1992 COMMAND HISTORY

As the Navy's only dedicated squadron assigned responsibility for electronic reconnaissance in the Pacific and Indian Ocean theaters, VQ-1's peacetime posture is virtually indistinguishable from that of its wartime role. In support of Seventh Fleet and high level national tasking, VQ-1 has been called upon repeatedly to respond to multiple international crises at a moment's notice. To meet these requirements, VQ-1 maintains the highest operational readiness level 24 hours a day, 365 days per year. This herculean task requires the finest support and logistic structure possible, the cornerstone of which is the VQ-1 Maintenance Department.

1992 was a year of great accomplishment, innovation and achievement for the Maintenance Department. Logging over 5345 flight hours from 11 detachment locations, VQ-1 set the pace in mission effectiveness, tactical coordination, administrative excellence and most importantly, operational flexibility. All of this was done while maintaining the fleet's oldest aircraft and introducing one of the fleet's newest...the EP-3E ARIES II.

The cornerstone of any success rests with people. At no time was this more evident than in 1992. Operating from locations throughout the world the men and women of this command have proven that anything is possible.

CY 92 was a year of great accomplishment for the maintenance department of VQ-1. Employing over 300 maintenance personnel at detachment sites throughout the world, VQ-1 set new standards of excellence in operational success, mission effectiveness and aircraft availability.

DEPLOYABILITY

Transition best characterized the Maintenance Department in 1992. In response to a reduced Soviet threat and increasing international tensions throughout the Pacific Rim, Indian Ocean, and Persian Gulf, it was necessary for the squadron to enhance its rapid deployment capability. In this regard, the maintenance department set the pace. Employing highly mobile Pack-up Kits (PUKs) and implementing an intense training and qualification program for maintenance personnel, the department was able to send mini-maintenance detachments of 4-6 personnel capable of completing virtually any maintenance task from a daily inspection to a T-56 Engine change. The result: Complete maintenance support and the ability to maintain continuous operations almost anywhere in the world. Table 1 shows the locations and approximate duration of VQ-1 detachments in 1992.

TABLE 1

VQ-1 1992 DETACHMENT LOCATIONS

LOCATION	DURATION
Manama, Bahrain	150 Days
Misawa, Japan	365 Days*
Kadena, Japan	135 Days*
Iwakuni, Japan	25 Days
Osan, South Korea	15 Days*
Butterworth, Malaysia	40 Days*
Singapore	10 Days
Utapao, Thailand	10 Days
Cubi Point, Philippines	60 Days*
Patuxent River, Maryland	205 Days

* Indicates Multiple Detachments

SIGNIFICANT ITEMS/EVENTS

** Completed two Aircraft Service Period Adjustment (ASPA) Inspections, two Structural Condition Inspections (SCI) and two Scheduled Depot Level Maintenance (SDLM) periods with no significant impact on operational readiness or squadron deployability.

ASPA: PR-44 Completed: Apr 92
PR-43 Completed: Jun 92

SCI: PR-33 Completed: Feb 92
PR-36 Completed: Jul 92

SDLM: PR-00 Completed: Apr 92 (VIP configuration)
PR-43 On going with ECD Feb 93

** Passed the July 1992 COMFAIRWESTPAC Material Condition Inspection (MCI) and Maintenance Programs Assist (MPA) with no major discrepancies and an overall adjective grade of "excellent."

** Completely implemented the Maintenance Training Improvement Program (MTIP). The first aviation command in WESTPAC to do so.

** Accepted delivery of the third of six EP-3E ARIES II aircraft during the third quarter. Currently, the squadron is at 83% of allocated EP-3E assets and 50% of EP-3E ARIES II assets.

** Designed and proposed 15 mission avionics system upgrades via the squadron Special Operation Department (SPOD) and Squadron Configurations Department.

** Maintained continued operations at 11 detachment sites flying over 3000 mission hours in direct support of Commander, U.S. Seventh Fleet.

** Flew over 600 hours from Manama International Airport, Manama, Bahrain in

direct support of Commander, U.S. Forces Central Command during Operations Southern Watch and Desert Calm.

