

Missions for America
Semper vigilans!
Semper volans!



The Coastwatcher

Newsletter of the Thames River Composite Squadron
Connecticut Wing
Civil Air Patrol

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SCHEDULE OF COMING EVENTS

30 NOV-Fruit Delivery
25 DEC & 01 JAN-No Meetings

CITRUS FRUIT DELIVERY

THE TRUCK IS DUE TO ARRIVE AT GRASSO TECH AT NOON, TOMORROW, FRIDAY, the 30TH OF NOVEMBER. SQUADRON MEMBERS ARE ASKED TO REPORT TO GRASSO TECH AT THAT TIME TO ASSIST IN UNLOADING AND TRANSFERRING THE MERCHANDISE. ANYONE WITH A VAN OR PICK-UP TRUCK WOULD BE WELCOME.

IF YOU CANNOT COME AT NOON, WE EXPECT TO BE TAKING ABOUT FOUR TO FIVE HOURS TO COMPLETE THE TASK. IF AVAILABLE, REPORT TO THE TRAILER BETWEEN TWO AND FOUR TO ASSIST IN TRANSFERRING THE FRUIT.

CADET MEETING MINUTES

27 November, 2012

Snow-Meeting Cancelled

SENIOR MEETING MINUTES

27 November, 2012

Snow-Meeting Cancelled

AEROSPACE CURRENT EVENTS/HISTORY

DRONES IN THE NEWS

The Unmanned Aerial Vehicle (UAV) references in current aviation news is ubiquitous. It has become difficult to find a news source without some mention of what is commonly called a drone.

A drone is a male bee who produces no honey, does no work, and whose sole function in life is to mate with the queen bee. By extension, the term "drone" refers to idle, somewhat useless people, often doing tedious work. Mr. Burns, owner of the Springfield Nuclear Power Plant featured on *The Simpsons* often refers to his employees as drones.

The term drone is appropriate in some ways for the UAV and that it is designed to perform missions in which tedium is a central characteristic. The CAP Scanner is a drone of sorts, sitting in the rear, searching for the elusive sign of some ground incident. Drone he may be but in search and rescue, the mission pilot, observer, and aircraft are dedicated to his key role. Coincidentally, reports are now being disseminated about drone operators suffering from fatigue and stress due to the tedium of operation their craft.

Drone aircraft are not new. In World War I, the US military experimented with at least two

different marks, denoted as “aerial torpedoes.” One was developed by Sperry Aircraft. Sperry Aircraft was founded by Lawrence Sperry, son of a pioneer in gyroscope utilization, Elmer Sperry. In 1918, Sperry collaborated with Curtiss Aircraft to fly the first full-sized armed unmanned aircraft.



Sperry's Aerial Torpedo replica at the Cradle of Aviation Museum, Long Island, NY.

About the same time, Charles Kettering produced the Kettering Bug. Kettering, a paradigm of inventive genius was also responsible for the electric automobile starter and leaded gasoline! Both the Aerial Torpedo and the Bug were never used in combat and both contracts were cancelled at the end of World War I.

A reproduction of Kettering's Bug at the National Museum of the USAF.



World War I brought the “aerial torpedo” back into production, the most notable example being the Feisler Fi-103 better known as V-1 (Vergeltungswaffe *Ein/Vengeance Weapon One*) or buzz bomb. But the United States also produced some varieties of drones, one of which is the little known Interstate TDR-1 developed by the Naval Aircraft Factory. This was the first combat proven drone used by the Navy and used for the first and only time in the Solomon Islands Campaign.



V-1 at US Army Ordnance Museum, Aberdeen, Maryland.



TDR-1 on display at Museum of Naval Aviation, Pensacola, Florida.

The importance of the stealth feature is obvious. One of the most important uses of drones is to operate in hostile airspace, avoiding risk to higher valued manned aircraft and their crews.

Israel Aerospace Industries (IAI) has been reported to be developing a “stealth drone.” They have long experience in the field, having produced a long line of successful aircraft. The Israeli Air and Space Force has been operating them both as reconnaissance and strike aircraft. The United States does likewise.

For over two decades, IAI has worked with the US AAI Corporation to produce a wide range of UAV products, some of which are shown below.



IAI RQ-2A Pioneer at National Air & Space Museum, Mall, Washington, DC.



Collection of early Israeli drones at Hatzerim Air Base, Negev Desert. An IAI Zahavan (Oriole) known as the Scout in the United States. At least one US Ryan Firebee is visible in the background.

The X-47B has been flying at Edwards AFB since 2010 with final testing at the Navy's Patuxent River facilities in Maryland.



X-47B lowering to Deck of USS Harry S. Truman

(photo credit: Alan Redick)

GOONEY BIRD RESTORED



AAI RQ-7A Shadow at USMC Museum, Quantico, Virginia.

The Historic Flight Foundation at Paine Field, Everett, Washington has restored a unique C-47 to airworthy conditions

The aircraft is of World War II vintage and had been flown by China National Aviation Corporation. It also passed through the hands of Flying Tiger leader Claire Chennault before repatriation to the United States sometime in the late 1940s.

One of the more interesting project advances was announced this week. The US Navy has loaded the Northrop-Grumman X-47B onto the USS Harry S Truman. The Truman will conduct flight tests from the carrier. The X-47B is an autonomous unmanned aircraft. This means that it does not require a ground based operator who uses remote controls to conduct the flight. Onboard computers, programmed in advance, conduct the entire mission, including take-off and landings! For the critical landing phase, the carrier will transmit its GPS coordinates, speed, and winds conditions to the X-47B whose onboard computers will assess the data and set up the approach and landing.. The first landing efforts will be conducted in 2013,

For a few years, the aircraft flew for Pan American but was then sold and converted to a modified Super DC-3 executive version. Restoration reversed the changes and restored the aircraft to its original configuration and Pan Am livery.



(photo credit: Joe Crawshaw)