FLEET AIR RECONNAISSANCE SQUADRON TWO

FAIRECONRON TWO

ROTA, SPAIN

WELCOME ABOARD

COMMANDING OFFICER

Graduating from the U.S. Naval Academy in 1967, Commander E. A. Caldwell entered flight training and was designated a Naval Flight Officer in August 1968. Upon completion of replacement air wing training for the F-4 PHANTOM, CDR Caldwell reported to Fighter Squadron ONE FIVE FOUR (VF-154) NAS Miramar, California for deployments to Southest Asia. Flying from USS Ranger, he flew in excess of 175 combat missions in the Vietnam Theater that included strikes, air combat patrols and reconnaissance escort missions.

In 1972, CDR Caldwell earned his second set of wings and was designated a Naval Aviator. Returning to the F-4 Phantom aircraft, he was assigned to Fighter Squadron ONE ZERO ONE (VF-101) at NAS Oceana, Virginia.

CDR Caldwell initially joined Fleet Air Reconnaissance Squadron TWO (VQ-2) in 1974 and served as the Avionics Division Officer and Operations Flight Officer. Following a tour at the Naval Intelligence Support Center from 1977 through 1980, he returned to Fleet Air Reconnaissance Squadron TWO and served as Training and Operations Officer. He subsequently reported to the Naval War College in Newport, Rhode Island and completed the Senior Officer Course. In 1983 CDR Caldwell returned a third time to Rota as the Executive Officer of Fleet Air Reconnaissance Squadron TWO and assumed the duties of Commanding Officer on 16 October 1984. CDR Caldwell holds a Master of Arts Degree in management and is a designated subspecialist in Electronic Warfare and Naval Intelligence. His awards include the Air Medal (nine awards), Navy Commendation Medal with Combat "V", Navy Achievement Medal and numerous campaign and service medals.

CDR Caldwell was born in Norfolk, VA and raised in Southern California. He is married to the former Julie Rich of Gulf Breeze, Florida. They have two children, Clayton and Clifford.

SQUADRON INSIGNIA

The "Electric Bat" was adopted in 1959 as VQ-2's squadron insignia. The bat symbolized the totally black MARTIN P-4 aircraft. Today, however, the bat symbolizes our EA-3B and EP-3E aircraft. The background represents the blue night sky with the clouds representing high altitude flight symbolizing our undetected presence. The lightning bolts are representative of electronic reconnaissance, VQ-2's primary mission. The outer ring is red in color, reminiscent of the original red field of the squadron flag flown while VQ-2 was homeported in Port Lyautey, French Morocco.

EXECUTIVE OFFICER

Commander Terry Hanson graduated from California State University at Long Beach and spent three and a half years as an engineer for Douglas Aircraft Company at Long Beach prior to Naval Service. He was commissioned October 1968 upon completion of Aviation Officer Candidate School, and received his Naval Aviator Wings, as well as Distinguished Naval Graduate designation, March 1970 at Beeville, Texas after completing jet flight training. Following A3 pilot training at VAH-123, Whidbey Island, he reported to VAQ-130 and served two tours embarked in USS Midway homeported out of Alameda, California. While deployed to Southeast Asia, he flew more than 250 combat missions in EKA-3B Electronic Countermeasures aircraft in support of Seventh Fleet operations.

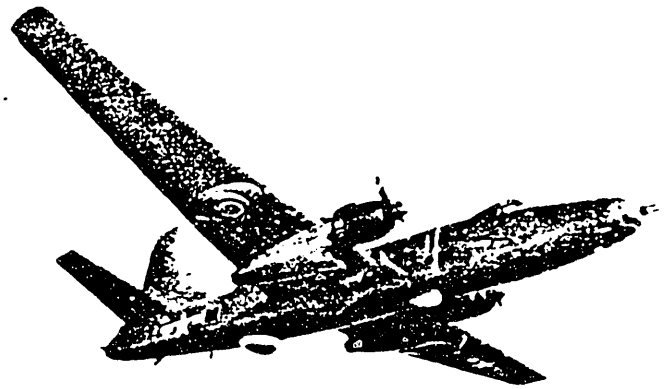
CDR Hanson next reported to VQ-1, Agana, Guam in 1973, flying EA-3B Electronic Support Measures combat missions from numerous carriers in Southeast Asia, and was also COMSEVENTHFLT flag pilot in TA-3B aircraft. His next assignment was a Joint Service tour as Officer-in-Charge of Defense Mapping Agency Hydrographic Center at Cubi Point,Republic of the Philippines, for mapping, charting, and geodetic affairs. In 1976, he reported to Naval Air Facility, Andrews Air Force Base, Washington D.C. for duty including primary station billets as well as Flag Pilot for CNO and Navy Secretariat in executive TA-3B aircraft. Following this, he was assigned to flight duty with VQ-2 at Rota, Spain, as an EA-3B pilot in fleet reconnaissance missions. In addition to being Safety, Assistant Operations and Training Department Head, this tour included O-IN-C of detachments on carriers worldwide. In 1983, he was assigned to the staff of CNO (OP-944 Electronic Warfare) Washington D.C., as coordinator for airborne EW programs. He screened for aviation command and has returned for a second tour in Rota as the Executive Officer of Fleet Air Reconnaissance Squadron TWO.

