**SAMBHRAM ACADEMY OF MANAGEMENT STUDIES**

**SEMINAR FOR AVIATION PROFESSIONALS**

**“Modern Communication Systems In Aviation Industry”**

**November 19, 2022**

Flt Lt Janardan Kumar Dwevedi, Assistant Professor, Hindustan Aviation Academy, Bangalore led the Seminar for the Aviation students. He commenced highlighting the importance of communication in the communication era specially: aircraft radio communication and its usage between aircraft and ground units, between Aircraft to Aircraft in the air and between ground staff to other related departments. Aircraft voice and data communication system overview was presented and depicting all connectivity among audio signals from the users routed to the different systems capable of voice communication with different frequencies mode such as high frequency, very high frequency and ultra high frequency or the satellite communication (SATCOM) system.The flight service and cabin interphone systems are used for on board communications. The cabins inter communication Data system (CIDS) is dedicated to the cabin environment and can ensure connection with ground personnel around aircraft.

He also explained a typical VHF Communication Antena arrangement on Airbus A-380. A typical aircraft voice communication layout was also briefed to aviation students so that they can understand CIDS Communication system functions. Internet on Air and emergency locator beacon and satellite based rescue system with SOS signals, it transmits a digital signals every 50 seconds, (Bangalore is one of the stations to decode the signals sent by Emergency Locator Beacon). He also explained about Cockpit Voice Records (CVR) and flight Data Records (generally known as black box (orange color). How flight data Recorder & emergency recorders Beacon work inside the water ( in sea/ponds or river).

Ground system provision is the responsibility of either a particularly guidance for Air Navigation Service Provider (ANSP) or Aircraft Operator. Though the functional parts of communication devices are more technical but usages of those modern equipment in aviation industry is very much concerned to Aviation Professionals. It was very insightful/informative seminar for our students. Many questions and doubts were raised after the seminar and clarified by the resource person. Some of the questions raised were as follows:

1. How much North Magnetic pole effect on use of communication equipment in the air?

2. How are the airborne aircraft controlled by satellite systems?

3. Is there any difference in communication system while controlling fighter aircraft and transport aircraft?

4. What are the override facilities in Aviation Communication systems?