



**DEPARTMENT OF THE NAVY**

USS CARDINAL (MHC-60)  
FPO AE 09566-1959

25 June 2003

From: Commanding Officer, USS CARDINAL (MHC 60)  
To: Naval Historical Center (N09BH) Washington Naval  
Yard, DC 20374-5060

Subj: USS CARDINAL (MHC 60) COMMAND HISTORY FOR CALENDAR  
YEAR 2002

Ref: (a) OPNAVINST 5750.12H

Encl: (1) Command Composition and Organization  
(2) USS CARDINAL (MHC 60) CY02 Chronological History  
(3) Narrative  
(4) Commanding Officer's Biography with picture

1. As per reference (a), enclosures (1) through (4) are submitted.

2. If you have any questions or concerns, address them to LTJG [REDACTED] at Commercial: (011-973) 743-274, DSN: 318-439-3274 or [REDACTED]@cardinal.navy.mil.

D. E. VOTH

Copy to:  
Command Historical File

**USS CARDINAL (MHC 60)**

**Command Composition and Organization**

1. **Mission:** Conduct Countermeasures against moored and bottom mines. Conduct independent mine warfare operations and participate in coordinated Mine Warfare operations with various Naval forces. CARDINAL's primary missions are Mine Warfare (MIW), Mobility (MOB), and Command, Control, and Communications (CCC). Secondary missions are Intelligence (INT), Fleet Support Operations (FSO), and Non-Combat Operations (NCO).

2. **Immediate Superior in Command:** Commander, Mine Countermeasures Division 31, Manama, Bahrain.

3. **Command Organization (as of 31 Dec 2002):**

- a. Commanding Officer: LCDR Daniel E. Voth, USN
- b. Executive Officer: LCDR Mark H. Jordan, USN
- c. Engineer Officer: LT [REDACTED], USN
- d. Operations Officer: LTJG [REDACTED], USNR
- e. Supply Officer: LTJG [REDACTED], USNR
- f. Damage Control Assistant: LTJG [REDACTED], USNR
- g. First Lieutenant: LTJG [REDACTED], USNR

4. **Homeport:** Naval Support Activity, Manama, Bahrain

5. **Statistical Data:**

- a. Current ship's manning: 7 Officers, 49 Enlisted

Length: 188 feet                      Draft (Navigation): 12 feet

Beam: 36 feet                         Displacement: 918 tons

Speed: 10 knots                      Accommodations: 6 Officer

4 CPO

Draft (keel): 12 feet                      51 Enlisted

6. **Propulsion:** Two Isotta Fraschini 800 HP 8 Cylinder Twin Turbo Non-Magnetic diesel engines.

Two Voith-Schneider (cycloidal) Propulsion Systems (VSP)

**Auxiliary**

Three Isotta Fraschini 480 HP 8 Cylinder Twin Turbo Non-Magnetic diesel engines

**Sensors/Navigation Systems**

One AN/SPS-64 (V)9 Surface Search Radar

One Commercial Raytheon (41-XX) Navigation Radar

One AN/SYQ-13 Integrated Navigation/Combat System

One AN/SQQ-32 (V)2 Advanced Mine Hunting Sonar Set

One AN/WQN-4A Fathometer

One AN/SQH-4A Acquisition System, Battle Space Profiler

One Expendable Bathythermograph

**Mine Countermeasures Systems**

One AN/SLQ-48 Mine Neutralization System

**Armament:**

Two MK 95 Mod 16 Twin .50 Caliber Machine Gun Mounts

Two MK 26 Mod 0 .50 Caliber Machine Gun Mounts

**CARDINAL (MHC 60)**  
**CHRONOLOGY: 2002**

**JANUARY**

01-08 Inport Bahrain: Holiday Leave and Upkeep Period  
09-13 Underway: Central Arabian Gulf for Unit Level  
Training  
14-29 Inport Bahrain: Upkeep  
27-29 Inport Bahrain: COMNAVSURFLANT N43 Engineering  
Assessment  
30-31 Underway: Forward Area Combined Degaussing  
Acoustic Range (FACDAR)