CDR Hanson holds a Bachelor of Science degree in Mechanical Engineering, a subspeciality in Electronic Warfare and is a selectee for the Senior Officer Course at Naval War College. He has accumulated nearly 400 day and night carrier landings as a pilot of A-3 Skywarrior aircraft. His awards include Air Medal (seven strike/flight and three individual awards) Joint Service Commendation Medal, two Navy Commendation Medals with Combat "V", Presidential Unit Citation and numerous campaign and service unit awards.

CDR Hanson was born in Waseca, Minnesota and raised in Southern California. He is married to the former Erlina Almias of Cadiz City, Republic of the Philippines.

SQUADRON INSIGNIA

A modified version ot the "Electric Bat" or "Cosmic Bat" was adopted by the squadron in 1979 as the official tail marking, painted on the vertical stabilizers of squadron aircraft.



LOCKHEED P-2V NEPTUNE

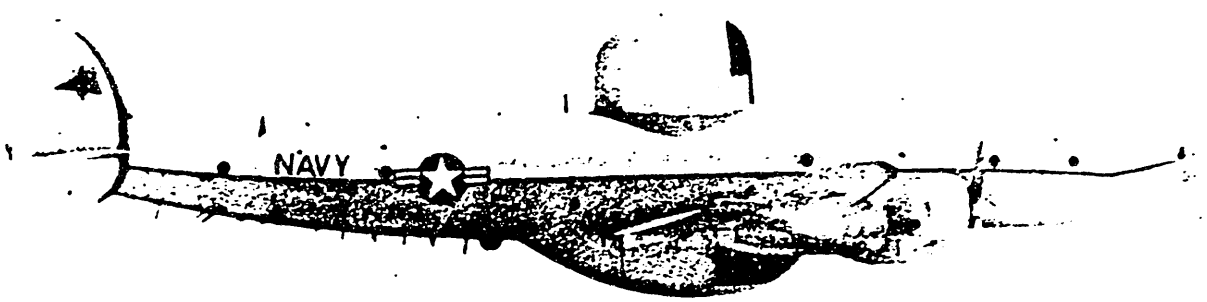
THE HISTORY OF VQ-2

In the aftermath of the Korean Conflict, the Department of Defense and the Navy in particular, placed increased emphasis on deterring aggression and military conflict through our presence in areas of international crisis.

VQ-2 was commissioned on 1 September 1955 to provide our country with an improved defense posture. Designated Electronic Countermeasures Squadron TWO (ECMRON TWO) at the outset, it was homeported at the U. S. Naval Air Station, Port Lyautey, Morocco. With a complement of twenty-four officers and seventy-eight enlisted men under the command of Commander Morris L. Kalin, VQ-2 commenced operations supporting the United States Sixth Fleet.

The squadron originally utilized the Navy P4M-1Q and A3D-1Q aircraft. In January of 1960, the squadron was transferred to it's present homeport, Naval Station, Rota, Spain. Early in 1960, while commanded by Commander Paul D. Halpin the squadron's name changed to Fleet Air Reconnaissance Squadron TWO (FAIRECONRON TWO). Shortly thereafter, the P4M aircraft was replaced by the EC-121M Super Constellation. FAIRECONRON TWO continued to operate and maintain aircraft of this series into 1974. The A3D-1Q's were replaced by the A3D-2Q, an improved version of the same basic aircraft and were subsequently superseded by the present EA-3B Skywarrior. On 31 July 1971, VQ-2 received it's first delivery of the EP-3E Aries aircraft. The squadron now has six EP-3E's, six EA-3B's and one training UP-3A.

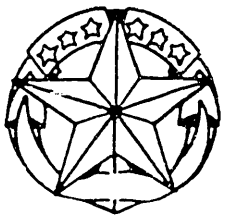
Since commissioning, VQ-2 has provided reliable, timely intelligence on areas and targets of naval and national interest. The squadron participated in numerous exercises with fleet and air units of the Mediterranean/European area, while simultaneously conducting normal operations supporting the fleet and theater commanders. Exercises of notable interest in which VQ-2 has played a major role are: International Week, SHABAZ, Deep Furrow, Red Eye, Poopdeck, Ocean Venture, Display Determination, and DASIX. These are joint exercises with U.S. Naval Fleet Units and



LOCKHEED EC-121 CONSTELLATION

Fleet Air Reconnaissance Squadron Two
Former Commanding Officers

CDR M. L. KALIN
CDR R. R. SPARKS
CDR C. H. SIGLEY
CDR R. D. HALPIN
CDR A. G. ELDER
CDR H. E. FITZWATER
CDR R. M. DAVIS
CDR C. A. KISER
CDR J. H. MCCONNELL
CDR A. D. BURKETT
CDR E. V. LANEY
CDR T. E. DAUM
CDR P. W. ARN
CDR H. G. HATCH



