

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

FLT# VU009

June 2004

RICE UNIV. (0.5% buffered)

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

DATE (LOCAL): 4-26-06  
 INITIALS: MT  
 PUMP NUMBER: 22563 2-6PS

1. Run zero air 10 minutes  (v)  
 2. PUMP CURRENT: 25  
 3. PUMP PRESSURE: 15

4. PUMP VAC : 20  
 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)  
 8. WAIT 2 Minutes :  (v)  
 9. ADD 1.5 CC ANODE SOLUTION:  (v)  
 10. RUN 10 MINUTES on NO O<sub>3</sub>  (v)  
 11. RECORD CURRENT: = ~~0.0~~ 0.57  $\mu$ amps  
 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: 54.00 sec.

14. Run sonde for 10 minutes on NO O<sub>3</sub> AIR  (v)  
 15. Short the cell leads:  (v)  
 16. Add about 2 to 2.5 CC more Cathode Solution  (v)  
 17. Place Instrument inside plastic bag:  (v)  
 18. Store inside Styrofoam flight box:  (v)

**FLIGHT PREPARATION IN LAB.**

DATE (LOCAL): 5-1-06  
 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: BG1=0.01  $\mu$ amps  
 RUN ON 5 microamps of O<sub>3</sub> for 5 Minutes:  (v)

T100 FLOWRATE TIMES:

FLOWRATE #1: 28.03 sec  
 FLOWRATE #2: 28.03  
 FLOWRATE #3: 28.07  
 FLOWRATE #4: 28.06  
 FLOWRATE #5: 28.00

AVERAGE T100: 28.04

**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: 22.10 sec.

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

RECORD: ROOM TEMP (C) 23.8 ROOM REL. HUMID. (%) 41

RECORD: 5 - T100 FLOWRATE TIMES:

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

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

FLIGHT NUMBER: VU009  
 GMT DATE (YYMMDD): 060501  
 GMT LAUNCH TIME: 20 34:30

LOCAL DATE: 5/1/06  
 LOCAL TIME: 3:34:30 pm

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

O<sub>3</sub> BACKGROUND ( $\mu$ amps or HEX value in Y channel): 0.020

VAISALA NUMBER (9 digit): 634537615

SKY CONDITIONS: overcast

SURFACE PRESSURE: 992

SURFACE TEMP. (C): 16.7

SURFACE HUMIDITY : 62

~ BURST PRESSURE (mb) : 11

REMARKS: under use with 1200 station  
delivered by FAA for air traffic in Chicago  
Steve, Dave, Ashley  
 weighoff = 2100 grams

41.6520°N  
86.3840°W

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

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