

DEPARTMENT OF THE NAVY  
USS BROOKE (DEG 1)  
FPO SAN FRANCISCO 96601

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23 FEB 1967

From: Commanding Officer, USS BROOKE (DEG-1)  
To: Chief of Naval Operations (OP-09B9)

Subj: Command History (OPNAV Report 5750-1); submission of

Ref: (a) OPNAVINST 5750.12

Encl: (1) Command History of USS BROOKE (DEG-1) with Appendixes

1. In accordance with reference (a), USS BROOKE (DEG-1) Command History is submitted as enclosure (1) with Appendixes.



R. L. WALTERS

Copy to:  
CINCPACFLT  
COMCRUDESAC

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COMMAND HISTORY  
of  
USS BROOKE (DEG-1)  
1967

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Downgraded at 3 year intervals;  
Declassified after 12 years.

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I

CHRONOLOGY OF HIGHLIGHTS

2-6 JAN 1967 Participation in CNO Project C/S-47 (AN/SPG-SIC Tartar Radar Improved Data Converter)

7-11 JAN 1967 HOLDEX 1-67 (HOLD DOWN EXERCISE 1-67)

16-27 JAN 1967 Participation in CNO Project C/S-47

2 FEB 1967 Shock Tests

3 FEB-10 MAY 1967 Post Shakedown Availability

17 MAY 1967 Change of Command

5 JUN-9 AUG 1967 Shakedown Training

16-21 AUG 1967 HOLDEX 6-67 (HOLD DOWN EXERCISE 6-67)

22-25 AUG 1967 COMPTUEX 13-67 (COMPOSITE TRAINING UNIT EXERCISE 13-67)

28 AUG-5 OCT 1967 Restricted Availability for installation of AN/SPS-52 Radar

18-19 SEP 1967 Nuclear Weapons Acceptance Inspection

28-29 SEP 1967 Pre-Deployment Ordnance Review

10-15 OCT 1967 FLEETEX 3-67 (FLEET EXERCISE 3-67)

18-20 OCT 1967 HUKASWEX 8-67 (HUNTER-KILLER ASW EXERCISE 8-67)

23-24 OCT 1967 Pre-Deployment Electronic Warfare Readiness Inspection

31 OCT-1 NOV 1967 Pre-Deployment Administrative Inspection

13-17 NOV 1967 HUKASWEX 9-67 (HUNTER-KILLER ASW EXERCISE 9-67)

22 NOV 1967 Annual Supply Inspection

28 NOV-4 DEC 1967 HUKASWEX 10-67/FLEETEX 5-67 (HUNTER-KILLER ASW/FLEET EXERCISE 5-67)

11-22 DEC 1967 Tender Availability, San Diego

28 DEC 1967 Departure San Diego for Western Pacific as a unit of ASWGRU ONE

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II

BASIC NARRATIVE

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1. MONTHLY SUMMARY.

JANUARY 1967.

BROOKE had installed the Improved Tartar System in the fall of 1966. Because of the six weeks Restricted Availability in October-November 1966 the resultant evaluation of the AN/SPG-51C Fire Control System was incomplete, and carried over through January for completion. January 1 and 2 were spent in San Diego completing the holiday leave period. Commencing Tuesday, 3 January through Friday, the 6th, aircraft tracking was conducted for CNO Project C/S-47. The ship returned to San Diego on Friday evening for fuel and remained until Saturday morning the 7th when Captain J. E. LANGILLE III, COMDESDIV 213 shifted his pennant to BROOKE for participation in HOLDEX 1-67. BROOKE's participation in this HOLDEX (HOLD DOWN EXERCISE), serving as the flagship for COMDESDIV 213, resulted in a fine commendatory letter to the commanding officer, enclosure (6).

Returning to San Diego on the 12th, COMDESDIV 213 shifted his pennant from BROOKE, and the ship proceeded to the Naval Shipyard Long Beach. Because of continuing problems with the AN/SPS-39 Air Search Radar, this Restricted Availability was assigned for the installation of the AN/SPS-72 radar antenna. Completing the installation of the new antenna on the 15th, BROOKE proceeded on the week of the 16th for the final week of tracking exercises for C/S-47.

