



DEPARTMENT OF THE NAVY  
CARRIER AIRBORNE EARLY WARNING SQUADRON  
ONE HUNDRED SIXTEEN  
FPO SAN FRANCISCO 96601-6404

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From: Commanding Officer, Carrier Airborne Early Warning  
Squadron ONE HUNDRED SIXTEEN  
To: Chief of Naval Operations (OP-05D2)  
Subj: COMMAND HISTORY FOR CALENDAR YEAR 1986 (OPNAV REPORT  
5750-1)  
Ref: (a) OPNAVINST 5750.12 (Series)  
Encl: (1) VAW-116 Command History for 1986

1. In accordance with reference (a), enclosure (1) is submitted.

  
J. A. REAGHARD

Copy to:  
CINCPACFLT  
Director of Naval History (OP-09B9)

THE SQUADRON AND ITS MISSION

Carrier Airborne Early Warning Squadron ONE HUNDRED SIXTEEN (VAW-116) is a four plane, Airborne Early Warning (AEW) Squadron under the operational control of Commander Carrier Air Wing TWO. VAW-116 reports also to the functional Wing Commander, Commander Fighter Airborne Early Warning Wing, U. S. Pacific Fleet (COMFITAEWWINGPAC), and is within the fleet structure of Commander Naval Air Force, U. S. Pacific Fleet (COMNAVAIRPAC).

VAW-116 operates the five-place, twin turboprop E-2C "Hawkeye" which is capable of both shore and carrier based operations. The E-2C is 57 1/2 feet long, has an 81 foot wing span, and weighs 52,000 pounds when operationally loaded. Its most distinguished physical characteristics are four vertical stabilizers and a 24 foot diameter, dish-shaped rotodome mounted 6 feet above the fuselage. This rotodome contains the high powered search radar antenna. The interior of the aircraft is fully pressurized and is divided into four sections: the cockpit, the forward equipment compartment, the CIC (Combat Information Center) compartment, and the aft equipment compartment.

Accounting for most of the \$65,000,000 plus cost of the E-2C is the Airborne Tactical Data System. Containing the majority of the "Hawkeye's" electronics, this system includes the long range, million watt radar, IFF detection equipment, data processing and display systems, and an in-flight performance monitor. This highly integrated system, when coupled with a skilled crew, becomes, in effect, a complete airborne CIC capable of controlling an entire carrier launched strike, under all weather conditions, day or night.

The five-man crew consists of a pilot, co-pilot, Combat Information Officer (CICO), Air Control Officer (ACO), and a Flight Technician/Radar Operator (FT/RO). The pilot and co-pilot are tasked with ensuring the safe and orderly conduct of the flight, which includes the launching and recovery of one of the Navy's largest carrier based aircraft. The three remaining crewmen occupy the CIC compartment in three distinct stations arranged fore to aft. The Mission Commander, also designated the CICO, is responsible for the success of assigned missions. He is assisted by the ACO, a Naval Officer like himself, whose duty is the control of assigned tactical aircraft. The final crewmember is also a Naval Flight Officer (RO) or an Aviation Electronics Technician (FT). The RO/FT is responsible for in-flight maintenance and operation of more than six tons of electronic equipment onboard the E-2C. He is also tasked with assisting the CICO with the tactical mission since his position has a fully operational display console. In addition, the RO may be responsible for air control with the ACO.

This highly skilled crew, when working as a coordinated team, can perform the following missions:

1. Airborne Early Warning (AEW)--the detection of unknown air contacts closing the Task Force.
2. Tactical Aircraft Intercept Control (AIC).
3. Strike Flight Following/Control.
4. Surface surveillance coordination (SSC), including interface with S-3A via voice, Link 4A and Link-11.
5. Electronic Support Measures (ESM).
6. Helicopter Control.
7. Aerial Mining Control.
8. Tactical Reconnaissance Aircraft Control.
9. Secondary Approach Assistance for carrier aircraft.
10. Communications Relay, both manual and automatic.
11. Airborne Search and Rescue Coordination (SAR).