CDR A. A. GALLOTTA
CDR J. E. TAYLOR
CDR J. F. MCRAE
CDR J. D. MEYER
CDR D. J. ALBERG
CDR D. N. HAGEN
CDR T. A. PELTZ
CDR G. J. HOPKINS
CDR R. L. PREHN
CAPT J. E. TAYLOR
CDR T. W. FRITZ
CDR J. P. FLYNN
CDR D. C. EAST
CDR J. J. DRAPER

Allied Forces. EP-3E's and carrier based EA-3B's have been valuable assets in Mediterranean, Atlantic and Carribean operations, and have provided vital support to the Indian Ocean Battle Group of the U.S. Seventh Fleet. VQ-2 was awarded the Navy Expeditionary Medal for participation in the 1983-84 evacuation of American civilians from Beirut and assistance to the Multi-national Peacekeeping Force in the on-going Mid-East crisis. Two EA-3B detachments were awarded the Navy Unit Commendation and the Meritorious Unit Commendation for service with USS Independence and USS John F. KENNEDY in March 1984.

In 1969, VQ-2 won the Naval Aviation Safety Award for the most outstanding safety record achieved among special mission squadrons in the U. S. Atlantic Fleet. As of June 1984, VQ-2 achieved nine consecutive years of accident free flying, amassing 60,000 hours in the two aircraft models assigned. A Navy Unit Commendation was awarded to VQ-2 for meritorious service during the Arab-Isreali conflict from 4 October 1973 through 14 November 1973, and two Meritorious Unit Commendations have been awarded for operations conducted from March 1979 through April 1980, and June 82 through May 83. VQ-2 was awarded the COMNAVAIRLANT Battle "E" for Special Mission category for 1983.

In keeping with the spirit of goodwill and support of local community civic action, VQ-2 maintains a program to help a young girls' orphanage in the nearby town of Puerto Real. Through sales programs, carnival booths, and wives' club donations, the squadron contributes approximately $1,500 annually in goods and gifts to the orphanage. Each year, VQ-2 personnel provide a Christmas party containing elements of the local custom of Three Kings (Magi) Day by distributing gifts to the girls. Outings to the circus and American style rodeos are also sponsored in the spring and summer. In addition, participation by VQ-2 personnel in both fund-raising and selection of deserving applicants for college scholarships is a volunteer effort in concert with Naval Station, Rota, Spain.

VQ MISSION

The VQ mission is to conduct Electronic Reconnaissance in support of fleet operations to obtain information on areas and targets of naval interest. VQ reconnaissance aircraft consistently provide fleet commanders and decision-makers at the national level with vital and timely intelligence concerning potentially unfriendly countries.

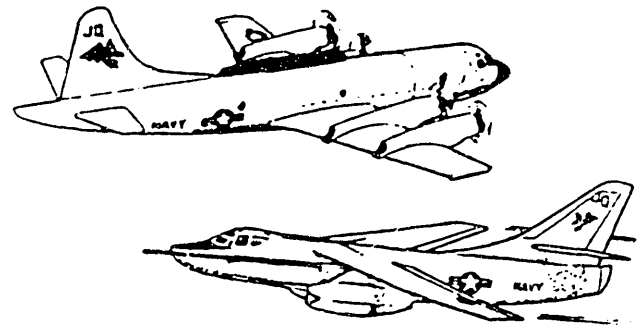
The VQ-2 airborne reconnaissance platform, operating independently in international airspace or in conjuction with other U.S. Forces, frequently provides the Fleet Commander with his only real time assessment of tactical employment of unfriendly military forces. While providing intelligence support to the fleet in a multi-threat/open ocean environment, the reconnaissance crew, utilizing experience and extensive knowledge, must rapidly determine the evolving tactical scenario by analyzing available information. The capacity of the fleet to respond effectively could ultimately be dependent upon the skill and efficiency with which the reconnaissance team interprets and reacts to the changing SIGINT environment. The value of such Electronic Support Measures (ESM) exploitation of potential threat emissions is well documented.

The squadron also gathers information on foreign ships which could pose a threat to the U.S. Navy's ability to maintain control of the seas. The ability of mission aircraft to relay information directly to U.S. units and ground sites significantly enhances the squadron's fleet support capability, while the real time transmission of critical intelligence directly to the national command authority allows decision makers to react rapidly to key developments in volatile foreign countries.

In the EP-3E, the crew consists of 28 members while the EA-3B carries a 7 man crew. To identify the unique talents of its enlisted and officer corps, the VQ squadron utilizes the following terms: Electronic Warfare Mission Commander (MC); Electronic Warfare Aircraft Commander (EWAC); Electronic Warfare Evaluator (EVAL); Electronic Warfare Navigator (EWAN) and the Electronic Warfare Aircrewman (EWOP). The following specifically define the duties, responsibilities and levels of proficiency of each position.

