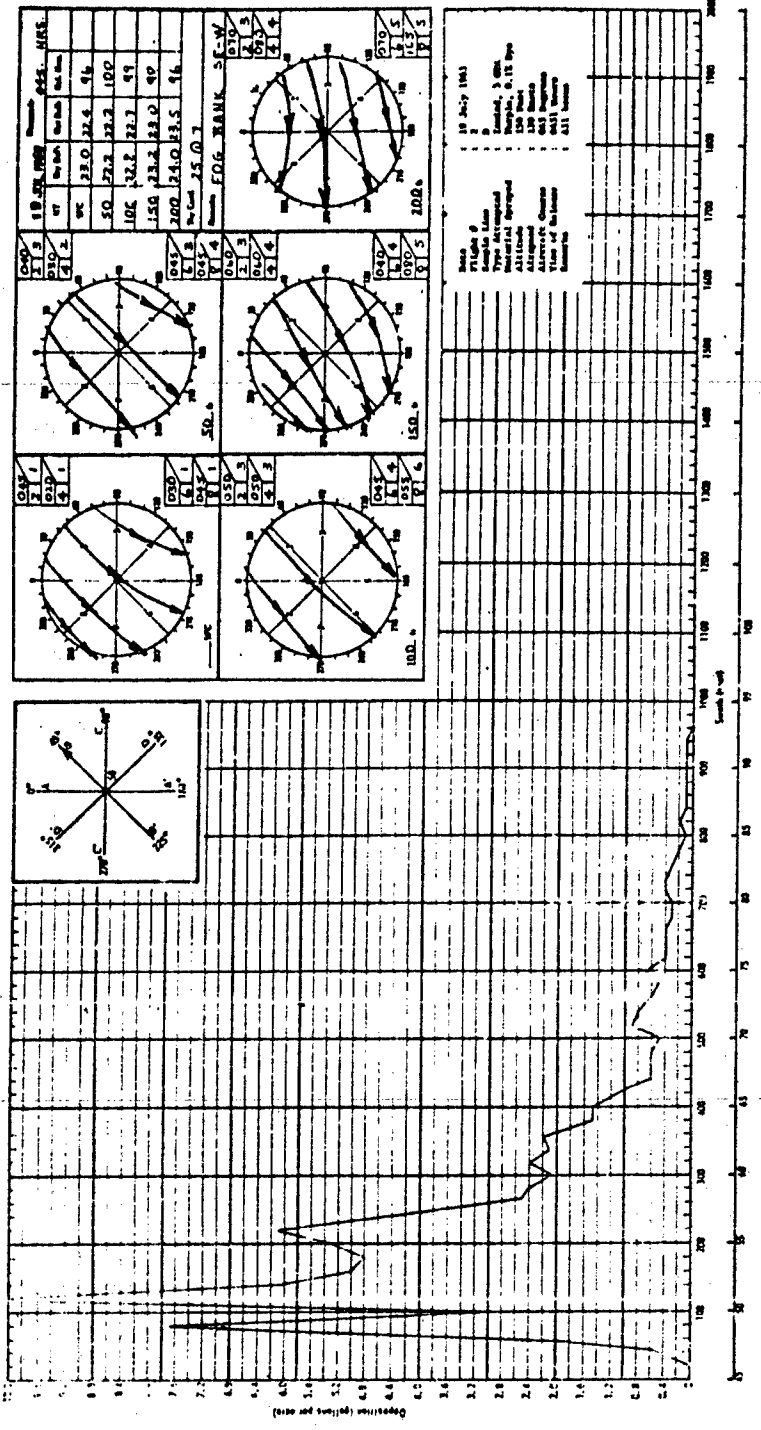
Date: 10-24-79 1983
 Pilot: [Name]
 Type Aircraft: [Type]
 Reason for Flight: [Reason]
 Altitude: [Altitude]
 Airspeed: [Airspeed]
 Time of Day: [Time]
 Name of Station: [Name]
 Remarks: [Remarks]

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 465 GPM
 DATE: 19 July 1963 SYSTEM: C-173/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0451 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 12 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 46	Blank	51	10.2	76	0.4		
		52	6.0	77	0.4		
		53	5.0	78	0.4		
		54	4.8	79	0.3		
		55	5.3	80	0.3		
		56	6.1	81	0.4		
		57	4.1	82	0.4		
		58	2.5	83	0.3		
		59	2.4	84	0.2		
		60	2.1	85	0.1		
		61	2.4	86	0.2		
		62	2.1	87	0.1		
		63	2.2	88	0.1		
		64	1.5	89	0.1		
		65	1.5	90	0.1		
		66	1.0	91	0.1		
		67	0.6	92	0.1		
		68	0.6	93	0.0		
		69	0.6	94	0.0		
		70	0.5	95	0.0		
		71	0.9	96	0.0		
		72	0.8	97	0.0		
		73	0.6	98	0.0		
		74	0.5	99	0.0		
		75	0.7	100	0.0		
47	0.5						
48	1.8						
49	1.1						
50	3.1						

Total 82.1



Wind	Dir	Speed	Temp	Humid	Bar	Wind	Dir	Speed	Temp	Humid	Bar
045	135	10	22.4	96	30.0	045	135	10	22.4	96	30.0
045	135	10	22.2	99	30.0	045	135	10	22.2	99	30.0
045	135	10	22.0	99	30.0	045	135	10	22.0	99	30.0
045	135	10	22.5	96	30.0	045	135	10	22.5	96	30.0

18 July 1963

Flight # 1

Type Aircraft B-57C

Horizontal Speed 150 mph

Altitude 4450 ft

Altitude Change 411 ft

Time of Day 10:13

Remarks

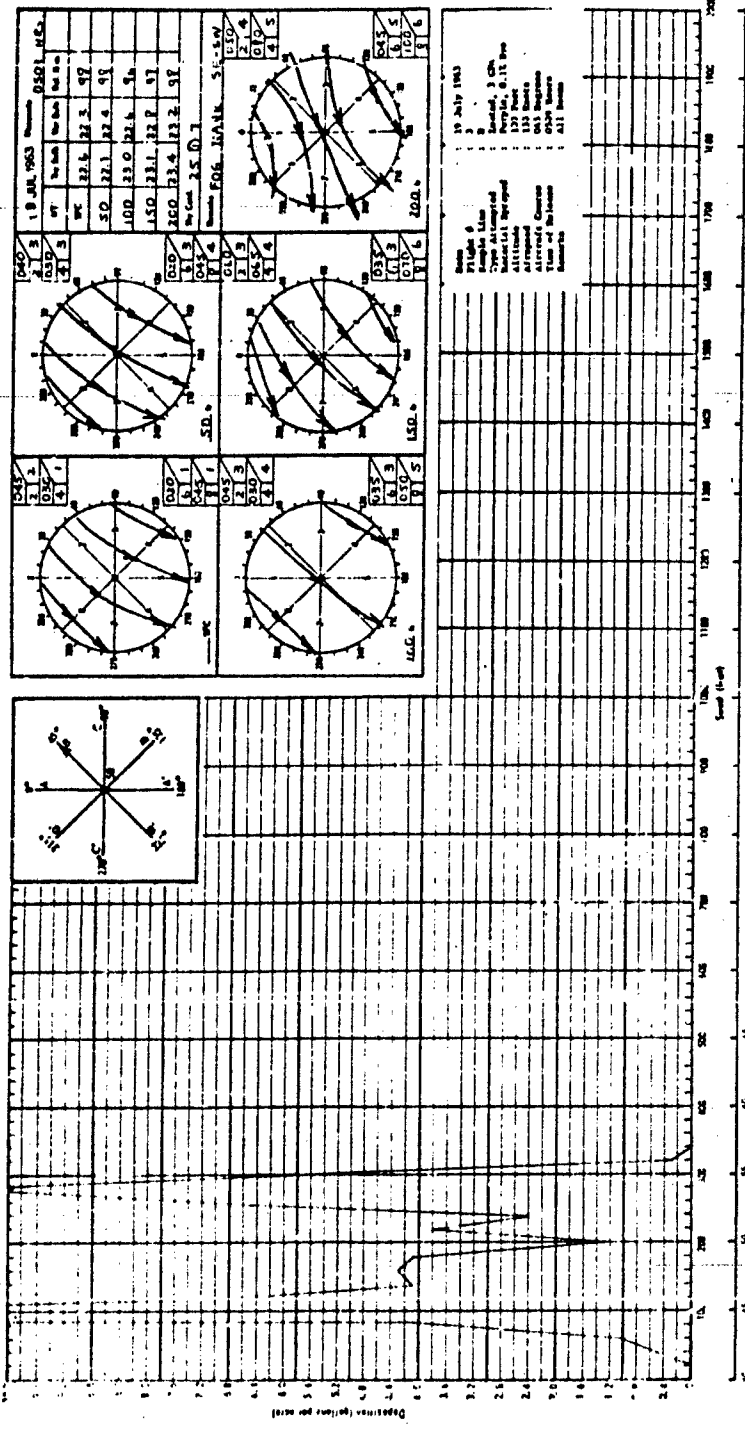
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 465 GPM
 DATE: 19 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 3 AIRSPEED: 130 Knots
 SAMPLE LINE: D ALTITUDE: 100 Feet
 TIME OF RELEASE: C509 Hours AIRCRAFT COURSE: 045 Degrees
 DURATION: 11 Sec.

STATION G.P.A. STATION G.P.A. STATION G.P.A. STATION G.P.A.
 Stations 1 - 41 Blank

42	0.5
43	1.0
44	4.1
45	21.7
46	7.0
47	4.1
48	4.3
49	4.1
50	1.3
51	3.8
52	2.4
53	6.5
54	12.3
55	5.8
56	0.3
Stations 57 - 100 Blank	

Total 79.2



19 July 1953

Station: 040-050

W. Wind: 1-24

W. Speed: 1-24

W. Dir.: 1-24

W. Gust: 1-24

W. Dir. 10m: 1-24

W. Dir. 20m: 1-24

W. Dir. 30m: 1-24

W. Dir. 40m: 1-24

W. Dir. 50m: 1-24

W. Dir. 60m: 1-24

W. Dir. 70m: 1-24

W. Dir. 80m: 1-24

W. Dir. 90m: 1-24

W. Dir. 100m: 1-24

W. Dir. 110m: 1-24

W. Dir. 120m: 1-24

W. Dir. 130m: 1-24

W. Dir. 140m: 1-24

W. Dir. 150m: 1-24

W. Dir. 160m: 1-24

W. Dir. 170m: 1-24

W. Dir. 180m: 1-24

W. Dir. 190m: 1-24

W. Dir. 200m: 1-24

Remarks: All 100m

318

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 95 GPM
DATE: 19 July 1963 SYSTEM: C-125/MC-1
FLIGHT #: 4 AIRSPEED: 130 Knots
SAMPLE LINE: D ALTITUDE: 150 Feet
TIME OF RELEASE: 0530 Hours AIRCRAFT COURSE: 045 Degrees
DURATION: 10 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 25	Blank	26	0.0				
		27	3.5				
		28	3.7				
		29	1.8				
		30	1.0				
		31	0.6				
		32	0.2				
		33	0.1				
		34	0.2				
		35	0.2				
		36	0.1				
		37	0.1				
		Stations 38 - 100	Blank				