The week of 23 January was spent at the Pacific Missile Range

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for missile firing to prove out the Improved Tartar Fire Control System. One missile was fired with 1 hit. Returning to NWS Seal Beach on the 28th all ammunition was off-loaded in preparation for shock tests scheduled for the 2nd of February. After ammunition was off-loaded the ship returned to Long Beach Naval Shipyard for installation of shock test instrumentation.

FEBRUARY 1967.

Some scheduling problems occurred and the shock tests originally programed for 1 and 3 February were both conducted on the 2nd. Each test was composed of 10,000 pound charges of HBX producing pre-computed shock factors. Shot number one was to be abeam to starboard at 1149 feet producing a shock factor of .06. This test was satisfactory with all equipment fully operational 3 minutes after the charge. No damage was reported.

Shot number two was to be conducted as soon as the charge could be prepared by USS MATACO (ATF-86), the assist ship. During preparation of the second charge visibility was reduced by light fog. In hope that visibility would improve, a time extension was requested.

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through FACSFAC. Through the efforts of FACSFAC the required arrangements were made for a three hour extension, and the visibility improved. Shot number two was on the port beam at 560 feet, producing a shock factor of .14. Minor damage to the air search radar and Gun Fire Control Radar was repaired in 20 minutes at which time BROOKE was fully combat ready. Some fuses in the Louis-Allis Power Supply for the AN/SQS-26 Sonar were blown and after thoroughly checking the system to insure no further damage was incurred, the fuses were replaced

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and all equipment was operational.

Upon completion of shock tests BROOKE proceeded to Long Beach Naval Shipyard for Post Shakedown Availability (PSA). PSA is normally conducted about six months after commissioning. BROOKE had been selected for installation of the AN/SPG-51C Improved Tartar Data Converter, however, and was involved in the operational testing which delayed PSA.

PSA commenced 3 February and was completed 10 May. The three major jobs during PSA were installation of additional air conditioning, grooming of the sonar dome, and cleaning and re-painting of all fuel tanks. These jobs required dry-docking. On 20 February BROOKE was dry-docked and remained <sup>there</sup> until 4 May. The above jobs were satisfactorily completed-as well as the addition of a VERTREP deck and a repainting of all spaces.

While in PSA, BROOKE's commissioning commanding officer, CDR R. L. WALTERS, USN, was relieved on 17 March by CDR. B. G. STONE, USN. CDR WALTERS departed for duty as Executive Officer in USS PROVIDENCE (CLG-6).  
MAY 1967.

On 4 May BROOKE left dry-dock and remaining jobs were finished up. Tests were conducted on the FAST system and additional work was done on this system. With all outstanding jobs completed, 10 May was scheduled for Sea Trials. Sea Trials were successfully completed and an abbreviated set of Antenna Radiation Patterns were taken. Upon completion of sea trials BROOKE returned to Long Beach to off load

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shipyard observers and proceed to sea for ISE enroute to San Diego, arriving on 12 May. The following week, 15-19 May, was spent in ISE in preparation for Shakedown Training (scheduled to commence 5 June). On 17 May a trip to Naval Weapons Station Seal Beach was made to load ammunition.

The period 22-25 May BROOKE spent being depermed at the Degaussing Facility, San Diego. The following week (29-May - 2 June) was again spent conducting ISE in preparation for Shakedown Training. During this week BROOKE spent Wednesday, 31 May on the FORACS<sup>(2)</sup> range at San Clemente Island.

During the final week of May, BROOKE conducted helo landing/launching operations with HO-1. A total of 12 landings and launches were conducted during this period.

JUNE 1967.

During the months of June, July and part of August BROOKE was undergoing Shakedown Training. The week of 5-9 June was the inport training readiness evaluation period by Commander Fleet Training Group, San Diego.<sup>(3)</sup> Inspections were held in all phases of shipboard evolutions to ascertain BROOKE's readiness for training. In addition, in-port communications drills and off-ship schools were utilized.

