Science Club –November 2020

The November ZOOM Science Club meeting will take place 10 AM Tuesday November 17. It will include a review of a 2012 talk on Computer Hardware History and design, and a discussion of a typical Avionics application –the B2. Many upgrades in Computer and Microprocessor designs have taken place over the last 10 years-generally following Moore's Law which predicts a 2:1 improvement in processing speed and packaging density each year. Limitations in Feature Size (14 nm) and Thermal capability are being resolved by use of FINFET transistors (3 dimension as opposed to previous Planar Designs) and alternative Semiconductor materials (replacing Silicon). The design of the avionics for the B2 was driven by the requirement to reduce crew size from 5 to 2. This was done by a massive use of Computers and Microprocessors –over 250. The B2 is a Stealth design, including an Observatory to permit autonomous Navigation- it also features Radiation tolerance against Tactical levels.

Please note that the Science Club Monthly reports are now included in the Monthly AU Newsletter. Additional reports and information are also being added to the Science Page of the Newsletter. Hopefully, when things are back to normal, meetings will be held on the third Tuesday of the month- the location will be forthcoming.

Also, note that Curt Koster was considering a ZOOM presentation for the June Meeting, but it was determined that his talk was not desirable in a Zoom format, and was cancelled. His talk on Navigation, in general, and his personal experiences- hopefully can be presented later in the fall.

As was noted in the handout given to everyone during the November General Meeting, the Science Club is open to everyone who has an interest in Science and Technology— ALL ARE INVITED!! Thank you again to everyone who has given talks previously, and we hope that additional members will be able to do so— please contact us for information and help etc.

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