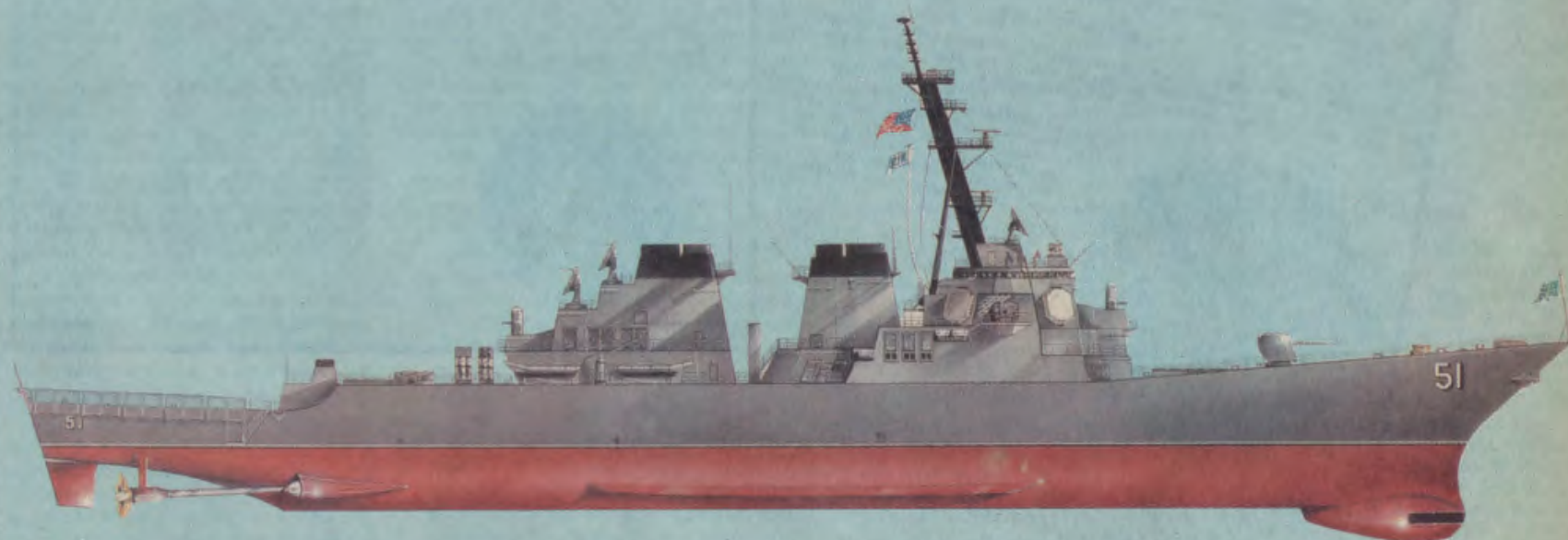
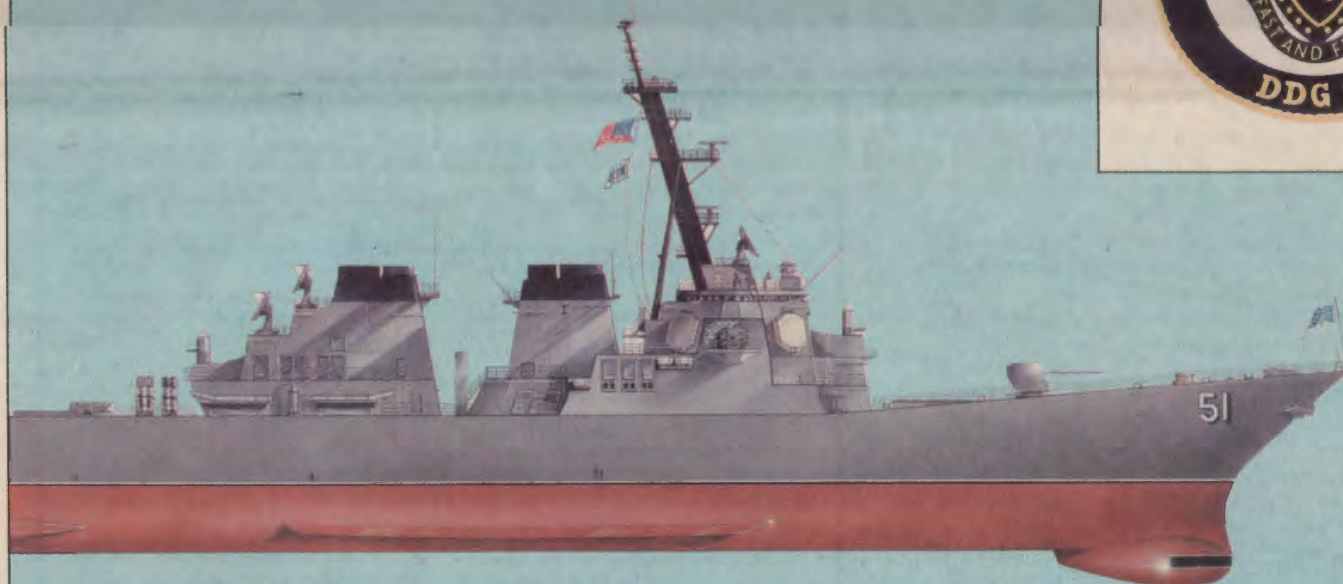




ARLEIGH BURKE DDG 51



LAUNCHED BY BATH IRON WORKS CORPORATION SEPTEMBER 16, 1989
A PUBLICATION OF THE TIMES RECORD.