On 12 June the underway portion of the training commenced with a Training Battle Problem. From the results of this event, it was evident that much additional training would be required to bring BROOKE up to fighting trim. The remainder of this week and the following

- (1) INDIVIDUAL SWEEP'S EXERCISE
- (2) FLEET OPERATIONAL READINESS ACCURACY CALIBRATION
- (3) COMPLETION, San Diego

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week, 19-24 June, were spent conducting various exercises in all shipboard areas to raise the readiness level.

The week 26-30 June was the ASW training period and, with other units undergoing training including the Coast Guard Cutter, TANEY, numerous ASW training exercises were conducted utilizing the services of USS SABALO.

During the months of May and June the AN/SPS-39A air search radar continued to give many problems. On 14 June a detailed maintenance history of this radar was forwarded to CINCPACFLT via the chain of command. It appeared that the results obtained from the radar did not justify the man-hour and monetary expenditures to obtain those results. During the training periods of 5-30 June, limited AA tracking exercises were conducted and no AA gunnery exercises were conducted.

JULY 1967.

Shakedown training continued, with the period 6-17 June progressing without problems. The Mid-Term Battle Problem was conducted on 10 July with a marked improvement over the Training Battle Problem. Some areas still showed some weak points. In most cases, however, those were minor problems. The original schedule would have had BROOKE at the Pacific Missile Range (PMR) on 12 and 13 July. Because of problems with the Air Search Radar prerequisite missile exercises had not been conducted. Accordingly, BROOKE was considered not ready for PMR until those prerequisite exercises had been conducted, and was extended in shakedown training until 28 July.

The week 17-23 July was cancelled due to an engineering casualty on the 17th. BROOKE returned to San Diego for a Restricted Availability

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for repairs.

Boiler repairs were completed on the 25th and BROOKE returned to complete shakedown training. The proposal at this time was to conduct training with the Final Battle Problem scheduled for 28 July and utilize the following week for missile work-up exercises in preparation for missile firing on 3 and 4 August. With this proposed schedule BROOKE was deleted from participation in a SECONAV Guest Cruise scheduled for 31 July - 3 August.

BROOKE was involved in the Administrative Reorganization of COMCRUDESPEC units on 1 July. Formerly in CRUDESFLOT SEVEN, BROOKE, with other COMCONTRON THREE units, was shifted to COMCRUDESFLOT ELEVEN. In the absence of COMCONTRON THREE during his deployment, BROOKE had been under COMDESRON SEVEN's administrative charge. With the change of Flotilla Commanders we were passed to COMDESRON 17 for administrative purposes.

BROOKE participated in an unusual rescue mission on 12 July while transiting from San Diego to Long Beach. Three young men enroute from Newport Beach to Santa Catalina Island had run out of gas and were quite lost. When sighted by the OOD they had only clothing to wave to attract attention. BROOKE stopped, provided food, gasoline, compass and directions. The Coast Guard was contacted and gave permission for the three men to proceed on to Santa Catalina. This rescue was written up in the July issue of COMCRUDESPEC Magazine VIGILANCE, enclosure (10).

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AUGUST 1967.

The week 31 July - 1 August was to have completed all requirements for shakedown training. However, preliminary missile exercises were not accomplished because of continued difficulties with the air search radar. PIR services on 3 and 4 August were again cancelled by COMFLEB-TRAGRU SDIEGO. All gunnery exercises were set for those two days but weather prevented all exercises.

Three additional days through the 9th of August were allocated to Shakedown Training. Services on the 7th were cancelled due to weather. On the morning of the 8th BROOKE was directed to a SAR (search and recovery) incident approximately 100 miles from her position. An S2E conducting ASW exercises with USS RAZORBACK had crashed shortly after midnight. RAZORBACK recovered two survivors and was returning to port for medical assistance. BROOKE, with aircraft on the scene, was to search for two other crewmen and debris. BROOKE arrived on scene at 1319 local time and searched until after sundown, when search was terminated. BROOKE returned to complete scheduled services for the 9th. Upon completion of services BROOKE reported to COMFLEBTRAGRU for operational control.