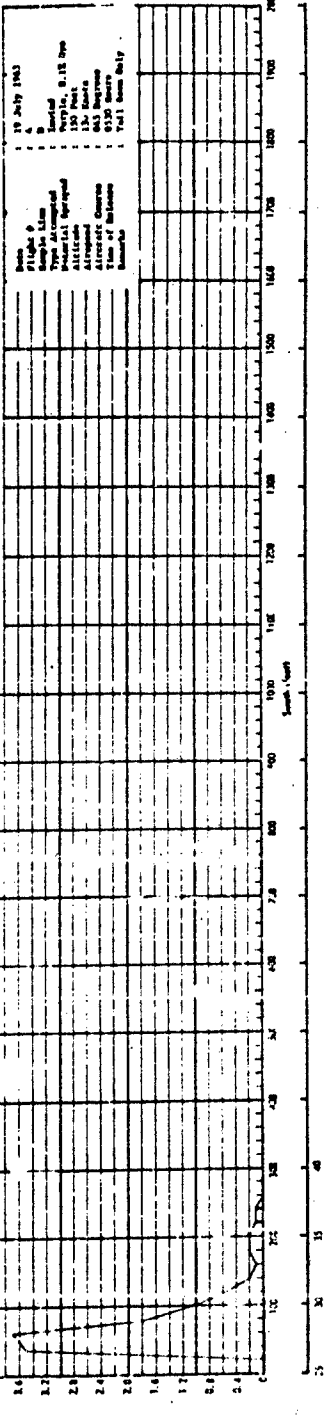
Total 11.5

19 JUL 1943		0552 HRS	
By	Obs	By	Obs
WC	22.5	22.4	99
SD	22.9	23.1	77
100	23.2	23.0	98
150	23.4	23.4	100
200	23.3	23.3	100

By	Obs	By	Obs
WC	22.5	22.4	99
SD	22.9	23.1	77
100	23.2	23.0	98
150	23.4	23.4	100
200	23.3	23.3	100

By	Obs	By	Obs
WC	22.5	22.4	99
SD	22.9	23.1	77
100	23.2	23.0	98
150	23.4	23.4	100
200	23.3	23.3	100

By	Obs	By	Obs
WC	22.5	22.4	99
SD	22.9	23.1	77
100	23.2	23.0	98
150	23.4	23.4	100
200	23.3	23.3	100



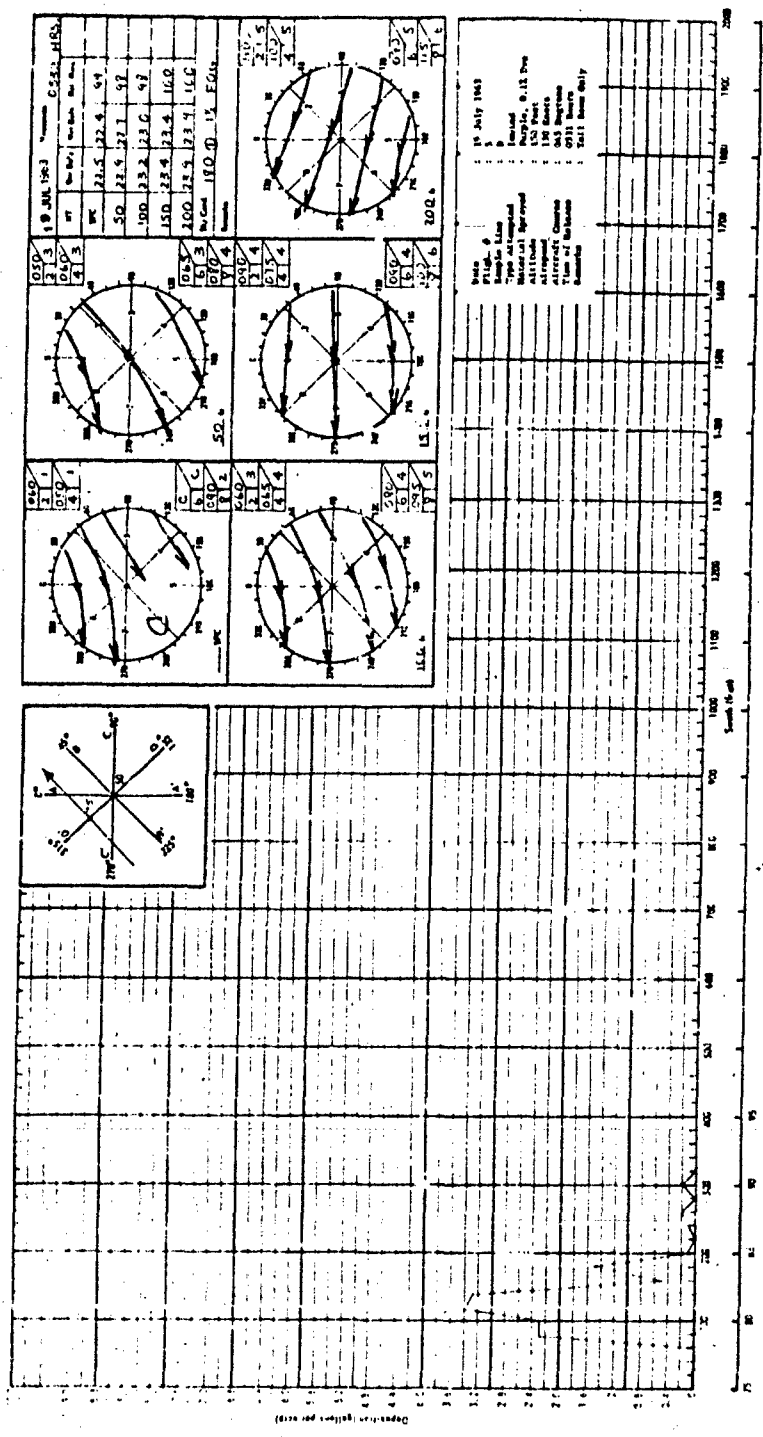
Date: 19 July 1943
 Flight: 6
 Type of Instrument: Servo
 Type of Mounting: Vertical
 Material: 6.18 Sp
 Altitude: 15,000 ft
 Airspeed: 445 mph
 Aircraft: C-47
 Time of Release: 0552
 Remarks: Fuel Burn Only

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 95 GPM
 DATE: 19 July 1963 SYSTEM: C-123/NC-1
 FLIGHT #: 5 AIRSPEED: 130 Knots
 SAMPLE LINE: D ALTITUDE: 150 Feet
 TIME OF RELEASE: 0531 Hour AIRCRAFT COURSE: 045 Degrees
 DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 78 Blank				79	2.3	80	2.3
				81	3.4	82	3.3
				83	0.5	84	1.5
				85	0.1	86	0.0
				87	0.1	88	0.2
				89	0.1	90	0.2
				91	0.0	92	0.0
				93	0.0	94	0.0
				Stations 95 - 100 Blank			

Total 14.8



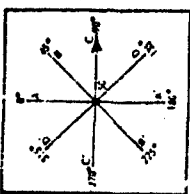
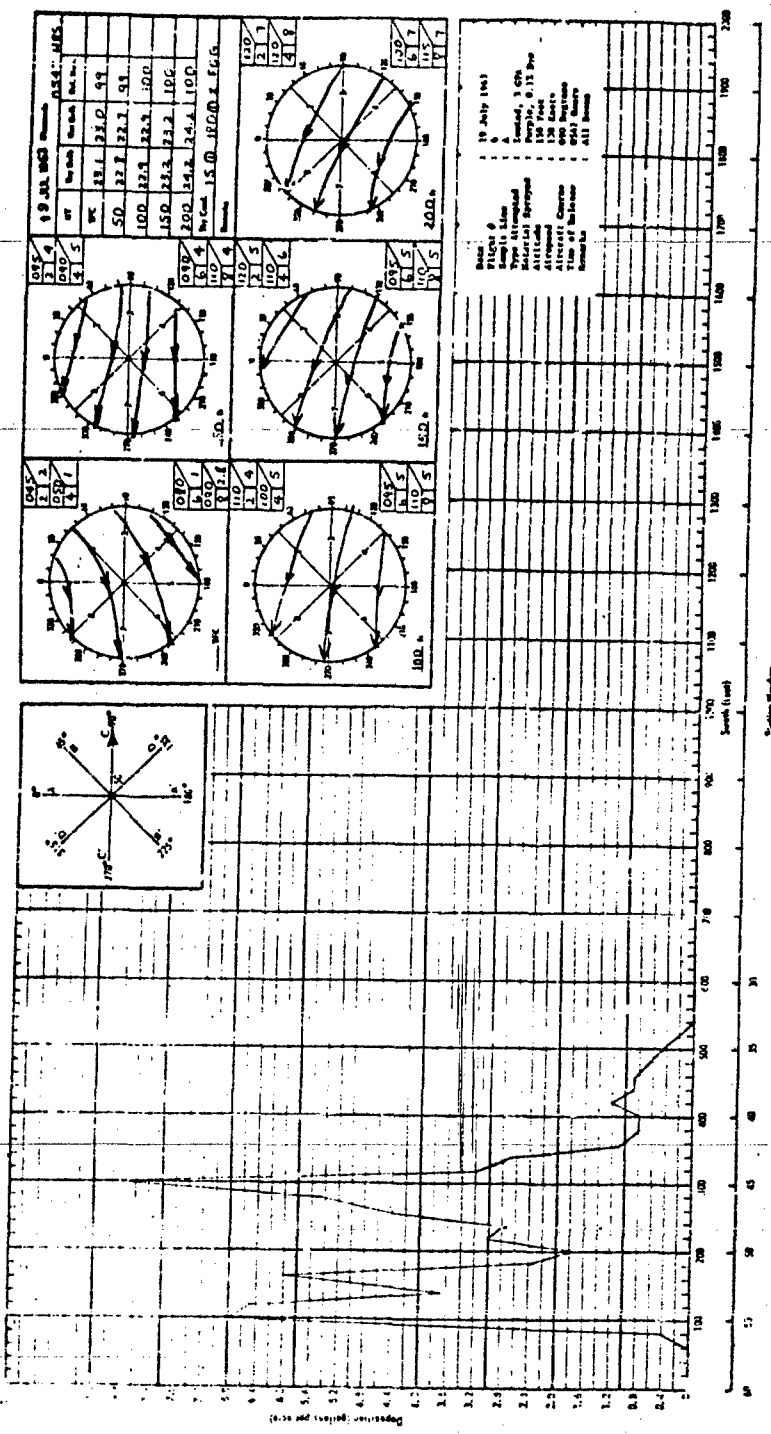
Well No. 19-04-1963
 Location: [Blank]
 Date: 19 July 1963
 Time: 08:00
 Depth: 100 ft
 Temperature: 72.5 °F
 Pressure: 271.1 psi
 Flow Rate: 97 gpm
 Remarks: [Blank]

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 4"5 GPM
 DATE: 19 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 6 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0547 Hours AIRCRAFT COURSE: 090 Degrees
 DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 33	Blank	34	0.2				
		35	0.5				
		36	0.7				
		37	0.9				
		38	0.9				
		39	1.2				
		40	0.8				
		41	0.8				
		42	1.1				
		43	2.7				
		44	3.2				
		45	8.4				
		46	5.5				
		47	4.4				
		48	2.8				
		49	3.0				
		50	1.8				
		51	2.4				
		52	6.0				
		53	3.7				
		54	6.5				
		55	6.8				
		56	0.4				
		Stations 57 - 100	Blank				

