



## EOSS Meeting Minutes Tuesday October 13, 2020 Online via Zoom

**Call to Order:** Tom KE7KCK called the meeting to order at 7:00 PM. There were sixteen attending via Zoom.

**Previous Meeting Minutes:** Meeting minutes for September 2020 are available on the EOSS web site for review. Tom KE7KCK asked if anyone had comments or corrections. September's minutes is accepted as written.

**Treasurer's reports:** Treasurer's report will be tabled until next month's meeting

**Tech Committee:** Mark KCØD said that the release with KCØD-14 worked well. Bernadette KEØGKI's students have resolved the power problem in the ADS-B and it is working well. KCØD-3 with release Charlie is working but still has an issue with Barometer and temp reporting. AEØSS-12 worked well but its enclosure was damaged when it got hung-up in a barbwire fence. Steve KØSCC will repair the enclosure and it will be ready before next flight. Mark KCØD said he has most of the parts to begin building a new fleet of five tops based on latest hardware design used in KCØD-3. The new tops can easily be swapped out in the event of a failure by reprogramming the call sign. Steve KØSCC said that when the new tops are qualified, they will dismantle any old tops with Alinco radios to build a fleet of bottoms with unified hardware using Tiny Track 4's. The bottoms will not be call sign agile. Steve KØSCC said the new fleet of tops and bottoms should be ready within 6 to 12 months.

**Ground Station:** Jeff N2XGL said that the Deer Trail launch location is working very well. Jeff added that it is important to verify ADS-B and beacons before launch because sometimes they receive an incorrectly formatted call sign. Jeff N2XGL said that it not a problem keeping both DMR and analog radios at the ground station. Jeff N2XGL and Jeff N6BA are working on a solution for connecting iPhones in tether mode to the brick for internet. We are also working on having a patch ready for the brick before the October 31<sup>st</sup> flight.

**Track and Recovery:** Marty WAØGEH said he has some high visibility vests in his vehicle that can be worn by recovery teams in high traffic areas to improve safety. Marty WAØGEH mentioned that that they had problems seeing balloons on the brick. John KCØL suggested clearing the browser cache. Marty would like to welcome Larry NØNDM back as a tracker.

**Launch Team:** Larry NØNDM said he has inventoried balloons and has many 100-gram, one 600-gram, nine 1500-gram, and four 3000-gram balloons. Based on the current flights on the schedule Larry NØNDM plans on placing an order for five 1500-gram and eight 3000-gram balloons in February. Dave KDØSEM has manufactured several nozzles for the 3000-gram balloons. Larry NØNDM said that he needs to buy hose clamps for new nozzles. Steve KØSCC said that a nozzle for a 3000-gram balloon was recovered on the last flight and will turn it over to Larry NØNDM at the next launch.

FAA: Russ KBØTVJ called Michelle to ask for any info she had for EOSS. She said that she never hears of any complaints about the way we operate. She also passed on that she will be retiring in December. Russ said that twelve years ago Michelle had a daughter and EOSS flew a doll to the edge of space and asked if anyone knew what became of the doll. Steve KØSCC said he would look through a collection of stuff passed on to him by Nick NØLP. Larry NØNDM suggested that we invite Michelle and her daughter to come to a flight where we can fly a new doll to the edge of space, and they can be there for the launch and recovery. Steve KØSCC added that we present Michelle with a plaque of appreciation.

**Tracking Bricks:** Jeff N6BA said we had a few issues on the last flight, the first is with the landing predictor. Our maps do not give us a Z dimension that we can use to estimate the elevation at the predicted landing site to help figure out how long the flight would be exposed to surface winds. The second issue experienced by a few users is where you do not see prior balloon history or the balloon icon. Pending data from Marty WAØGEH, Jeff believes this is a browser cache issue. Third is unique to those using a Microsoft Surface tablet where finger gestures are not input into the map app correctly. Jeff N6BA is working with John KØJWB to resolve the problem.

EOSS-302 Recap: Jim KCØRPS said that EOSS-302 was very successful reaching over 111,000 feet. Many observers were confused to see an exempt flight under a 3000-gram balloon. The exemption is based on payloads not exceeding 12 lbs. The larger balloon was used to reach a higher altitude than could be obtained by a 1500-gram balloon. Jim said the client was pleased with the flight and students enjoyed the kiosk. Jim KCØRPS said that the client requested another flight for March 20<sup>th</sup>, 2021.

**Upcoming flights:** Tom KE7KCK said we have a flight for Metro State coming up on October 31st and a flight the following weekend for Space Grant on November 7<sup>th</sup>. Jim KCØRPS added that Chris KDØNRY has come up with a program called BUFFS Building Upon First-hand Fundamental Skills. Individual students are sent a package with components for building a payload. Jim KCØRPS said we could potentially see eighteen 182-gram payloads on a flight string. Jim KCØRPS rounded out flight schedule with a qualification flight in February if needed. A flight for NDIA on March 20<sup>th</sup>. April will be difficult with COSGC possibly on April 3<sup>rd</sup>, Metro State's Intro to Space on the 10<sup>th</sup>, and a combination of Eaton middle school and Gateway to Space on the 17<sup>th</sup>.

Meeting adjourned at 08:00 PM

Minutes prepared by David Lanning, Secretary.