**FEBRUARY**

01-03 Inport Bahrain: Upkeep  
04 Underway: Forward Area Combined Degaussing  
Acoustic Range (FACDAR)  
05 Inport Bahrain  
06 Inport Bahrain: Mini Dyads On load  
07 Underway: FACDAR Range and Dyads Training  
08-28 Inport Bahrain: Upkeep and Training  
08-14 Engineering Training and Demonstration  
17-18 Medical Readiness Assessment

**MARCH**

01 Inport Bahrain  
02-11 Underway: Central Arabian Gulf for Exercise Mine  
Readiness and Effectiveness Measuring (MIREM-20)

06 Refueling Astern  
12-24 Inport Bahrain: Upkeep  
25-28 Underway: Central Arabian Gulf for Unit Level Training  
29Mar-13Apr Inport Bahrain: Restricted Availability Period

**APRIL**

01-12 Inport Bahrain: Restricted Availability Period  
04 Inport Bahrain: VSP Oil Change  
13 Inport Bahrain: Upkeep and Hull Cleaning  
14 Underway: Central Arabian Gulf for Unit Level Training  
15-20 Inport Bahrain: Upkeep  
21-28 Underway: Conducting Q-Route surveys in the Northern Arabian Gulf  
29-30 Inport Bahrain: Upkeep

**MAY**

01 Inport Bahrain: Radar Navigation Training  
02-07 Inport Bahrain: Underway Demonstration Preparations  
08-09 Radar Navigation Training  
10-11 Inport Bahrain: Upkeep  
12-16 Afloat Training Group Engineering Limited Team Training  
13 Main Space Fire Doctrine Demonstration for ISIC

17-21 Inport Bahrain: Underway Demonstration Preparations

22-24 Afloat Training Group Engineering Casualty Control Exercises

25-30 Inport Bahrain: Underway Demonstration Preparations

31May-01Jun Underway with Afloat Training Group for Engineering Casualty Control Exercises and Underway Demonstration Preps

**JUNE**

02 Underway Demonstration: MCM Operational Area w/ CNSL N43

03-06 Underway: Underway Demonstration Corrections and Engineering Casualty Control Exercises

07-08 Inport Bahrain: Engineering Casualty Control Exercises and Underway Demonstration Preps

09-13 Underway: Engineering Casualty Control Exercises and Underway Demonstration Preps

14-15 Inport Bahrain: Maintenance and Upkeep

16-22 Underway for MCM Training in Central Arabian Gulf

23-29 Inport Bahrain: Restricted Availability Period

23-27 Ship Board Training Team Training

25-26 Small Arms Training

30Jun-02Jul Inport Bahrain: Upkeep, Training and Change of Command Preps

**JULY**

03 Change of Command: LCDR Daniel E. Voth Relieves LCDR John L. Schultz

04-06 4<sup>th</sup> of July Holiday Weekend  
07-08 Inport Bahrain: Upkeep  
09-13 Underway: Central Arabian Gulf for Engineering Limited Team Training  
14-16 Inport Bahrain: Upkeep  
17-18 Underway: Central Arabian Gulf Unit Level Training  
18 Underway Demonstration: MCM Operational Area with CNSL N43  
19 Inport Bahrain: Upkeep  
20-29 Underway: Northern Arabian Gulf Conducting Q-Route Surveys  
23 Underway: Refueling Astern  
26-27 Inport Kuwait: Brief Stop for Fuel  
30Jul-10Aug Inport Bahrain: Upkeep and Training

**AUGUST**

08 Navigation Team Training  
11-12 Underway: Central Arabian Gulf for Navigation Check Ride and Training  
13-31 Inport Bahrain: C5RA and SEMAT II  
24-25 Hull Cleaning