** Maintained squadron EP-3E Aries I, EP-3E Aries II, UP-3A and P-3B aircraft at an average of 12% above CNO goals for year, with third and fourth quarter mission capability at or above 90% for all squadron aircraft.

** Maintained the fleet's oldest aircraft (ARIES I) at an amazing 90% mission capable rate since May 92 and at 76% for the entire year.

** Reduced the average number of Not Mission Capable Supply (NMCS) requisitions from an average of 15/week in 1991 to less than 1/week in 1992.

** Received the COMFAIRWESTPAC and COMNAVAIRPAC nomination for the 1992 Department of Defense Award for Maintenance Excellence (Phoenix).

EP-3E AIRCRAFT

VQ-1 employed five in theater EP-3E Tactical Reconnaissance Aircraft, two ARIES I and three ARIES II. During 1992, VQ-1 kept three of five of its EP-3E aircraft constantly deployed for over 300 days. This aggressive deployment schedule would not have been possible without the total commitment of the maintenance department. Through sound management and planning this command has continued to utilize its synchronized phase/56 day inspection maintenance philosophy. By doing so, aircraft are able to deploy for up to 42 consecutive days and upon return to homeplate receive 14 days of "TLC." This practice has proven remarkably effective in 1992 as evidenced by the following:

** EP-3E ARIES I aircraft Mission Capability increased from 56% in 1991 to 76% in 1992, 14% above CNO goals. Since May 1992, Mission Capability for the ARIES I has been consistently at or near 90%.

** EP-3E ARIES II aircraft Mission Capability increase 76% in 1991 to 80% in 1992, 18% percent above CNO goals. Since May 1992, Mission Capability for the ARIES II has been consistently above 90%.

** ARIES specific requisitions have decreased 38% from an average of 85 per week in 1991 to approximately 50 per week in 1992.

** Aircraft cannibalization rate fell 36% from 6.1 per 100 flight hours in 1991 to 3.9 in 1992.

** Direct maintenance man-hours per flight hour fell 33% from 48.5 in 1991 to 32.3 in 1992.

** ARIES aircraft completed over 300 sorties in 1992 with no loss in operational commitments.

ARIES II TRANSITION

As deployment operations continued, the Maintenance Department was faced with another formidable challenge: Acceptance and transition to a completely new tactical reconnaissance platform...the EP-3E ARIES II. Originally, the ARIES II was conceived as a Conversion In-lieu of Procurement (CILOP) program in which the avionics portion of the ARIES I aircraft would simply be "cross-decked" to a newer airframe. With various system upgrades and avionics modifications, the result is a vastly improved aircraft being delivered into the Navy inventory. From the program's inception, VQ-1 maintenance personnel were instrumental in the design and construction of the new aircraft. This involvement continued in 1992 as the squadron accepted its third ARIES II aircraft.

As with any new aircraft, the ARIES II has experienced some problems. Most notable are the immature logistic support system and complete lack of "official" technical data. Confronted with these obstacles, the maintenance department established an innovative operational/maintenance rotation schedule that ensured maximum aircraft readiness and availability. Additionally, a tightly controlled cannibalization (less than 4 per 100 flight hours) policy and careful management of limited avionics support components has ensured the continued operational success of this aircraft throughout the world. Equally impressive is the fact that this aircraft continues to successfully deploy despite the lack of standard technical data. To overcome this obstacle, maintenance personnel are "writing the book" and regularly submit their data to NAVAIRSYSCOM for incorporation into future ARIES II technical publications.

With the final ARIES II not scheduled to arrive until 1995, it was necessary to maintain an aging fleet of EP-3E ARIES I aircraft. Among the Navy's oldest aircraft (30 years), all ARIES I aircraft have exceeded their 100 percent Fatigue Life Index (FLI). To provide the maximum service life possible, NAVAIR and the P-3 Cognizant Field Activity (CFA) initiated the Structural Condition Inspection (SCI). Similar to an Aircraft Service Period Adjustment (ASPA) inspection in scope, it is conducted at an aircraft's Period End Date (PED), and upon successful completion, extends the aircraft's service life by one year. Unlike the ASPA, however, a failure does not result in induction to SDLM. Instead, all major and depot level discrepancies are repaired prior to an aircraft's return to service. VQ-1 conducted two SCIs in 1992 requiring an average of 57 days to complete. Despite losing an operational asset and leaving only three in theater, VQ-1 never missed a beat and continued to excel operationally.