Total 64.7



Core No.	Depth (cm)	Deposition (g/cm²)	Remarks
015	0-1	1.0	150
015	1-2	1.5	150
015	2-3	2.0	150
015	3-4	2.5	150
015	4-5	3.0	150
015	5-6	3.5	150
015	6-7	4.0	150
015	7-8	4.5	150
015	8-9	5.0	150
015	9-10	5.5	150
015	10-11	6.0	150
015	11-12	6.5	150
015	12-13	7.0	150
015	13-14	7.0	150
015	14-15	7.0	150
015	15-16	7.0	150
015	16-17	7.0	150
015	17-18	7.0	150
015	18-19	7.0	150
015	19-20	7.0	150
015	20-21	7.0	150
015	21-22	7.0	150
015	22-23	7.0	150
015	23-24	7.0	150
015	24-25	7.0	150
015	25-26	7.0	150
015	26-27	7.0	150
015	27-28	7.0	150
015	28-29	7.0	150
015	29-30	7.0	150
015	30-31	7.0	150
015	31-32	7.0	150
015	32-33	7.0	150
015	33-34	7.0	150
015	34-35	7.0	150
015	35-36	7.0	150
015	36-37	7.0	150
015	37-38	7.0	150
015	38-39	7.0	150
015	39-40	7.0	150
015	40-41	7.0	150
015	41-42	7.0	150
015	42-43	7.0	150
015	43-44	7.0	150
015	44-45	7.0	150
015	45-46	7.0	150
015	46-47	7.0	150
015	47-48	7.0	150
015	48-49	7.0	150
015	49-50	7.0	150
015	50-51	7.0	150
015	51-52	7.0	150
015	52-53	7.0	150
015	53-54	7.0	150
015	54-55	7.0	150
015	55-56	7.0	150
015	56-57	7.0	150
015	57-58	7.0	150
015	58-59	7.0	150
015	59-60	7.0	150
015	60-61	7.0	150
015	61-62	7.0	150
015	62-63	7.0	150
015	63-64	7.0	150
015	64-65	7.0	150
015	65-66	7.0	150
015	66-67	7.0	150
015	67-68	7.0	150
015	68-69	7.0	150
015	69-70	7.0	150
015	70-71	7.0	150
015	71-72	7.0	150
015	72-73	7.0	150
015	73-74	7.0	150
015	74-75	7.0	150
015	75-76	7.0	150
015	76-77	7.0	150
015	77-78	7.0	150
015	78-79	7.0	150
015	79-80	7.0	150
015	80-81	7.0	150
015	81-82	7.0	150
015	82-83	7.0	150
015	83-84	7.0	150
015	84-85	7.0	150
015	85-86	7.0	150
015	86-87	7.0	150
015	87-88	7.0	150
015	88-89	7.0	150
015	89-90	7.0	150
015	90-91	7.0	150
015	91-92	7.0	150
015	92-93	7.0	150
015	93-94	7.0	150
015	94-95	7.0	150
015	95-96	7.0	150
015	96-97	7.0	150
015	97-98	7.0	150
015	98-99	7.0	150
015	99-100	7.0	150

Date: 19 July 1963
 Location: ...
 Type: ...
 Material: ...
 Amount: ...
 Allocated: ...
 Name of Station: ...
 Operator: ...

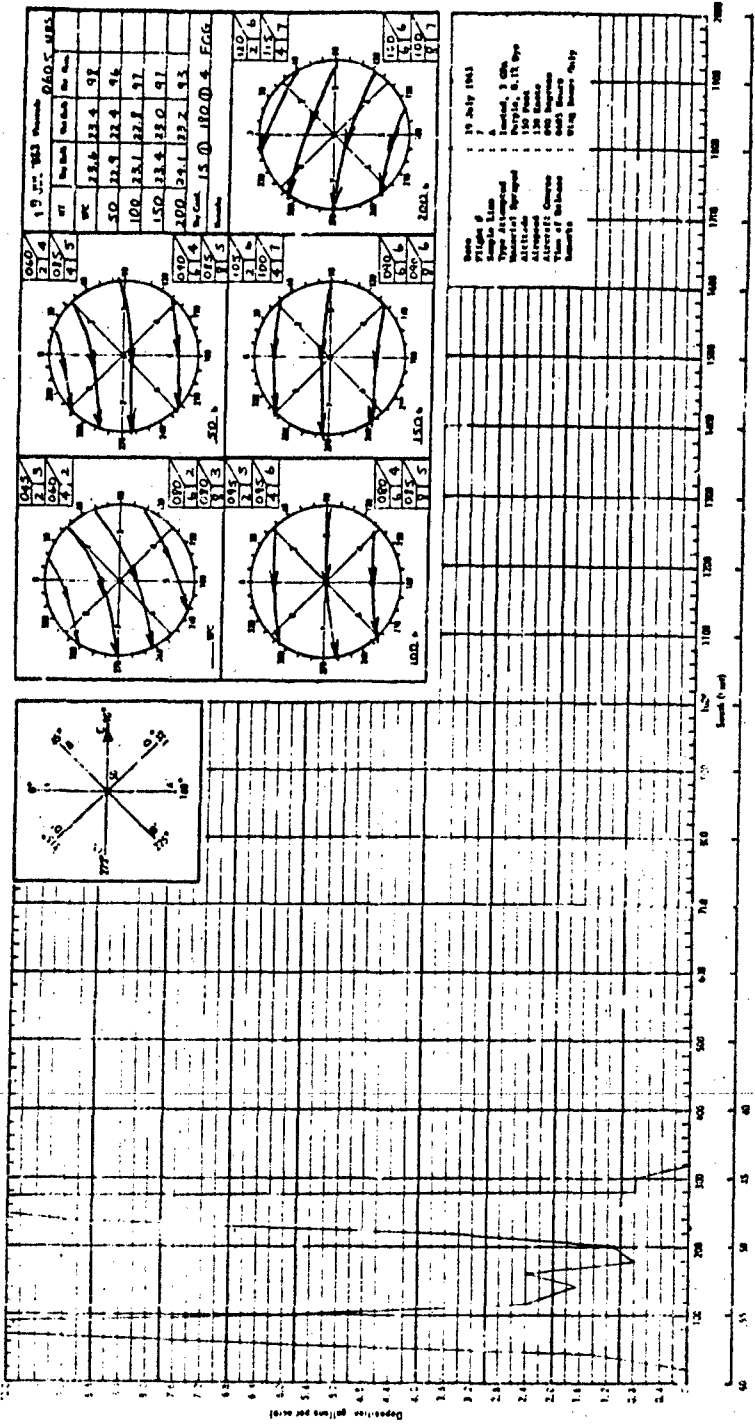
324

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 430 GPM
DATE: 19 July 1963 SYSTEM: C-122/MC-1
FLIGHT #: 7 AIRSPEED: 130 Knots
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0605 Hours AIRCRAFT COURSE: 090 Degree
DURATION: 15 Sec.

<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 44	Blank			45	0.8		
				46	0.8		
				47	19.5		
				48	9.2		
				49	3.5		
				50	1.1		
				51	0.8		
				52	2.4		
				53	1.7		
				54	2.4		
				55	5.8		
				56	14.7		
				57	5.9		
				58	1.4		
				Stations 59 - 100	Blank		

Total 69.0



19 JULY 1963		OAGS MRS.	
WT	WT	WT	WT
50	22.9	22.4	94
100	22.1	22.1	97
150	22.4	22.0	97
200	22.1	22.2	93

OAGS		OAGS		OAGS		OAGS	
WT	WT	WT	WT	WT	WT	WT	WT
50	22.9	22.4	94	50	22.9	22.4	94
100	22.1	22.1	97	100	22.1	22.1	97
150	22.4	22.0	97	150	22.4	22.0	97
200	22.1	22.2	93	200	22.1	22.2	93

Date: 19 July 1963
 Sample No.:
 Type of Sample:
 Method:
 Aluminum:
 Aluminum Oxide:
 Aluminum Hydroxide:
 Aluminum Silicate:
 19 July 1963
 Location: 3 00h
 Depth: 6.11 Dps
 136 Hours
 400 Samples
 011g Sample No. 19

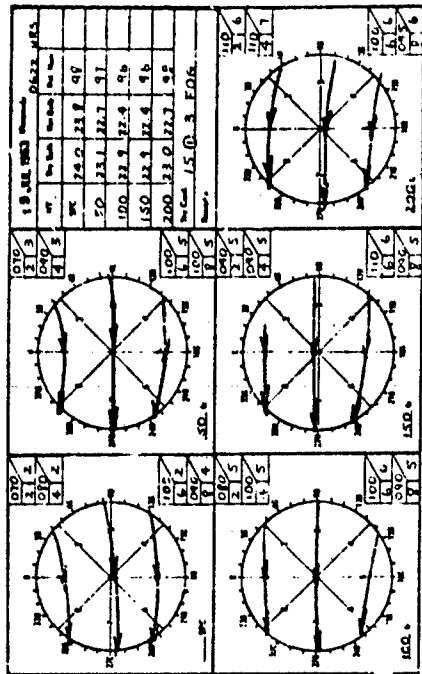
326

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 290 GPM
DATE: 19 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 8 AIRSPEED: 130 Knots
SAMPLE LINE: A ALTITUDE: 150 Feet
TIME OF RELEASE: 0621 Hours AIRCRAFT COURSE: 090 Degrees
DURATION: 09 Sec.

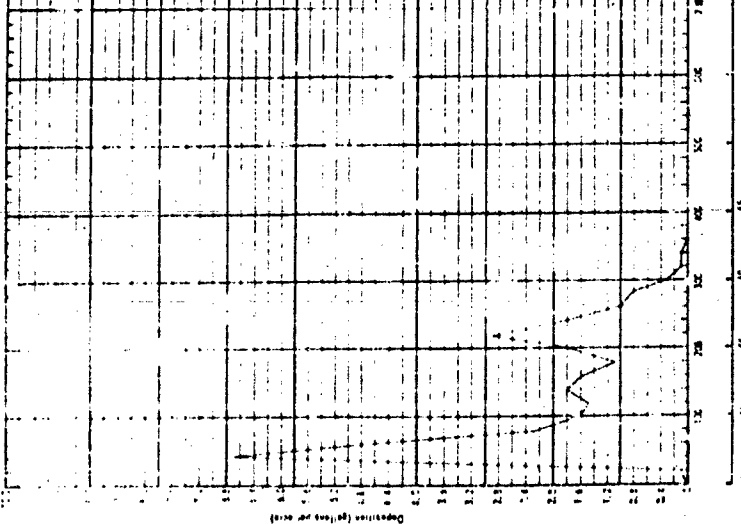
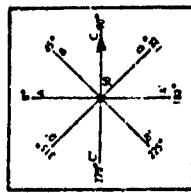
<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>	<u>STATION</u>	<u>G.P.A.</u>
Stations 1 - 45	Blank			46	0.1		
				47	6.7		
				48	4.8		
				49	2.3		
				50	1.6		
				51	1.5		
				52	1.8		
				53	1.6		
				54	1.1		
				55	1.8		
				56	2.9		
				57	1.9		
				58	1.0		
				59	0.8		
				60	0.3		
				61	0.1		
				62	0.1		
				63	0.0		
				Stations 64 - 100	Blank		

total 30.4



19 JUL 1963			
WT	Wt. (lb)	Wt. (kg)	Wt. (oz)
70	24.5	11.1	41
100	33.1	15.0	56
150	52.9	23.9	86
200	72.7	32.7	115

Wt. (lb) 1.5 (0.3) FOR



Date: 19 July 1963
 Sample Size: 1.5 mg
 Material: 1.5 mg
 Altitude: 100 ft
 Airspeed: 100 mph
 Time of Day: 10:00
 Remarks: All Data

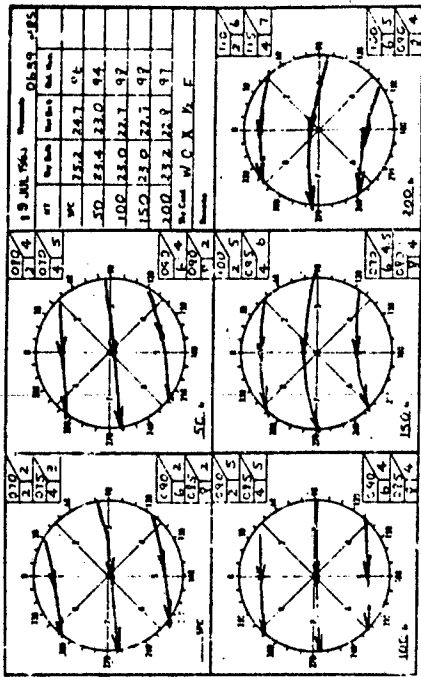
Sample No.