DESCRIPTION OF POSITIONS

Mission Commander (MC)



The designation of Mission Commander is reserved for select individuals, who by virtue of their extensive knowledge of the principles of electronic warfare, squadron aircraft operations and crew coordination, have been designated by the Commanding Officer as the person ultimately responsible for the conduct of the ESM mission. This responsiblity makes it imperative that the Mission Commander maintain full awareness of every aspect of the intelligence collection mission, so that all phases are carried out in a comprehensive and coordinated manner. The Mission Commander briefs the crew on specific responsibilities and special taskings in light of current political situations. Once airborne, his complete understanding of complex aircraft systems and the signals environment, as well as his superior ability to direct the crew effort, enable him to complete the mission and to optimize the intelligence gain.

His decisions are based on available information and he knows a wrong decision may suddenly place the naval forces in jeopardy. On the ground he supervises all first echelon analysis of the mission product and has sole responsibility for its accuracy and timeliness. This final step is critical since his interpretation of situations may have national and international ramifications.

Electronic Warfare Aircraft Commander (EWAC)

The Electronic Warfare Aircraft Commander (EWAC) is a pilot with a high degree of maturity, experience and skill. Furthermore, he must be able to perform professionally under stress. Routinely, his authority greatly outweighs that of his contemporaries in other fields and he bears responsibilities not usually required of other type aircraft commanders during their entire naval career.

The EWAC must be constantly aware of the political sensitivities in the area in which he is flying and be prepared to make instantaneous decisions concerning situations which, without the proper reaction, could easily develop into an international incident. He is also capable and responsible for relaying vital intelligence information directly to Fleet Commanders, CNO, NSA or JCS as the situation warrants.

In the absence of a designated Mission Commander, the EWAC is responsible for coordinating Electronic Warfare (EW) tactics with the Electronic Warfare Tactical Evaluator and the Electronic Warfare Navigator.

Electronic Warfare Tactical Evaluator (EVAL)

The Electronic Warfare Tactical Evaluator (EVAL) manages the planning, collection and reporting requirements demanded by each mission. The EVAL must collect signals intelligence (SIGINT) to determine the evolving tactical scenario. This collected information is compiled into a SIGINT report which reaches the highest echelons in the national reconnaissance efforts.

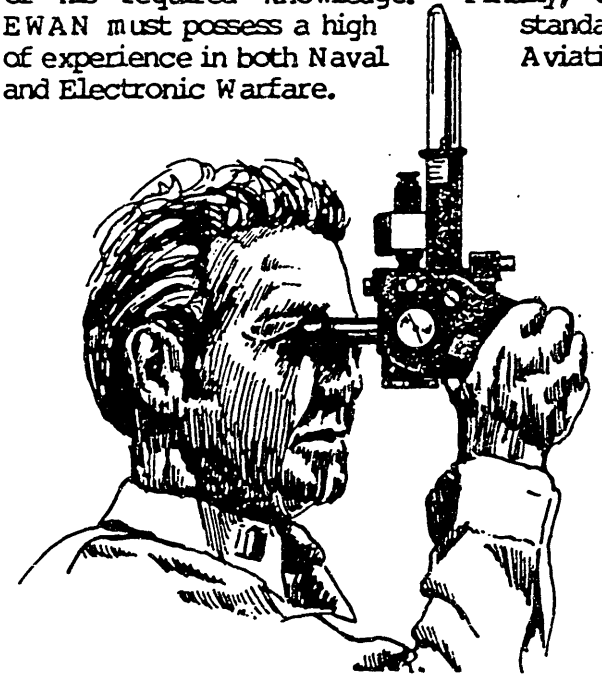
The political sensitivities inherent in the various areas of operations require the evaluator to be completely knowledgeable in areas of U.S. and foreign strategy, tactics and national objectives. On numerous occasions, a squadron aircraft has provided the sole input of national security information which reached the national command authorities rapidly. It is evident that in addition to a high level of expertise and leadership, the EVAL must possess a high degree of maturity and judgement. The EVAL carries the ultimate responsibility for the analysis of intelligence during airborne reconnaissance missions in the EP-3E and EA-3B.

To be designated a Senior Evaluator (SEVAL), a Naval Flight Officer must demonstrate his ability to perform a SIGINT collect mission in any tactical environment. The SEVAL is considered a tactical SIGINT expert and as such is routinely called upon to provide high level briefings and assist in the development of Electronic Warfare tactical doctrines.

Electronic Warfare Navigator (EWAN)

The Electronic Warfare Navigator (EWAN) is an integral member of the mission crew. His qualification as a navigator requires a complete understanding of several navigational systems. Navigation must be constantly checked and maintained within a one mile accuracy. This is necessary to ensure the preciseness of the mission product and to avoid international incidents when flying near hostile countries. The EWAN must complete all NATOPS requirements for the type aircraft flown. In the EA-3B, the EWAN is instrument qualified, completely familiar with all aircraft systems and must function as a co-pilot to enable the EA-3B to be categorized as a dual piloted aircraft. He additionally handles all radio communications from take-off to landing. Additional responsibilities include communication to and from the aircraft as well as recognition and photography of aircraft and ships. His knowledge of the mission is necessary for him to coordinate with the Aircraft Commander and SEVAL for mission accomplishment.