PROCLAMATION

BE IT PROCLAIMED BY THE CITY COUNCIL OF THE CITY OF BATH, MAINE, THAT,

WHEREAS, the U.S. Navy's newest and most technologically advanced destroyer, named in honor of Admiral Arleigh Burke will be launched by Bath Iron Works on the sixteenth of September, 1989, and

WHEREAS, Retired Admiral Burke is one of America's most decorated World War II heroes, and

WHEREAS, Bath Iron Works, builder of the ARLEIGH BURKE, has constructed ships in the Bath community for 105 years, and

WHEREAS, the City of Bath is honored to be home to Bath Iron Works, the shipyard chosen by the U.S. Navy as lead yard for the new AEGIS destroyer, and

WHEREAS, the long term relationship of the City of Bath and Bath Iron Works has contributed substantially to the positive economic growth of both city and industry,

NOW, THEREFORE, BE IT FURTHER PROCLAIMED, THAT, the City Council of the City of Bath recognizes the historical significance of the launch of the ARLEIGH BURKE, and urges the citizens of Bath and the surrounding towns to join with us in celebrating September 16, 1989, as "ARLEIGH BURKE DAY".

Sealed with the Seal
of the City of Bath,
Maine on this 16th
day of August, 1989,
in the presence of:

Charles H. Telford
Council Chairman

Richard J. Smith
City Manager



State of Maine

Proclamation

WHEREAS, Retired Admiral Arleigh Burke's daring exploits as Destroyer 23 Squadron Commander during World War II earned him enduring recognition as a true Navy legend; and

WHEREAS, Admiral Burke's three terms as Chief of Naval Operations provided unsurpassed leadership in the development of the modern United States Navy; and

WHEREAS, the lead ship of a new destroyer class being constructed in Bath, Maine will be named in honor of Admiral Burke; and

WHEREAS, the construction of this ship and sister vessels which will follow will bring great credit on the craftsmanship and expertise of Maine's shipbuilders, and contribute greatly to the economy of the State; and

WHEREAS, Admiral Burke has visited the State on several occasions to monitor the construction progress of the ship that will bear his name; and

WHEREAS, this distinguished World War II hero plans to be in attendance at the ship's launching on September 16, 1989,

NOW, THEREFORE, I, JOHN R. McKEHAN, JR., Governor of the State of Maine, do hereby proclaim September 16, 1989 as

ARLEIGH BURKE DAY

throughout the State of Maine, in recognition of Admiral Burke's many contributions to the defense of freedom and of the importance of the ship class that will bear his name to all Maine people.

In testimony whereof, I have caused the Great Seal of the State to be hereunto affixed GIVEN under my hand at Augusta this thirteenth day of July in the Year of our Lord One Thousand Nine Hundred and Eighty-Nine.

John R. McKernan, Jr.
JOHN R. McKEHAN, JR.
Governor

G. William Diamond
G. William Diamond
Secretary of State

TRUE ATTESTED COPY

September 16, is proclaimed Arleigh Burke Day in Maine!

State of Maine

In the Year of Our Lord Nineteen Hundred and Eighty-Nine

JOINT RESOLUTION RECOGNIZING THE CONTRIBUTIONS OF RETIRED ADMIRAL ARLEIGH BURKE TO THE PRESERVATION OF AMERICAN FREEDOMS

Whereas, Retired Admiral Arleigh Burke has earned every medal and honor the United States Navy is able to award for his great personal courage and extraordinary heroism; and

Whereas, Retired Admiral Burke has also received the highest civilian honor this nation has to give, the Medal of Freedom; and

Whereas, Admiral Burke served his country for an unprecedented 3 terms as Chief of Naval Operations; and

Whereas, in World War II, Admiral Burke commanded Destroyer Squadron 23, whose men won more honors in less time than any squadron in the United States Navy; and

Whereas, 4 of the 8 ships in Admiral Burke's squadron were built at Bath Iron Works; and

Whereas, Bath Iron Works is the lead shipyard for the new Arleigh Burke-class destroyer, the most technologically advanced ship of its type in any navy; and

Whereas, Admiral Burke and his wife, Roberta, sponsor of the ship, have visited Bath Iron Works on numerous occasions to contribute their special presence during the construction process of a ship whose duty it will be to protect America's interests and freedoms; now, therefore, be it

Resolved: That We, the Members of the One Hundred and Fourteenth Legislature of the State of Maine now assembled in the First Special Session, recognize the contributions of Retired Admiral Arleigh Burke to the preservation of American freedoms and join in the celebration of the launching of the Arleigh Burke-class destroyer on September 16, 1989, at Maine's Bath Iron Works; and be it further

Resolved: That a suitable copy of this resolution, duly authenticated by the Secretary of State, be transmitted to Retired Admiral and Mrs. Arleigh Burke.

In Senate Chamber August 21, 1989
Read, Adopted and Sent Down for Concurrence

J. O'Brien
JOY J. O'BRIEN
Secretary

House of Representatives August 21, 1989
Read and Adopted In Concurrence

Edwin H. Pert
EDWIN H. PERT
Clerk

S.P. 676

ATTEST: *Charles B.*
President of the Senate

Sponsored By: *James P. Cahill*
Sen. Cahill of Sagadahoc County

ATTEST: *John J. Bennett*
Speaker of the House of Representatives

Cosponsored By:
Rep. Small of Bath
Rep. Holt of Bath
Sen. Clark of Cumberland County *James P. Cahill*

In Testimony Whereof, I have caused the seal of the State to be hereunto affixed. GIVEN under my hand at Augusta this twenty-third day of August in the year of our Lord one thousand nine hundred and eighty-nine.

G. William Diamond
G. William Diamond
Secretary of State



Admiral Burke inspired confidence in all

By Muriel L. Hendrix
Times Record Contributor

In 1983, John Myers of Boynton, Oklahoma, reminisced about serving under Admiral Arleigh A. Burke (then Captain) in the famed Destroyer Squadron 23 of the World War II Pacific theater. He said, "I felt confident when Burke came aboard. We had already heard about his great gunfire record. (Burke's first command had won the fleet gunnery trophy with the highest score chalked up in many years.) "I would rather have had Burke as my commander than anybody else."

