



Missions for America

Semper vigilans!

Semper volans!

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300 Tower Rd., Groton, CT

Lt Col Stephen Rocketto, Editor

srocketto@aquilasys.com

Maj Scott Farley Publisher

Maj Roy Bourque, Paparazzi

C/A1C Stephen Buchko, Cadet AEO

Hap Rocketto, 2nd Lt, AUS, (ret'd.) Feature Writer

Capt Edward Miller, Feature Writer

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SQUADRON CALENDAR

Virtual Meetings and Independent Projects to be Scheduled

12 MAY-TRCS Commander's Call

16 MAY-Commander's Cup Rocket Contest

23 MAY-TRCS Meeting

30 MAY-TRCS Meeting

THAMES RIVER COMPOSITE SQUADRON ACTIVITIES

Lt Col Rocketto has developed two on-line activities for aerospace and selected cadets are beta testing them now..

CURRENT EVENTS

Contracting Air Support Operations

The Air Force has announced a multi-million dollar contract to six companies for supporting operations which provide realistic training in tactics involving air-to-air and close air support scenarios.

Dissimilar Air Training contracts have been awarded to Air USA, Airborne Tactical Advantage Company, Draken International, and Tactical Air Support.



TAC Northrop F-5AT (Credit: Tactical Air Support)



Draken Dassault Mirage F1 (Credit: The Aviationist)

The Air Mobility Command has also issued a "request for proposal" to supply aerial tanker services to supplement its own fleet of KC-135s and KC-10s. The aircraft would be used for training in aerial refueling, testing techniques and equipment and supporting ferry flights.

The Navy has used Omega Tankers for this service for almost 20 years. The company has also provided some support to other nations. Omega operates modified Boeing 707 and Douglas DC-10 aircraft



*One of Omega's Boeing 707-386C Refueling
Grumman E-2D (Credit: U.S. Navy/Erik Hildebrandt)*

The Air Force sees specialized contracted services as a cheaper alternative to using active duty aircraft and personnel.

OUR FEATURED AIRCRAFT

*SAAB J-29 Tunnan
by
C/AIC Stephen Buchko*

As WWII came to a close, Sweden decided that to be militarily self-sufficient, they needed to build their own combat aircraft. A jet fighter/interceptor was a must. But Sweden's largest airplane manufacturer was Svenska Aeroplan A.B., better known as SAAB and their aeronautical achievements could be counted on one hand.

Luckily, SAAB could redesign their piston powered J-21 fighter to accept the de Havilland Goblin turbojet, which developed 3,000lb of thrust. The new fighter was designated J-21RA.



J-21

From Props to Jets



J-21RA

But the J-21RA was soon rendered obsolete by the fighters in service with the USAF and RAF. So it was back to the drawing board to try and catch up with the latest developments in jet technology.

Surprisingly, SAAB had a design for an entirely new jet fighter as early as October of 1945. Project 1001, as the design was called, was supposed to use the 3,500lb thrust de Havilland Goblin turbojet. But in early 1946, the de Havilland Ghost turbojet, which was rated at 4,400 pounds of thrust, was offered to Sweden.

They quickly redesigned the wings from straight to swept and the first flight of the new J-29 took place on September 1, 1948. The J-29 was the first swept-wing jet of European origin to fly and enter service, a pretty impressive feat for a company that was largely unknown outside Sweden.



The final production prototype flew in July of 1950. Because of its round, portly shape, it was nicknamed *Tunnan* (Barrel). The A-29, the ground attack variant, was armed with 14 Bofors air-to-ground rockets. The J-29B was an interceptor that had pylons that could carry drop-tanks. Next came a special photo-reconnaissance version, the J-29C, fitted with six cameras.

The D and E models were on-off prototypes and tested an afterburner and a new wing design.

The F model used all the features developed by the previous planes. Equipped with a standard armament of 4x20mm cannons, in 1963, the J-29F was updated to carry four Sidewinder air-to-air missiles. In the end, 661 planes of all variants were built and Sweden continued to fly them until 1976. This plane proved instrumental in providing data that SAAB could use later, especially in the development of the J-32 Lansen and the J-35 Draken.

