

IEEE BUENAVENTURA SECTION  
Aerospace & Electronics Systems Chapter  
&  
Life Members Affinity Group

**Intelligence, Surveillance, &  
Reconnaissance platforms**

**Date:** February 24, 2011

**Time:** 6:30 pm Refreshments and Networking,  
7:00 pm Talk

**Venue:** Vitesse Semiconductor Corp.  
741 Calle Plano,  
Camarillo, CA 93012

This presentation will focus on the current unclassified employment of manned Intelligence, Surveillance, & Reconnaissance platforms, airborne command & control platforms, and the unclassified technology involved in making those two concepts successful. A very brief history of ISR platforms will be presented, starting with the USAF program Big Safari, which was the precursor to today's current airborne ISR & command & control industry. Then an accelerated discussion of the development & evolution of the equipment & technology from then to now will follow.

The airborne ISR platform, both manned & UAV has expanded rapidly in the past few decades and it is a multi-billion dollar industry within the US with plenty of room for continued growth. Even if the conflicts in both Iraq & Afghanistan wind down or end, the industry will continue to expand in order to support the demand in many other markets. This is an industry where a system or an operator is a result of many years of R&D and many engineers working long hours to produce such a product. An unclassified version of FLIR, (Forward Looking Infra-Red) imagery, & possibly some discussion of thermal imagery & some signal intelligence will round out the presentation.

**Please RSVP to Sunil Pai ([paisunils@ieee.org](mailto:paisunils@ieee.org)) if you wish to attend this meeting.**

**Speaker: Brian Knowles**

Brian Knowles is currently a specialist in airborne manned Intelligence, Surveillance, & Reconnaissance platforms, airborne command & control platforms, and Close air support delivery of air to ground munitions. Brian served 20 years in the U.S. Marine Corps. He started right out of high school, was selected for a college scholarship and continued his career as an officer. He initially served in the infantry as a Special Forces Marine & Force Reconnaissance Marine, (long range reconnaissance patrols). During this time he attended Combat Divers Course, US Army Jump School, Ranger School, SERE, Amphibious Reconnaissance School, Naval Gunfire Spotters Course, Close Quarters Battle Course, & Joint Tactical Air Controller Course. After several successful ground combat tours, (Panama, Desert Storm, & Somalia), he was selected for the Naval Aviation program.

Brian graduated as the Distinguished Graduate from US Navy Flight School, selecting F/A-18 Hornets as his aircraft of choice. As an F/A-18 Hornet Strike Fighter pilot, Brian served aboard the USS Constellation conducting combat sorties into Iraq. He completed his career in the Marine Corps as an Instructor Pilot, teaching newly qualified pilots the tactics & techniques of employing the F/A-18 Hornet. As a pilot and Forward Air Controller, he participated in combat operations in Iraq & Africa. Now a civilian specialist in ISR, airborne command & control, and Close Air Support, Brian teaches tactics, techniques, and employment to Special Operations Forces preparing to deploy to combat. Additionally, Brian instructs & operates several airborne manned ISR & airborne command & control platforms.