**1986 CHRONOLOGY**

1986

- CNO PROJECT 251 (TOMAHAWK), JAN/FEB
- HEY RUBE 86-3, JAN/FEB
- NNBIS SUPPORT, JAN/FEB
- CVW-2 FALLON DETACHMENT, 29 JAN - 14 FEB
- BACK-UP FOR VAW-113 FOR READIEX 86-2, FEB
- MINI FFARP, 4-14 MAR
- NNBIS SUPPORT, MAR
- COMPTUEX, 7-26 APR
- KERNAL USHER, 8-10 MAY
- MANY vs MANY EXERCISE, 21 MAY
- BROADSCOPE SUPPORT, MAY
- RIMPAC, 27 MAY - 16 JUNE
- HEY RUBE, 9 JULY
- HEY RUBE, 14 - 18 JULY
- NNBIS SUPPORT, 13 AUG
- COMMAND INSPECTION, AUG
- SURGE OPERATIONS (FLEETEX 86), 21 AUG - 19 OCT
- CNO PROJECT (HARPOON), 3 NOV
- FFARP/FIGHTER DERBY, 10 - 26 NOV
- CHANGE OF COMMAND, 21 NOV
- CVW-2 FALLON WEAPONS SYSTEMS DETACHMENT, 9 - 19 DEC

**1986 NARRATIVE**

1986 started with a busy itinerary. After the usual post holiday "back-in-the-saddle" training VAW-116 delved into many meetings and planning sessions in preparation for the RIMPAC deployment in May. However, the schedule was not limited to meetings and planning. In January the Sun Kings participated in two flying evolutions to provide direct support for CNO Project 251. The project involved test firing of a Tomahawk and Trident missile. The squadron's role was to provide range control, FAA liaison, and flight following. Both tests were conducted without incident.

Hey Rube 86-3 was another exercise in which the squadron participated in January. Hey Rube provided air crews an opportunity to get some realistic training in an electronic jamming environment. VAW-116 E-2C's acted as "Orange" force players controlling raid aircraft and maintaining range safety as well as being exposed to radar and communication jamming.

The Squadron also provided support for National Narcotics Border Interdiction Services (NNBIS) in January and February. This involved three flights in which the E-2C was used for detection of low flying, drug smuggling aircraft and an overnight flight to El Paso, Texas.

On 29 January the squadron detached to NAS Fallon, Nevada until 14 February where it participated in air wing training for day and night coordinated strikes. The squadron provided necessary command and control for overland strike scenarios and quarter backed an actual search and rescue effort involving an unfortunate F-14 aircraft. Upon its return to NAS Miramar VAW-116 spent the last half of February providing back up E-2C services for VAW-113 in Readix 86-2 involving flights in the Southern California Operating Area.

The pace in March eased up a bit. The squadron sent a full crew and aircraft to NAS Lemoore, California to indoctrinate VFA-195 in the role of the E-2C and its interface with their new F/A-18 "Hornets". The trip served to impress the F/A-18 community with the potential for E-2C/F/A-18 integrated operations in terms of data link capabilities and various services the E-2C could provide to the new fighter aircraft. Additional NNBIS support missions were flown in March, giving the command another opportunity to assist law enforcement efforts against drug smuggling. The Sun Kings were involved in a Mini-FFARP (or Fleet Fighter Air Combat Maneuvering Readiness Program) with VF-2 March 4-14. The E-2C provided intercept control for the fighters.

April ushered in the first at-sea period of 1986. On the 5th, squadron personnel treated their families to a taste of carrier aviation on the USS RANGER (CV-61). This "Dependents Day Cruise" launched the airwing into COMPTUEX which officially began



on the 7th and lasted through the 26th of April. During this at sea period the squadron operated off the coast of Southern California conducting major training exercises in all warfare areas. The Sun Kings gained valuable experience in supporting War-at-Sea and Anti-Air Warfare exercises. The period also served as a time to extensively employ battle group electronic Emission Control (EMCON) tactics, where VAW-116 provided Strike and Marshal control for the airwing's aircraft, while the battle group's electronic emitters were completely silent.

