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Kansas, University of, Lawrence, Kansas

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Keen, Lieutenant Commander Timothy J.

Served in the early 1960s on board the guided missile cruiser *Canberra* (CAG-2) and on the Special Navy Task Force for Surface Missile Systems, 250

Keller, Dr. K. T.

Served from 1950 to 1953 as director of the Office of Guided Missiles in the Defense Department, 371-372

Kennedy, Senator Edward M.

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Kennedy, President John F.

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Kidd, Admiral Isaac C. Jr., USN (Ret.) (USNA, 1942)

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***Kidd* (DDG-993)-Class Destroyers**

Originally designed for the Iranian Navy, they entered the U.S. Navy in the early 1980s, 501-502, 510-511

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Korth, Fred H.

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Lake, Rear Admiral Julian S., USN

In the 1950s was involved in methods for nuclear weapons delivery with the F2H Banshee, 192

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Lehrer, Max

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Libby, Edward

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Long Beach Naval Shipyard

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Longmuir, Ensign Edward B., Supply Corps, USN (USNA, 1947)

In the late 1940s served in the destroyer *Goodrich* (DD-831), 116

Loprete, Captain Joseph E., USMC

In the late 1940s commanded the Marine detachment on board the light cruiser *Springfield* (CL-66), 147-148

Love, Billy G.

Long-time civil service budget analyst for the Aegis shipbuilding program, PMS-400, 560-569

Madsen, Adelaide M.

Systems analyst and special assistant to Meyer in the Aegis program, 593

Main, George

Civil servant who worked in the Aegis program, 396

Marvinsmith, Commander Harry, USN

Served at nuclear weapons training school at Norfolk in the mid-1950s, 187

Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts

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Mathews, Mary

Served as sponsor of the Aegis cruiser *Yorktown* (CG-48), which was commissioned

in July 1984, 500-501

Mayport, Florida, Naval Station

In the mid-1960s the guided missile frigate *Dewey* (DLG-14) had problems with a nuclear-capable Terrier missile while in Mayport, 304-305

McCullough, Vice Admiral Bernard J. III, USN (USNA, 1975)

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McCreery, Captain Bernard L., SC, USN

In the mid-1960s served as supply officer of the Navy Surface Missile Systems Engineering Station, Port Hueneme, 344, 357

McMullen, Commander John J., USN (USNA, 1940)

Top-notch naval engineer who received specialized training in Switzerland, later left the service in 1957 and founded his own company, 244-246, 434, 506-507
Worked with the Aegis program to provide a modified *Spruance* (DD-963) hull for the *Ticonderoga* (CG-47), 434-436

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Metcalf, Vice Admiral Joseph III, USN (USNA, 1951)

Served 1984-87 as Deputy CNO (Surface Warfare), spoke at Meyer's 1985 retirement, 637-639

Meyer, Rear Admiral Wayne E., USN (Ret.)

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 In 1948-49 served in the light cruiser *Springfield* (CL-66), 90-91, 120-121, 125-150
 Served 1950-51 on board the destroyer tender *Sierra* (AD-18), 42-43, 151-160
 In 1951-52 attended Guided Missile School at Fort Bliss, Texas, 160-170, 182-183
 From 1952 to 1954 taught in nuclear weapons school, 184-187, 191-197
 In 1954-55 was a student at General Line School, Monterey, California, 187-190
 In 1955-56 served as executive officer of the radar picket destroyer escort *Strickland* (DER-324), 197-209, 450, 461
 Served 1956-58 on the staff of Commander Destroyer Force Atlantic Fleet (DesLant), 209-218
 Attended the Naval Postgraduate School at Monterey, 1958-60, 219-225, 228
 Further postgraduate work at the Massachusetts Institute of Technology, 1960-61, 225-240
 Served 1961-63 as fire control officer in the guided missile cruiser *Galveston* (CLG-3), 133, 241-244, 250-266, 269-270
 Served 1963-67 in the Surface Missile Systems Project, 269-330, 338, 349-350
 In 1967-70, served at the Navy Surface Missile Systems Engineering Station (NSMSES), Port Hueneme, California, 282-283, 338-369, 442-443, 565
 Served 1970-83 in the Advanced Surface Missile System (ASMS), which became Aegis, 370-628
 Served 1983-85 as NavSea-06, Deputy Commander for Weapons and Combat Systems, Naval Sea Systems Command, 630-639
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Moosbrugger, Captain Frederick, USN (USNA, 1923)