The period 10-12 August BROOKE underwent the Nuclear Weapons Training Course in preparation for Nuclear Weapons Acceptance Inspection scheduled for 10-19 September. This training course was very beneficial and pointed out some administrative errors which would require attention.

During this in-port period final plans were made regarding installation of a new air-search radar, the AN/SPS-32. A restricted availability was assigned for this installation from 26 August to 5 October.

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Prior to the start of Search Radar training BROCKE was scheduled to participate in HOLDEN 6-67 (hold down exercise) during the periods 16-21 August and upon completion to proceed to the Southern California operating areas for participation in COMPTUMX 13-67 (Composite Training Unit Exercise), 22-25 August.

HOLDEN 6-67 was to be conducted in a 980 by 350 mile area west of San Francisco. On 15 August BROCKE, WILSON and USSA with COMDESDIV 152 embarked, departed San Diego for HOLDEN 6-67. BROCKE had participated in several hold down exercises before and was well versed in the operational requirements for these exercises. Water conditions were not the best during this HOLDEN and the results were disappointing. During the transit BROCKE gained an unidentified contact and final evaluation by COMSASFORPAC indicated a possible submarine, non-friendly.

Enroute to the exercise area drills were conducted by the three ships and BROCKE engaged in our first hole in-flight refueling (HIFR) hook up. No fuel was transferred however the capability for HIFR was certified.

Upon completion of the HOLDEN, the three surface ships proceeded to join COMPTUMX 13-67. Many exercises were scheduled during the three days BROCKE was to participate. However, problems were encountered during these three days which prevented his participation in scheduled exercises. Other than internal ship training, little was accomplished during the 10 days at sea and participation in two exercises.

On 28 August BROCKE commenced RAN for the installation of new Air Search Radar AN/SYB-52.

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SEPTEMBER 1967.

Throughout the month of September the RAV<sup>(1)</sup> for AN/SPS-52 Radar installation was the primary employment. Training in all areas was accomplished by Shipboard training and utilization of Fleet Schools.

In addition, BROOKE underwent the Nuclear Weapons Acceptance Inspection 18-19 September. BROOKE received a well done from COMCRUDESFLT ELEVEN, enclosure (7), on this inspection with only minor administrative discrepancies. The Pre-Deployment Ordnance Review was also conducted, and the ship passed this examination with flying colors.

OCTOBER 1967.

On 5 October the AN/SPS-52 installation was completed and the ship went to sea for two days of trials. With Hughes Aircraft technicians aboard, the trials proved to be extremely successful and the ship returned to San Diego on the 6th.

On the 10th BROOKE began its first major Fleet Exercise, participating in the First Fleet Exercise 3-67 (MOON FESTIVAL). The only event of real significance was the firing of a missile at the Pacific Missile Range on 14 October. This was an unqualified success. All departments and personnel gained valuable experience from the rigors of constant action and the novelty of working with large groups of ships.

From the 16th to the 20th BROOKE took part in HUKASWEX 8-67, (HUNTER KILLER ASW EXERCISE 8-67) and was joined by USS BRADLEY, THOMAS, TAUSSIG, CRAIG, and BOLE (with COMDESDIV 213 embarked). These were the ships with whom BROOKE was to deploy in December, and<sup>the</sup> exercise

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(1) RESTRICTED AVAILABILITY

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(1) RESTRICTED AVAILABILITY

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thus served the added functions of pre-deployment team training.

Upon completion of the HUKASWEX, the ship returned to San Diego for a scheduled two weeks of maintenance. On October 23 and 24 the ship was given the Pre-deployment Electronic Warfare Readiness Inspection and on the 31st the Pre-deployment Administrative Inspection. The latter was conducted by COMDESDIV 152 and personnel from USS BAUER (DE-1025), and BROOKE was given an adjective grade of outstanding. See Appendix for enclosure (9).

NOVEMBER 1967.