EWAN's must be aware of flight rules governing these highly sensitive missions. Missions in close proximity to non-friendly countries are conducted with complete reliance on the EWAN's knowledge of the rules for that area. Mission reports and the time constraints governing them are also part of his required knowledge. Finally, the EWAN must possess a high standard of experience in both Naval Aviation and Electronic Warfare.



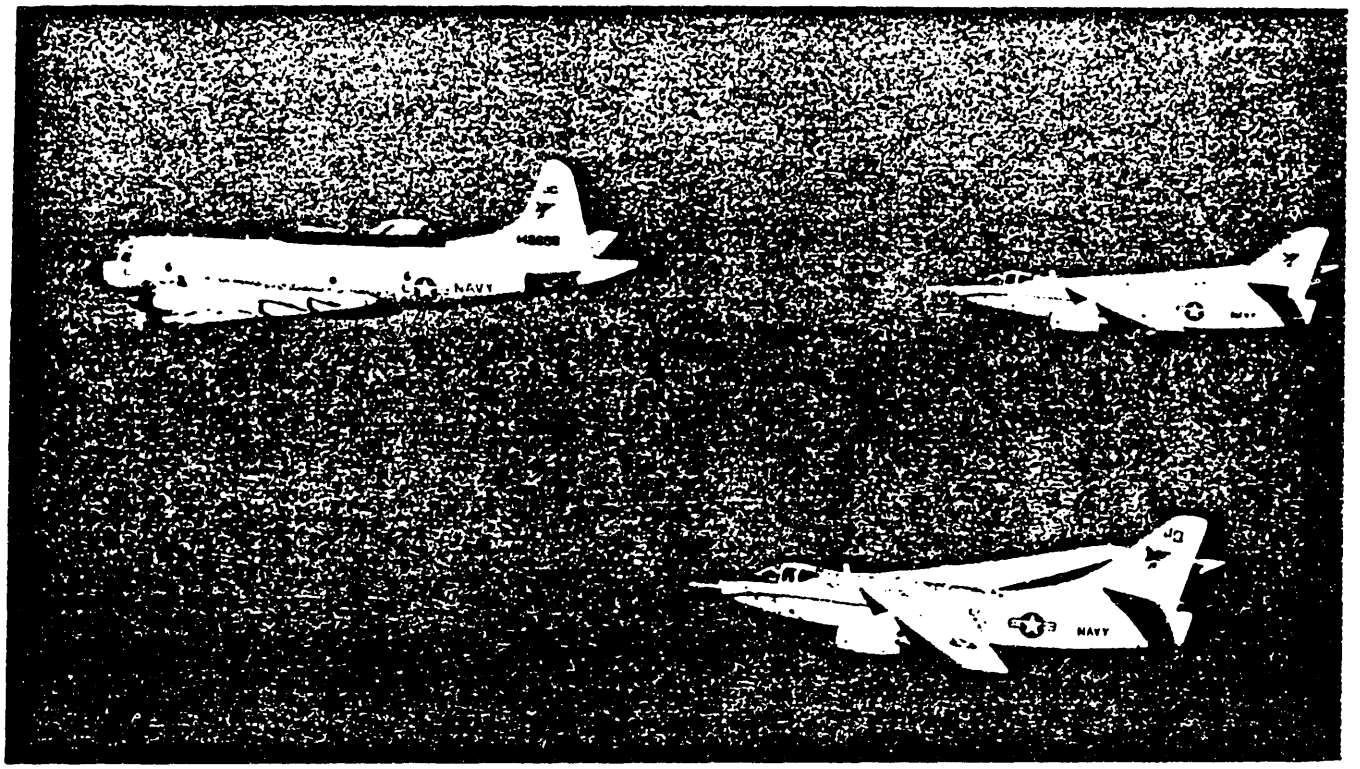
Electronic Warfare Aircrewman

The backbone of VQ-2's Electronic Warfare Crew is made up of the highly professional enlisted Naval Aircrewmen. There are over 150 Aircrewmen of various ratings and experience levels who directly determine the success or failure of the EP-3E and EA-3B missions. The flight engineers on the EP-3E and the crew chiefs on the EA-3B are drawn from the AD, AM and AE ratings. They are responsible for overall airworthiness of the airframe from preflight through completion of postflight. Without their presence on the crew, the aircraft would never leave the deck. The lives and safety of the entire crew depend on their technical knowledge and professional readiness.

The radioman's position is usually manned by an AT who must be fully knowledgeable of the EP-3E's Communication/Navigation systems. The Airborne Electronic Supervisor, or "Tech", is a senior AT who is responsible for making sure that all the sophisticated Electronic Warfare equipment is in optimum operating condition. He is also responsible for crew coordination, on the deck as well as in the air, and therefore must be a mature and professional military leader.

The "lab" operator is an Airborne Electronic Warfare Analyst. His complex task requires expert knowledge of ELINT as well as an in-depth working knowledge of the complex analysis and recording systems on the EP-3E. The Evaluator relies on the CTT for a successful mission.