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Mullen, Admiral Michael G., USN (USNA, 1968)

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Chairman of the Joint Chiefs of Staff, 2007-11, 574-575, 636

Naval Construction Battalion Center, Port Hueneme, California

In the late 1960s co-located with the Navy Surface Missile Systems Engineering Station, 338-339

Naval Postgraduate School, Monterey, California

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Meyer served 1983-85 as NavSea-06, Deputy Commander for Weapons and Combat Systems, Naval Sea Systems Command, 630-639

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Noble, Lieutenant Thomas I., USN (USNA, 1950)

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Norton Sound, USS (AVM-1)

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Odening, Captain Robert E., USN (USNA, 1935)

In the late 1950s was in charge of the ordnance curriculum at the Naval Postgraduate School, 219-220

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Olathe (Kansas) Naval Air Station

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Operational Test and Evaluation Force (OPTEVFOR), Norfolk, Virginia

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Otth, Rear Admiral Edward J. Jr., USN (USNA, 1949)

In the mid-1960s worked on the Terrier missile desk in the Bureau of Naval Weapons, 287, 295, 522
Ran the program for *Oliver Hazard Perry* (FFG-7)-class frigates in the 1970s, 522
In the 1970s aided Meyer in developing the structure of the Aegis program, 522-526

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Pacific Missile Range, Barking Sands, Hawaii

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Paige, Rear Admiral Kathleen K., USN

Served from 2003 to 2005 as Program Director, Aegis Ballistic Missile Defense, 175-176

Palang

Former U.S. destroyer *Stormes* (DD-780), sold to Iran in 1972, 502-511

Parramore, Lieutenant Commander Douglas G., USN

Commanded the radar picket destroyer escort *Strickland* (DER-324) in the mid-1950s, 202

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Penny, Captain Harmon C., USN (USNA, 1946)

In the 1960s served in the Surface Missile Systems Project Office, later served with the Advanced Surface Missile System (ASMS) officer in Huntsville, Alabama, 311-314, 349, 358-359

Perez Jr., Rear Admiral Samuel Jr., USN (USNA, 1980)

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Pond, Commander Robert M., USN

In the early 1960s served as executive officer of the guided missile cruiser *Galveston* (CLG-3), 254, 256

Port Lyautey, Morocco, Naval Air Station

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Price, Vice Admiral Frank H., USN (USNA, 1941)

Served as OP-03, Deputy CNO (Surface Warfare) in 1974-75, 433, 438

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Quonset Point, Rhode Island, Naval Air Station

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Raborn, Vice Admiral William F., Jr., USN (USNA, 1928)

Ran the Navy's Special Projects Office from 1965 to 1962, 274-275, 345

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Rawls, Lieutenant (junior grade) Elbert S. Jr., USN (USNA, 1945)

Served on board the destroyer *Goodrich* (DD-831) in the late 1940s, 94, 105

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Reich, Rear Admiral Eli T., USN (USNA, 1935)

Commanded the guided missile cruiser *Canberra* (CAG-2), 248-249 Ran the Navy's Special Task Force for Surface Missile Systems/Surface Missile Systems Project the 1960s, 242, 246-249, 257, 268-269, 272-277, 284-286, 306-308, 312, 315-316, 331, 338-342, 345-346, 352, 358, 371-375, 426, 453

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Rempt, Rear Admiral Rodney P., USN (USNA, 1966)

In the 1990s was Director, Theater Air Defense, 288-289

Rickover, Vice Admiral Hyman G., USN (USNA, 1922)

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Roane, Rear Admiral Donald P., USN (USNA, 1952)