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 44 GPM
 DATE: 19 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 9 AIRSPEED: 130 Knots
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0637 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 08 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 5 Blank		30	1.1	55	0.5		
6	0.1	31	0.9	56	0.2		
7	0.8	32	1.3	57	0.2		
8	1.6	33	0.8	58	0.4		
9	2.7	34	0.9	59	0.4		
10	2.8	35	0.7	60	0.4		
11	3.1	36	0.5	61	0.7		
12	3.1	37	1.1	62	0.2		
13	3.8	38	0.8	Stations 63 - 100 Blank			
14	3.9	39	0.4				
15	3.1	40	0.4				
16	2.8	41	0.5				
17	3.1	42	0.5				
18	3.9	43	0.8				
19	3.3	44	0.8				
20	3.0	45	0.4				
21	1.6	46	0.4				
22	1.7	47	0.4				
23	1.4	48	0.5				
24	2.6	49	0.7				
25	2.2	50	0.9				
26	1.9	51	0.2				
27	1.3	52	0.2				
28	0.9	53	0.3				
29	1.1	54	0.7				

Total 75.2

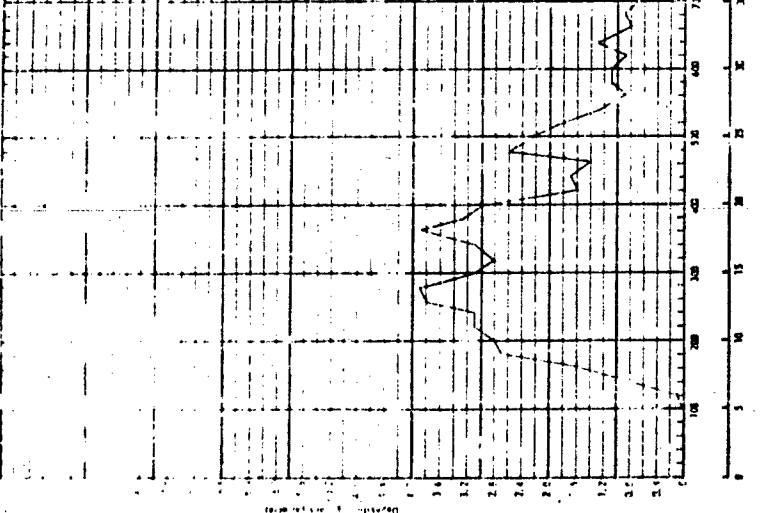
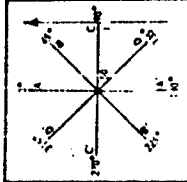


19 JUL 1964			
WT	Wd	Wd	Wd
30	33.4	33.0	9.4
100	33.0	33.1	9.7
150	33.0	33.1	9.7
200	33.2	33.3	9.1

Magnetic	
WT	Wd
100	33.0
150	33.1
200	33.1

Magnetic	
WT	Wd
100	33.0
150	33.1
200	33.1

Title: 19 JULY 1964
 Ship:
 Type:
 Altitude:
 Aircraft:
 Name:
 Number:



Depth (m)	Magnetic Number
0	33.0
5	33.0
10	33.0
15	33.0
20	33.0
25	33.0
30	33.0
35	33.0
40	33.0
45	33.0
50	33.0
55	33.0
60	33.0
65	33.0
70	33.0
75	33.0
80	33.0
85	33.0
90	33.0
95	33.0
100	33.0
105	33.0
110	33.0
115	33.0
120	33.0
125	33.0
130	33.0
135	33.0
140	33.0
145	33.0
150	33.0
155	33.0
160	33.0
165	33.0
170	33.0
175	33.0
180	33.0
185	33.0
190	33.0
195	33.0
200	33.0

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 20 July 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 15
 NOZZLE TYPE: Check valves only LIQUID TEMP: 35° C
 DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-44
 PUMP R.P.M.: 3200-2600 FLOW METER READING: 47 CFM
 NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 480 CFM
 TOTAL AMOUNT SPRAYED: 120 Gal.
 NOZZLE CONFIGURATION: 1-7, 13-42 Underside
 WING: 1-6, 19-22, 37-40 Aft side
 TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

NO. #	RPM	PSI BEFORE	PSI DURING	GPM FLOWMETER
1	3200	90		470
8	3000 (26 GPA)	85		450
9	3200	90		465

REMARKS: All booms, 3 GPA.
 All odd numbered openings on underside of boom have 1/2" check valve #6137.
 All even numbered openings on underside of boom have 1" check valve #6138.
 All openings on aft side have 1/2" check valve #6140.
 All openings on tail boom are on aft side. Opening number 1-6 & 14-19
 are 1/2" check valve #6135. Openings numbered 5-15 are 1/2" check valve
 #6140. Tail check valve flow are perpendicular to air stream.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 20 July 1963
 LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 98
 NOZZLE TYPE: Check valves only LIQUID TEMP: 34.5° C
 DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-45
 PUMP R.P.M.: 3200-2550 FLOW METER READING: 435 GPM
 NO. OF PUMPS: 2 FLOW RATE CALIBRATED: 442 GPM
 TOTAL AMOUNT SPRAYED: 110.5 Gal.
 NOZZLE CONFIGURATION: 1-7, 13-42 Underside
WINGS: 1-4, 19-22, 37-40 Aft side

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>2</u>	<u>3200</u>	<u>90</u>		<u>445</u>
<u>7</u>	<u>3000 (2 GPA)</u>	<u>80</u>		<u>410</u>

REMARKS: Wings only, 3 GPA.
 All odd numbered openings on underside of boom have $\frac{1}{2}$ " check Valve #6150.
 All even numbered openings on underside of boom have $\frac{1}{2}$ " check valve #6135.
 All openings on aft side have $\frac{1}{2}$ " check valve #6140.

C-119/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 20 July 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 110
NOZZLE TYPE: Check valves only LIQUID TEMP: 36° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-25
PUMP R.P.M.: 3200-2400 FLOW METER READING: 73 (11)
NO. OF PUMPS: 1 FLOW RATE CALIBRATED: 250 GPN
TOTAL AMOUNT SPRAYED: 69.5 Gal.
NOZZLE CONFIGURATION: 1-7, 13-42 Underside
WING: 1-4, 19-22, 37-40 Aft Side
TAIL: 1-6, 14-19

OPERATIONAL DATA DURING TEST FLIGHT

RUN #	RPM	PSI BEFORE	PSI DURING	CPM FLOWMETER
3	3200	90		180
4	3000 (1 GPA)	80		210

REMARKS: All pumps.
Nozzle arrangement same as Runs #1, 7b, & 79.

C-123/MC-1 GROUND FLOW & FLIGHT DATA

DATE CALIBRATED: 17 July 1963 DATE TEST FLOWN: 20 July 1963
LIQUID SPRAYED: Purple TOTAL NOZZLES OPEN: 98
NOZZLE TYPE: Check valves only LIQUID TEMP: 36° C
DURATION OF SPRAY: 15 Sec. PUMP PRESSURE: 90-32
PUMP R.P.M.: 3200-2500 FLOW METER READING: 280 GPM
NO. OF PUMPS: 1 FLOW RATE CALIBRATED: 280 GPM
TOTAL AMOUNT SPRAYED: 70 Gal.
NOZZLE CONFIGURATION: 1-7, 13-42 Underside
WING: 1-4, 19-22, 37-40 Aft side

OPERATIONAL DATA DURING TEST FLIGHT

<u>RUN #</u>	<u>RPM</u>	<u>PSI BEFORE</u>	<u>PSI DURING</u>	<u>GPM FLOWMETER</u>
<u>5</u>	<u>3100 (1 CPA)</u>	<u>85</u>		<u>240</u>
<u>6</u>	<u>3200</u>	<u>90</u>		<u>230</u>

REMARKS: Nozzle arrangement same as Runs #2 and #7.

MASS MEDIAN DIAMETER

DATE: 20 July 1963

CONVERSION FACTOR 2.7

FLIGHT #: 9

PAPER Krom-Kote, white

SAMPLE LINE: A

MATERIAL FL-120

FLOW RATE: 465 GPM

SYSTEM C-121 MC-1

STA.	DROP #	SIZE	STA.	DROP #	SIZE
3	1	6500*			
3	3	6400			
3	2	6300			
3	5	6200			
3	6	6100			
3	4	6000	75	1A	100 (Spot 100)
3	7	5900			
3	8	5800			
3	9	5700			
3	10	5600			

$$MMD = \frac{70.44 \pm 0.1431 (\text{Spot D Max})}{\text{Con. Factor}} = \frac{70.44 \pm 0.1431 (5600)}{2.7} = 11500$$

$$\text{Max. Sph. Dia.} = 70.44 \pm 0.1431 (\text{Max Spot}) = 70.44 \pm 0.1431 (6000) = 10800$$

