

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

FLT# VU005

June 2004

RICE UNIV. (0.5% buffered)

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

- DATE (LOCAL): April 21<sup>st</sup> 2006  
 INITIALS: SH  
 PUMP NUMBER: 025636-GPS
- |  |   |
|--|---|
| 1. Run zero air 10 minutes <input checked="" type="checkbox"/> (v) | 4. PUMP VAC: <u>22 mm Hg</u>  |
| 2. PUMP CURRENT: <u>84 <math>\mu</math>A</u>                       | 5. 30 MINUTES HI O <sub>3</sub> <input checked="" type="checkbox"/> (v) |
| 3. PUMP PRESSURE: <u>12 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>1:06</u> sec.   |   |

**FLIGHT PREPARATION IN LAB.**

DATE (LOCAL): 4/24/06  
 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)

**T100 FLOWRATE TIMES:**

FLOWRATE #1: 28.69 sec

FLOWRATE #2: 28.69

FLOWRATE #3: 28.72

FLOWRATE #4: 28.67

FLOWRATE #5: 28.63

**AVERAGE T100:** 28.68

**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: 20.56 sec.

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

RECORD: ROOM TEMP (C) 22.1 ROOM REL. HUMID. (%) 35%

RECORD: 5 - T100 FLOWRATE TIMES:

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

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

FLIGHT NUMBER: VU005

GMT DATE (YYMMDD): 060424

LOCAL DATE: 4/27/06

GMT LAUNCH TIME: 13:58:05

LOCAL TIME: 1:58 pm

BALLOON TYPE 900 Gram: Kaymont  Scientific Sales \_\_\_\_\_ (v one)

O<sub>3</sub> BACKGROUND ( $\mu$ amps or HEX value in Y channel): 0.022

VAISALA NUMBER (9 digit): 635402914

SKY CONDITIONS: mostly clear, high cirrus

SURFACE PRESSURE: 985

SURFACE TEMP. (C): 21.2

SURFACE HUMIDITY: 74

~ BURST PRESSURE (mb): \_\_\_\_\_ burst time ~ 3:25 pm  
28.81 km

REMARKS: Ashley Steve Dave  
332-334 DU M. ...

At 2.87 kft, landing: 41.0284°N  
85.9953°W

weighoff = 2200 grams

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

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