Commanded Destroyer Squadron 23, 1974-76, 484, 504, 629
Served as Meyer's deputy in the Aegis program and later headed it himself from 1983 to 1985, 504, 628-631

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Rook, Captain Eugene C., USN (USNA, 1924)

Commanded the destroyer tender *Sierra* (AD-18), 1949-50, 154-156, 158

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Roosevelt Roads Naval Station, Puerto Rico

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Roth, Captain Paul, USN

Served in the mid-1960s at the Navy Surface Missile Systems Engineering Station, Port Hueneme, 338

Roughhead, Admiral Gary, USN (USNA, 1973)

Served as Chief of Naval Operations, 2007-11, 488, 574-575

Rowden, Captain William H., USN (USNA, 1952)

Commanded the guided missile cruiser *Columbus* (CG-12), 1973-74, then became Deputy OP-03, 266-267, 484-485
Served as Meyer's deputy in the Aegis program, 630
From 1985 to 1988 served as Commander Naval Sea Systems Command, 632-633

Rudden, Captain Thomas J., Jr., USN (USNA, 1939)

Commanded the guided missile cruiser *Galveston* (CLG-3) in 1963-64, 257

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St. Pé, Jerry

Was president of Ingalls Shipbuilding at Pascagoula from 1985 to 2001 after having been in public relations, 547

Sanden, Lieutenant Oscar E. Jr., USN

As a student at the Naval Postgraduate School in the late 1950s, 227

Sandia Base, New Mexico

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San Francisco, California

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Sappington, Rear Admiral Homer M. Sappington, USN (USNA, 1943)

Served 1968-72 as Director, Surface Missile Systems Project, 360, 378-379, 503

Sarver, Rear Admiral Ben W., Jr., USN (USNA, 1935)

Served 1965-66 as Director, Surface Missile Systems Project, 307-308, 338-339, 342-343

Sawyer, George

In 2008 chaired a SecNav panel on shipbuilding, 538-539

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Semmes, Captain Benedict, J., Jr., USN (USNA, 1934)

Served on the ComDesLant staff in the mid-1950s, 209-210, 212, 217-218

Shaffer, Captain J. Nevin, USN (USNA, 1935)

Served on the ComDesLant staff in the mid-1950s, 209, 212, 217-218

Shanghai, China

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Shaw, Milton

In 1961 made a critical report about the performance of surface missile systems, 248-249

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Shipway, Rear Admiral John F. "Dugan," USN (Ret.)

Served as president of Bath Iron Works from 2003 to 2009, 573-574

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Smith, Rear Admiral Levering, USN (USNA, 1932)

Served for many years in the Navy's ballistic missile submarine programs, 346, 395, 432, 453, 526, 578-579

Skelton, Isaac Newton IV "Ike"

Congressman who was a strong supporter of the Aegis program, 425

Slaughter, Commander John S., USN (USNA, 1937)

In 1948-49 served in several leadership positions on board the light cruiser *Springfield* (CL-66), 128-130, 132, 134-135, 136, 145, 148-149

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Work on behalf of Navy missile fire control programs in the 1960s, 252, 287, 292, 298-299, 330-333, 336, 472

Spreen, Captain Roger E., USN (USNA, 1943)

In the mid-1960s headed the Terrier missile program for the Surface Missile Systems Project, 295-300, 305, 330-333, 426, 453, 522
Served 1972-74 as Commander Naval Ordnance Systems Command, 379, 392-394, 506-508

***Springfield*, USS (CL-66)**

Commissioned in 1944 with Captain Felix Johnson in command, 120-121
Operations around California in 1948-49, 125-130
Electronic equipment on board in the late 1940s, 128-134
Enlisted personnel on board in 1948-49, 132-134
Deployment to the Western Pacific in 1948-49, 140-148
In 1949 went into the Hunters Point Naval Shipyard for decommissioning, 134-136,

148-150

In the late 1950s-early 1960s was converted to a guided missile ship, CLG-7, 148-149