In 1963, The J-29 saw combat with the Swedish contribution to the UN Peace-Keeping Force in the Belgian Congo, nine J-29B attack aircraft and two J-29C photo-reconnaissance Tunnans. In 1964, the UN terminated the operation and some of the Tunnans were destroyed *in situ* because they were not worth shipping back to Sweden.

An informative but crowded display at Midlands



Five Philippine AF Sabres are two right and four Iranian Sabres are lined up along the bottom.

Wahdati Air Base (Credit: Brig. General Mohammad Khatami, Imperial Iranian AF)

The Swedish insignia has been covered by UN markings.



Austria was the only other user of the J-29. They ordered 30 F models, 15 of which had one camera instead of two cannons. Unlike their Swedish counterparts, the Austrian craft did not have mounts to launch Sidewinder missiles. They served with Austria until 1972.

Only a few Tunnans are left, all in museums. The Smithsonian has a J-29F which the Editor photographed at the Garber Facility in Silver Springs, Maryland around 1985, Today, Silver Springs is mostly used for storage. Four years ago, he spotted another, a J-29F, well displayed at the Midlands Air Museum, Coventry England.

AVIATION HISTORY

April 1, 2001– Hainan Island Incident

A Chinese Shenyang J-8IIDS flown by Lt. Cmdr. Wang Wei collided with a Navy Lockheed EP-3E Aries II commanded by Lt. Shane Osborn. The Chinese aircraft broke up and crashed into the sea. The body of the pilot was not recovered. Osborn recovered control of the the badly damaged American aircraft after a near inverted roll and a 14,000 foot loss in altitude.



The Players



The aircraft at Garber bears UN markings, perhaps reclaimed from the Congo

The Aires has a crushed nose, lost the #3 engine, could not feather the damaged #1 engine and had an antenna wire wrapped around the tail. The aircraft kept flying as the crew tried to destroy the sensitive electronic equipment, computers and documents on board.

Osborn managed a high speed landing on Hainan without flaps, flap, trim, and airspeed indicator q had been compromised. Chinese troops surrounded the plane and they were taken captive and faced a relatively benign interrogation and incarceration. The diplomats went to work and they were released after 11 days had passed. The aircraft was closely studied by the Chinese but they refused to allow repair to be made so it could be flown out. It was disassembled, loaded on a Antonov An-124 chartered from Polet, a Russian airline. Once back in friendly hands, the aircraft was repaired and rejoined the fleet in 2013.



Several weeks earlier, Wang was photographed holding a note with his e-mail address (Credit: CNN and USN)



Engines from Aires being loaded aboard Na-124 (Credit: Lockheed-Martin)

Osborn received a Distinguished Flying Cross for his airmanship. Wang Wei was honored posthumously with the title “Guardian of the Seawaters and Airspace.” The Chinese government received an intelligence harvest involving electronic intelligence and cryptologic techniques and equipment and \$35,000 for 11 days food and lodging for the crew of 24.

The job is not over until blame is ascribed. The Navy procedures and equipment were less than adequate for destroying the electronics and documents on board and much of it survived to be exploited by the Chinese. Osborn was criticized by some for not ditching the aircraft to prevent it and its equipment from falling into Chinese hands. But he was also praised by others for protecting his crew from injury or death.

The Chinese claim that the Aries veered into the J-8. Osborn says they were on autopilot flying straight and level. The U.S. government provided photographic evidence that Wang Wei had a history of flying in close proximity to American

In all likelihood he tucked in too close to the Aires and at a low airspeed which reduced his control authority. Turbulence generated by the larger aircraft probably caused him to lose control and strike propeller #1, parts of which destroyed the radome. Debris then damaged engines #3 and #4 and sent splinters into the fuselage. The J-8 was broken in half and plunged into the sea. Clearly, tight tucking on the starboard side of the Aires was the wang way to go.

