

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

FLT# VU010

June 2004

RICE UNIV. (0.5% buffered)

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

- |  |  |   |
|--|--|---|
| DATE (LOCAL): <u>April 24<sup>th</sup>, 2006</u> | 1. Run zero air 10 minutes <input checked="" type="checkbox"/> (v) | 4. PUMP VAC <u>23 min</u>   |
| INITIALS: <u>SH</u>                              | 2. PUMP CURRENT: <u>6 mA</u>                                       | 5. 30 MINUTES HI O <sub>3</sub> <input checked="" type="checkbox"/> (v) |
| PUMP NUMBER: <u>225633-6PS</u>                   | 3. PUMP PRESSURE: <u>16 psi</u>                                    | 6. 5 MINUTES NO O <sub>3</sub> <input checked="" type="checkbox"/> (v)  |
- 
- |   |   |
|---|---|
| 7. ADD 3.0 CC FRESH CATHODE: <input checked="" type="checkbox"/> (v)  | 14. Run sonde for 10 minutes on NO O <sub>3</sub> AIR <input checked="" type="checkbox"/> (v) |
| 8. WAIT 2 Minutes: <input checked="" type="checkbox"/> (v)  | 15. Short the cell leads: <input checked="" type="checkbox"/> (v)                             |
| 9. ADD 1.5 CC ANODE SOLUTION: <input checked="" type="checkbox"/> (v)   | 16. Add about 2 to 2.5 CC more Cathode Solution <input checked="" type="checkbox"/> (v)       |
| 10. RUN 10 MINUTES on NO O <sub>3</sub> : <input checked="" type="checkbox"/> (v)   | 17. Place Instrument inside plastic bag: <input checked="" type="checkbox"/> (v)              |
| 11. RECORD CURRENT: = <u>0.60</u> $\mu$ amps  | 18. Store inside Styrofoam flight box: <input checked="" type="checkbox"/> (v)                |
| 12. RUN 10 MINUTES on 5 $\mu$ amps O <sub>3</sub> <input checked="" type="checkbox"/> (v) - then switch to NO O <sub>3</sub> AIR. |   |
| 13. RECORD: TIME TO DROP FROM 4 TO 1.5 $\mu$ amps: <u>54.56</u> sec.  |   |

**FLIGHT PREPARATION IN LAB.**

- DATE (LOCAL): May 2<sup>nd</sup>, 2006  
 INITIALS: SH  
 Cathode solution # or date written on bottle: Jan 25, 2006  
 CHANGE CATHODE SOLUTION (3cc):  (v)  
 CHANGE ANODE SOLUTION (1.5cc): Yps (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: 27.34 sec  
 FLOWRATE #2: 27.37  
 FLOWRATE #3: 27.40  
 FLOWRATE #4: 27.37  
 FLOWRATE #5: 27.37  
 AVERAGE T100: 27.37

**DRY T100**

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

**WET T100**

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

RESONSE TIME

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

RECORD: THE TIME TO DROP FROM 4 TO 1.5  $\mu$ amps: 20.22 sec.

\*T100 Flowrate correction: \_\_\_\_\_ %

RECORD: ROOM TEMP (C) 28.5 ROOM REL. HUMID. (%) 35

RECORD: 5 - T100 FLOWRATE TIMES:

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

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

FLIGHT NUMBER: VU010  
 GMT DATE (YYMMDD): 060502  
 GMT LAUNCH TIME: 19:05:59

LOCAL DATE: 5/2/06  
 LOCAL TIME: 2:06 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 uA

VAISALA NUMBER (9 digit): 635109211  
 SURFACE PRESSURE: 987  
 SURFACE TEMP. (C): 18.8  
 SURFACE HUMIDITY: 62

SKY CONDITIONS: broken

~ BURST PRESSURE (mb): 12.634

REMARKS: MY 348-352

41.1587° N 29.45 km  
86.1396° W total ozone 337

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

weighoff = 2400 grams

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