Spruance (DD-963)-Class Destroyers

Approved in the late 1960s under the program of Total Package Procurement, 500-501, 537-538, 541

Hull form used in the 1970s in developing *Ticonderoga (CG-47)*-class cruisers, 101-102, 433-440, 501-502, 614-619

Standard Missile

Source selection for the missile in the mid-1960s, 271-273

Funding for in the 1970s, 473-474, 477-478

Used on board two former U.S. destroyers sold to Iran in the early 1970s, 502-510

Test firing from the *Norton Sound (AVM-1)* in 1974, 461-465

In the mid-1980s the Standard missile was shifted from General Dynamics to Hughes, 633-635

Fire control of in the 2000s, 290-291

In February 2008 the Aegis cruiser *Lake Erie (CG-70)* shot down a satellite in space with a modified SM-3 Standard missile, 168, 174-182, 291-293, 354-355, 365-366, 452-454

Stansfield, Lieutenant Richard J., USN

In the early 1950s received training in guided missiles and nuclear weapons, 164, 184

Stavridis, Admiral James G., USN (USNA, 1976)

Served 2006-2009 as Commander U.S. Southern Command, 418

Stecher, Captain Lewis Joseph Jr., USN (USNA, 1942)

In 1969 created the name "Aegis" for the Advanced Surface Missile System (ASMS), 375, 471

Sterett, USS (DDG-104)

Aegis destroyer commissioned in 2008, 549, 567

Stout, USS (DDG-55)

Problems with material condition observed in 2008 inspection, 317-318, 565-566

Strategic Air Command (SAC)

Relationship with the Navy's nuclear weapons school in the 1950s, 193

Strickland, USS (DER-324)

Mission in the mid-1950s to warn of Soviet bombers as part of the seaward extension of the Distant Early Warning Line, 198-209

Diesel propulsion plant in the mid-1950s, 197-198, 204

NROTC-trained reserve officers on board the ship in the mid-1950s, 206-208, 450

Surface Missile Systems Project

Created in 1962 as the Special Navy Task Force for Surface Missile Systems, renamed in 1963, 249, 269-278, 283-330, 338

In September 1965 moved from the Bureau of Naval Weapons to the Office of Naval Material, 306

Role of senior civil servants in the 1960s, 308-309

Syring, Vice Admiral James D., USN (USNA, 1985)

In the late 2000s headed the DDG-1000 program, later became director of the Missile Defense Agency, 408-409, 501

Talago, Commander Joseph Jr., USN

Postgraduate study at the Massachusetts Institute of Technology, 1946-47, 80, 279

Stationed in the Washington area in the early 1960s, 278-279

Talos Missile

On board the guided missile cruiser *Galveston* (CLG-3) in the early 1960s, 196, 241-244, 250-251, 256-263, 266, 269, 288

In 1963 the *Galveston* hit a surface ship with Talos, 262-263, 269

Talos desk in the Special Navy Task Force for Surface Missile Systems in the mid-1960s, 276

In 1968 the cruiser *Long Beach* (CGN-9) shot down two MiG fighters with Talos missiles in Vietnam, 356

Tazewell, Captain John P., USN (USNA, 1943)

Served in the 1960s in the ASMS/Aegis program, 314, 415-416

Teeter, Lieutenant Commander Phillip H., USN

In the late 1940s was executive officer of the destroyer *Goodrich* (DD-831), 94-96, 98, 105, 109, 113, 119-123

Terrier Missile

Difficulty with Terrier missile performance in the early 1960s, 248-249, 272

Work of the Special Navy Task Force for Surface Missile Systems in supervising the construction and upgrading of Terrier-equipped warships in the mid-1960s, 285-291, 330-333, 349-350

Mid-1960s introduction of transistors in the Terrier fire control system, 295-296

In the mid-1960s some Terrier missiles had nuclear warheads, 304-305

In 1972 the frigate *Biddle* (DLG-34) shot down a MiG fighter in Vietnam with a Terrier, 356

Thurmond, Senator J. Strom

In the 1970s received an explanation of the Vulcan/Phalanx close-in weapon system, 384

