

“News & Views”

Your Taylorsville HAMnet newsletter

This is your newsletter. We encourage YOU to submit information that will be of benefit to our group members.



Going to New Heights!



An adventure in Amateur Radio and Balloons

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“Looners” project

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Published by Taylorsville HAMnet

Rulon Swensen, Chief culprit

Disclaimer: The Taylorsville HAMnet does not endorse or recommend any specific product for use in amateur radio communication. We provide these articles as a source of information and encourage you to do independent research to determine what will work best for your situation.

The Arizona High-Altitude “Looners” and their 2014 adventure in

The Global Space Balloon Challenge (GSBC) (Mission AZHAL-1)

(Following are excerpts from the website article)

See the website article @

<http://surlee.com/forum/topic/hab-balloon-mission-azhal-1-a-bit-late-but-hits-93000-ft/>

AZHAL-1 was our 4th mission, and after a few hours of launch delay, was finally a successful flight for the weekend of 100+ world-wide launches for the **Global Space Balloon Challenge (GSBC)** (<http://www.balloonchallenge.org/>). We were shooting for 100,000 feet, but given the launch problem we had, we were happy to have made it up at all, let alone making 93k.

We have a new team for this mission: Arizona High-Altitude ‘Looners (AZHAL), six kids ranging from age 10 to 16, and four dads, three (soon to be four) of whom are hams. So yeah, we plan a lot of radio stuff on



this flight.

On our last mission (LE-3) we forged a partnership with **Byonics** (<http://byonics.com/>), who loaned us the tracking and RDF transmitters. That partnership continues on AZHAL-1, with Byonics providing two APRS tracking transmitters, two beacon transmitters for Radio-Direction-Finding (RDF), and a new crossband repeater, for amateur radio operators to communicate via the balloon while it is in flight. Byon will not only provide RDF capability on the chase team, but he has some new APRS tracking tricks up his sleeve. Should be a fun flight!

AZHAL-1 continued

We got all set to go, planned our launch site (above), called in our NOTAM to the FAA, and went to meet the neighbors to see if they had any concerns with us launching



just south of their house. They were quite nice and stopped over

recently got a port of chdk; we may try that on a future flight for higher-res pics, but we will stick with the old 560 for this flight.

Fundamental to tracking our balloon, and to success of recovery, is **APRS**, the Automatic Position Reporting System (aka Automatic Packet Reporting System). The APRS system uses transmitters on 144.390 MHz to send GPS (Global Positioning System) information to amateur radio ground stations that are located on mountain tops, downtown buildings, and even on houses of hardcore hams.



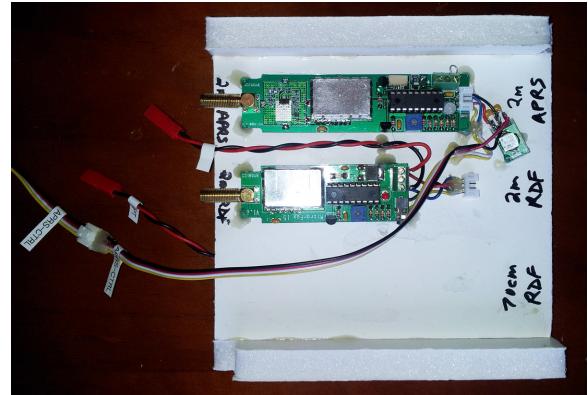
periodically to see how we were doing as we set up internet sites such as <http://aprs.fi/> (and others). Any amateur radio operator can run an APRS transmitter on a car, jeep, bicycle, airplane, or even a balloon.

A balloon flight would be a bummer without some pictures from above. On our last mission we flew **an old Canon A560 camera loaded with CHDK firmware** to snap pics every 5 seconds or so. It is a heavy camera, and only 7Mpix, but was very reliable, so we are flying it again. We now have a newer/lighter A1400 which

The position (latitude/longitude/altitude) of a transmitter can be followed in real-time on internet sites such as <http://aprs.fi/> (and others). Any amateur radio operator can run an APRS transmitter on a car, jeep, bicycle, airplane, or even a balloon.