Burke's dedication and loyalty to the U.S. Navy, which he has called "the most important and most exciting profession in the world," have been recognized in over 30 medals and citations. He was a natural choice to be honored once more by having the lead ship of the AEGIS Destroyer class (DDG 51), the most technologically advanced surface combatant in the world, named after him.

His zeal to serve his country and the Navy in World War II caused a colleague to say he was "the best thing to happen to the U.S. Navy since John Paul Jones."

During his Navy career, Burke consistently displayed an unrelenting tenacity, whether he was pushing production of guns in the Naval Gun Factory in Washington or in the heat of battle. He once said he learned this persistence during his early years in the Naval Academy, where, he explained, "I nearly bilged out the first year, but I worked like blazes."

He expected the same tenacity from his men, and drilled them constantly so they would be the best-prepared squadron in the Pacific.

"We used to make runs up the slot, as the patch of water down the Solomon chain was known," Vice Admiral Raymond E. Peet, USN (Retired) said in 1943. (He was an ensign during the time Burke commanded Destroyer Squadron 23 — Nov., 1943 to Feb., 1944.) "Burke did everything to make all ships feel they were team members. He made sure the guns were aligned. We had calibration shots, and we maneuvered at high speeds. We moved smartly, and answered signals quickly. Everything was snap, snap."

"The training was rigid, and everybody was expected to be right on time and answer signals smartly. It was a big thrill to be part of that team. The squadron would have gone any place with that man. If he were going to take us to Japan, we were all ready to go. He was that type of leader."

"DesRon 23 was truly a hot-rod outfit; everywhere we went, we went at high speed, and that was important to the officers and crews of those ships. They knew they were a bunch of hotshots who weren't afraid to go in harm's way. They knew they had a good team, that they could protect each other, that they could shoot accurately, and that they had good damage control teams. All that was part of Captain Burke's plan."

Burke had so much faith in his men's training that he once accepted a bet they could go through intricate maneuvers without any guidance from him (which they did flawlessly, to the chagrin of the four-star captain who had called him on the carpet to answer for his men's cocky attitude and boasting in port).

He nicknamed his squadron the "Little Beavers" for Little Beaver, the constant Indian companion of the 1940s comic strip character Red Ryder, saying that his destroyers were like "Like Beavers for those cruisers" of Task Force 39)

Although a stickler for methodical preparation and drill, Burke had an edge of dash and daring fueled by a no-nonsense philosophy. "The difference between a good officer and an excellent one," he said, "is about ten seconds. A fine rule is to get going sooner than anticipated, travel faster than expected, and arrive before you're due."

In 1943, when he led DesRon 23 into the



ADM. ARLEIGH A. BURKE

Battle of Cape St. George, he pushed one ship with a damaged boiler past its utmost speed of 30 knots. This caused Admiral William Halsey to dub him "31-knot Burke," a nickname which stuck throughout the war.

In that battle, which Naval historians have since described as "a near perfect surface action," DesRon 23 sank four Japanese destroyers and badly damaged two more without taking a hit.

Burke stated over and over that "an officer's service reputation is made among those who serve under him, not those above," and that "to be a good leader, you have to have good followers." He continually worked to maintain high morale among his men.

When he left DesRon 23, he expressed his admiration and appreciation for his men in his farewell words: "No Squadron in any navy," he said, "has won more battle honors in less time than the fighting, chasing Twenty-third. There are no ships which have delivered more devastating blows to the enemy than those of this squadron. Your heroic conduct and magnificent ability will make your families and your country proud of you. May God continue to bless you."

Then, characteristically, as he took his seat for transfer by highline to the carrier Lexington, he added, "I don't want any cheers. Tell the boys if any of them is ever in Washington where I live, to look me up. Goodbye now — and for God's sake, don't drop me in the drink when you transfer me..."

Burke was born in Boulder, Colorado, on October 19, 1901, the year the U.S. Navy launched its first true destroyer. Once asked how a boy who grew up on a cattle ranch ended up in the Navy, he answered, "I went to school in a one-room schoolhouse. But when a flu epidemic suddenly struck and classes were stopped temporarily, I went to work in the oil fields,

earning a man's wage. I decided then I would not go back to high school."

"While working, I met an old roustabout who said, 'You're a hard-working kid. You do a man's work and you do it well. If you just keep working the way you are, some day you'll earn as much as I do.' I asked him, 'How much do you make?' He answered, 'Fifty cents a day more than you.' I got the point."

He returned to school, and with a teacher's encouragement, applied to the Naval Academy. On June 7, 1923, he graduated as Ensign Arleigh Burke. On the same day, he married Roberta Gorsuch in the Academy Chapel. They have been married for 66 years.

Burke's first command was as gunnery turret officer aboard the battleship Arizona. After that, he served on the Procyon before he returned to Annapolis for postgraduate work and to University of Michigan for a Master's degree in engineering, awarded in 1931.

A weaponry specialist, he was assigned to the Bureau of Ordnance between tours of duty in the heavy cruiser Chester and the destroyer Craven.

In 1939 he was promoted to Lieutenant Commander and he received his first command, the destroyer Mugford, becoming, at age 38, the youngest skipper in the fleet.

At the start of World War II, he was bitterly disappointed to be assigned to shore duty as an Ordnance Inspector at the Naval Gun Factory in Washington, D.C., but he successfully launched an intense lobbying campaign to be sent to the South Pacific.

There, under Admiral Halsey, he successively commanded Destroyer Division 43, Destroyer Division 44, Destroyer Squadron 12, and DesRon 23. The latter was composed of the flagship Charles Ausburne and eight destroyers, four Bath-built. It fought in 22 separate engagements during four months and was

credited with destroying one Japanese cruiser, nine destroyers, one submarine, several smaller ships, and approximately 30 aircraft.