Ticonderoga USS (CG-47)

Authorized by Congress in 1977, 493

Competition for the shipbuilding contract, 494-495

The name honored the former aircraft carrier *Ticonderoga* (CV-14), 610

Construction in the early 1980s, commissioning in 1983, 537, 542-543, 580-581

Sea trials for the ship in 1982, 265, 438, 581-584, 619-623

Mediterranean deployment in 1983-84, 584-585

Firepower demonstration in April 1984, 585

Ticonderoga (CG-47)-Class Cruisers

Hull form of the *Spruance* (DD-963)-class destroyer used in the 1970s in developing *Ticonderoga* (CG-47)-class cruisers, 101-102, 433-440, 495, 501-502, 551-552, 614-619

Less amount of ballast needed for later ships in the class, 439

No on-board quarters for flag officers, 482

In 1977 Congress authorized the first Aegis ship, which became the guided missile cruiser *Ticonderoga* (CG-47), 493

Concerns in the early 1980s about the stability of the ships of the class, 595-596, 619-623

Todd Shipyards

In the late 1970s dropped out of bidding for the guided missile cruiser *Ticonderoga* (CG-47), 494-495

Tofalo, Captain Francis, USN (USNA, 1942)

Ran the Talos desk in the Special Navy Task Force for Surface Missile Systems in the mid-1960s, 276, 284

Trieste

While under tripartite administration in 1948, the destroyer *Goodrich* (DD-831) sat offshore for possible evacuation or shore bombardment, 111-112, 115

Tsingtao, China

Visited by the light cruiser *Springfield* (CL-66) in 1948-49, 141, 145-146

Typhon Missile

Surface-to-air missile program canceled in 1963 because of its high cost, 310-311, 315, 321, 374-376, 431

V-12 Program

Naval Reserve officer training program at the University of Kansas during World War II, 60-77, 96

Veliotis, P. Takis

In the 1970s was general manager of the General Dynamics shipyard at Quincy, Massachusetts, 498-499, 616

Venereal Disease

In Italy in 1948 when the destroyer *Goodrich* (DD-831) visited Venice, 113-114

Venice, Italy

Visited by the destroyer *Goodrich* (DD-831) in 1948, 111-114

Vickery, Commander Hugh B., USN (USNA, 1940)

In the late 1950s, while in OpNav, sponsored the ordnance training at the Naval Postgraduate School, 220

Vietnam War

Shore bombardment by cruiser *Oklahoma City* (CLG-6), 258

Involvement of the Navy Surface Missile Systems Engineering Station, Port Hueneme, 339-340

In 1968 the cruiser *Long Beach* (CGN-9) shot down two MiG fighters with Talos missiles in Vietnam, 356

In 1969 Meyer took a team to assess missile capabilities of ships operating off Vietnam, 364-365, 520-521

In 1972 the frigate *Biddle* (DLG-34) shot down a MiG fighter in Vietnam with a Terrier, 356

PIRAZ role for NTDS ships, 482

Virginia (CGN-38)-Class Cruisers

In the 1970s later ships of the type were considered for Aegis combat systems but not built, 404, 432-433, 454-459

von Braun, Dr. Wernher

Work in U.S. rocket development programs in the 1950s, 164-168, 182-183

WV Warning Star

Role in the Atlantic Barrier (BarLant) patrols in the mid-1950s to detect Soviet bombers, 199-201, 204-205

Wadleigh, Captain John R., USN (USNA, 1937)

Commanded an escort squadron in the mid-1950s, 210

Served on the ComDesLant staff in the mid-1950s, 211, 218

Wainwright, USS (DLG-28)

Commissioning of in January 1966, 271

Wayne E. Meyer, USS (DDG-108)

Aegis destroyer built at Bath Iron Works, 2007-09, 322, 328-329, 573-576

Commissioned at Philadelphia in October 2009, 597-598, 609

Weather

The radar picket destroyer escort *Strickland* (DER-324) encountered high seas during North Atlantic patrols in the mid-1950s, 202-203

