

U.S. DEPT. OF COMMERCE  
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
 CLIMATE MONITORING AND DIAGNOSTICS LABORATORY  
**DIGITAL OZONESONDE CHECKLIST**

FLT# VU013

June 2004

RICE UNIV. (0.5% buffered)

**INITIAL PREPARATION 3-7 DAYS BEFORE FLIGHT.**

DATE (LOCAL): May 1<sup>st</sup> 2006  
 INITIALS: SH DP  
 PUMP NUMBER: 225609A  
*(see serial record)*

1. Run zero air 3 minutes ✓(v)
2. PUMP CURRENT: 89  $\mu$ A
3. PUMP PRESSURE: 16 psi

4. PUMP VAC : 23 mmHg
5. 30 MINUTES HI O<sub>3</sub> ✓(v)
6. 5 MINUTES NO O<sub>3</sub> ✓(v)

- |   |  |
|---|--|
| 7. ADD 3.0 CC FRESH CATHODE: ✓(v)   | 14. Run sonde for 10 minutes on NO O <sub>3</sub> AIR ✓(v) |
| 8. WAIT 2 Minutes : ✓(v)  | 15. Short the cell leads: ✓(v)                             |
| 9. ADD 1.5 CC ANODE SOLUTION: ✓(v)  | 16. Add about 2 to 2.5 CC more Cathode Solution ✓(v)       |
| 10. RUN 10 MINUTES on NO O <sub>3</sub> ✓(v)  | 17. Place Instrument inside plastic bag: ✓(v)              |
| 11. RECORD CURRENT: = <u>0.19</u> $\mu$ amps  | 18. Store inside Styrofoam flight box: ✓(v)                |
| 12. RUN 10 MINUTES on 5 $\mu$ amps O <sub>3</sub> (v) - then switch to NO O <sub>3</sub> AIR. |  |
| 13. RECORD: TIME TO DROP FROM 4 TO 1.5 $\mu$ amps: <u>40.78</u> sec.                          |  |

**FLIGHT PREPARATION IN LAB.**

DATE (LOCAL): 5/8/06  
 INITIALS: AT  
 Cathode solution # or date written on bottle: 1-25-06  
 CHANGE CATHODE SOLUTION (3cc): ✓(v)  
 CHANGE ANODE SOLUTION (1.5cc): ✓(v) (Yes/No)  
 RUN ON NO O<sub>3</sub> FOR 5 MINUTES: ✓(v)  
 RECORD THE NO O<sub>3</sub> BACKGRND#1: BG1=0.01  $\mu$ amps  
 RUN ON 5 microamps of O<sub>3</sub> for 5 Minutes: ✓(v)

**T100 FLOWRATE TIMES:**

FLOWRATE #1: 27.78 sec  
 FLOWRATE #2: 27.72  
 FLOWRATE #3: 27.75  
 FLOWRATE #4: 27.78  
 FLOWRATE #5: 27.87

**DRY T100**

#1: \_\_\_\_\_  
 #2: \_\_\_\_\_  
 #3: \_\_\_\_\_  
 DRY AVG: \_\_\_\_\_

**WET T100**

#1: \_\_\_\_\_  
 #2: \_\_\_\_\_  
 #3: \_\_\_\_\_  
 WET AVG: \_\_\_\_\_

AVERAGE T100: 27.78

**RESONSE TIME**

SWITCH TO NO O<sub>3</sub> AIR.

RECORD: THE TIME TO DROP FROM 4 TO 1.5  $\mu$ amps: 25.67 sec.

\*T100 Flowrate correction. \_\_\_\_\_ %

RECORD: ROOM TEMP (C) 21.8 ROOM REL. HUMID. (%) 32

RECORD: 5 - T100 FLOWRATE TIMES:

SONDE= \_\_\_\_\_ ppbv @ CALIB= \_\_\_\_\_

**DAY OF FLIGHT @ THE LAUNCH SITE.**

FLIGHT NUMBER: VU013  
 GMT DATE (YYMMDD): 060508  
 GMT LAUNCH TIME: 19:57:38

LOCAL DATE: May 8<sup>th</sup> 2006  
 LOCAL TIME: 1:58 pm

BALLOON TYPE 800 Gram : Kaymont ✓ Scientific Sales \_\_\_\_\_ (v one)

O<sub>3</sub> BACKGROUND ( $\mu$ amps or HEX value in Y channel): 0.024

VAISALA NUMBER (9 digit): 635108806  
 SURFACE PRESSURE: 988  
 SURFACE TEMP. (C): 25.3  
 SURFACE HUMIDITY : 28

SKY CONDITIONS: high cirrus, Sunny  
 ~ BURST PRESSURE (mb) : 12.225

REMARKS: Dave, Stephen  
Landing lat lon → 41.48 / 86.12

Ventilation Holes: \_\_\_\_\_

weighoff = 2160 grams

\*T100 flow corr (%) = [(WET/DRY)-1.0] X 100

740F-32=  
59 42

42.5  
1.1  
41.4

23  
9/210  
18/20