The diplomats exchanged politic notes to save face. The Chinese propaganda mill stated that “The struggle against hegemonism and power politics will be a prolonged and complicated struggle. It requires powerful political and national defense strength and national unity to safeguard state sovereignty and national dignity.” And since that time, the world has noted the encroachment of China's military in the South China Sea and commercial engagement Africa, and along the Mediterranean littoral. They mean what they say and their long range strategic planning far exceed the four year U.S. election cycle.

Postscript



Osborn's Navy flying career was influenced by

his

cadet time in the Civil Air Patrol. In his autobiography, *Born to Fly*, he relates the following:

Becoming a pilot had been my dream and ambition for as long as I can remember. Flying in a small Piper Cub, in fact, was one of my first vivid memories. I was 3 years old in a tiny South Dakota town named Loomis.

One of our neighbors, a sheep farmer named Lyle Brewer, flew a bright yellow Piper J-3 Cub out of a pasture near our house. I tried to visit Lyle whenever I knew he was working on his plane. I took my first flight with Lyle and Dad almost as soon as the FAA inspector signed the airworthiness certificate for the Piper. "I want to fly," I told my Dad.

....

One afternoon at school when I was 12, a woman gave a presentation on the Civil Air Patrol (CAP), an auxiliary branch of the US Air Force. I listened intently to every word. In the CAP you learned how to fly--and you could earn your pilot's license by your 16th birthday.

The Civil Air Patrol absorbed me completely. The CAP made me want to study even harder than before. You advanced in rank depending on both your test score and your progress in military training. Discipline in one area, I began to see, was directly related to progress as a would-be aviator. The reward for that progress was getting to fly in our squadron's Cessna 172.

By the end of my sophomore year I had logged 16 hours in the Cessna to help me qualify for a pilot's license. I never did get my license. Still, I hoped my accomplishments in the CAP could eventually help me win an appointment to the US Naval Academy at Annapolis. That had become my next long-term goal.

THE WEEK'S AEROSPACE ANNIVERSARIES

April 1, 1978 – The Canadian Snowbirds are officially recognized as the 431 Air Demonstration Squadron.



The Snowbirds flying a nine aircraft formation in their Canadier CT-114 Tutors

April 2, 1937 – The Swedish airplane manufacturer Svenska Aeroplan AB is established in Trollhättan, Sweden. Americans know it better as Saab.



*SAAB B17, their first mass produced aircraft.
(Credit: Kogo)*

SAAB JAS39 Gripen, comparable to the F-16

(Credit: Tuomo Salonen)



April. 3, 1933 – The Navy airship USS Akron is lost in a storm off the New Jersey Coast. Rear Admiral William A. Moffet, the architect of naval aviation, is lost as are 73 crew and passengers.



The Akron flies over its namesake city and Rear Admiral Moffet lights his pipe
(Credits: USN)

April. 4, 1943 – A North American B-25C Mitchell ditches in Lake Murray, South Carolina when an engine fails during skip-bombing practiced. She stays afloat for seven minutes and the crew of five escape.

Sixty-two years later, on September 18, 2005 the Mitchell is raised to the surface. The preserved wreckage is now on display at the Southern Museum of Flight, Birmingham, Alabama.



April 3, 1976 – Howard Hughes goes West. Fittingly, at the time of his death, Hughes was aboard a Lear 24 which was carrying him from Acapulco to Houston's Methodist Hospital.

Apr. 6, 1965– The BAC TSR.2 is cancelled. The British Chancellor of the Exchequer did not want to write the check and The Ministry of Defense suggested the General Dynamics F-111 which they did not buy either. So they ended up with the McDonnell Douglas Phantom II which had previously been rejected.



Cancelled!

Spurned!



Procured!
Tse FGR.2 Phantom II

The Brits must have read the book about how to cancel promising aircraft. Six years earlier, the Progressive Conservative government took power in Canada and on Black Friday, February 20, 1959 cancelled the Avro Arrow project. putting 30,000 people out of work. In the end, the Canadians bought 66 McDonnell F-101 Voodoos, a plane they had previously rejected.

Sir Sidney Camm, the designer of the Hawker Hurricane said that "All modern aircraft have four dimensions: span, length, height and politics. TSR-

2 simply got the first three right."

