

History of the Naval Aviator and Designations and Numbers

The evolution of the programs and policies regarding the designation of naval aviators and naval aviation pilots is one of confusion, ambiguities, inadequate centralized administration of recordkeeping, and inconsistencies in the implementation of a new and young aviation organization into the Navy. During the early period, divergent views on aviation within the Navy and the onset of WWI brought a great influx of new people, programs, policies, aircraft, and air stations into the fledgling naval aviation community. When the United States entered WWI, naval aviation consisted of one operating air station, 48 aviators and student aviators, and 54 aircraft on hand. It was ill-equipped to handle the huge growth precipitated by the United States' entry into the war.

Background on the Evolution of Naval Aviators

The Navy's aviation program had an aviator before it acquired its first aircraft. Lt. Theodore G. Ellyson was ordered to training in December 1910 at the Glenn Curtiss aviation camp in San Diego, Calif. The Navy received its first aircraft from the Curtiss Company the following July. Flight instruction at that time was informal and remained so during the next couple of years.

Ellyson, a student pilot, became a pilot when Glenn H. Curtiss agreed he could fly airplanes. Subsequently, Ellyson taught John H. Towers, another student pilot, to fly. In addition to flying, however, students also had to become totally familiar with the mechanics of their machines and to be able to repair and rebuild aircraft. Formality arrived when Capt. Washington I. Chambers, the Navy's first Director of Naval Aeronautics, declared that the requirements for becoming a Navy pilot were to follow the same rules employed by the Aero Club of America (the American chapter of the Fédération Aéronautique Internationale). Prior to the Navy establishing these standards, some Navy flyers held pilot certificates from the Aero Club.

The Naval Appropriations Act for fiscal year 1914 formally recognized officers assigned to the "aviation element" of the Navy and who qualified as pilots for their duty as flyers on 4 March 1913. The act provided an increase of 35 percent in pay and allowances for officers detailed to duty as flyers of heavier-than-air craft. On 10 April 1913 Secretary of the Navy Josephus Daniels approved performance standards for qualification and the issuance of a certificate as a "Navy Air Pilot" to qualified officers.

Capt. Chambers had requested the certificate in a letter to the Chief of Bureau of Navigation (BuNav) on 4 April 1913, which stated, "The requirements for a Navy Air Pilot are different from those of the land pilot and are purposely made more exacting than those of the 'license' issued by the International Aeronautical Federation." To receive a Navy Air Pilot certificate officers had to pass an advanced training course and become highly skilled as flyers or pass an examination by a board of qualified officers. The Bureau of Navigation was responsible for issuing the certificates, however, because of administrative problems the issuance was subject to a delay of almost two years from the date that Secretary Daniels approved issuing a Navy Air Pilot certificate.

Although performance standards for qualification as Navy Air Pilots were established in April 1913, it was not until a year later (22 April 1914) that the Bureau of Navigation, which was responsible for all Navy training, approved a course of instruction for student flyers and aviation mechanics, because of delays by the bureau in establishing aviation programs and policies. On 9 January 1915 Rear Adm. Bradley A. Fiske, Aide for Operations and a member of the Joint Board, pointed out to the Bureau of Navigation that unless they recognized some officers as qualified and awarded them certificates, no board of experts could be appointed to examine the qualifications of new applicants. He recommended that Navy Air Pilot certificates be issued to Theodore G. Ellyson, John H. Towers, Henry C. Mustin, Patrick N. L. Bellinger, Victor D. Herbster, Bernard L. Smith, and Godfrey de C. Chevalier, and that they be numbered 1 through 7 and dated sequentially, one per month, from 1 January 1914 for Ellyson to 1 July 1914 for Chevalier.

The Bureau of Navigation followed up on Rear Adm. Fiske's recommendation and, in accordance with what the Secretary of the Navy had approved almost two years before, sent out letters on 21 January 1915 forwarding Navy Air Pilot Certificates to these seven officers, numbering and dating them as the admiral had recommended. The Bureau of Navigation and NAS Pensacola, Fla., however, continued to follow the procedure of identifying those students

completing the elementary flight course at Pensacola as “Naval Aviators” to differentiate them from pilots who had completed the advanced course of requirements and qualified as Navy Air Pilots.