In March, 1944, Burke reported as Chief of Staff to Admiral Marc Mitscher, Commander of Fast Carrier Task Force 58. While serving with this famed carrier force, he was promoted to Commodore and participated in all its naval engagements until June, 1945, shortly before the surrender of Japan. He flew many combat missions, and was aboard both the Bunker Hill and Enterprise when they were hit by Japanese Kamakazi (suicide planes) during the Okinawa campaign.

In 1945, Mitscher praised Burke in a fitness report, saying, "He is the most outstanding tactician and most experienced officer in the U.S. Fleet today."

At the outbreak of the Korean War, Burke served as Deputy Chief of Staff to Commander Naval Forces, Far East. From there, he assumed command of Cruiser Division Five, and in July, 1951, was made a member of the United Nations Truce Delegation to negotiate with the Communists for a military armistice in Korea. After six months, he returned to the Office of Chief of Naval Operations where he served as Director of Strategic Plans Division until 1954.

In April, 1954, he took command of Cruiser Division Six, and in January, 1955, assumed command of Destroyer Force Atlantic Fleet.

On August 17, 1955, Burke was sworn in as Chief of Naval Operations, a post which he held for an unprecedented three terms. His appointment was described in 1970 by Captain John Horrocks, Jr. as "the biggest promotional bombshell ever felt in the U.S. Navy," for he "zoomed past 92 rear admirals, vice admirals and admirals who were senior to him."

"It had never happened before," said Horrocks, "and it might never happen again."

As CNO, Burke was a major force in developing the Navy's Polaris submarine missile program and pioneering a new role for the Forrestal-class attack carrier — nuclear deterrence.

In early 1961, President Kennedy offered to reappoint Burke for a fourth term as CNO. He declined, and in August of 1961, retired from the U.S. Navy after 42 years' service.

Following his retirement, he has divided his time between the private sector and public service. His community service efforts include work with veterans' organizations, educational institutions, the Boy Scouts of America, and others.

In January of 1977, Burke was awarded the nation's highest civilian honor, the Medal of Freedom.



About this publication

This special publication on the launching of the Arleigh Burke was produced jointly by The Times Record and Bath Iron Works, with BIW assuming all costs for its production and distribution. The text and photos were furnished by BIW, RCA/GE and the United States Navy.

The profile on Adm. Arleigh Burke was written by Muriel L. Hendrix, a regular free lance contributor to The Times Record.

The Times Record
Brunswick, Maine



Adm. Arleigh A. Burke July 8, 1955.

Admiral Arleigh A. Burke

"A U.S. Navy Legend."



Adm. Arleigh A. Burke tours USS NAUTILUS at New London Submarine base, May 31, 1955. Behind him is Captain Raymond Zanzot, Com DesLant Material Officer.



Adm. Arleigh A. Burke takes the oath of office as Chief of Naval Operations from RADM I.H. Nunn, JAG, in the Naval Academy's Dahlgren Hall, August 17, 1955. Looking on is Secretary of Navy, Charles S. Thomas.



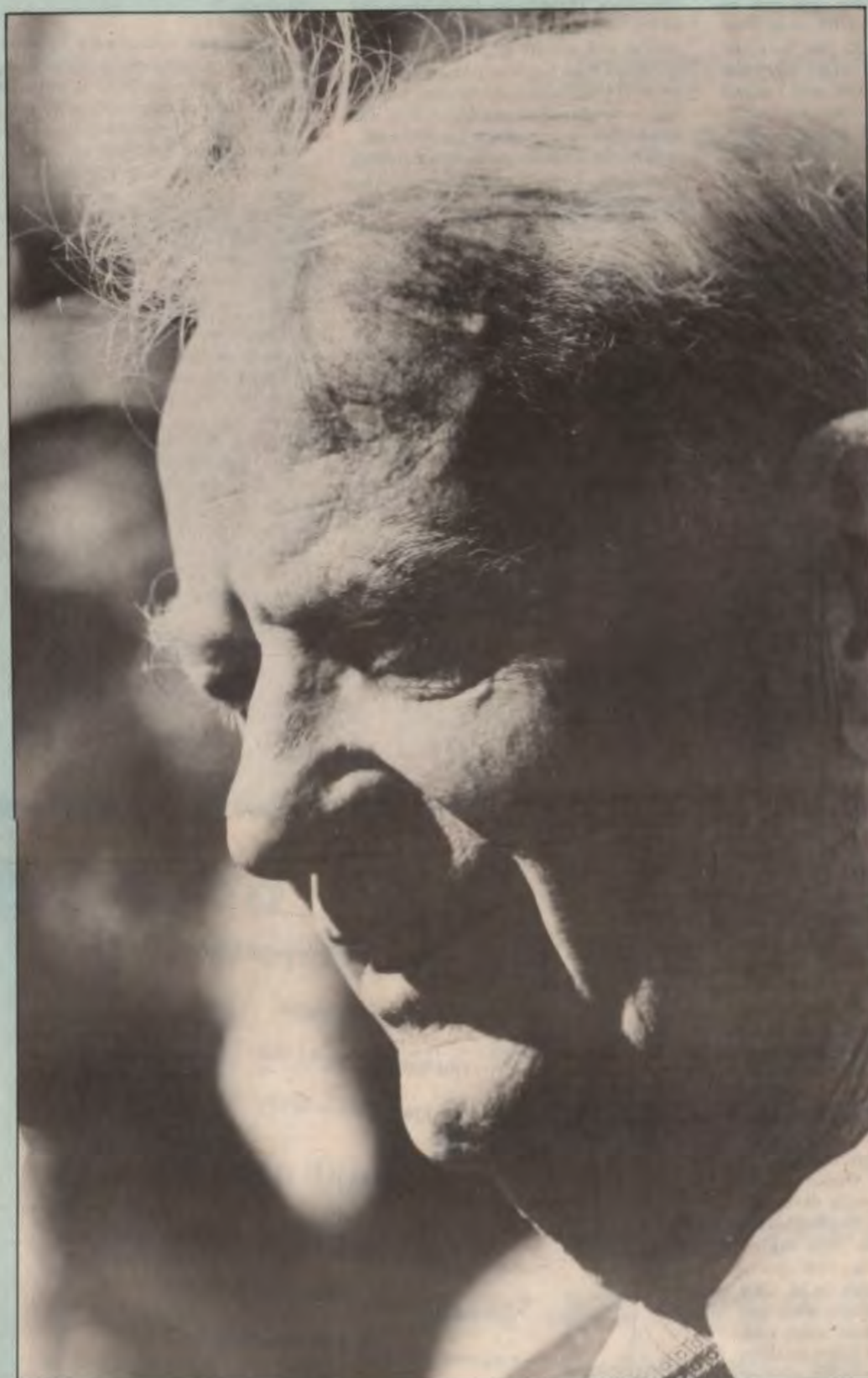
Vice Admiral, Marc A. Mitscher, c/o of Task Force 58, and Commodore Arleigh A. Burke, aboard USS RANDOLPH (CV-15), operating off Okinawa in June, 1945.