April 7, 1945 – Operation Ten-Go, the last major Japanese naval operation of World War II. - In order to reinforce Okinawa, the Imperial Navy launches what only can be regarded as a seaborne kamikaze attack. The *IJN Yamato*, the largest and most heavily armed battleship ever constructed, a light cruiser, and eight destroyers sortie. Their task is to engage the American fleet and then run their surviving ships aground on Okinawa where they will serve as shore batteries and add their sailors to the defending force.



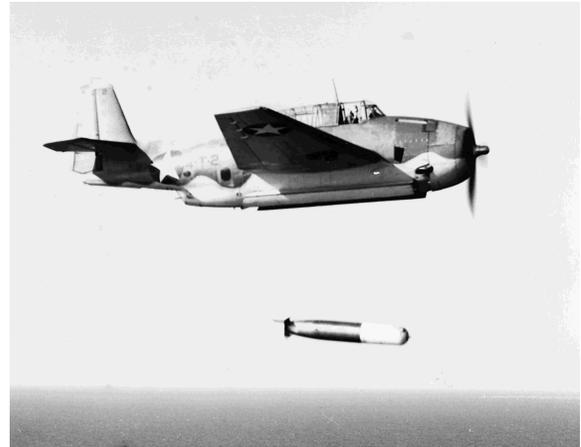
IJN Yamato

Waiting are two U.S. task forces consisting of eight aircraft carriers with 400 planes, six battleships, two battlecruisers, nine cruisers and over 30 destroyers. Submarines and decoded radio traffic keep the Navy well informed.

At noon, almost 300 Curtiss SB2C Helldivers and Grumman TBM Avengers attacked with bombs and torpedoes. Top cover was provided by Grumman Hellcats and Vought Corsairs but they were not needed. The Japanese are without fighter protection.



Helldiver



Avenger (Credits: USN)

The first attack force force three hits on *Yamato* and heavily damaged three other ships.

An hour later, a second attack force arrived and then a third and both concentrated on *Yamato*. By the end of the third wave, *Yamato* had absorbed at least six bomb hits and 11 torpedo strikes.



Helldiver pouncing

Yamato desperately maneuvers to avoid rain of bombs and swarms of torpedoes



The pride of the Japanese Navy rolled over and was torn apart when her forward magazines exploded.



The Japanese lost all their ships except four destroyers and over 4,000 sailors. U.S. losses were 97 killed, 122 wounded, 10 aircraft and three damaged ships. The Battle of the East China Sea was one of the most lop-sided naval battles in history.

FROM THE READER

Lt Jason Otrin responded to the article on Dissimilar Air Combat Training which appeared last week. The training he points out is not restricted to just air-to-air engagements.

While stationed at Fort Bliss, Texas, he participated in Opposing Force (OPFOR) maneuvers run by by the Test Support Activity, a unit of the Army Testing and Evaluation Command. OPFOR is a specially trained unit which uses equipment and imitates the tactics of a likely enemy force. Otrin remembers

...being "strafed, rocketed and doused with chemical weapons" by Soviet built Mi-24 Hind, Mi-8 Hip and Mi-2 Hoplite helicopters...It's quite the adrenaline rush to suddenly hear, then feel the distinctive drone of a Hind as it pops up and roars over your position, followed by a Hoplite fitted with chemical weapons dispensers...



Hind and Hip



Hoplite

The Army has two centers in the United State where where resident OPFOR units are maintained, Fort Irwin in California and Fort Polk in Louisiana. However, OPFOR activities are available at many other bases sometimes utilizing National Guard troops and even civilians in the role of opposing forces.

Most often equipment such as vehicles are modified American equipment. For example, an M113 armored personnel carrier can be made to appear like a Soviet BMP infantry fighting vehicle, what is called an OPFOR Surrogate Vehicle (OSV). The HUMVEE and M113 Armored Personnel Carrier are particularly adaptable vehicle for the OSV role.



Beneath the shell of what looks like a Soviet BMP is an M113 APC.