Before the Bureau of Navigation could continue its follow up work and issue more Navy Air Pilot Certificates, Congress revised the law on flight pay, and, in a new bill approved 3 March 1915, used the term “Naval Aviator” in specifying those eligible for flight pay. This bill, the Naval Appropriations Act of fiscal year 1916, added enlisted men and student aviators to those eligible for increased pay and allowances while on duty involving flying. It also increased the amount previously provided for qualified aviators. The language of the act provided “flight pay” only for “Naval Aviators,” those fliers completing the elementary flight course at Pensacola. It did not cover those who had qualified as the best pilots and received a Navy Air Pilot certificate. Hence, on 22 March 1915, in order to include those pilots designated Navy Air Pilots, a change was made to the Secretary of the Navy’s performance standards certificate whereby the designation “Navy Air Pilot” was changed to “Naval Aviator.” This was the beginning of the primary emphasis being placed on the designation of Naval Aviator. However, the Navy continued to make references to Navy Air Pilots. In March and April 1915, qualified aviation boards, appointed to give exams at Pensacola, recommended designation of five men as follows: Richard C. Saufley for a Naval Aviator Certificate dated 6 March, William M. McIlvain for a Navy Air Pilot Certificate dated 10 March, Clarence K. Bronson for orders dated 6 April with the designation Navy Air Pilot, Kenneth Whiting and Holden C. Richardson for Naval Aviator Certificates dated 10 and 12 April. The reason for the different use of Naval Aviator and Navy Air Pilot terminology is not known, but the recommendations were approved with a modification as reported by the Bureau of Navigation on 25 May 1915, that all five men had been issued Navy Air Pilot Certificates, numbers 8 through 12. The use of the Navy Air Pilot Certificate and designation continued even after the Secretary of the Navy issued his order to change the designation to Naval Aviator.

Confusion over the issue of Naval Aviator or Navy Air Pilot designations continued within Navy organizations. On 5 May 1915 the Secretary of the Navy informed Whiting: “You are hereby designated as a Naval Aviator for duty involving flying in aircraft, including balloons, dirigibles and airplanes, in accordance with an Act of Congress approved March 3, 1915.” The conflict or confusion seems to be in terminology. It was the opinion at that time that an official statement from the Bureau of Navigation was legally necessary for an individual on flying duty (necessary only in the sense of receiving extra pay while assigned to a job involving actual flying in an aircraft) and that the “Certificates” were only evidence of qualification as an aviator. Thus, on 21 May 1915, the Secretary of the Navy signed a circular letter directing that commanding officers “issue orders detailing officers of the Navy and Marine Corps to Duty as Naval Aviators or Student Naval Aviators when they are required to actually fly or operate these machines.” Therefore, regardless of the title on the “Certificates,” these orders used the title associated with the Naval Appropriations Act, fiscal year 1916.

In January 1916 the Bureau of Navigation issued its “Course of Instructions and Required Qualifications of Personnel for the Air Service of the Navy.” This syllabus mentions 11 classifications for personnel assigned to aeronautic duty. For officers they include: Student Naval Aviator; Naval Aviator; Navy Air Pilot, aeroplane; Navy Air Pilot, dirigible; and Military Aviator. The remaining groups were for enlisted personnel classifications. One of the major reasons for the confusion regarding designations was the existence of several different organizations within the Navy that were making policy decisions on naval aviation without adequately coordinating terminology or standardizing applications. Terminology was used for different purposes, such as identifying an individual qualified to pilot an aircraft and, for pay purposes, identifying an individual involved in flight but not necessarily as the pilot.

On 1 May 1917 a new course of instruction was presented as a revision without specifying what it revised, although it must have taken the place of the course dated January 1916. The new course stated that officers detailed to aeronautic duty would be classed as Student Naval Aviator, Naval Aviator, and Navy Air Pilot, either for seaplanes or dirigibles. Completion of the course of instruction for Student Naval Aviator (seaplane) qualified the student for advancement to elementary and solo flying. Upon completion of that stage the student took the exam for Naval Aviator (seaplane) and was then eligible for what appears to be the advanced course. For this course the instruction stated: “Upon successful completion of the examination the Naval Aviator (seaplane) will be designated Navy Air Pilot (seaplane) and issued a certificate numbered according to his standing in the class with which he qualified as a Navy Air Pilot (seaplane).” A revision to the May 1917 course of instruction was issued 1 January 1918, and the term Navy Air Pilot was not mentioned. In this revision, officers and men detailed for pilot duty were classed as student Naval Aviators and Naval Aviators, seaplane or dirigible. By this time the United States was fully engaged in WWI, the naval aviation training program had expanded, and the question of title finally seemed to be settled. It took almost three years, from 22 March 1915, when the SecNav order was issued to change Navy Air Pilot to Naval Aviator, to January 1918, before the terminology Navy Air Pilot was dropped from instructions issued by the Navy.

Designation List of Naval Aviators

Confusion in the designation list of naval aviators seems to have been tied with the precedence for the designation date of a naval aviator and its connection with the adoption of the gold wings insignia (naval aviator wings). A 13 November 1917 Bureau of Navigation letter states, “The Bureau is now compiling a list of all officers and men who are qualified as Naval Aviators, in order that new pins may be delivered as shortly after they are received from the manufacturers as possible.” This is followed by a Bureau of Navigation report to Pensacola, Fla., stating, “The new Naval Aviator’s pins have been delivered to the Bureau of Navigation and they will be sent out as soon as they can be engraved to show the Aviator’s number, his name and branch of service.” (See Chapter 9 for an explanation of the design and evolution of Naval Aviator Wings.)