**SEPTEMBER**

01-30 Inport Bahrain: Intermediate Ship's Restricted Availability  
03-05 3-M Limited Team Training  
11Sep-10Nov IT-21 Installation

17-19 Nuclear, Biological and Chemical Training

**OCTOBER**

01-31 Inport Bahrain: Intermediate Ship's Restricted Availability

08 Isotta Fraschini Engine Meeting

**NOVEMBER**

01-22 Inport Bahrain: Intermediate Ship's Restricted Availability

03-12 Mine Neutralization Vehicle Change Out

07-12 Underway: Central Arabian Gulf MCM Operating Area

09-10 Industrial Hygiene Survey

10-12 3M Limited Team Training

17 Light Off Assessment

20 Dock Trials

21 Fast Cruise

23 Underway: Central Arabian Gulf for Sea Trials

24-30 Inport Bahrain: Upkeep and Training

**DECEMBER**

01-05 Underway: North Arabian Gulf Conducting Q-Route Surveys

06-08 Inport Bahrain: Upkeep

09-11 Underway: Central Arabian Gulf for Joint Training with USS DEXTROUS

12-31 Inport Bahrain: Maintenance and Upkeep



15 Mine Countermeasures Division 31 Change of Command  
21 ISIC Ammunition Assessment  
23-31 First Holiday Leave Period

## USS CARDINAL (MHC-60)

### Narrative

1. Mini Dyads: USS CARDINAL was the experimental platform in a minesweeping test using Mini Dyads. Mini Dyads are a series of cylindrical magnets streamed astern of the MCM unit designed to mimic the magnetic signature of different classes of ships dependent upon how the dyads are configured. This evolution provided future MHC's a standard operating procedure for loading, streaming and recovering the Mini Dyads magnetic sweeping gear.

2. MIREM-20: CARDINAL participated in Mine Readiness and Effectiveness Measuring in the Central Arabian Gulf. This exercise gave Mine Countermeasures Division 31 the opportunity to combine its surface, airborne, and underwater mine countermeasures (MCM) elements to test their interoperability within a realistic mine warfare environment. USS RAVEN (MHC 61) acted as the mine warfare command ship. USS DEXTROUS (MCM 13), USS ARDENT (MCM 12), and USS CARDINAL (MHC 60) composed the surface MCM element. A squadron of MH-53 mine warfare helicopters provided the airborne MCM element. The underwater MCM element was provided by Explosive Ordnance Disposal (EOD) units embarked onboard USNS CATAWBA. The exercise involved hunting, sweeping, and neutralization of exercise mines in the Central Arabian Gulf MCM Operating Area. The exercise was highly successful, providing invaluable training to the crew of USS CARDINAL while proving her ability to perform in a mine threat environment.

3. Underway Demonstration: During CARDINAL's Underway Demonstration (UD), COMNAVSURFLANT N43 inspection team witnessed multiple series of engineering evolutions and drill sets. CARDINAL passed UD with an above average score overcoming serious material issues as well as a high operational tempo for the 5<sup>th</sup> FLEET AOR in preparation for UD.

4. Intermediate Ship's Restricted Availability (ISRA): CARDINAL successfully completed her ISRA on time, due to thorough and complete schedule planning. The ISRA consisted of general repairs and alterations to the ship. Preventive maintenance, replacement of lagging and upgrades to equipment including an IT-21 installation were completed throughout the ship. Preservative maintenance, such as repairing glass reinforced plastic and painting, was done as well. The Intermediate Ship's Restricted Availability was very successful in preparing CARDINAL for her operational commitments.

5. Light Off Assessment (LOA): MCMDIV31 assessed CARDINAL's LOA after completing the ISRA period. The commodore witnessed a near perfect Main Space Fire Drill for ISIC approval who in turn determined CARDINAL fit to sail.

6. During Calendar Year 2002, CARDINAL was awarded the Armed Forces Expeditionary Medal, Navy Unit Commendation, Sea Service Deployment and Overseas Service Ribbons.