The 1st through the 5th of November was spent in part in preparation for an upcoming missile shoot at the Pacific Missile Range. The ship was scheduled to load missiles at Seal Beach on the 6th and then conduct three firing exercises on the 7th. However, a casualty to the main engine occurred as BROOKE was enroute to Seal Beach and the ship was forced to return to San Diego the same day. After three days of repairs the ship set out again on the 9th for Seal Beach, but the same problem arose and the exercises were cancelled.

At this point there was strong doubt as to whether BROOKE could participate in HUKASWEX 9-67, scheduled for 13-18 November. The <sup>(1)</sup> Engineers, however, worked around the clock and the casualty to the main engine was corrected. The ship departed San Diego as scheduled on Monday the 13th. HUKASWEX 9-67 was composed of 5 days of strenuous anti-submarine tactics with Anti-Submarine Warfare Group ONE. This included the five other destroyers who participated in HUKASWEX 8-67 and a new addition - USS YORKTOWN (CVS-10) and her air group (CVSG-55)

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This was to be the whole group that deployed together on 28 December 1967. The exercise included a great variety of events, with services from USS SEA FOX (SS-402), and <sup>it</sup> stressed coordination between the air group and the destroyers. Much experience was gained and many lessons were learned in this area.

BROOKE returned to San Diego on the 17th for the Thanksgiving holidays. A 4 hour Dependent's Cruise was held on the 18th which, despite inclement weather, turned out to be a great success. On the 22nd the ship passed the Annual Supply Inspection with a comment of "Good".

On Tuesday the 28th the ship departed on its last exercise before deploying for the Western Pacific. It was hoped that all the training of the past year could be culminated in a successful performance of the ship's equipment and operational capabilities. The hopes were realized; HUKASWEX 10-67/FLEETEX 5-67 was a success for BROOKE. During the Fleetex (First Fleet Exercise "BLUE LOTUS") the ship distinguished itself by gaining the only valid sonar contact during an <sup>opposed</sup> sortie and did a large amount of air controlling and communications coordination. The ship's outstanding performance was noted by <sup>Canadian</sup> COMCORTON THREE, the screen commander, enclosure (8). On December 4th BROOKE returned to San Diego, conducting successful 15 knot economy and full power runs enroute.

DECEMBER 1967.

The month of December was spent in San Diego in preparation for the December 28th deployment. BROOKE was alongside USS PIEDMONT (AD-17) from 11-22 December for a Tender Availability Period, and a

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number of small jobs were accomplished. Operational procedures were reviewed, equipment was double-checked, and all hands took care of pre-deployment matters of a personal nature.

During the month the majority of equipment for the Drone Anti-Submarine Helicopter was removed. The DASH was finally stricken from our weapons capability list. One week before deployment the ship received a number of MK 46 MOD 0 Torpedoes, making BROOKE one of the very few ships to deploy with this modern weapon.

On the 27th, 8 men from the San Diego Work Study Group embarked to conduct a study for a Ship Manning Document. This was the first step in the Bureau of Personnel's project to analyze and reorganize the ship's manning criteria.

The day of deployment finally arrived, and on the morning of 28 December, BROOKE departed San Diego as a unit of TG 14.1 (ASWGRU ONE) for a 6 months cruise to the Western Pacific. The last day of the year found the ship between San Diego and Pearl Harbor.

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A. OPERATIONS

During 1967, BROOKE's Operations Department gained great operational experience and enhanced its capabilities with some valuable new equipment. Shakedown Training and the seven exercises in the second half of the year served to forge the inexperienced men and untested equipment of CIC, Radio Central, and ECM/<sup>into</sup>an effective operational team.

New equipment included: (1) secure UHF voice communications in the form of a KY-8 voice scrambler, (2) an AN/ARC-27 transceiver in CIC to enhance the ship's ASAC mission, and (3) an AN/WLA-3 radio frequency amplifier. The LINK 14/<sup>(1) connection</sup>included a teletype conveniently located in CIC, which, when not being used for Anti-Air Warfare picture, was connected to an ORESTES circuit. This provided CIC with a more complete and timely tactical picture.

