A meeting of Twin State Radio Club was held via Zoom on Saturday, 12 December, 2020. The meeting opened at 9:05 AM.

Officers present: President, Vice President, Treasurer, Secretary and Trustee.

**Old Business**

President’s Report:

Attendees, new and current, were introduced.

A round table discussion is scheduled for the next meeting on club programs and direction. To consider: what brought you into the hobby? What keeps you in it? Infrastructure projects are wrapping up; what is next? Need to maintain what the club has, especially after Strafford is complete. Need to discuss replacement of the main trailer.

Program suggestions:

* Hosting builds through Makerspace.
* Holding foxhunts and participating in national events.
* Other orienteering events.
* Education expansion into multiple subjects such as robot control.

Vice President’s Report:

Presentation today is on Pico balloons by Don KB1VP.

Suggested future presentations

* WCC tour of the Marconi station on Cape Cod.
* Joe Taylor – developer of low bandwidth low noise modes (2 parts?). JT65, moon bounce propagation, FT8, WHISPR.
* Antenna forum April.
* Dave N1HAC on multiband antennas (also during the annual forum), OCF, large loops.

A CME passed the Earth 10 December at 0130Z. It was seen on instruments.

The Vice President is soliciting presentation suggestions. Get in touch with Dave N1HAC either by email or the repeater.

Treasurer’s Report:

* Checking – $ 1,434.67.
* Savings – $ 49,418.38.

A motion was called for to accept the Treasurer’s Report. So moved by Scott KC1LDI, seconded by Clyde KA1BSZ. ***The motion passed unanimously***.

Secretary’s Report:

Scott KC1LDI detailed the amendments to the submitted the November 14, 2020 minutes.

A motion was called for to accept the minutes as amended. So moved by Clyde KA1BSZ, seconded by Bill AA1DE. ***The motion passed unanimously with one abstention***.

Trailer Report: Alan AE1H, Ed AB1XQ, Dave WA1ZCN

Not much activity since the last meeting. Still working on estimates for painting the tower trailer. Working on metal patching.

Repeater Committee: Dave N1HAC, Dave WA1ZCN

There was much activity on the Moose Mtn. repeater: mostly the behavior of PL on 220. Is it due to the internal decoder in the receiver or an external reason? Skip in from the Connecticut repeater enters and the encode PL is not reliable: intermittent. There is a separate encoder board. An emergency site visit was made to determine the cause of getting keyup but no audio. Determined to be an intermittent daughter card connection. Decoding needs to be done on the PL decode.

Strafford repeater trouble continues. Currently using the club portable and there are internal squelch issues. Stray keyups that seem to be internal to the system. Have an external squelch and PL board; well known and should work. The internal squelch chain does not disable when on the remote controller. PL was turned on and set to a different frequency but still got keyups. However, did not happen on a visit. Was tested OK then it happened again on departure. The new decoder card was being activated. A spur or other artifact on the GMRS repeater there may provide enough energy to open the squelch. Want something other than a 100 Hz change. Could be mixing. Plan to use a “poor man’s band-pass filter”: a diplexer, collocated on the antennas there. Will continue to debug. The 10 – 15 W level now being used is heard well. The Moose Mtn. repeater has a 300’ feed line while the Strafford repeater has a 50’, may be the reason.

Five (5) Kenwood high band repeaters were purchased at a good price. One has been programmed. They have internal controllers. May use on the Strafford, Corinth and Stellafane repeaters and link Stellafane via 220. Don KB1VP asked if the repeaters can do DStar, Dave N1HAC answered that it can be put through. The Kenwood repeaters are Version 1 and purchased for about $2,305.00. The seller added programming cables. They need to be adjusted for range; down to 145 MHz.

In all a lot of activity. Strafford issues are frustrating, may take a new unit up as a standalone. Will work out kinks with bench testing. Amplifiers are available but untested.

Ed AB1XQ brought up that the website needs to be updated for the Strafford PL change.

Education committee: Ray WA1ORT

Planning Zoom sessions on Tuesday December 29th 9 AM – 12 PM and Wednesday December 30th 1PM for 7 scouts enrolled in tech in a day for licenses and radio merit badges. A VE session is scheduled for January 2nd 9 AM – 12 PM at Lebanon Market for all levels. Working with CVFMA on future exams.

During the meeting in was announced that the VE session on January 2nd was canceled. It may be held at a later date. It was suggested it could be done through NE Sci-Tech, will try to coordinate.

Events in the works:

* Sled Dog Race 2021 is still on for the same weekend as last year.
* Winter Field Day: planning for do low key. Need to discuss, TBD.
* Inventory. Don KB1VP has a source for permanent metal labels; manufactured prints, used by the military. Discussion on using. Considering.

**New Business**

The solar charge controller for Strafford is on hand but not yet installed.

The purchase of a repeater for Strafford was already authorized, but the purchase of all the Kenwood repeaters together may have to be reauthorized.

The 5 Kenwood repeaters were purchased for $2,277.21 including $30.44 shipping. Dividing this by 5 is $455.44 for each repeater. Backing one out (Strafford) totals $1,821.77 for the remaining 4 repeaters.

A motion was made to authorize the purchase of the four (4) Kenwood repeaters by Dave N1HAC, seconded by Kim KE1LF. ***The motion passed unanimously***.

A motion to adjourn was made by Dave N1HAC, seconded by Dave WA1ZCN. ***The motion passed unanimously***.

The meeting concluded at 10:27 AM. Presentation followed.

Minutes respectfully submitted by Scott KC1LDI.