Joint Chiefs of Staff in session, left to right, are Gen. Lyman L. Lemnitzer, chief of staff, U.S. Army; Adm. Arleigh A. Burke, Chief of Naval Operations; Gen. Nathan F. Twining, U.S. Air Force, chairman, Joint Chiefs of Staff; Gen. Thomas D. White, chief of staff, U.S. Air Force; and Gen. David M. Shoup, commandant, U.S. Marine Corps.



Capt. Arleigh A. Burke, Commander of Destroyer Squadron 23, reading on the starboard bridge wing of his flagship, USS CHARLES AUSBURNE (DD-570), during operations in the Solomons in 1943-44. Note the squadron's "Little Beaver" insignia on the side of the bridge. Also note impressive scoreboard painted on the side of the Mk. 37 director over the bridge.





Midshipman Arleigh A. Burke, 1920.



Adm. Arleigh A. Burke, Chief of Naval Operations, with Vice President Lyndon B. Johnson, at the Tenth Annual State of the Nation and Silver Quill Award dinner, at the Sheraton Park Hotel, Washington, D.C., on January 27, 1961.

Retired Adm. Arleigh Burke attends the commissioning ceremony for the nuclear-powered aircraft carrier USS DWIGHT D. EISENHOWER (CVN-69) at the Naval Station in Norfolk, Va., October 18, 1977.

Adm. Arleigh A. Burke, takes the oath of office for his third term as Chief of Naval Operations, in the Pentagon, August 17, 1959. RADM Chester Ward, Navy Judge Advocate General administers the oath, as secretary of the Navy William B. Franke looks on.



Adm. Arleigh A. Burke, greeted by Generalissimo Chiang Kai-Shek, during Adm. Burke's visit to Taiwan, in 1955.

Navy's 21st century surface combatant to be unveiled Saturday at Bath Iron Works

Launching is historic moment for BIW and Maine

When Arleigh Burke (DDG 51) slides into the Kennebec River on September 16, the attention of leaders around the world will be focused on Bath Iron Works. America's defense experts as well as those in Europe, Asia and the Middle East know that Saturday's ceremony will be more than just another launching. Those whose careers are devoted to the sea and naval warfare realize they will be seeing a 21st century surface combatant ship for the first time.

From keel up, DDG 51 was designed and is being built to cope with the most hostile sea environment. United States defense leaders and scientists can envision for the early decades of the next century. While incorporating many proven aspects of power plants and combat systems from earlier designs, the Arleigh Burke is truly a new ship. No navy has ever built a destroyer or cruiser with DDG 51's features. Its hull form, machinery power train, electronics and combat systems have been integrated to prevail against the most dangerous threats from under the sea, the ocean's surface and the air. Priority has been given to producing the world's most advanced technology packaged in a ship that is reliable and survivable under the most severe wartime conditions.

For Bath Iron Works, designing and building the Arleigh Burke as prototype of a new class surface combatants is just the latest in a long history marked with such accomplishments. It is the challenge of tackling new technology and successfully completing the task which has earned BIW its preeminent position among the world's finest builders of surface combatant ships.

If building the gunboats *Machias* and *Castine* in the 1890s introduced Bath Iron Works to Navy shipbuilding, then it was a contract to build the cruiser *Chester* in 1905 which began to establish Bath's reputation as the industry's technological leader.

When the Navy department announced that Bath Iron Works would build the scout cruiser, *Chester*, the first American Naval vessel equipped with steam turbines, it was widely recognized that the ship would become prototype for a new era. While a far cry from DDG 51 technology, the turbine equipped cruiser built within 36 months at a price of \$1.7 million was no easy task at the time. During construction of the 420 ft., 3,775 ton cruiser, excitement in Bath and anticipation of performance during sea trials were at peak levels. Although designed and guaranteed for 24 knots, the average speed of 26.5 knots achieved during sea trials delighted the Navy and exceeded their wildest expectations. BIW's reputation as a lead builder for the Navy was established!

Flusser, the Navy's first turbine-powered destroyer followed rapidly on the heels of *Chester*. In his *History of Bath Iron Works, The First Hundred Years*, Ralph Snow describes Flusser's significance in this way, "The preliminary and final trials of the 700 tonners established the preeminent engineering and performance of the Bath-built destroyer. Flusser roared through her trials like an express train on a fast track, averaging 30.5 knots during the four-hour, full-speed trial, and reached the then phenomenal speed of 33.6 knots during the shorter standardization runs. She not only exceeded her contract speed of 28 knots by a comfortable margin, but she had become an overnight sensation — enjoying the honor of being the fastest American-built vessel in history. Glory is often times fleeting and her record stood only a week. Flusser had barely returned to her home

builder's yard with an assortment of brooms flying from her signal halyards when her sister ship *Reid*, also built by Bath, proceeded to break her short-lived record. *Reid* burned up the Rockland course, averaging 31.8 knots over the four-hour, full-power trial, and reached 34.5 knots on her standardization runs!"