$$\text{Min. Sph. Dia.} = 61 \text{ Microns}$$

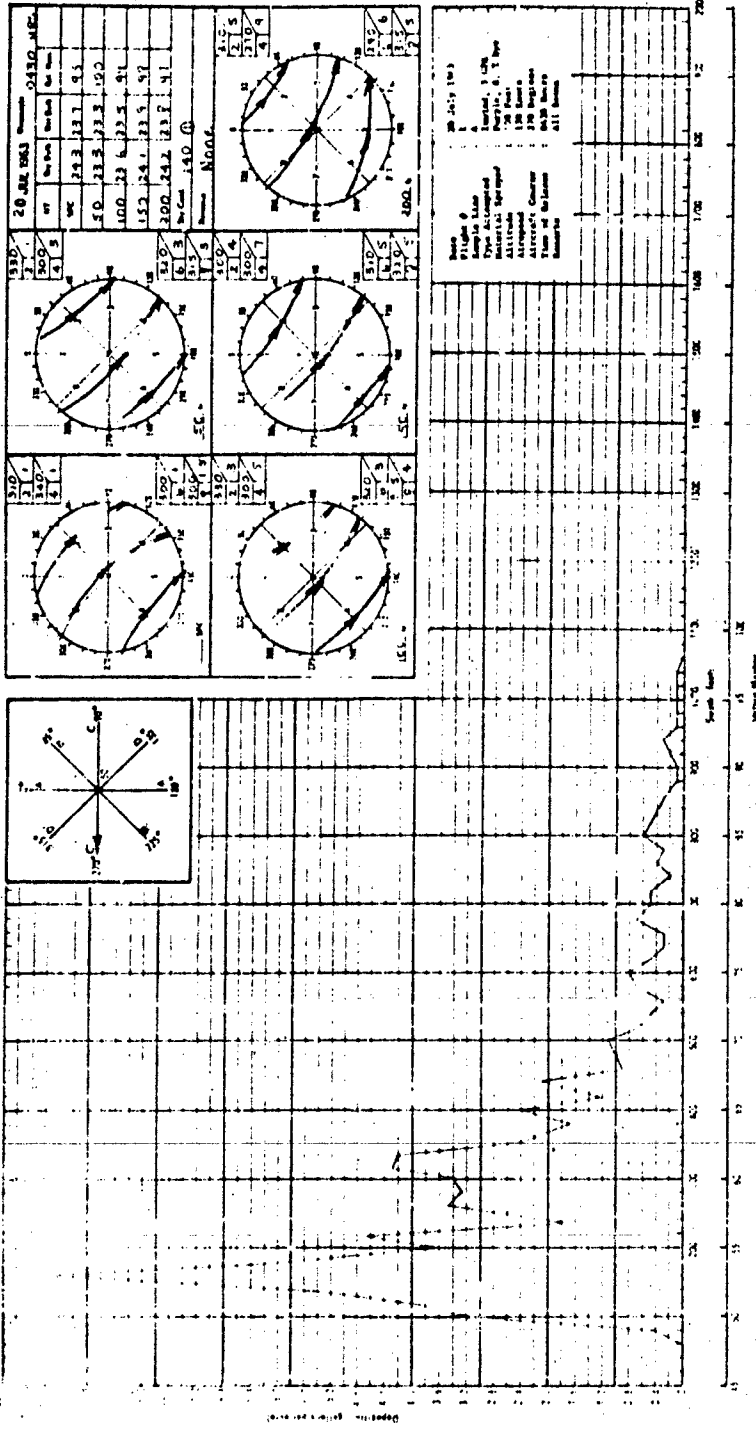
336

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 470 GPM
 DATE: 20 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 1 AIRSPEED: 130 Knots
 SAMPLE LINE: A ALTITUDE: 150 Feet
 TIME OF RELEASE: 0430 Hours AIRCRAFT COURSE: 270 Degrees
 DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 48 Blank				51	3.9	76	3.5
		52	5.4	77	0.3		
		53	9.3	78	0.3		
		54	6.0	79	0.7		
		55	3.7	80	0.5		
		55	4.7	81	0.5		
		57	1.8	82	0.2		
		58	3.5	83	0.4		
		59	3.3	84	0.3		
		60	3.4	85	0.6		
		61	4.3	86	0.5		
		62	4.2	87	0.4		
		63	2.4	88	0.3		
		64	1.7	89	0.1		
		65	2.4	90	0.1		
		66	1.7	91	0.2		
		67	2.1	92	0.3		
		68	0.9	93	0.1		
		69	1.0	94	0.1		
		70	1.1	95	0.1		
		71	0.7	96	0.1		
		72	0.5	97	0.1		
		73	0.3				
		74	0.7				
		75	0.8				
49	0.4						
50	3.2						
						Stations 98 - 100	Blank

Total 79.6

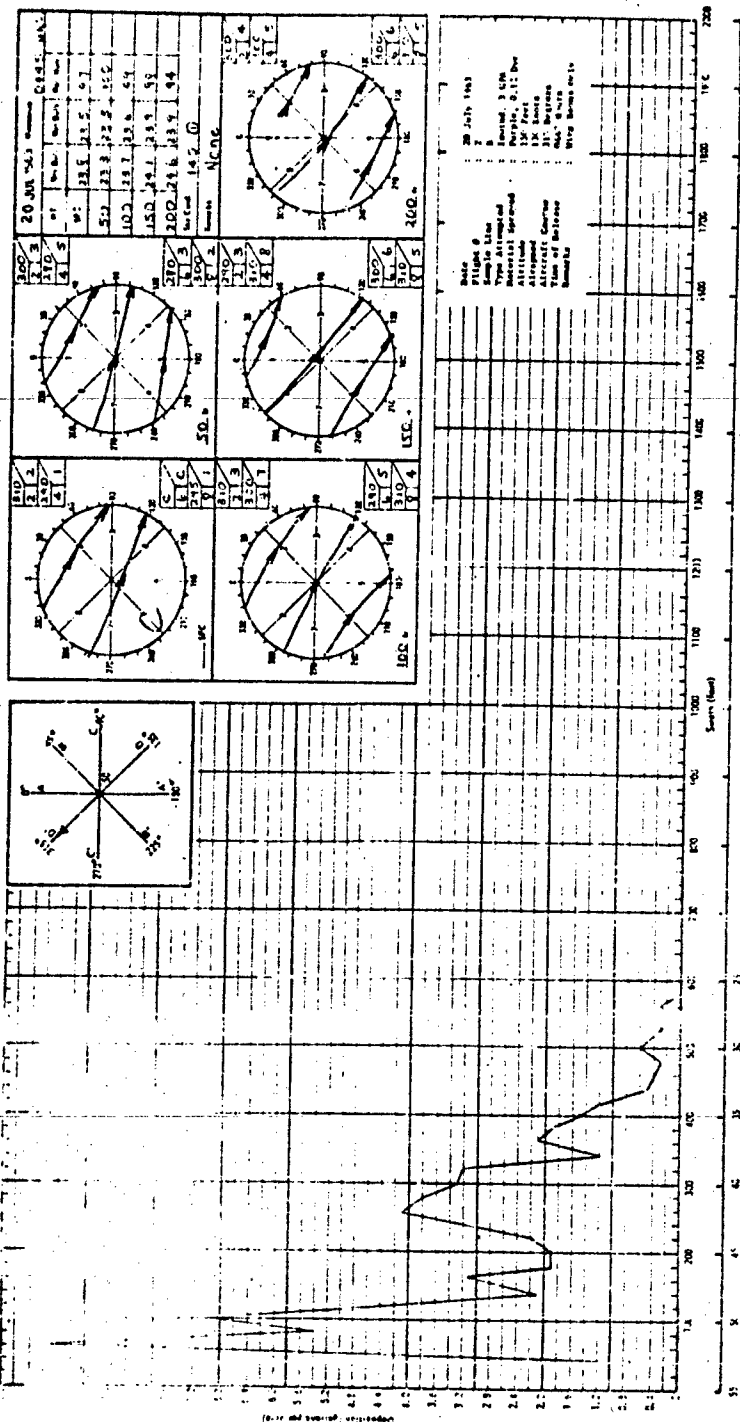


MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 440
 DATE: 20 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 2 AIRSPEED: 130 Knots
 SAMPLE LINE: B ALTITUDE: 150 Feet
 TIME OF RELEASE: 0447 Hours AIRCRAFT COURSE: 315 Degrees
 DURATION: 14 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 24	Blank	25	0.0	50	6.9		
		26	0.0	51	5.4		
		27	0.3	52	9.3		
		28	0.2				
		39	0.3				
		30	0.6				
		31	0.3				
		32	0.4				
		33	0.5				
		34	1.2				
		35	1.5				
		36	1.9				
		37	2.1				
		38	1.2				
		39	3.2				
		40	3.3				
		41	3.8				
		42	4.1				
		43	3.3				
		44	2.2				
		45	1.9				
		46	1.9				
		47	3.1				
		48	2.1				
		49	4.2				

Total 65.2



20 JUL 1963

ST	1st	2nd	3rd	4th	5th
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5

ST	1st	2nd	3rd	4th	5th
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5
W	23.5	23.5	23.5	23.5	23.5

20 July 1963

Storm Number

Storm (hour)

20 July 1963

Storm Number

Storm (hour)

20 July 1963

Storm Number

Storm (hour)

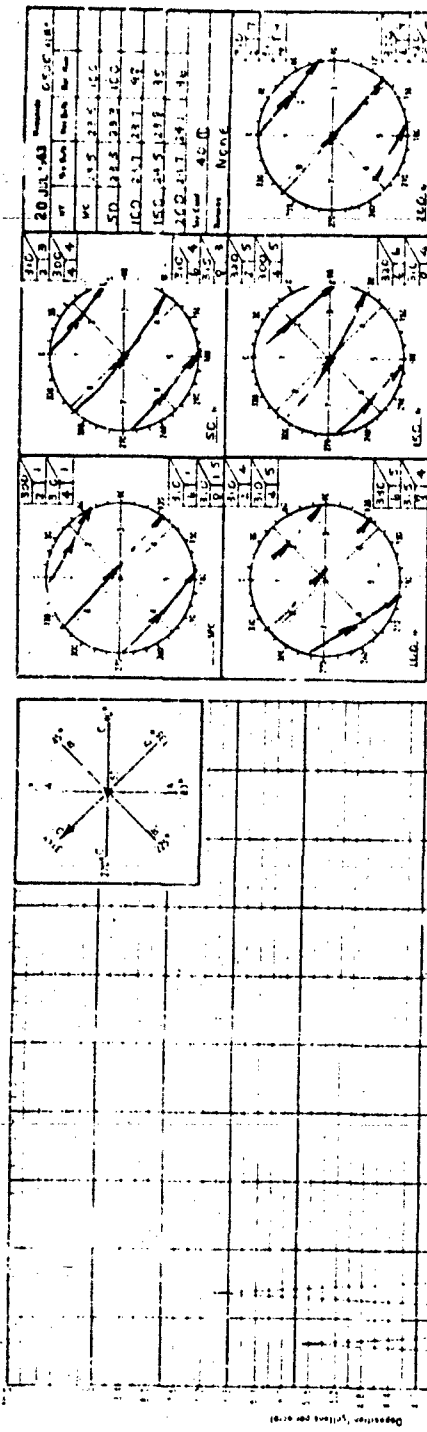
340

MASS DEPOSIT

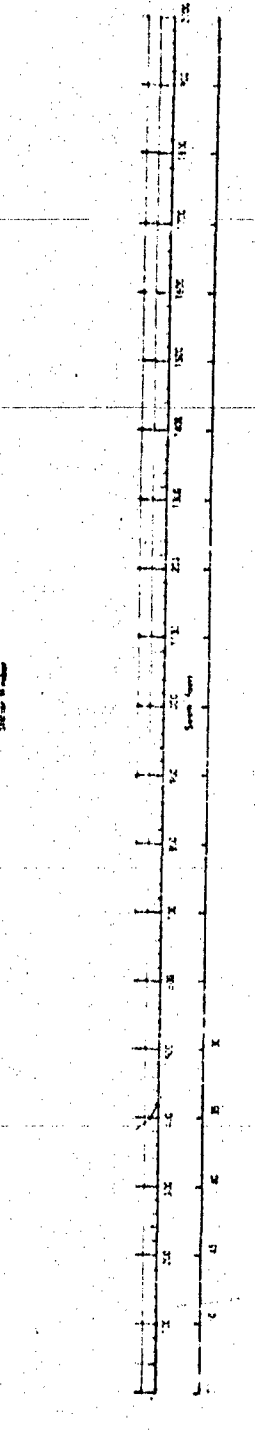
MATERIAL: Purple FLOW RATE: 280 GPM
DATE: 20 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 3 AIRSPEED: 130 Knots
SAMPLE LINE: B ALTITUDE: 150 Feet
TIME OF RELEASE: 0503 Hours AIRCRAFT COURSE: 115 Degrees
DURATION: 11 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	G.P.A.
Stations 1 - 33	Blank	34	0.0					
		35	0.1					
		36	0.4					
		37	1.4					
		38	2.0					
		39	1.9					
		40	2.8					
		41	2.3					
		42	2.7					
		43	2.4					
		44	1.7					
		45	1.4					
		46	1.7					
		47	2.9					
		48	7.0					
		49	2.9					
		50	3.6					
		51	2.9					
		52	5.7					
		Stations 53 - 100	Blank					

