IEEE AESS Chapter and Section meetings held in March 2015

Four Aerospace & Electronic Systems society and IEEE Section meetings were held in Hattiesburg, MS, Jackson, MS, Oklahoma City, OK and Wichita, KS March 2015 to promote the Distinguished lecturer program and encourage AESS membership.

On March 24, 2015, George Schmidt, PhD., AESS Distinguished Lecturer and Membership VP presented “Navigation Sensors and Systems in Global Navigation Satellite System (GNSS) Degraded and Denied Environments” to students, faculty and IEEE members at the University of Southern Mississippi, Hattiesburg, MS and at Jackson State University, Jackson, MS.

George Schmidt, PhD. Speaking to USM students, faculty and IEEE members.
USM Professor Randy Buchanan, PhD., George Schmidt, PhD, Ron Ogan, AESS Board and USM Professor and Computing Director
Ron Ogan, AESS Board, JSU Professor Khalid Abed and George Schmidt, PhD, AESS Distinguished Lecturer
Pizza served at the Engineering Building before George Schmidt’s DL on GPS technology. In the photo, right front is Luther Martin, IEEE JSU Student Branch President.

The last meetings were held at Oklahoma Christian University (OCU) on 30 March and at Wichita Technical Aera Technical College, Wichita, KS with Ron Ogan, AESS Board Finance VP giving the presentation “Integration of Manned and Unmanned Aircraft Systems into U.S. Airspace”. The United States Congress has mandated for the Federal Aviation Administration to issue a plan by 15 September 2015 for the integration of manned and unmanned aircraft systems.

Drone, remotely piloted vehicle (RPV), remotely piloted aircraft (RPA), remotely operated aircraft (ROA), Unmanned Aerial Vehicles (UAV), or Unmanned Aircraft Systems (UAS) refer to aircraft without a human pilot on board. UAVs are classified based upon the weight, operating altitude and airspeed.

The FAA currently requires a Certification of Authorization (COA) and special airworthiness certificate –experimental category for all UAVs to fly in National Airspace. Restrictions limit commercial use of UAS, though they are in use by the military, law enforcement and for university research. Businesses, farmers and others have been
clamoring for new UAS regulations from the FAA, which officials say could come as early as the end of 2015.

Safety is paramount for the integration of unmanned and manned aircraft into the United States or national airspace (NAS). Collision avoidance is achieved by the pilot performing “seek and avoid” for manned aircraft and Remote Pilots using “sense and avoid” for unmanned aircraft systems. The largest UAS have all of the safety equipment and capabilities of commercial passenger carrying aircraft, only with ground based pilots and observers. The pilot training requirements for UAS matches or exceeds the requirements for similar categories of manned aircraft. Collision avoidance systems such as TCASII have been used on commercial and military aircraft for years with improved safety outcomes. UAS will require advanced sensors to assure safe operation in NAS.

Below are pictures that were taken at the OCU and WATC presentations.

Bob Scolli, Past IEEE Region 5 Director who arranged the meeting at Oklahoma Christian University, who is shown with students, faculty and IEEE members.
Shown left-to-right, Civil air Patrol Mission CPT Eric F. Davis, George Dean, Former AESS Board member, Mark Olive, Garmin International, Eric Robinson, WATC Software Developer and Database Administrator and Civil air Patrol 1st LT Ron Ogan. The WATC meeting was arranged by Mark Olive and Eric Robinson with support Anthony G. (tony) Kinkel, WATC President