The AN/WLR-3 electronic countermeasures receiving set was casrepted in May, when it was found that the close proximity of the AN/SPS-39 radar to the WLR-3 detection crystals caused them to burn out. The solution appeared to be removal of the crystals to a location remote from the radar. Such a modification began in December with the reception of the AN/WLA-3, which allowed the crystals to be far removed from the antenna.

The other receiver, the AN/WLR-1, showed great improvement throughout 1967, and it became commonplace to expect outstanding sensitivity from it.

BROOKE achieved a "first" for DEGs in 1967 with a successful UHF/HF relay for USS YORKTOWN (CVS-10). It was also the first relay for the carrier. The ship's modern voice communications facilities continued to be a great asset in 1967. CIC was able to monitor a large number of circuits

(1) A Naval Tactical Data System

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simultaneously, and thus the ship's operational capabilities were enhanced.

By December Operations personnel felt themselves to be tested and proven, and they eagerly anticipated the upcoming West Pac deployment.

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B. WEAPONS

The equipment proficiency and operational capability of BROOKE's weapons systems underwent many changes during 1967. The first half of the year was characterized by constant equipment problems and, thus, an inability to put the systems to use for effective training and evaluation. After major modifications and new installations were completed, however, the results were outstanding, and the Weapons Department was ready in all respects for the West Pac deployment.

CNO projects DS-416 and CS-47 were formally completed on 3 February. The swarm of technicians who departed the ship left a weapons system of very doubtful capability and reliability in the hands of the ship's force. The AN/SPG-51C lacked spare parts and documentation as well as having technical problems. The AN/SPS-39A was problem ridden, as had been usual, and the WDE had a malfunction which, although equipment was not inoperative, reduced the effectiveness of the weapons system.

It was hoped that PSA would provide an opportunity to take a systematic and logical approach to correct the deficiencies in the system. Unfortunately, this was not the case. The ship's air-conditioning system was being modified, and the job fell far behind schedule. As a result, there was little or no cooling - air or micro-wave. Virtually nothing was accomplished on the missile system or the air search radar. A minor retrofit was installed in the SQS-26AX sonar which consisted for the most part of glue and washers. In addition, work was begun on a modified turning system for the sonar's transducer. While rotating the transducer to facilitate removal of elements, the teflon bearing surface

- (1) Fire Control Radar
- (2) Air Search Radar
- (3) Weapons Direction Equipment

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on the top of the transducer peeled off. It became necessary to disassemble the transducer and resurface the faces. After long hours on the turning arrangements the transducer was finally reassembled and tested. Teflon immediately began to slip out so the transducer was returned to the centerline position, and it has been there ever since.

PSA ended in May and work began immediately to put the equipment back together again. After correcting many errors left by the yard workers, the sonar was restored to normal in June, and outstanding performance was experienced for the rest of the year.

The missile system was more difficult to correct and dramatic advances were not as easily achieved. The first break-through was in June when the ship's force restored the difficulty in the WDE. After outside assistance and minor field changes, the missile fire control system was back on the line by the end of July. For the first time in the history of the ship, BROOKE had an operating, reliable missile fire control radar. Its performance was outstanding, and, despite the doubtful results of CS-47, faith was restored in the radar, and the advantages of the new operational modes, console and data converter were proven to all.

Only the AN/SPS-39A remained a problem. It proved to be entirely unreliable during Shakedown Training, and in August the decision was made to install the AN/SPS-52. Hughes Aircraft was granted the contract for installation, and their technicians did an outstanding job. The installation was unique in that the whole job was done in one "package" at the pier in San Diego. The job was completed a week early, and sea trials proved that

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the radar worked perfectly. The reliability and additional operator controls were major improvements and dramatically improved the capabilities of the ship.

BROOKE shot 3 missiles during 1967, 2 warheads (January and October) and 1 telemetering (December). The two warhead shots were evaluated as hits, and the latter was spectacular. A surprise target was presented to the ship at close range, low altitude, and traveling at high speeds. Although the ship was turning in the wrong direction at the time, acquisition and designation were almost instantaneous. The missile was on its way in the minimum possible time. Intercept was marked by an explosion and debris. The telemetering shot has to be considered a failure because of a loss of telemetering. The target was revealed at extremely close range, and a personnel error prevented the switch over from external to internal in sufficient time.