Total 45.8



Time	Altitude	Speed	Direction	Remarks
10:00	0	0	0	Start
10:05	10	10	10	
10:10	20	20	20	
10:15	30	30	30	
10:20	40	40	40	
10:25	50	50	50	
10:30	60	60	60	
10:35	70	70	70	
10:40	80	80	80	
10:45	90	90	90	
10:50	100	100	100	
10:55	110	110	110	
11:00	120	120	120	
11:05	130	130	130	
11:10	140	140	140	
11:15	150	150	150	
11:20	160	160	160	
11:25	170	170	170	
11:30	180	180	180	
11:35	190	190	190	
11:40	200	200	200	End



20 JUL 43

50 100 150 200

100 200 300 400

150 200 250 300

200 250 300 350

250 300 350 400

300 350 400 450

350 400 450 500

400 450 500 550

450 500 550 600

500 550 600 650

550 600 650 700

600 650 700 750

650 700 750 800

700 750 800 850

750 800 850 900

100 200 300 400

150 200 250 300

200 250 300 350

250 300 350 400

300 350 400 450

350 400 450 500

400 450 500 550

450 500 550 600

500 550 600 650

550 600 650 700

600 650 700 750

650 700 750 800

700 750 800 850

750 800 850 900

800 850 900 950

850 900 950 1000

900 950 1000 1050

950 1000 1050 1100

1000 1050 1100 1150

1050 1100 1150 1200

1100 1150 1200 1250

1150 1200 1250 1300

1200 1250 1300 1350

1250 1300 1350 1400

1300 1350 1400 1450

1350 1400 1450 1500

100 200 300 400

150 200 250 300

200 250 300 350

250 300 350 400

300 350 400 450

350 400 450 500

400 450 500 550

450 500 550 600

500 550 600 650

550 600 650 700

600 650 700 750

650 700 750 800

700 750 800 850

750 800 850 900

800 850 900 950

850 900 950 1000

900 950 1000 1050

950 1000 1050 1100

1000 1050 1100 1150

1050 1100 1150 1200

1100 1150 1200 1250

1150 1200 1250 1300

1200 1250 1300 1350

1250 1300 1350 1400

1300 1350 1400 1450

1350 1400 1450 1500

1400 1450 1500 1550

1450 1500 1550 1600

150 200 250 300

200 250 300 350

250 300 350 400

300 350 400 450

350 400 450 500

400 450 500 550

450 500 550 600

500 550 600 650

550 600 650 700

600 650 700 750

650 700 750 800

700 750 800 850

750 800 850 900

800 850 900 950

850 900 950 1000

900 950 1000 1050

950 1000 1050 1100

1000 1050 1100 1150

1050 1100 1150 1200

1100 1150 1200 1250

1150 1200 1250 1300

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1250 1300 1350 1400

1300 1350 1400 1450

1350 1400 1450 1500

1400 1450 1500 1550

1450 1500 1550 1600

342

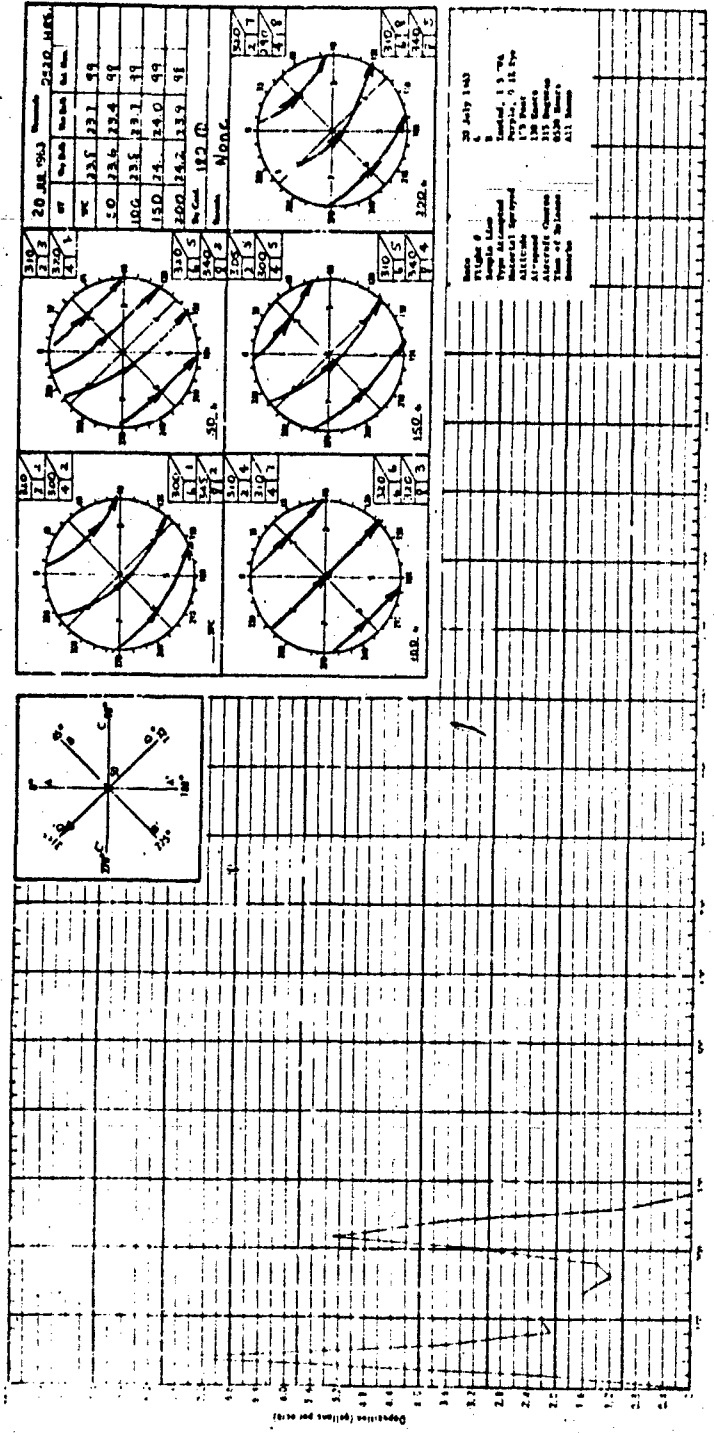
MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 230 23
DATE: 20 July 1963 SYSTEM: C-123/MC-1 C-12
FLIGHT #: 4 AIRSPEED: 130 Knot 130
SAMPLE LINE: B ALTITUDE: 150 Feet Feet 150 F.
TIME OF RELEASE: 0520 Hours AIRCRAFT COURSE: 315 Degree RSE: 3
DURATION: 13 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	S
Stations 1 - 39	Blank	40	0.0					
		41	0.0					
		42	1.0					
		43	3.7					
		44	5.3					
		45	3.1					
		46	1.4					
		47	1.2					
		48	1.6					
		49	*					
		50	2.2					
		51	2.1					
		52	3.6					
		53	7.5					
		54	2.2					
		Stations 55 - 100	Blank					

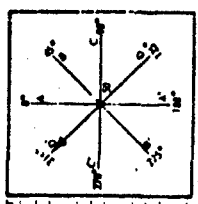
*Missing

Total 34.9

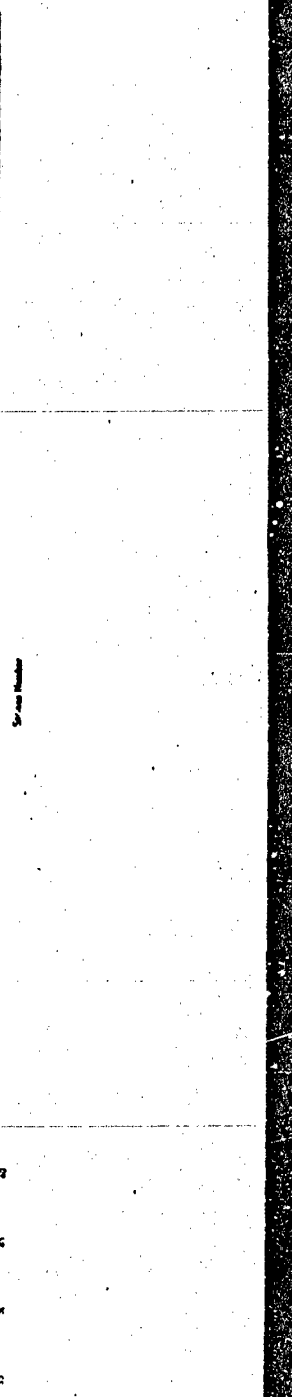
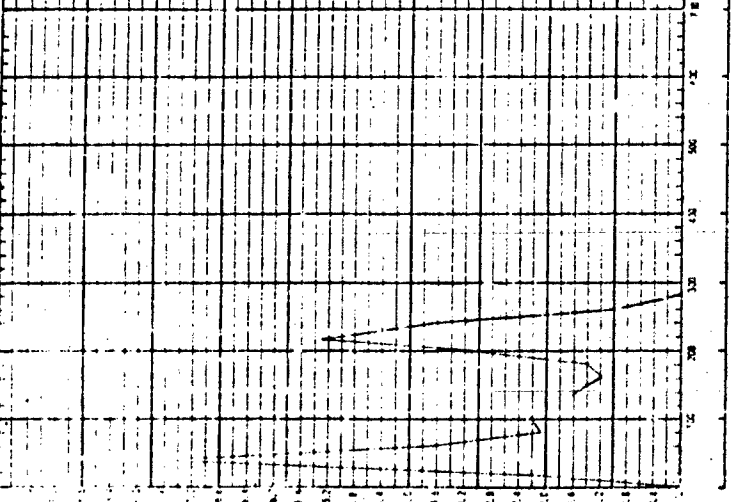
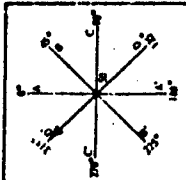
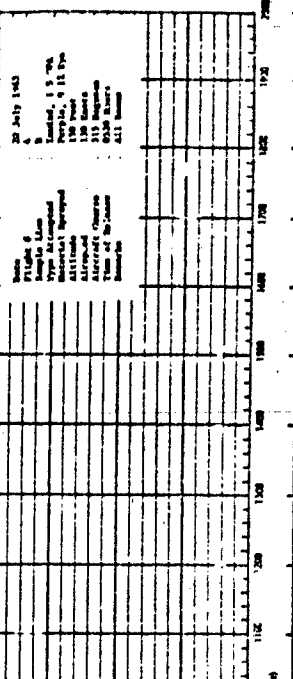
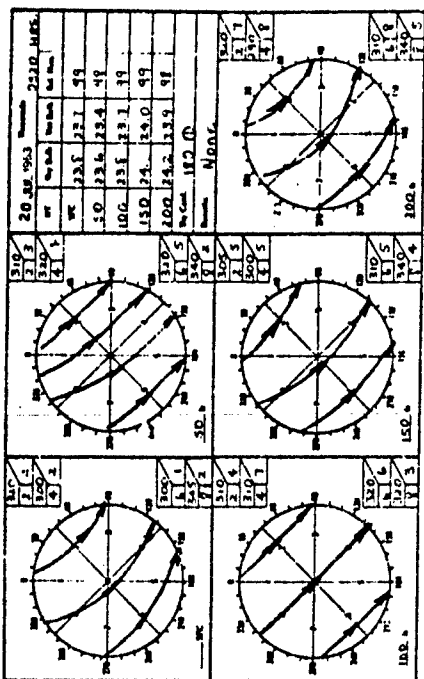