A damaging hurricane hit Newport, Rhode Island, in the mid-1950s, 211-212

Webber, Rear Admiral James H., USN (USNA, 1949)

Served as Vice Commander, Naval Sea Systems Command in the mid-1980s, 637

West, Captain Richard D., USN

Commanded the guided missile cruiser *Leahy* (CG-16) from 1989 to 1991, said that

Aegis was unnecessary, 331

White Sands Missile Range, New Mexico

The location for missile testing was chosen because of granite formations, 164-165, 182-183

Williams, Admiral John G. Jr, USN (USNA, 1947)

In the early 1980s, as Chief of Naval Material, awarded Meyer a Distinguished Service Medal and hosted a dinner for him, 456-457, 583-584

Willoughby, William

Former National Aeronautics and Space Administration official who taught reliability to Aegis personnel, 463-466, 638

Wilson, Commander George Barry, USN

Served in the early 1960s in the Special Navy Task Force for Surface Missile Systems, 271-272

Winter, Donald C.

Served as Secretary of the Navy, 2006-09, 485-486

Wise, Lieutenant Peyton Randolph II, USN (USNA, 1953)

Served in the guided missile cruiser *Galveston* (CLG-3) in the early 1960s, 244, 420

Withington, Rear Admiral Frederic S., USN (Ret.) (USNA, 1923)

In 1964 chaired a group to assess proposals for the Advanced Surface Missile System (ASMS), 370-374

Women

Advent in the 1960s of large numbers of women into Civil Service, 342-343, 396-398, 474-475, 560-562, 626-627

Role of women in assembling components of the Aegis SPY-1 radar and missile components in the 1970s and beyond, 430, 468-469

Civilian women from the Aegis program went to sea on trials in the 1970s and 1980s, 593-594

Navy women served in the missile test ship *Norton Sound* (AVM-1) in the 1980s, 602-603

In the 2000s women are increasingly exposed to combat threats, 635-636

Woods, Rear Admiral Mark W., USN (USNA, 1942)

In the late 1950s, while in OpNav, sponsored the ordnance training at the Naval Postgraduate School, 220

In the mid-1960s served as executive officer of the Navy Surface Missile Systems Engineering Station, Port Hueneme, 344

Served 1969-72 as Commander Naval Ordnance Systems Command, 302-303, 314-317, 375

In the early 1970s as Commander Cruiser-Destroyer Force Pacific Fleet, 461-462

Woods, Radio Electrician Norman G., USN

Served on board the light cruiser *Springfield* (CL-66) in the late 1940s, 129-134, 149

World Trade Center, New York City

Suite of offices for John J. Mullen Company, 244-246

Wyatt, Rear Admiral William C. III, USN (USNA, 1952)

Served around 1970 as *Spruance* (DD-963) program manager, 546, 614

In the 2000s worked with Meyer's company on a surface warfare study, 614

Yorktown, USS (CG-48)

Commissioning of in July 1984 at Yorktown, Virginia, 590-591

Yosemite, USS (AD-19)

In the 1940s-50s was based in Newport, Rhode Island as flagship for ComDesLant, 108, 120-121, 209

Youman, Lieutenant Commander, USN

Commanded the radar picket destroyer escort *Strickland* (DER-324) in the mid-1950s, 201-202

Young, John J. Jr.

Served as Under Secretary of Defense for Acquisition, Technology and Logistics, 2007 to 2009, 340-341

Yugoslavia

Involved in the Trieste situation in 1948, 111-112, 115

Zeni, Lieutenant Levio E., USN (USNA, 1946)

Served on the ComDesLant staff in the mid-1950s, 212

Zumwalt, Admiral Elmo R., Jr., USN (USNA, 1943)

As CNO in the early 1970s, stance toward the Aegis program, 401, 405-406, 440-446, 485

Relationship with Admiral Ike Kidd, 503

Zumwalt (DDG-1000)-Class Destroyers

Under construction in the late 2000s, 171, 319-320, 327, 340, 408-409, 453-455, 478-479, 501, 524, 540, 640