It should also be noted that the ship's ability to receive helicopter services was greatly enhanced during the year. The O1 level aft of the missile launcher was extended outwards on each side of the ship to enhance the VERTREP capability. In addition, the ship conducted its first helicopter in-flight refuelings in November.

The performance of all equipment throughout the fall was impressive. BROOKE could now devote her energies to development of tactics and becoming oriented operationally for the impending deployment.

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C. ENGINEERING

Total steaming hours on the two boilers and the main engines passed the 3000 hour mark during the past year, and with this a number of problems arose. Basic operation, however, remained successful, and as each of the problem areas were corrected the overall performance of the engineering plant showed a measured increase in effectiveness.

The major problem in regard to the boilers remained the maintenance and calibration of the automatic combustion controls. These difficulties have not yet been completely eliminated, but they were markedly decreased by installation of new in line air filters during Post Shakedown Availability.

During the year there also existed problems in the gland sealing system of the main engines. This was traced in part to the glands at the forward end of the HP-IP turbine. It was found that the retainers for these glands were composed of the wrong type of metal. Only the first and second stages could be repaired, however, and the remaining stages require that the turbine casing be lifted during the next overhaul period.

In the area of auxiliary machinery the ship experienced excellent performance of all equipment with the exception of one of the Prairie Maskers, which is presently under repair at the General Electric factory. A 24 ton air-conditioning unit was installed during PSA, which brought the ship's total capacity up to specifications - 120 tons.

The anticipated installation of the 100 standard cubic feet per minute air compressor units has been delayed indefinitely, and the units

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installed at present do not have sufficient capacity for the requirements of the ship. This has resulted in the use of the HP compressors, which has been both inefficient and detrimental to these units.

During the year personnel levels were reduced, but quality of performance remained high. This was reflected in both the successful operation of the plant and the high level of maintenance on the machinery. Because of this reduced level and the heavy operational requirements in the months of June through December, training was conducted only on a shipboard basis.

The past year proved the feasibility of BROOKE's new engineering plant, especially the 1200 pound Babcock and Wilcox pressure-fired boilers. It has also proven that many problems remain, some as yet undetected, and that only after extensive operational experience will these problems come to light. Thus, great emphasis is placed on BROOKE's ability to analyze and to improve procedures for operation and maintenance of the plant. Great strides were made in this area during 1967, and the inventiveness of the Engineering Department should bring outstanding results in the next year.

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Prior to the new Air Search Radar installation BROOKE was scheduled to participate in HOLDEX 6-67 (hold down exercise) during the periods 16-21 August and upon completion to proceed to the Southern California operating areas for participation in COMPTUEX 13-67 (Composite Training Unit Exercise) 22-25 August.

HOLDEX 6-67 was to be conducted in a 360 by 600 mile area west of San Francisco. On 15 August BROOKE, WILTSIE and BUCK with COMDESDIV 152 embarked, departed San Diego for HOLDEX 6-67. BROOKE had participated in several hold down exercises before and was wellversed in the operational requirements for these exercises. Water conditions were not the best during this HOLDEX and the results were disappointing. During the transit BROOKE gained an unidentified contact and final evaluation by COMASWFORPAC indicated a possible submarine, non-friendly.

Enroute to the exercise area drills were conducted by the three ships and BROOKE engaged in our first helo in-flight refueling (HIFR) hook up. No fuel was transferred-however the capability for HIFR was certified.

Upon completion of the HOLDEX, the three surface ships proceeded to join COMPTUEX 13-67. Many evolutions were scheduled during the three days BROOKE was to participate. However, problems were encountered during these three days which prevented participation in scheduled exercises. Other than internal ship training, little was accomplished during the 10 days at sea and participation in two exercises.

On 28 August BROOKE commenced RAV for the installation of new Air Search Radar AN/SPS-52.

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