U.S. DEPT. OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
CLIMATE MONITORING AND DIAGNOSTICS LABORATORY

June 2004

DIGITAL OZONESONDE CHECKLIST

FLT # RC018

INITIAL PREPARATION 3-7 DAYS BEFORE FLIGHT.

DATE (LOCAL): 7/24/04
INITIALS: SH
PUMP NUMBER: 22440

1. Run zero air 10 minutes ✓ (√)
2. PUMP CURRENT: 80
3. PUMP PRESSURE: 12
4. PUMP VAC : 25
5. 30 MINUTES HI O_3 ✓ (√)
6. 5-10 MINUTES NO O_3 ✓ (√)

7. ADD 3.0 CC FRESH CATHODE: ✓ (√)
8. WAIT 2 Minutes : ✓ (√)
9. ADD 1.5 CC ANODE SOLUTION: ✓ (√)
10. RUN 10 MINUTES on NO O_3 ✓ (√)
11. RECORD CURRENT: = 0.32 µamps (20 min)
12. RUN 10 MINUTES on 5 µamps O_3 ✓ (√) - then switch to NO O_3 AIR.
13. **RECORD:** TIME TO DROP FROM 4 TO 1.5 µamps: 60.3 sec.
14. Run sonde for 10 minutes on NO O_3 AIR ✓ (√)
15. Short the cell leads: ✓ (√)
16. Add about 2 to 2.5 CC more Cathode Solution ✓ (√)
17. Place Instrument inside plastic bag: ✓ (√)
18. Store inside Styrofoam flight box: ✓ (√)

FLIGHT PREPARATION IN LAB.

DATE (LOCAL): 7/30/04
INITIALS: SH
Cathode solution # or date written on bottle: 6/14
CHANGE CATHODE SOLUTION (3cc): ✓ (√)
CHANGE ANODE SOLUTION (1.5cc): ✓ (Yes/No)
RUN ON NO O_3 FOR 5 MINUTES: ✓ (√)
RECORD THE NO O_3 BACKGRND#1: BG1= 0.02 µamps
RUN ON 5 microamps of O_3 for 5 Minutes: ✓ (√)

T100 FLOWRATE TIMES:
FLOWRATE #1: 28.60 sec
FLOWRATE #2: 28.62
FLOWRATE #3: 28.62
FLOWRATE #4: 28.64
FLOWRATE #5 28.60
AVERAGE T100: 28.62

DRY T100
#1:
#2:
#3:
DRY AVG:

WET T100
#1:
#2:
#3:
WET AVG:

RESONSE TIME
SWITCH TO NO O_3 AIR.
RECORD: THE TIME TO DROP FROM 4 TO 1.5 µamps: 23.13 sec.
RECORD: ROOM TEMP (C) 21 ROOM REL. HUMID. (%) 44
RECORD: 5 - T100 FLOWRATE TIMES:

***T100 Flowrate correction:** %

SONDE= ppbv **@ CALIB=**

DAY OF FLIGHT @ THE LAUNCH SITE.

FLIGHT NUMBER: RC 018
GMT DATE (YYMMDD): 30 July 2004 LOCAL DATE: 04 07 30
GMT LAUNCH TIME : 18:25 LOCAL TIME: 13:25

2:09
38.00

BALLOON TYPE 350 **Gram :** Kaymont ✓ Scientific Sales (√ one)

O_3 BACKGROUND (µamps or HEX value in Y channel): 0.01

VAISALA NUMBER (9 digit): 17885943
SURFACE PRESSURE: 1017
SURFACE TEMP. (C): 31.4
SURFACE HUMIDITY : 62

SKY CONDITIONS: clear - partly cloudy after morning showers

~ BURST PRESSURE (mb) : 30 mb

1:30 79,000

REMARKS:

Ventilation Holes:

weighoff = 4906 grams initial rise rate 1100 ft/min
878 ft/min ave rise rate

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