

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

FLT# VU003

June 2004

RICE UNIV. (0.5% buffered)

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

- DATE (LOCAL): April 18th 2006  
 INITIALS: SH  
 PUMP NUMBER: 22829-GPS
- |  |   |
|--|---|
| 1. Run zero air 10 minutes <input checked="" type="checkbox"/> (v) | 4. PUMP VAC : <u>27.5 mmHg</u>  |
| 2. PUMP CURRENT: <u>88 mA</u>                                      | 5. 30 MINUTES HI O <sub>3</sub> <input checked="" type="checkbox"/> (v) |
| 3. PUMP PRESSURE: <u>14.5 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>0.6</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>54.09</u> sec.  |   |

**FLIGHT PREPARATION IN LAB.**

- DATE (LOCAL): 4-21-06  
 INITIALS: MT  
 Cathode solution # or date written on bottle: 1-25-06  
 CHANGE CATHODE SOLUTION (3cc):  (v)  
 CHANGE ANODE SOLUTION (1.5cc):  (Yes/No)  
 RUN ON NO O<sub>3</sub> FOR 5 MINUTES:  (v)  
 RECORD THE NO O<sub>3</sub> BACKGRND#1: BGI=0.01  $\mu$ amps  
 RUN ON 5 microamps of O<sub>3</sub> for 5 Minutes:  (v)
- DRY T100**  
 #1: \_\_\_\_\_  
 #2: \_\_\_\_\_  
 #3: \_\_\_\_\_  
 DRY AVG: \_\_\_\_\_
- WET T100**  
 #1: \_\_\_\_\_  
 #2: \_\_\_\_\_  
 #3: \_\_\_\_\_  
 WET AVG: \_\_\_\_\_
- T100 FLOWRATE TIMES:**  
 FLOWRATE #1: 28.12 sec  
 FLOWRATE #2: 26.25  
 FLOWRATE #3: 29.22  
 FLOWRATE #4: 29.12  
 FLOWRATE #5: 29.12  
**AVERAGE T100:** 28.37

**RESONSE TIME**  
 SWITCH TO NO O<sub>3</sub> AIR.  
**RECORD:** THE TIME TO DROP FROM 4 TO 1.5  $\mu$ amps: 32.72 sec.  
**RECORD:** ROOM TEMP (C) 21.3 ROOM REL. HUMID. (%) 33  
**RECORD:** 5 - T100 FLOWRATE TIMES:  
 \*T100 Flowrate correction. \_\_\_\_\_ %  
 SONDE= \_\_\_\_\_ ppbv @ CALIB= \_\_\_\_\_

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

FLIGHT NUMBER: VU003  
 GMT DATE (YYMMDD): 060424 LOCAL DATE: 4/21/06  
 GMT LAUNCH TIME: 1901 LOCAL TIME: 2:01 pm

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

O<sub>3</sub> BACKGROUND ( $\mu$ amps or HEX value in Y channel): 0.03

VAISALA NUMBER (9 digit): 635402909 SKY CONDITIONS: high thin clouds  
 SURFACE PRESSURE: 987 mostly clear  
 SURFACE TEMP. (C): 21.8  
 SURFACE HUMIDITY: 33 ~ BURST PRESSURE (mb): 10 hPa

REMARKS: 101,000 feet burst (30.87 km)  
Landing: 42.5561, -85.2202 @ 7 hPa. fast known: 42.1387, 85.8381  
 weighoff = 1900 grams Ventilation Holes: \_\_\_\_\_  
 \*T100 flow corr (%) = [(WET/DRY)-1.0] X 100