As World War I clouds began to gather, the Navy increased the size of its destroyers with BIW's *Cassin* the first 1,000 tonner to enter service. By then, turbines had become the norm in Navy design, but engineers were seeking a more efficient way to transfer power from engines to propellers. Reduction gears proved to be the solution. The Navy's first ship equipped with geared turbines was Bath's *Wadsworth*, delivered in 1915.

From 1915 to 1920, it was building destroyers for the Navy as rapidly as possible. New technology inched ahead but took a back seat to mass production. Then came the slow post WWI era when Navy work lagged and America's shipyards struggled to survive.

By 1936 BIW was once again gearing up production lines as the threat of a second world war escalated. During the decade from the mid-thirties to the mid-forties, it was a never ending series of destroyer-size increases and technology advances — 1500 tons, 1800 tons, 2100 tons, 2200 tons — with BIW turning them out at the rate of three ships every two months. By the time BIW delivered the *Agerholm* in June 1946, that 2250 ton destroyer would not have been recognizable to a 1935 sailor because of the great strides made in war-fighting capability over the previous decade.

Builder of over 80 WWII destroyers, BIW had solidified its mark as a wartime shipbuilder. The years that followed, enhanced BIW's reputation with the design and construction of a whole series of lead ships employing more advanced power plants, evolving sensors and weapons technology.

Construction of *Mitscher*, and *McCain* in the late '40s brought BIW into the post-World War II shipbuilding arena. It was Bath Iron Works who built the *Dealey*, a destroyer escort leading to construction of many follow ships. In the 1950s BIW's *Forrest Sherman* led that class proving to be last of the all gun destroyers. In 1957 the Navy selected Bath Iron Works to build the first of its guided missile destroyers with *Charles F. Adams* as the class leader.

Through the years, the Navy experimented with ship technology from time to time, and BIW's construction of *USS Timmerman* and *USS Glover* were two such cases. Neither of those ships were followed with long runs of follow-on ships but each proved to be an effective working platform where the Navy could experiment with new designs and technology.

As threats at sea and in the air grew more complex, the Navy shifted emphasis to construction of larger ships with more diversified capability. BIW, a builder of many follow-on ships, was usually at the forefront of new capabilities. In the 1960s it was construction of *LEAHY* which led to a class of "double-ender" cruisers — the only class of ships built from the keel up as pure missile ships. Later in that decade, BIW built *CG 26, Belknap*, again leader in a new class with more all-purpose capability than any previous ship ever designed.

The 1970s were highlighted by BIW's design and construction of *FFG 7*, the prototype guided missile frigate in the *Oliver Hazard Perry* class. Construction of 24 *Perry*-class frigates proved that technological advances could be made in the construction of a long series of ships while

still minimizing cost, producing high quality and achieving excellent schedule adherence. This all new design gave BIW its first exposure to gas turbine propulsion plants, and proved to the Navy that a 4,000-ton ship (relatively small by standards of that time) could carry an anti-air and anti-submarine capability that was formidable for a relatively low-cost ship.

BIW's surge into the world of AEGIS technology occurred as a follow-on shipbuilder in the *CG 47* class guided missile cruisers. While no easy transition, that technological leap proved to be the experience needed to set the stage for BIW's emergence as lead builder in the AEGIS destroyer program.

No historian would report that BIW's 105-year history has been uneventful or just one high point following another, for there have been low points when naval or merchant shipbuilding slowed for extended periods. But, it is certain that maritime historians who concentrate on the 20th century will identify Bath Iron Works as the world's technological leader in the design and construction of surface combatant ships. With twelve-first-of-a-class under its belt, no shipyard has broken as much new ground or demonstrated that its engineers and production workers are

so capable of consistently producing superior results when faced with a new challenge.

Design and construction of *Arleigh Burke* is the culmination of 100 years of evolving experience. DDG 51 will be fast, and an order of magnitude more capable than any destroyer ever built. The Navy's commitment to such high objectives and BIW capabilities, backed by proven design agents and suppliers, assures that distinction. BIW's latest will be clearly its best, but just one more step in Bath's never-ending quest to be the world's leader in its field.

Admiral *Arleigh Burke*, who will speak during the launching honoring his name, is certain to be proud of the characteristics of this new destroyer which will lead our Navy into the 21st century. No living American is more highly regarded for his exploits in World War II and his command of the United States Navy while its Chief of Naval Operations. It is fitting that a ship which bears his name will become the standard by which all other surface combatant ships around the globe are measured. It is also fitting that BIW, the destroyer yard, is building the destroyer admiral's ship.

Bath Iron Works Corporation

cordially invites you

to the Launching of the

AEGIS Guided Missile Destroyer

ARLEIGH BURKE (DDG 51)

Saturday, the sixteenth of September

Nineteen hundred and eighty-nine

at twelve forty-five in the afternoon

Gates Open: 11:45 a.m.
(General Public - Main Gate)
(Ticket Holders - West Gate)

Program Begins: 12:45 p.m.

Launch: 2:06 p.m.

Mrs. Burke: resourceful and adaptable

Mrs. Arleigh A. Burke, who will christen the AEGIS Destroyer, Arleigh Burke, was once described as a "tiny creature with a Dresden-doll quality." However, this diminutive 5-foot 2-inch woman has displayed in her 66-year marriage to Admiral Burke a sturdy resourcefulness and determination that belie her fragile appearance.

Her resourcefulness was especially evident during the 42 years Admiral Burke served in the Navy — a time of innumerable moves, long periods when he was absent, and many changes in their lifestyle.