UTILITY AIRCRAFT

In addition to the EP-3E, the squadron also operated 1 UP-3A VIP aircraft and 2 P-3B training and logistic aircraft. In 1992, PR-00 made deployments to Bahrain, Hawaii, New Caledonia, Australia, Singapore, Malaysia and India all in support of Commander, U.S. Seventh Fleet tasking. Compiling over 45,000 miles in tasked transportation, this aircraft never missed a scheduled take-off due to maintenance related problems.

The P-3B aircraft underwent two ASPA inspections in 1992. One of them (PR-43) failed and is currently undergoing SDLM in Atsugi, Japan. Despite the

down time caused by the ASPA and SDLM periods, VQ-1's utility aircraft enjoyed a notable record of accomplishment in 1992 as shown below:

** UP-3A and P-3B Mission Capability increased from 43% in 1991 to 77% in 1992. Since May 1992, both UP-3A and P-3B Mission capability has averaged between 85 and 92%.

** During 1992, PR-00 completed SDLM and had incorporated several system upgrades. These included a completely redesigned aircraft galley, a modification to the aircraft bomb bay and an upgraded communications suite. Each of these mods was thoroughly researched by the Maintenance Department. Also during the year, plans to upgrade the navigation system with dual LTN-72 inertials and the powerplants system with T56-A-14 engines were initiated. These upgrades will ensure that PR-00 will serve as the Seventh Fleet's aircraft well into the next century.

** Both P-3B aircraft (PR-43/44) were redesignated as UP-3B aircraft in December.

CONFIGURATIONS MANAGEMENT

In 1992, the command inaugurated the Configurations Department in order to manage the myriad of special modifications that are available for both the ARIES I and ARIES II aircraft. This group of highly trained maintenance managers ensured both short and long range system design changes were compatible with current aircraft configurations. Working closely with the squadron Special Projects Division, new signal devices were installed, tested and evaluated against potential enemy threats. Over 15 special mission packages were installed and evaluated for future inclusion in tactical reconnaissance aircraft including a Satellite Communication System, Fleet Data Link, Radar Upgrades, Avionics System Upgrades, Signal Processing System and a Special Signals Exploitation System. Once again it must be noted that the Maintenance Department was instrumental in the design and testing of all these systems. Additionally, this command has saved the Navy over one million dollars by designing these systems in-house due to the prohibitive costs incurred by contracting to commercial manufactures.

TRAINING

1992 saw the first incorporation of the Maintenance Training Improvement Program (MTIP) in the Western Pacific. Utilizing the generic P-3 MTIP provided by Patrol Wing Two in Barbers Point, Hawaii, VQ-1 has gone "on-line" and has tested all personnel and fully implemented the program. The results: The aircraft readiness statistics speak for themselves.

SUMMARY

Within its competitive category, the Maintenance Department has clearly set new standards of excellence. In 1992, the department saw marked increases in mission aircraft readiness and operational flexibility. A remarkable achievement considering the age of current squadron aircraft and the logistic

shortfalls associated with our newest aircraft. The aircraft accumulated in excess of 5000 hours of flight time and in only two percent of the cases were missions aborted or canceled due to maintenance related problems. In 1992, the Maintenance Department continued to do the impossible: "to deploy throughout the world with minimum personnel and support and keep em flying". They have accepted an aircraft with no technical data and maintained it superbly. In fact they have "written the book on how to fix it". And finally, they trained and maintained like no other maintenance professionals in the world, because they are unlike any other maintenance professionals in the world. They are the best.

Indeed 1992 was the year of the "World Watchers" but none of the unique accomplishments and innovation could have been possible without the dedication, determination, talent and vision of every Officer, Chief Petty Officer, and Sailor assigned to the VQ-1 Maintenance Department.