Meeting of the North Richland Hills ARC September 28. 2015 Fire Training Center, North Richland Hills, Texas

The monthly Meeting was called to order by the Secretary Dave Routzon at 7:02 pm.

Present:

Vice President: Jeff Robinson (N5XHI)
Secretary: Dave Routzon (W5GT)
Treasurer: Alan Schiller (W5ADS)

• At-Large Board Member: Doyle Hardy (K5HTE)

• Emergency Coordinator: Hugh Underwood (W5HAU)

Education Officer: Michelle Spears (W5MRS)PIO: Linda Robinson (N5XHK)

Absent:

• President: Wayne Wilson (WR5S)

• At-Large Board Member: Lowell Martin (W5HP)

• At-Large Board Member: Jim Lee (WB4GWX)

• At-Large Board Member: Harry Monck (KE5MLV)

26 total attendees. List available.

In the absence of President Wayne, Secretary Dave Routzon presided and asked for the following reports:

- 1) **Secretary:** Dave read the report for the meeting of August 24, 2015. The report was approved as read.
- **2) Treasurer:** Alan reported that the balance on hand at the end of August was \$1253.60 after all expenses were accounted for. The treasurer's report was approved.
- 3) Vice President:
 - a. October, Dave (W5GT) will present an update on LEO satellites
 - b. November is currently scheduled for NA5U, Mike, with an expanded presentation on the K1N DXpedition. This will include the K5D DXpedition and videos.
 - c. The 2016 Holiday Party will again be held at Dickeys restaurant on January 25.
- 4) Education Officer: Michelle (W5MRS) reported that a Technician class has finished. She's considering a class in October if there is any interest. Also, John Dossey has volunteered to teach a 5 week Extra class. Testing may take place on either the 6th week or at an additional session. The first class is scheduled for October 1. 6 slots remain.
- 5) Siren Test Alan Schiller (W5ADS) reported that the next test is scheduled for 10/7.
- **6) Repeater:** Bob (AK5U) verified that American has repaired the antenna connection for the 440 repeater antenna. The new Yaesu has been installed and is operational.
- 7) **Program:** Frank Lima from PoyPrinter www.polyprinter.com gave a presentation on 3D printing. During the presentation, he printed a fairly complex gear using the company's model 229 3D printer which sells for \$2400. 3D printing or additive manufacturing is a process of making three dimensional solid objects from a digital file. The creation of a 3D printed object is achieved using additive processes. In an additive process an object is created by laying down successive layers of material until the entire object is created. Each of these layers can be seen as a thinly sliced horizontal cross-section of the eventual

object.

Not all 3D printers use the same technology. There are several ways to print and all those available are additive, differing mainly in the way layers are built to create the final object.

Frank described 3 types of 3D printing: Some methods use melting or softening material to produce the layers. Selective laser sintering (SLS) and fused deposition modeling (FDM) are the most common technologies using this way of printing. Another method of printing is when we talk about curing a photo-reactive resin with a UV laser or another similar power source one layer at a time. The most common technology using this method is called stereolithography (SLA).

Frank also described two free CAD programs which can be used to create files used by 3D printers. Fusion360 found at www.autodesk.com and TinkerCAD found at www.tinkercad.com. Output from these programs is used with "slice" software for printers and is supplied with them. Additional information on 3D printing can be found by searching on Google.

8) A motion to adjourn was made and seconded at 8:05 pm. Cookies and ham "fellowship" followed.

The meeting was adjoined until October 26, 2015.

Submitted by Dave Routzon W5GT, Secretary.