Mrs. Burke not only walked and walked the streets of strange cities to find a suitable living space. She also learned to cope with situations as various as surviving on a sparse ensign's pay (they once lived for six weeks in a room in New York City that barely had space for a bed and chair) to acting as hostess of elegant social functions in their Victorian home on Embassy Row in Washington, D.C. during Admiral Burke's six years as Chief of Naval Operations.

When Admiral Burke was away, she spent countless hours in Red Cross and other volunteer work and kept in close contact with young Navy wives who were adjusting to separation from their husbands.

A bit salty herself, Mrs. Burke once commented that although she always tried to please Admiral Burke by finding him a home that would give him a good view of his ship, "now and again Arleigh just had to put up with being out of sight of his big canoe."

However, she always made concessions, and even switched from playing the harp, which her mother had taught her at an early age, to playing the accordion so she could entertain Admiral Burke with the John Philip Sousa marches he so enjoyed.

Mrs. Burke has said she believes their marriage lasted so long because each learned to be positive about appreciating the other's best qualities.

However, many who have observed the couple also credit her flexibility and resourcefulness in meeting the varied circumstances of her husband's brilliant Naval career.

Their friendship spans half-century

Mrs. Milton Miles, matron of honor for Saturday's launching, has been close friends with Mrs. Arleigh Burke since they first worked together as Red Cross volunteers in Washington, D.C. during World War II.

Mrs. Miles, who earned a bachelor of science in Home Economics Extension from Cornell in 1925 and a master's degree in Home Economics from Columbia University in 1929, was chairman of the Red Cross Nutrition Service for 12 years.

During that time, she drew on her friend Roberta Burke's artistic talents to illustrate a monthly folder sent to nutrition services in all 48 states.

When her husband was in active service, Wilma ("Billy") Miles spent several years, some with their three children along, in China. She was present in 1925 during the General Strike against Foreign Unequal Treaties and in 1937 when the Japanese attacked.

"The children and I," she says, "were evacuated to Olongapo, and on the way we watched as a Japanese cruiser lobbed shells into Shanghai."

She and her family also lived in Chefoo under Japanese Navy Occupation during 1938 and returned home in 1939 overland via India, Afghanistan, Iran and Lebanon.

Some of the AEGIS team



William E. Haggett
Chairman and Chief
Executive Officer
Bath Iron Works



Duane D. Fitzgerald
President and Chief
Operating Officer
Bath Iron Works



John C. Mason
Director, DDG Program
Manager
Bath Iron Works



Rear Adm. James B. Greene Jr.
Program Manager
AEGIS Shipbuilding



Capt. Paul M. Robinson
Supervisor of Shipbuilding,
Conversion and Repair
USN, Bath



Capt. Brian T. Perkinson
DDG 51 Program Manager



Cdr. John G. Morgan Jr.
Prospective Commanding
Officer
USS Arleigh Burke



Cdr. Ralph E. Staples Jr.
DDG Project Officer
USN, Bath



James D. Melton
Manager - GE
Bath Operations

Seldom equaled. . . never surpassed

Bath Iron Works maintains a pre-eminence in Navy shipbuilding that is unmatched in this century.

A look at the record reveals BIW as:

- the builder of the American Navy's first turbine-powered ship (*Chester*);
- the first shipyard to deliver turbine-powered destroyers (*Flusser and Reid*);
- the first shipyard to deliver a "thousand tonner" destroyer (*Cassin*);
- the first American shipyard to build and operate a ship with turbines mated to reduction gears (*Wadsworth*);
- and the first shipyard to complete and deliver a destroyer from the huge "flush deck, four stacker" class (*Manley*).

BIW's contribution prior to and during World War II was no less spectacular. During the 15-year period from 1931, the U.S. Navy ordered no fewer than 12 different classes of destroyers.

- The Iron Works built ships in eight of these classes;
- was designated lead shipyard for three of those; and
- delivered the first ship of the class no fewer than five times (including the first ship of each of the three war-built classes.)

All of the above was accomplished at a time when BIW, along with Gibbs & Cox and Federal Shipbuilding, was involved in the development of the high pressure, high temperature steam propulsion plant that became standard on American destroyers.

If anything, the Bath Iron Works' reputation has been further enhanced in the four decades since World War II. The Navy has ordered 19 multi-ship classes of surface combatants during this period.

- The Iron Works has been involved in 12 of these classes;
- has been designated lead shipyard for nine; and
- has delivered or will deliver the first ship of the class in 10 cases.

Translated into quantitative terms, the Bath Iron Works has built, is building, or has on order 24 percent of all the surface combatants (cruisers, destroyers, frigates) ordered by the U.S. Navy since 1946.

Ralph L. Snow

AEGIS facts at a glance:

- Navy's most advanced shipboard system for new ARLEIGH BURKE-class destroyers.
- The defensive shield of the Fleet in the 90's and beyond, AEGIS was named after the shield that protected Greek gods Zeus and Athena.
- The DDG 51 class uses the most advanced combat system in the Fleet, making these destroyers fully capable against all types of hostile air, sea, undersea and land targets.
- The combat system provides the first truly multi-mission capability for destroyers against air, surface, and sub-surface threats, even in the presence of extensive enemy countermeasures. It is designed for continuous operation of all critical functions, despite individual component failure.
- ARLEIGH BURKE introduces a new hull form to the Navy that is optimized for sea-keeping in heavy seas and is designed with better survivability than her predecessors.
- The AEGIS Weapon System, heart of the AEGIS Combat System, is a fully automatic surface-to-air missile system which supplies fire control track data on multiple targets while maintaining surveillance around the ship.
- The AEGIS Weapon System provides tremendous advances in performance, reaction time, firepower, availability, and area coverage.
- Detection of multiple missile and aircraft target is accomplished by the AN/SPY-1D radar system. Four unique phased array antennas allow the radar to send out beams of energy in all directions to track hundreds of aircraft and missiles while maintaining continuous surveillance of the sky from the wave-tops to the stratosphere.
- AN/SPY-1D radar detects targets at long range in clear environments and offers quantum leap in performance in hostile environments, which include jamming and high clutter, whether the latter is caused by rain, high sea state, chaff, or a combination thereof.
- Ship's total combat system comprises:
 - standard surface-to-air missiles to intercept intruding missiles and aircraft;
 - Phalanx automatic anti-air guns as backup for missile and aircraft interception;
 - 5-inch gun for surface engagements;
 - anti-submarine rockets, helicopter-dropped anti-submarine torpedoes, and a LAMPS anti-submarine warfare system (designed around the Seahawk helicopter) for anti-submarine warfare;
 - torpedoes launched from ship-board torpedo tubes for anti-submarine warfare;
 - Harpoon and Tomahawk surface-to-surface missiles for defense/offense against ship and shore targets;
 - electronic countermeasures, decoys, and active and passive submarine detection capabilities.
- In development of the combat system for DDG 51, costs were reduced by utilizing computer programs and systems engineering resources previously created for the CG 47-class AEGIS cruisers.
- DDG 51 will go to sea with a larger mix of missiles — 90 in her forward and aft Vertical Launching Systems — than the first AEGIS cruisers.



AEGIS: the world's most capable system

The AEGIS Weapon System is the most capable surface-launched missile system that exists in the world today. It can defeat an extremely wide range of targets from very high altitude to very low altitude anti-ship cruise missiles and manned aircraft, at both supersonic and subsonic speeds, and in the severest of environmental conditions — both natural and man-made. The computer-based command and decision (C and D) element of the original AEGIS Weapons System is the core of the AEGIS Combat System. At the Combat System Engineering Development Site (CSEDS), AEGIS automatic processing was extended to the Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASUW) areas. The resulting AEGIS Combat System is capable of simultaneous operation in all modes of warfare operation: AAW, ASW and ASUW. The combat system also has the capability for overall force coordination.

Two classes of ships will employ the AEGIS system: The Ticonderoga Class Cruisers (CG-47) and Arleigh Burke Class Destroyers (DDG 51). The objective and mission of these AEGIS ships is to destroy enemy aircraft, missiles, submarines and surface ships in order to prohibit the employment of such forces in the attack and destruction of the U.S. task forces, primarily carrier battle groups, and enable these task forces to carry out prompt and sustained combat operations at sea.

Current Status

The sophistication and complexity of the AEGIS Combat System are such that the marriage of engineering and acquisition of AEGIS and AEGIS-equipped ships demanded special management treatment. This "marriage" was effected by the establishment of the AEGIS Shipbuilding Project (PMS-400) in 1977. The "special management treatment" includes the amalgamation and structuring of hull, mechanical and electrical systems, combat systems, computer programs, repair parts, personnel, maintenance documentation and tactical operating documentation into a unified organization to create the system capability.

The charter for PMS-400 represents the most significant Navy management decision to date, one which has had a far-reaching impact on acquisition management, design, and lifetime support of modern Navy ships. For the first time in the history of the acquisition of surface combatants, PMS-400 was able to introduce an organization that has both the responsibility and the authority to simultaneously manage development/acquisition, combat system integration and lifetime support for a class of ships.

After studying several shipboard ap-

plications, the decision was made to construct AEGIS cruisers using the hull and machinery designs of the DD-963 Spruance class ships. The first ship of the class, USS Ticonderoga (CG-47), was built by the Ingalls Shipbuilding Division of Litton Industries in Pascagoula, Mississippi. Christened by Nancy Reagan on Armed Forces Day, 1981, and commissioned on 23 January 1983, USS Ticonderoga deployed to the Mediterranean with the USS Independence Battle Group in October of 1983, and supplied the best air defense coverage our ships off Lebanon had ever seen. Upon her return from the Mediterranean in 1984, she shot down 10 of 11 drones in a spectacular follow-on Operational Test and Evaluation exercise in the Caribbean. Since then, all 27 planned cruisers for the Class have been appropriated by Congress and, to date, USS

Ticonderoga has been joined in the fleet by 12 sister ships: USS Yorktown (CG-48), USS Vincennes (CG-49), USS Valley Forge (CG-50), USS Thomas S. Gates (CG-51), USS Bunker Hill (CG-52), USS Mobile Bay (CG-53), USS Antietam (CG-54), USS Leyte Gulf (CG-55), USS San Jacinto (CG-56), USS Lake Champlain (CG-57), USS Philippine Sea (CG-58) AND USS Princeton (CG-59).

Bath Iron Works received contracts to construct eight cruisers. To date, it has delivered the Gates and Philippine Sea and will deliver the Normandy in December, 1989. Between 1990 and 1992, the Maine yard will deliver the Cowpens, Gettysburg, Shiloh and Lake Erie.

In 1980, preliminary studies for a destroyer with AEGIS capabilities were completed. This process resulted in a ship design utilizing a new hull form and

advances in survivability and upgrades to the AEGIS Weapon System. The first ship of the DDG 51 Class was appropriated in FY85, and will be delivered to the Navy in 1991. Arleigh Burke and seven other DDG 51 Class destroyers have been appropriated and are currently in various stages of construction at two shipbuilders, Bath Iron Works and Ingalls Shipbuilding. To date, BIW has been awarded five of the eight destroyers authorized. Twenty-four more ships are in the current five-year Defense Plan. In a very rare procedure, the DDG 51 Class has been named after a living person — the legendary Admiral Arleigh Burke — the most famous destroyer man of World War II. "Thirty-one Knot" Burke was present at the signing of official contract drawings for the DDG 51 in Washington in June of 1984 and at start of fabrication ceremonies at BIW.



The AEGIS Combat Information Center (CIC). (RCA/GE photo)