AZHAL-1 continued

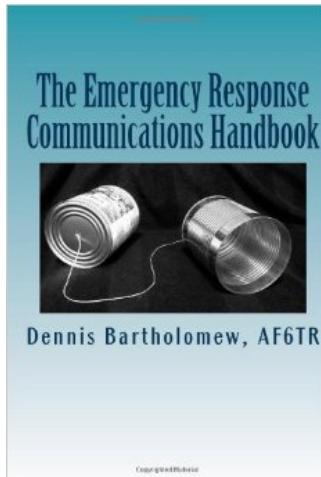
The tracking data from our APRS transmitters was awesome. We were toggling both Byonics transmitters to alternating frequencies, sending at a modest rate to the public 144.390 MHz APRS channel, and also to a quiet 144.920 channel at much-faster rate. Byon was receiving the 144.920 data in his chase car, logging it to his laptop, and also **injecting data into the aprs.fi system by using his cell phone as a wifi hotspot.** We could not have asked for a better tracking setup — thanks Byon!



As we were sitting at a restaurant getting recharged, and watching the balloon's progress on laptops and cell phones, we saw that the balloon popped at a bit over 93,000 ft (we were shooting for 100,000). That, plus the faster-than-expected ascent rate told us that we put more helium in the balloon than planned, but this was a difficult launch in windy ground conditions, so we were guessing on whether our neck-lift weight was indeed levitating. Oh well, 93k is still a pretty good run, especially considering that we were lucky have even made it up that day.

This shows what kids of all ages can do when they are motivated and inquisitive.

Congratulations to the members of AZHAL-1



The Emergency Response Communications Handbook

Published by Dennis A. Bartholomew

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INTRODUCTION

This handbook is designed for those who are interested in emergency communications. It is directed primarily toward members of the Church of Jesus Christ of Latter Day Saints, but many portions apply to anyone interested in emergency communications in general. Those who would benefit most from this book are LDS Church Priesthood leaders such as stake

presidencies, bishoprics and high counselors who are responsible for emergency preparedness and emergency communications, as well as those called or assigned specifically to positions which pertain to emergency preparedness and emergency communications.

For your benefit, its contents are assembled to provide you with all the information which will help you understand how emergency communications operate within the Church. After reading this book, you will have a more complete understanding of how to communicate when other conventional forms of communications are unavailable.

DISCLAIMER

While some quotes will be provided from LDS scriptures and official Church sources, this work is not a publication of the Church of Jesus Christ of Latter-day Saints.

The Author is solely responsible for its content

This is a good read and informative.

Member Spotlight



This month we acknowledge Robert and LaRae Perry.

They are truly a “team” in our organization and have been involved in many of our events and meetings. Thank you for your support.

In our July in person meeting, we will be conducting elections for our organization. Positions to be filled are

President

Vice President

Secretary

Net coordinator

Training coordinator

Event coordinator

Newsletter editor

It is time to “Change the Guard” and let others step up and lead our group. Please come prepared to nominate and or volunteer.

Calendar Events - June 2014

June 2 - Weekly Net, 8:30 p.m. 146.94 repeater
June 9 - Weekly Net, 8:30 p.m. 146.94 repeater
June 16 - Weekly Net, 8:30 p.m. 146.94 repeater
June 23 - Weekly Net, 8:30 p.m. 146.94 repeater
June 28 - In person meeting, Taylorsville Dayzz activity
June 30 - Weekly Net, 8:30 p.m. 146.94 repeater

Calendar Events - July 2014

July 7 - Weekly Net, 8:30 p.m. 146.94 repeater
July 14 - Weekly Net, 8:30 p.m. 146.94 repeater
July 21 - Weekly Net, 8:30 p.m. 146.94 repeater
July 26 - In person meeting, SHOW AND TELL / SWAP MEET – Bring your projects and share ideas
July 28 - Weekly Net, 8:30 p.m. 146.94 repeater

Who's calling the net?

June 2 nd	Keith	KE7UMK
June 9th	Open	Please volunteer
June 16th	Open	Please volunteer
June 23rd	Rulon	KE7OJX
June 30th	Doug	AD7LO
July 7 th	Open	Please volunteer
July 14 th	Open	Please volunteer
July 21 st	Rulon	KE7OJX
July 28 th	Doug	AD7LO

Please volunteer to take your turn in calling the net. Each member should call the net as part of their readiness training. Thanks to those who have volunteered to help.

To get your name on the list, send an email to tville.hamnet@gmail.com and indicate the day or days you can be net control. You can call the net from your home or if you want to call it from the pantry radio room, let us know and we will make sure you can get in.