The bulk of our Naval Aircrewmen are Electronic Warfare Operators (EWOP) and make up the front line of ELINT collection. These highly trained AT's and AE's master the operation of sensitive receiving equipment as well as develop an in-depth knowledge of ELINT, a requirement not usually associated with this rating.



AIRCRAFT DATA

VQ-2 has six EP-3E 4-engine turbo-prop aircraft, six EA-3B 2-engine jet aircraft and one UP-3A 4-engine turbo-prop aircraft.

Three of the EP-3 aircraft are original 1970 "Aries" configuration and three are the more recent "Deepwell" configuraton. The EA-3B aircraft are equipped with ALR-44 ESM system. The UP-3A aircraft is used for logistic/training purposes.

The EP-3E's are modified P-3As, which were originally designed for anti-submarine warfare (ASW). The EA-3B's are a version of the A-3's which were originally designed as bombers. Both aircraft have canoes or spines along the bottom of the fuselage. The EP-3E's have another canoe along the top of the fuselage and a large belly-mounted radome. The normal crew compliment in each aircraft is 28 for the EP-3E and for the 7 EA-3B. Although the actual equipment suites and capabilities of the EP-3E/EA-3B aircraft are classified, they are basically comprised of state-of-the-art electronic warfare reconnaissance gear. There are no other platforms in any U.S. military service which can provide the timeliness, variety, quality and quantity of reconnaissance support to the fleet and national commanders.

The EP-3E carries three pilots, one navigator and two electronic warfare tactical evaluators. The remainder of the crew is made up of enlisted operators, flight engineers, technicians and mechanics.

A first tour pilot in VQ-2 should attain electronic warfare aircraft commander (EWAC) status during his VQ tour. Navigators are usually designated as qualified EWANs (Electronic Warfare Navigators) within twelve to sixteen months of checking onboard the squadron.

NFOs designated to undergo electronic warfare training at Corry Station usually qualify as Senior Tactical Evaluator within two years of checking onboard the squadron. An average of five to six months total deployment time per year can be expected for any crewmember.

The six EA-3B jet aircraft carry a crew of seven; one pilot, one navigator (right seat), one senior tactical evaluator and four enlisted operators.

EA-3B pilots achieve aircraft commander very quickly because of extensive RAG training. EA-3B navigators frequently achieve mission commander status along with the pilots. The EA-3B electronic warfare evaluator often is dual qualified to fly in both the EA-3B and the EP-3E despite different qualification procedures for each model.

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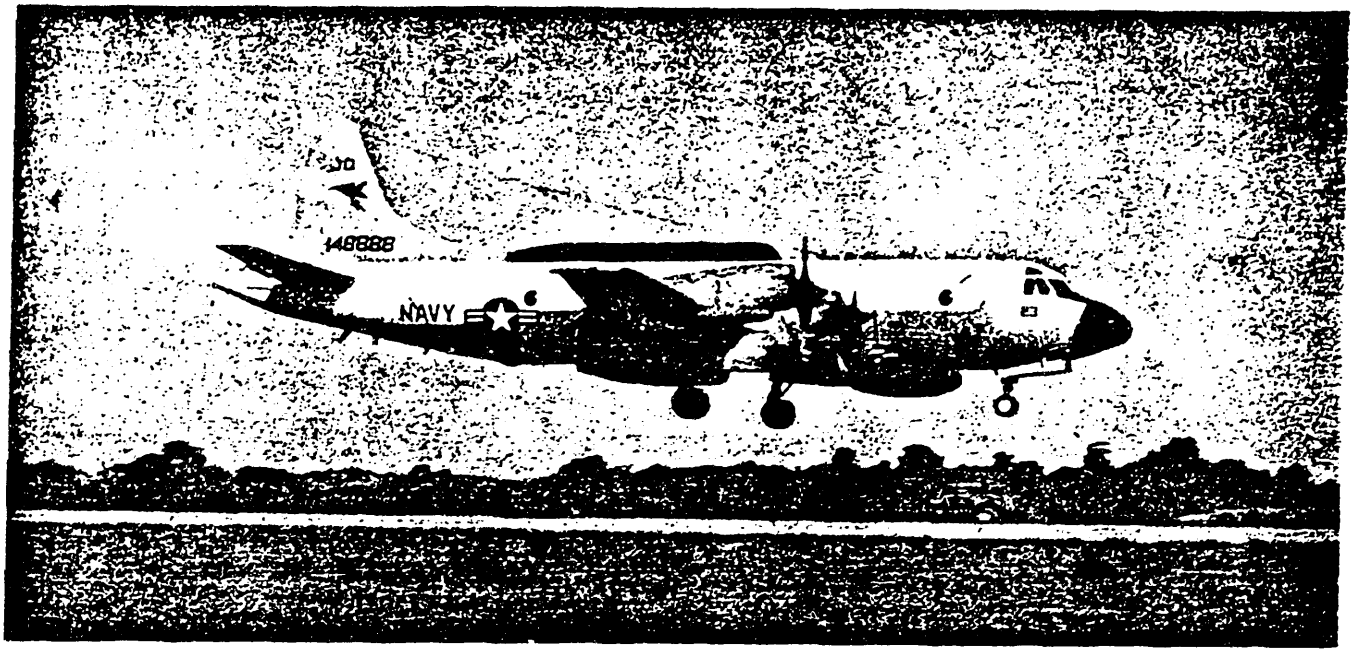
Aircraft Data CONT'D:

The EP-3E operates predominantly from European theatre land bases as well as from virtually any military air base in the world due to the wide common use of Lockheed P-3 aircraft throughout NATO and allied nations.