20 APR 1943		2510. MER.	
WT	By Bal.	By Bal.	By Bal.
100	231	231	231
150	234	234	234
200	235	235	235
250	240	240	240
300	242	242	242
350	243	243	243
400	244	244	244
450	245	245	245
500	246	246	246
550	247	247	247
600	248	248	248
650	249	249	249
700	250	250	250
750	251	251	251
800	252	252	252
850	253	253	253
900	254	254	254
950	255	255	255
1000	256	256	256
1050	257	257	257
1100	258	258	258
1150	259	259	259
1200	260	260	260

No. 20-17-140
 Type of Land:
 Type of Crop:
 Material Applied:
 Amount:
 Aircraft:
 Aircraft Operator:
 Name of Inspector:
 Date:



Deposits (pounds per acre)



Station Number

344

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 240 GPM
DATE: 20 July 1963 SYSTEM: C-123/MC-1
FLIGHT #: 5 AIRSPEED: 130 Knots
SAMPLE LINE: B ALTITUDE: 150 Feet
TIME OF RELEASE: 0538 Hours AIRCRAFT COURSE: 315 Degrees
DURATION: 12 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 47	Blank			48	3.5	Stations 73 - 100	
		49	4.4				Blank
		50	3.3				
		51	2.1				
		52	1.9				
		53	1.0				
		54	1.3				
		55	1.7				
		56	1.7				
		57	4.2				
		58	3.3				
		59	1.9				
		60	2.2				
		61	1.7				
		62	1.5				
		63	1.4				
		64	0.8				
		65	0.8				
		66	0.5				
		67	0.6				
		68	0.7				
		69	0.4				
		70	0.2				
		71	0.2				
		72	0.1				

Total 41.9

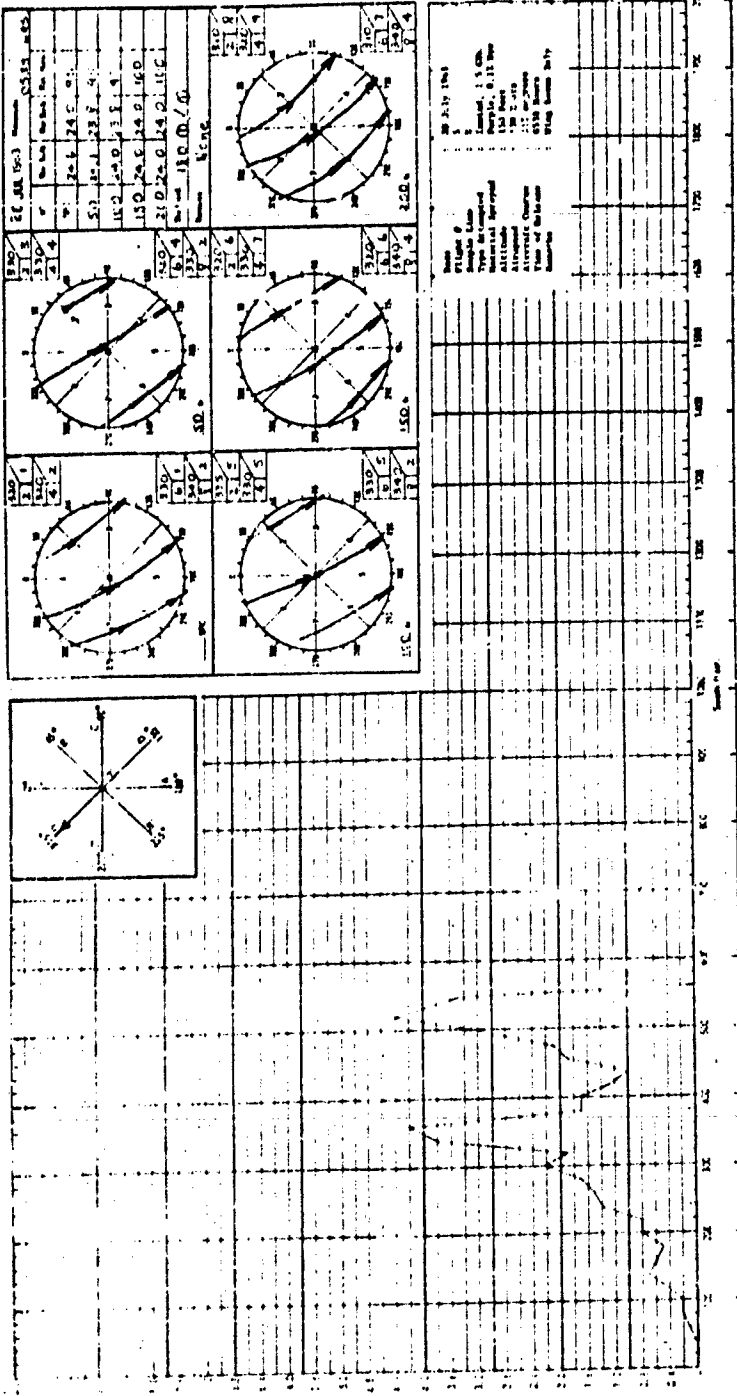


Figure 100. Survey Station.

MASS DEPOSIT

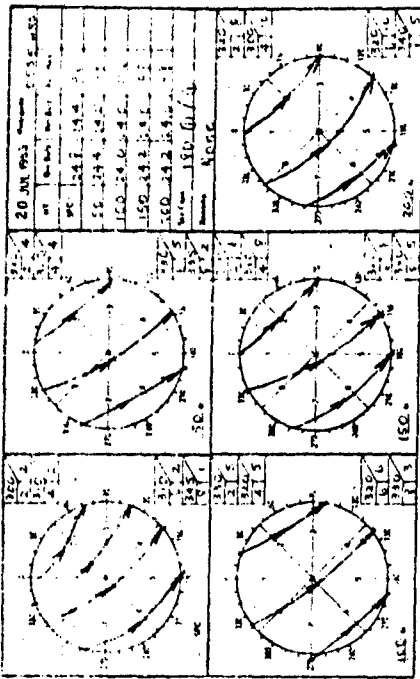
MATERIAL: Purple FLOW RATE: 2.30 GPM
 DATE: 20 July 1963 SYSTEM: C-123/MC-1
 HEIGHT: 6 AIRSPEED: 130 Knots
 SAMPLE LINE: B ALTITUDE: 150 Feet
 TIME OF RELEASE: 0555 Hours AIRCRAFT COURSE: 315 Degrees
 DURATION: 13 Sec.

STATION G.P.A. STATION G.P.A. STATION G.P.A. STATION G.P.A.
 Stations 1 - 42 Blank

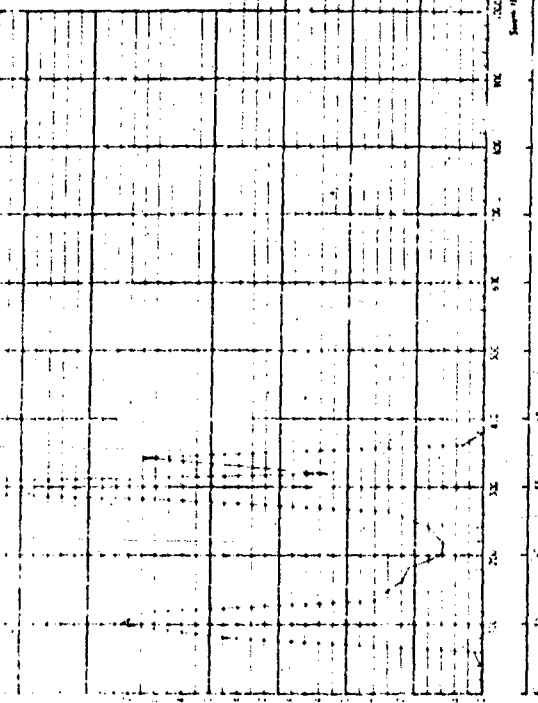
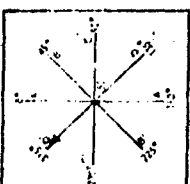
43 0.1
 44 3.7
 45 5.3
 46 5.0
 47 1.6
 48 1.2
 49 1.1
 50 0.6
 51 0.6
 52 0.8
 53 1.4
 54 5.0
 55 10.2
 56 2.3
 57 5.0
 58 0.3

Stations 59 - 100 Blank

Total 35.2



Time	Lat	Long	Wind	Temp	Humidity	Pressure	Clouds	Visibility	Remarks
0000	30° 00' N	150° 00' W	150	55.0	85	1010.0	0-100	10	None
0100	30° 00' N	151° 00' W	150	55.0	85	1010.0	0-100	10	None
0200	30° 00' N	152° 00' W	150	55.0	85	1010.0	0-100	10	None
0300	30° 00' N	153° 00' W	150	55.0	85	1010.0	0-100	10	None
0400	30° 00' N	154° 00' W	150	55.0	85	1010.0	0-100	10	None
0500	30° 00' N	155° 00' W	150	55.0	85	1010.0	0-100	10	None
0600	30° 00' N	156° 00' W	150	55.0	85	1010.0	0-100	10	None
0700	30° 00' N	157° 00' W	150	55.0	85	1010.0	0-100	10	None
0800	30° 00' N	158° 00' W	150	55.0	85	1010.0	0-100	10	None
0900	30° 00' N	159° 00' W	150	55.0	85	1010.0	0-100	10	None
1000	30° 00' N	160° 00' W	150	55.0	85	1010.0	0-100	10	None
1100	30° 00' N	161° 00' W	150	55.0	85	1010.0	0-100	10	None
1200	30° 00' N	162° 00' W	150	55.0	85	1010.0	0-100	10	None
1300	30° 00' N	163° 00' W	150	55.0	85	1010.0	0-100	10	None
1400	30° 00' N	164° 00' W	150	55.0	85	1010.0	0-100	10	None
1500	30° 00' N	165° 00' W	150	55.0	85	1010.0	0-100	10	None
1600	30° 00' N	166° 00' W	150	55.0	85	1010.0	0-100	10	None
1700	30° 00' N	167° 00' W	150	55.0	85	1010.0	0-100	10	None
1800	30° 00' N	168° 00' W	150	55.0	85	1010.0	0-100	10	None
1900	30° 00' N	169° 00' W	150	55.0	85	1010.0	0-100	10	None
2000	30° 00' N	170° 00' W	150	55.0	85	1010.0	0-100	10	None
2100	30° 00' N	171° 00' W	150	55.0	85	1010.0	0-100	10	None
2200	30° 00' N	172° 00' W	150	55.0	85	1010.0	0-100	10	None
2300	30° 00' N	173° 00' W	150	55.0	85	1010.0	0-100	10	None
2400	30° 00' N	174° 00' W	150	55.0	85	1010.0	0-100	10	None
2500	30° 00' N	175° 00' W	150	55.0	85	1010.0	0-100	10	None
2600	30° 00' N	176° 00' W	150	55.0	85	1010.0	0-100	10	None
2700	30° 00' N	177° 00' W	150	55.0	85	1010.0	0-100	10	None
2800	30° 00' N	178° 00' W	150	55.0	85	1010.0	0-100	10	None
2900	30° 00' N	179° 00' W	150	55.0	85	1010.0	0-100	10	None
3000	30° 00' N	180° 00' W	150	55.0	85	1010.0	0-100	10	None



Latitude (Degrees)