At the beginning of May the command prepared for a RIMPAC deployment scheduled for the end of the month. On 10 May the squadron took part in KERNAL USHER 8, a major Marine Corps exercise. In this exercise VAW-116 provided communications relay and flight following for non-combatant evacuation operation aircraft in simulated rescue missions. On 21 May the squadron then provided air control for a Many-versus-Many aircraft exercise. Combat aircrews were familiarized with an intensive air-to-air scenario involving over 50 aircraft while the squadron's E-2C's provided timely and accurate broadcast control to blue and orange aircraft. Continuing support to combat smuggling of illegal narcotics, the command participated in BROADSCOPE during May. BROADSCOPE involved E-2C surveillance of coastal waters to locate and identify potential drug smuggling surface vessels while working in close conjunction with the U.S. Coast Guard.

RIMPAC started 27 May and lasted through 16 June. RIMPAC was an exercise involving Pacific Rim nations (Japan, Australia, Canada, and the United States) to simulate long range projection of power on hostile territory. The operation took place in the Hawaiian operating area. VAW-116 deployed with CVW-2 in USS RANGER (CV-61) as part of a two-carrier battle group with the USS CARL VINSON (CVN-70). The squadron participated in all phases of RIMPAC. During the transit phase, with the entire battle group employing total EMCON, the Sun Kings provided electronic surveillance early warning to protect the formation from inbound raid aircraft. The squadron also provided airborne early warning in the anti-air war scenario detecting raid aircraft and controlling fighters to intercept them well before the "Orange" force aircraft reached weapons release range. The exercise was very successful. Through the squadron's support, the USS RANGER was able to maintain strict EMCON, and through the use of operational deception this allowed her to earn the reputation of "stealth carrier". The USS RANGER was never successfully located or engaged during the entire exercise.

At the conclusion of RIMPAC, the squadron was treated to five days of well deserved liberty in Pearl Harbor, Hawaii. This was a welcome break for the squadron in the middle of what was shaping up to be a hectic year. The squadron made the transit from Hawaii to San Diego during the week of June, conducting routine training missions.

After VAW-116's return from RIMPAC on 2 July, the squadron began preparations for a two month surge deployment in August. During July the Sun Kings participated in another Hey Rube exercise. On the 9 July, VAW-116 provided services for "Orange" Hey Rube aircraft, and acted as a neutral "White" player to observe all aircraft in the jamming arena. From 14-18 July the squadron participated in the first Hey Rube exercise involving the F/A-18. It was a chance for the squadron to try new anti-jamming techniques with the new sophisticated fighters.

Things got even busier in August. In addition, to preparing for the Surge, the squadron was preparing for its command inspection. The inspection team took a very close look at all departments evaluating the various programs and practices of each. The command easily passed the inspection with flying colors. In mid-August VAW-116 conducted another NNBIS support mission. The end of August involved a period of pilot carrier qualification and predeployment preparation for the Surge.

The Surge began on 21 August as VAW-116 again deployed on the USS RANGER (CV-61) to take part in FLEETEX/ANNUALEX 86. The operations took the command to the Sea of Japan and the North Pacific. As part of Battle Group ECHO, VAW-116 exercised with the USS NEW JERSEY and the USS CONSTELLATION Battle Groups in the Battle Force concept of operations. The Sun Kings proved to be equal to the challenge as was evident when the squadron completed a 96 hour period of continuous flight operations with a 100% sortie completion rate. The USS RANGER conducted another silent transit using EMCON. This transit was successful due, in part, to the squadron's E-2C's ability to take control of airwing aircraft to respond to and intercept several Soviet reconnaissance flights without compromising the battle group's location.

While in the Sea of Japan, VAW-116 gained custody of a fifth E-2C "Hawkeye" on loan from VAW-115 with an additional crew from the Japan based squadron. The "Liberty Bells" of VAW-115 provided valuable experience to the squadron in how to best handle various aspects of operations peculiar to the Sea of Japan. Four days in September were spent on liberty in Pusan, Korea. For many of the more junior personnel of the command, this was a first look at the Orient. On the 27 September the squadron celebrated a milestone: 20,000 accident free flight hours. RADM McGrail, COMCARGRU ONE, and CDR Wilks, Commander, CVW-2 were on hand aboard USS RANGER to express congratulations to all hands for a job well done.

The transit east occurred in late September and early October and took USS RANGER and her air wing north of the Aleutian Islands. The transit brought new challenges to the squadron. Flight operations and aircraft maintenance were conducted in extremely cold weather. Sun King professionalism prevailed and all sorties were completed safely despite the poor visibility and low ceilings that were typical of that area for that time of the year.