The EA-3B operates from deployed Mediterranean and Indian Ocean aircraft carriers as an integral part of the carrier air wing for average periods of two or more months. Occasionally, the EA-3B also operates from Mediterranean and European land bases in support of exercises and additional squadron missions. The EA-3B is the largest carrier-based aircraft in the world. It also is the only reconnaissance aircraft of it's type that is not dependent upon land bases.

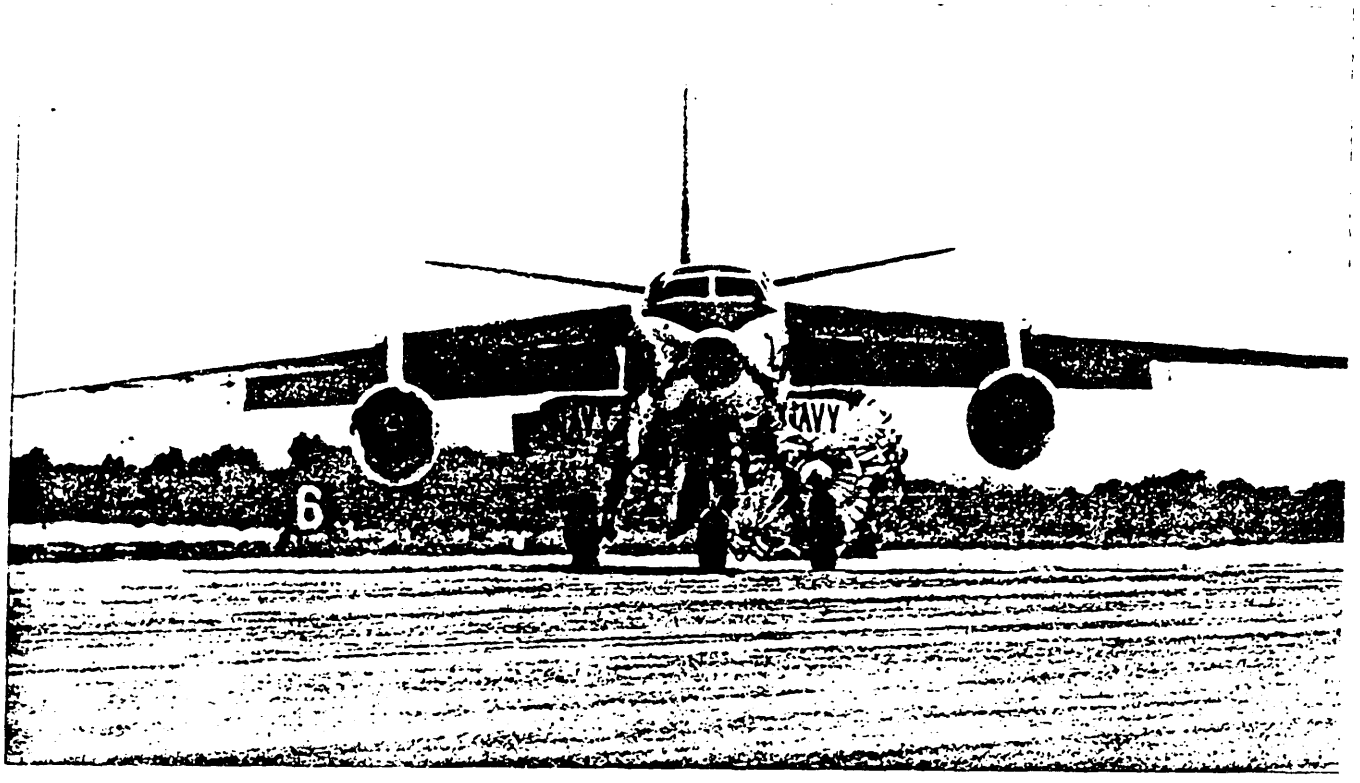


LOCKHEED

EP-3E ARIES

STATISTICS

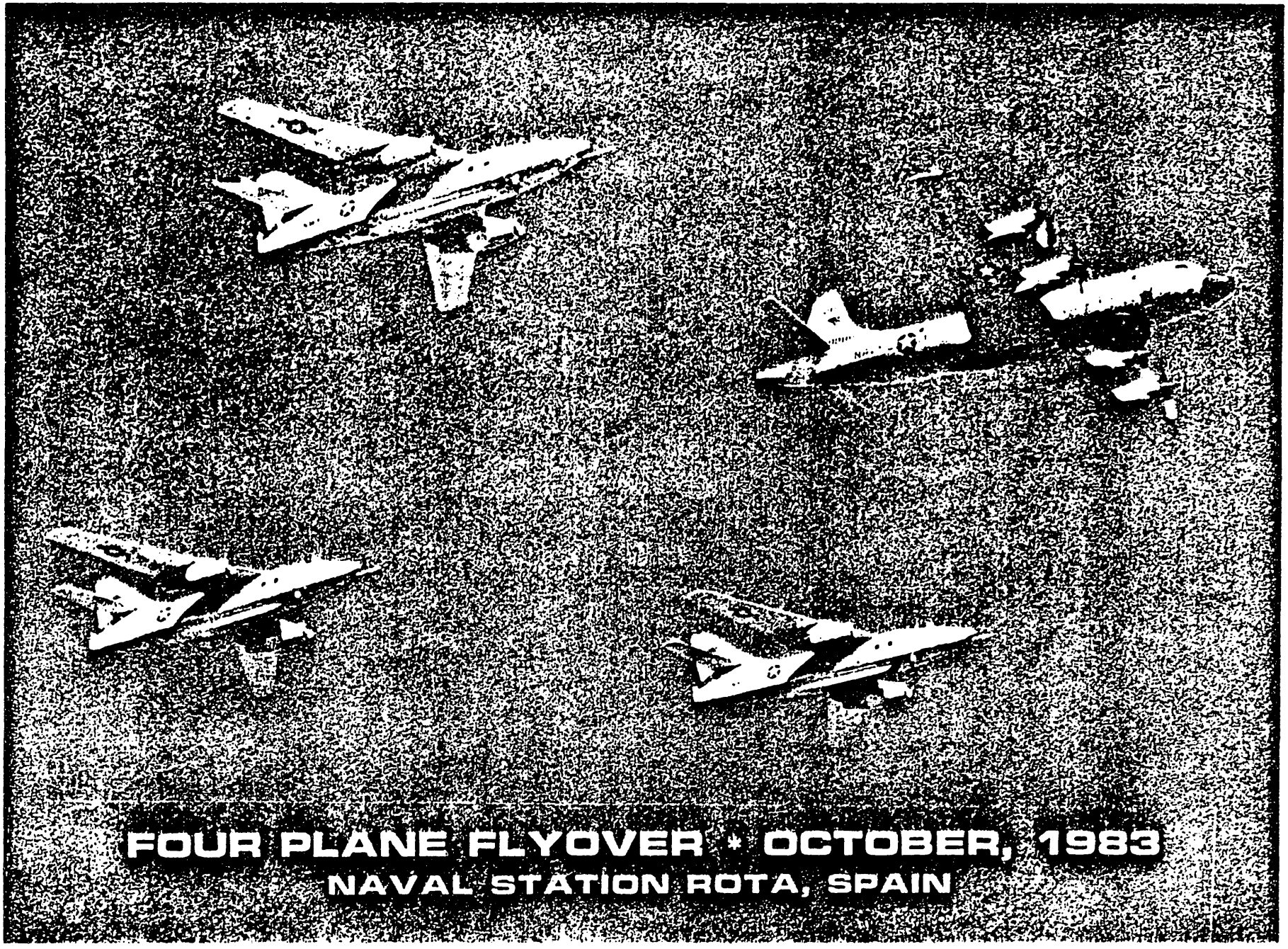
MAXIMUM RANGE	3600 NM (6500 KM)
MAXIMUM ALTITUDE	30,000 FT (9140 M)
MAXIMUM SPEED	350 KTS (650 KM/HR)
MAXIMUM ENDURANCE	12 HOURS
MAXIMUM RATE OF CLIMB	2000 FT/MIN (690 MTRS/MIN)
MAXIMUM TAKE OFF WEIGHT	142,000 LBS (64,5000 KT)
CREW MEMBERS	7 OFFICERS/21 ENLISTED
PRIMARY MISSION	ELECTRONIC RECONNAISSANCE
HOME PORT	NAVAL STATION, ROTA, SPAIN



EA-3B SKYWARRIOR

STATISTICS

MAXIMUM RANGE	2,500 NM (4,500 KM)
MAXIMUM ENDURANCE	5 HOURS 30 MINUTES
MAXIMUM ALTITUDE	43,000 FT (13,100 M)
MAXIMUM RATE OF CLIMB	6,000 FT/MIN (1,800M/MIN)
MAXIMUM SPEED AT 30,000 FT	520 KTS (940 KM/HR) (.88 IMN)
MAXIMUM SPEED AT SEA LEVEL	480 KTS (860 KM/HR)
CREW MEMBERS	3 OFFICERS 4 ENLISTED
MAXIMUM TAKE-OFF WEIGHT	SHORE BASED: 78,000 LBS 35,450 KG
	CARRIER BASED: 73,000 LBS 33,200 KG
PRIMARY MISSION	ELECTRONIC RECONNAISSANCE
HOME PORT	NAVAL STATION, ROTA, SPAIN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