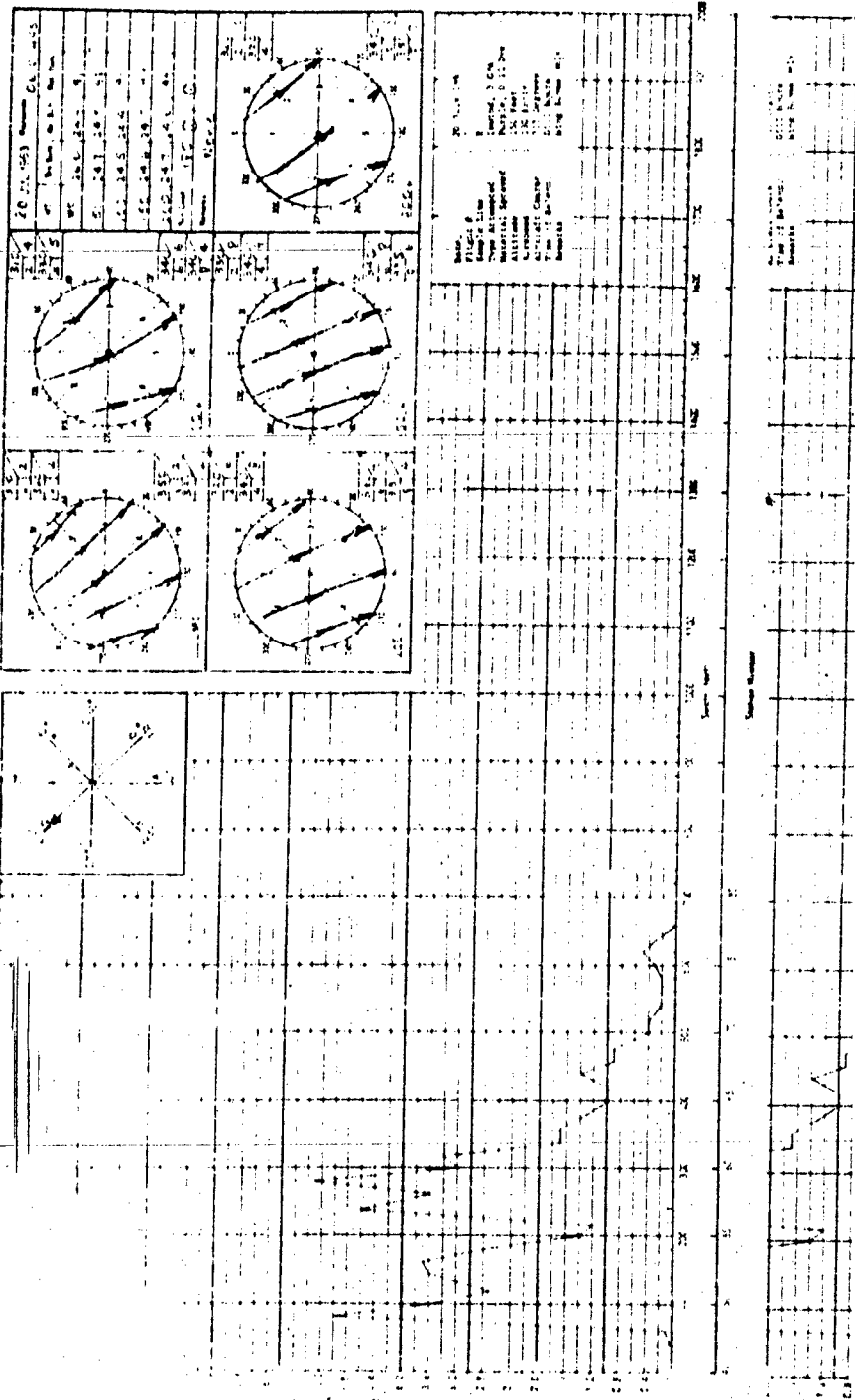
Longitude (Degrees)

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 410 GPM 10
 DATE: 20 July 1963 SYSTEM: C-123/MC-1 13/MC-1
 FLIGHT #: 7 AIRSPEED: 130 Knot
 SAMPLE LINE: B ALTITUDE: 150 Feet
 TIME OF RELEASE: 0611 Hours AIRCRAFT COURSE: 315 Degrees 315
 DURATION: 12 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 47 Blank				55	1.4				
				56	1.2				
				57	4.6				
				58	3.6				
				59	5.3				
				60	3.2				
				61	3.4				
				62	1.7				
				63	1.7				
				64	1.3				
				65	1.0				
				66	1.0				
				67	1.4				
				68	0.1				
				69	1.9				
				70	2.4				
				71	1.4				
				72	3.2				
		48	0.1	73	0.2				
		49	5.0	74	0.2				
		50	3.6	75	0.3				
		51	2.7	76	0.3				
		52	1.6	77	0.3				
		53	1.7	78	0.0				
		54	2.7	Stations 79 - 100 Blank					

Total 56.5



MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 430
 DATE: 20 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 8 AIRSPEED: 130
 SAMPLE LINE: C ALTITUDE: 150
 TIME OF RELEASE: 0629 Hours AIRCRAFT COURSE: 360
 DURATION: 14 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 14	Blank	26	0.2				
		27	0.3				
		28	0.5				
		29	0.4				
		30	1.3				
		31	1.1				
		32	1.5				
		33	1.5				
		34	1.5				
		35	1.7				
		36	3.3				
		37	3.1				
		38	2.1				
		39	2.5				
15	0.5	40	2.7				
16	0.1	41	4.3				
17	0.1	42	4.9				
18	0.2	43	6.7				
19	0.5	44	4.6				
20	0.4	45	3.6				
21	0.4	46	2.8				
22	0.4	47	1.4				
23	0.5	48	1.6				
24	0.2	49	0.3				
25	0.3	Stations 50 - 100	Blank				

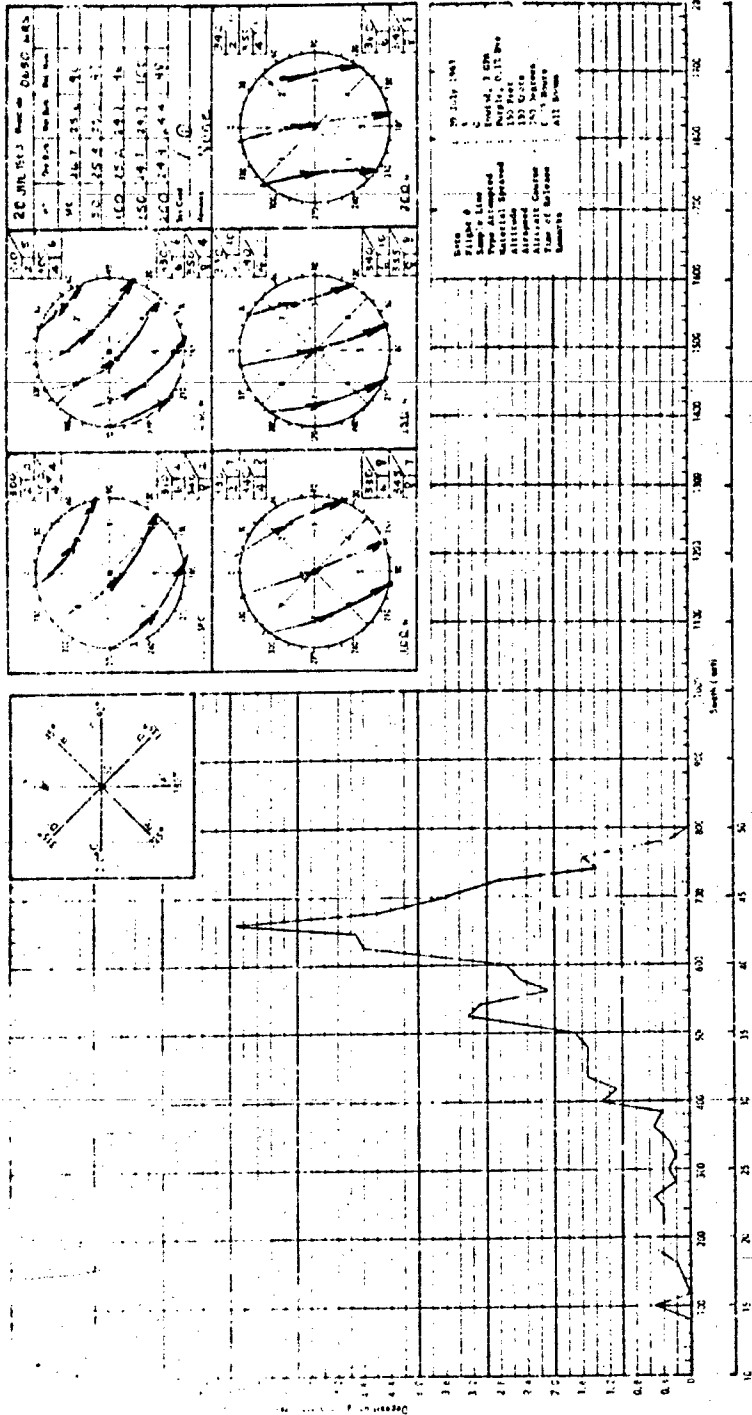
Total 56.5

MASS DEPOSIT

MATERIAL: Purple FLOW RATE: 430 GPM
 DATE: 20 July 1963 SYSTEM: C-123/MC-1
 FLIGHT #: 8 AIRSPEED: 130 Knots
 SAMPLE LINE: C ALTITUDE: 150 Feet
 TIME OF RELEASE: 0629 Hours AIRCRAFT COURSE: 360 Degrees
 DURATION: 14 Sec.

STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.	STATION	G.P.A.
Stations 1 - 14	Blank	26	0.2				
		27	0.3				
		28	0.5				
		29	0.4				
		30	1.3				
		31	1.1				
		32	1.5				
		33	1.5				
		34	1.5				
		35	1.7				
		36	3.3				
		37	3.1				
		38	2.1				
		39	2.5				
15	0.5	40	2.7				
16	0.1	41	4.8				
17	0.1	42	4.9				
18	0.2	43	6.7				
19	0.5	44	4.6				
20	0.4	45	3.6				
21	0.4	46	2.8				
22	0.5	47	1.4				
23	0.5	48	1.6				
24	0.2	49	0.3				
25	0.3	Stations 50 - 100	Blank				

Total 56.5



MASS DEPOS.

FLOW RA. : Purpl
 SYSTEM: C-71/MC-1
 AIRSPEED: 130 Knots
 ALTITUDE: 150 Feet
 AIRCRAFT COURSE: 000 Degrees
 DURATION: Sec

FLOW RA. : 465 CPM
 SYSTEM: C-71/MC-1
 AIRSPEED: 130 Knots
 ALTITUDE: 150 Feet
 AIRCRAFT COURSE: 270 Degrees

STATION	G.P.A.	STATION	G.P.A.
1	Blank	26	1.3
2		27	0.7
3	0.3	28	0.5
4	1.9	29	0.7
5	2.7	30	0.6
6	0.0	31	0.3
7	5.2	32	0.3
8	4.7	33	0.9
9	3.0	34	0.5
10	2.1	35	0.2
11	3.2	36	0.5
12	1.5	37	0.5
13	5.2	38	0.6
14	2.4	39	1.6
15		40	1.1
16	1.3	41	1.5
17	1.7	42	1.6
18	1.3	43	1.3
19	1.1	44	1.1
20	1.9	45	0.7
21	0.7	46	0.5
22	0.6	47	0.3
23	1.3	48	0.3
24	1.3	49	0.3
25	1.3	50	0.6

STATION	G.P.A.	STATION	G.P.A.
51	0.3		
52	1.1		
53	0.2		
54	0.2		
Stations 55 - 100 Blank			

Total 72.5