On 10 October the squadron enjoyed four days of liberty in Vancouver, British Columbia. Vancouver proved to be a rewarding time as all hands were able to attend the closing days of Expo '86. The port was also highly anticipated as it was the point where USS RANGER, and VAW-116 welcomed "Tigers" aboard. The five day transit from British Columbia to San Diego provided squadron personnel's male dependents and relatives a unique view of naval aviation and life deployed on an aircraft carrier. VAW-116 logged the completion of a very successful surge deployment on 19 October.

On 3 November the squadron participated in another CNO Project, this one involving an operational test of the Harpoon Missile in the Pacific Missile Test Center's area. VAW-116 provided range control for the area. From 10-26 November the command detached to NAF El Centro, California for FFARP with CVW-2's two fighter squadrons, VF-1 and VF-2. Extensive air to air combat training was conducted over the TACTS ranges in the area with VF-126 playing the role of aggressors. VAW-116's aircrews realized a significant improvement in the overland operation expertise of the E-2C's weapon systems while providing air intercept control to the F-14's. FFARP culminated in "Fighter Derby" at El Centro, a COMPEX pitting the E-2C and F-14's against the adroit VF-126 adversaries. In the midst of the El Centro detachment VAW-116 held its change of command. Squadron personnel returned to NAS Miramar on Nov 21st to witness CDR James A. REAGHARD relieve CDR Donald S. WALLACE. RADM McGRAIL was again on hand as the guest speaker.

The last big operation of 1986 for the Sun Kings and CVW-2 was an Air Wing Weapons Detachment held in Fallon, Nevada 9-19 December. VAW-116 provided airborne early warning and control in the hostile overland operating environment during Air Wing Overland Air Superiority Training (OAST) and the Advanced Training Phase. Observers and instructors from "Strike U" made note that the E-2C's of VAW-116 were most effective in generating outstanding situational awareness for the air wing throughout the various training scenarios.

**1986 FLIGHT DATA**

COMMAND HISTORY FLIGHT DATA

LAND

<u>AIRCRAFT HRS</u>	<u>PILOT HRS</u>	<u>LAND FLIGHTS</u>	<u>FIELD LANDINGS</u>	<u>FCLPS</u>
DAY 1420.3	DAY 2840.6	DAY 401	DAY 860	DAY 1916
NIGHT 538.7	NIGHT 1077.4	NIGHT 87	NIGHT 231	NIGHT 577
TOTAL 1959.0	TOTAL 3918.0	TOTAL 488	TOTAL 1091	TOTAL 2493

SHIP

<u>AIRCRAFT HRS</u>	<u>PILOT HRS</u>	<u>FLIGHTS</u>	<u>ARRESTMENTS</u>	<u>BOARDING RATE</u>
DAY: 656.7	DAY 1313.4	DAY 152	237	DAY 97.13
NIGHT: 284.9	NIGHT 569.8	NIGHT 127	183	NIGHT 93.85
TOTAL: 941.6	TOTAL 1883.2	TOTAL 279	420	TOTAL 95.67

SHIP AND LAND

<u>FLIGHTS</u>	<u>LANDINGS</u>	<u>AIRCRAFT HRS</u>
DAY 553	DAY 1097	DAY 2077.0
NIGHT 214	NIGHT 414	NIGHT 823.6
TOTAL 767	TOTAL 1511	TOTAL 2900.6

IN CONCLUSION

1986 was a year for building experience, whether it was during training exercises or real world operations. The squadron made some remarkable achievements. The many and varied exercises in which the command took part, led to new challenges for aircrew and maintenance personnel. When a problem was encountered, squadron personnel demonstrated professionalism and imagination to overcome difficulty and press on.

The continuous fine tuning honed a squadron that is well prepared to enter 1987. 1987 will bring on new challenges as VAW-116 enters work-ups in preparation for its six month Western Pacific deployment. The deployment will be the first the squadron has made in three years. During 1986 the squadron spent four months at sea. The at-sea time represents a respectable headstart in getting back into the saddle as a deployed squadron. 1986 was also a profitable year, but the squadron is always looking ahead. VAW-116 is certainly on the road to another highly successful year in 1987.

  
J. A. REAGHARD  
Commanding Officer, VAW-116