

Appendix 1

6th sense

ASR Pre Launch Form

This form must be turned in at time of tethered launch (get as much done as possible) and also 2 days prior to space launch (all must be completed although can still space launch if some of the non FAA required parts of this document are not working).

-Include all data and graphs as appendices with this cover sheet. There must be evidence included for the statements below.

1. Experiment and data taking is proven to work down to Temperature of 0° C
2. Experiment and data taking is proven to work down to Pressure of 1.08 kPa
3. During launch, expected lows for
Temperature -50 C
and low Pressure 1.08 kPa
4. Weight of Payload 1.35 kg ~~16~~
5. Meets density requirement of FAA
X yes no
6. Line from parachute to payload breaks under 50 lb. of force
 yes X no
7. Cut down mechanism has been proven to work at set trigger
X yes no

Explain how triggered

- 1.5 h elapsed
- temp under -10°C

- pressure under 1.08 kPa } met 10 times

Explain Redundancy requirements

all criteria had
to be met 10 times

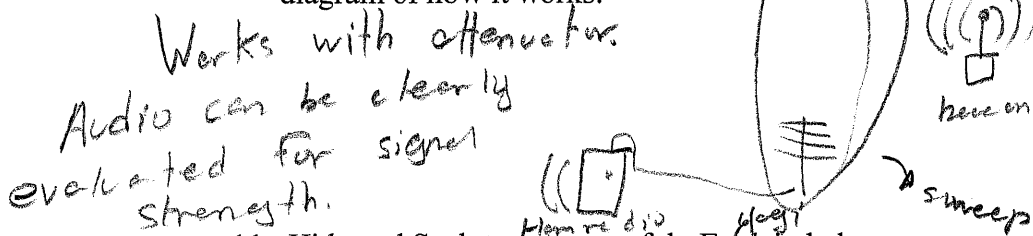
8. Shaker Table Test has been performed with payload (include several graphs of your data while undergoing shaking at different frequencies).

Payload was manually shaken

9. GPS Tracking has been proven to work. GPS data is recorded to a disc (either same as rest of data or a separate one. Explain below.

both PicoAPRS and Venus GPS transmit → Pico APRS uploaded to APRS-IS
→ Venus GPS recorded to SD and base station

10. Fox Hunting method with Ham Radio and Antennae proven to work. Draw diagram of how it works.



11. Hide and Seek test, successful. Explain below

Multiple tests at school and in downtown Palo Alto were run until the team managed to consistently find the payload.

12. Range of communication has been tested to

Line of sight = _____ m Obstructed view = _____ m
not tested
no range with whip

13. Backup tracking system* has been proven to work. Comment below

Venus GPS → Digiteq 9XTend → base station transceivers

14. Cut down mechanism has been proven to work upon given a signal

X yes _____ no

works w/ preprogrammed signal

FAA requirements regarding payload:

- (i) Carries a payload package that weighs more than four pounds and has a weight/size ratio of more than three ounces per square inch on any surface of the package, determined by dividing the total weight in ounces of the payload package by the area in square inches of its smallest surface;
- (ii) Carries a payload package that weighs more than six pounds;
- (iii) Carries a payload, of two or more packages, that weighs more than 12 pounds; or
- (iv) Uses a rope or other device for suspension of the payload that requires an impact force of more than 50 pounds to separate the suspended payload from the balloon.