Identification, Friend or Foe (IFF)
Secondary Surveillance Radar (SSR) Beacon Identification Systems

SEE CURRENT SCHEDULE FOR THE LATEST DATES
http://www.ATIcourses.com/schedule.htm

Course Outline

1. **Introduction to Radar Beacon Identification Systems.** Overview of background and course objectives. History of radar beacon systems.


4. **Interrogators.** Mode Generator. Transmitters and receivers. Monopulse receivers.

5. **Sliding Window Plot Extraction.** Reply decoder. Defruiting. Target detection.


7. **Transponders.** Airborne antenna patterns. Specifications and conformance to specifications.

8. **Multipath and Interference.**


**Instructor**

**Dr. Patrick W. Johnson** is a former Navy Commander and founder and former President of American Electronics. He is now Sr. VP for R&D at ZAI, Inc. He received a BS from the U.S. Naval Academy, an MSEE from the Naval Postgraduate School in Monterey, California, and his PhD from Queens University in Kingston, Ontario, Canada. While in the Navy, he was the OPNAV sponsor for shipboard radar and target identification systems. At Amellex, he was the Principal Investigator for a continuing series of radar and IFF/ID programs and projects for the Army, Navy, Air Force, FAA, NASA and DARPA.

**Summary**

This fast moving three-day course is designed for managers, engineers and technicians who need an understanding of the basics of IFF/SSR radar beacon technology and systems. The principles of the various IFF/SSR systems are presented. The system design tradeoffs are discussed in the context of the different target identification and air traffic control mission requirements. This course will provide the ability to understand and communicate with IFF/SSR engineers and project personnel.

**What You Will Learn**

- Basic math and physics underlying IFF/SSR technology and systems.
- The fundamental concepts of the various IFF/SSR radar beacon systems.
- The working language of the IFF/SSR community.
- The major trade-offs in radar beacon system performance.