

July 2, 2014

DIGITAL OZONESONDE CHECKLIST

INITIAL PREPARATION 10-14 DAYS BEFORE FLIGHT.

- DATE (LOCAL): 11/2016
INITIALS: NL
PUMP#: 2229144
1. Run zero air 10 minutes ✓ (✓)
 2. PUMP CURRENT: 102.99 (mA)
 3. PUMP PRESSURE: 211 (psi)
 4. DMT Press/vac: 30/20 (in Hg)
 5. Bypass cell ✓ (✓)
 6. Add 5-6cc cathode ✓ (✓)
 7. 30 MINUTES HI O₃ ✓ (✓)
 8. 3 MINUTES NO O₃ ✓ (✓)
 9. DUMP CATHODE RINSE: ✓ (✓)
 10. ADD 3.0 CC FRESH CATHODE # 261
 11. ADD 1.5 CC ANODE SOLUTION: ✓ (✓)
 12. RUN 10 MINUTES on NO O₃ ✓ (✓)
 13. RECORD CURRENT BEFORE O₃: BG = 1.077 μA
 14. RUN 10 MINS on 5 μA O₃ ✓ (✓) - then switch to NO O₃ AIR.
 15. RECORD: TIME TO DROP FROM 4 TO 1.5 μA: 14.01 sec.
 16. Run sonde for 10 mins on NO O₃ ✓ (✓)
 17. RECORD CURRENT: BG = 240 μA
 18. Short the cell leads: ✓ (✓)
 19. Intake tube stored in sonde frame: ✓ (✓)
 20. Place Sonde inside plastic bag: ✓ (✓)
 21. Store inside Styrofoam flight box: ✓ (✓)

- ✓ AFTER 1 WEEK: REPLACE SOLUTIONS: DATE (LOCAL): 1/8/2016
1. RUN 5 MINS on NO O₃ ✓ (✓)
 2. RECORD CURRENT: 1.07 μamps
 3. RUN 5 MINS on 5 μamps O₃ ✓ (✓) - then switch to NO O₃ AIR
 4. RECORD TIME TO DROP FROM 4 TO 1.5 μamps: 24.94 sec
 5. Short cell leads and Store in Styrofoam flight box: ✓ (✓)

FLIGHT PREPARATION IN LAB.

- DATE (LOCAL): 1/16/2016
INITIALS: JL
1. Cathode solution # or date written on bottle: 261
 2. CHANGE CATHODE SOLUTION (3cc): ✓ (✓)
 3. CHANGE ANODE SOLUTION (1.5cc): ✓ (Yes/No)
 4. RUN ON NO O₃ FOR 10 MINUTES: ✓ (✓)
 5. RECORD THE NO O₃ BACKGRND#1: BG1 = 0.054 μamps
 6. RUN ON 5 microamps of O₃ for 10 Minutes: ✓ (✓)
 7. SWITCH TO NO O₃ AIR
 8. RECORD: DECAY TIME TO DROP FROM 4 TO 1.5 μamps: 27.45 sec
 9. RECORD: 5 - T100 FLOWRATE TIMES:
- T100 FLOWRATE TIMES:
- ROOM TEMP (C): 20.0, ROOM RH (%): 27
- Flowrate Correction: 2.04 (%)
- FLOWRATE #1: 29.78 sec
FLOWRATE #2: 29.63 sec
FLOWRATE #3: 29.69 sec
FLOWRATE #4: 29.75 sec
FLOWRATE #5: 29.71 sec
- AVERAGE T100: 29.712 sec
- | | | | | |
|------------|--------------|--------------|--------------|-------------------|
| | <u>28.27</u> | <u>28.48</u> | <u>28.53</u> | <u>avg 28.426</u> |
| <u>dry</u> | | | | |
| <u>wet</u> | <u>29.09</u> | <u>28.94</u> | <u>28.99</u> | <u>avg 29.006</u> |

DAY OF FLIGHT @ THE LAUNCH SITE.

- FLIGHT NUMBER: HU951
GMT DATE (YYMMDD): 16/01/16 LOCAL DATE: 16/01/16
GMT LAUNCH TIME: _____ LOCAL TIME: 13:49 pm
Operator Initials: JL
- BALLOON SIZE: 1200 Grams: _____ TOTEX _____ Hwoyee _____ PAWAN _____ (✓ one)
PAY-OFF-WEIGHT: _____ Grams: _____ Burst Alt: _____ (km) Turn/Burst: _____
- O₃ sn: _____ O₃ CELL BACKGROUND (μamps): _____ O₃ Ventilation Holes: _____
O₃ Flowrate: _____ (sec) O₃ Flowrate Correction: _____ (%)
Radiosonde sn: _____ Freq: _____ (MHz)
NOAA FPH sn: _____ (if using Frost Point Hygrometer.)
SURFACE PRES: _____ (hPa)
SURFACE TEMP: _____ (C)
SURFACE RH: _____ (%)
Sky Conditions: _____

REMARKS: Radiosonde altitude went negative after change to radiosonde with a new one. it stabilized before launch but went abnormal minutes after launch. Both the radiosonde and ADC altitude skip back to 0 and then we lost the ozonesonde signal eventually.