There is some question as to whether BUNAV produced a list of naval aviators at this time. However, the CNO’s Aviation Office had a listing of 282 numbers that was forwarded to BUNAV under a letter dated 19 January 1918 with the following:

1. Enclosure (a) is a list of qualified Naval Aviators given in numerical sequence.
2. This list was compiled after careful examination of all the records of this office and numbers assigned according to the date of qualification as Naval Aviator in all cases where such date is shown by the records; but due to the fact that those officers of the regular service who were the first to enter aviation were not required to take a Naval Aviator’s test but were merely designated ‘Naval Aviator’ or ‘Navy Air Pilot’ because of their recognized qualification as such, the numbers assigned in such cases were determined by the date upon which they were ordered to aviation duty and the length of such duty, full consideration being given each and every individual case so affected.
3. Additions to the attached list will be forwarded to the Bureau from time to time and as rapidly as the students now under instruction pass the necessary test for qualification as Naval Aviators.

The following list, except for the omission of fractional numbers and the differences in two names, is accepted as the precedence list of early naval aviators.

Naval Aviator Number (Navy Air Pilot Number)	Name	Service
1 (1)	Ellyson, Theodore G.	USN
2	Rodgers, John	USN
3 (2)	Towers, John H.	USN
4 (5)	Herbster, Victor D.	USN
5 (14)	Cunningham, Alfred A.	USMC
6 (6)	Smith, Bernard L.	USMC
7 (7)	Chevalier, Godfrey de C.	USN
8 (4)	Bellinger, Patrick N. L.	USN
9	Billingsley, William D.	USN
10	Murray, James M.	USN
11 (3)	Mustin, Henry C.	USN
12 (9)	McIlvain, William M.	USMC
13 (12)	Richardson, Holden C.	USN
14 (8)	Saufley, Richard C.	USN
15 (10)	Bronson, Clarence K.	USN
16 (11)	Whiting, Kenneth	USN
17 (13)	Maxfield, Louis H.	USN
18	McDonnell, Edward O.	USN
19	Capehart, Wadleigh	USN
20	Spencer, Earl W., Jr.	USN
21	Bartlett, Harold T.	USN

Naval Aviator Number	Name	Service
22	Murray, George D.	USN
23	Corry, William M.	USN
24	Read, Albert C.	USN
25	Johnson, Earle F.	USN
26	Evans, Francis T.	USMC
27	Paunack, Robert R.	USN
28	Scofield, Harold W.	USN
29	Child, Warren G.	USN
30	Dichman, Grattan C.	USN
31	Young, Robert T.	USN
32	Gillespie, George S.	USN
33	Mitscher, Marc A.	USN
34	Strickland, Glenn B.	USN
35	Monfort, James C.	USN
36	Cabaniss, Robert W.	USN
37	Chase, Nathan B.	USN
38	Stone, Elmer F.	USCG
39	McKitterick, Edward H.	USN
40	Leighton, Bruce G.	USN
41	Griffin, Virgil C.	USN
42	Cecil, Henry B.	USN
43	Sugden, Charles E.	USCG
44	Bressman, Augustus A.	USN
45	Ramsey, DeWitt C.	USN
46	Hull, Carl T.	USN
47	Peyton, Paul J.	USN
48	Kirkpatrick, Robert D.	USN
49	Geiger, Roy S.	USMC
50	Bonner, Walter D.	USN
51	Murphy, Thomas H.	USN
52	Mason, Charles P.	USN
52 ½	Salsman, James	USN
53	Simpson, Frank, Jr.	National Naval Volunteer (NNV)
54	Donahue, Robert	USCG
55	Brewster, David L. S.	USMC
55 ½	Sunderman, John T.	USN
56	Barin, Louis T.	NNV
57	Parker, Stanley V.	USCG
58	Masek, William	USN
59	Coffin, Eugene A.	USCG
60	Eaton, Phillip B.	USCG
61	Enos, George	USN
62	Varini, Giochino	USN
63	Hawkins, Clarence A.	USN
64	Ruttan, Charles E.	USN
65	Gates, Artemus L.	U.S. Naval Reserve Force (USNRF)

Naval Aviator Number	Name	Service
65 ½	Laud-Brown, Wellesley	USNRF
66	Lovett, Robert A.	USNRF
67	Ames, Allan W.	USNRF
68	Gould, Erl C. B.	USNRF
69	Walker, Guy A.	USN
70	Kilmer, Oliver P.	USN
71	Talbot, Peter	USN
72	Davison, Henry P.	USNRF
73	Vorys, John M.	USNRF
74	MacLeish, Kenneth A.	USNRF
75	Beach, Charles F.	USNRF
76	Farwell, John D.	USNRF
77	Sturtevant, Albert D.	USNRF
78	Read, Russell B.	USNRF
79	Brush, Graham M.	USNRF
80	James, Oliver B.	USNRF
81	Rockefeller, William	USNRF
82	McIlwaine, Archibald G.	USNRF
83	Read, Curtis S.	USNRF
83 ½	Gartz, Richard C.	USNRF
84	Ireland, Robert L.	USNRF
85	Ingalls, David S.	USNRF
86	Walker, Samuel S.	USNRF
87	Smith, Kenneth R.	USNRF
88	Lynch, Francis R. V.	USNRF
89	Lawrence, George F.	USNRF
89 ½	Merrill, Norman E.	NNV
90	McLaughlin, Guy	USN
91	McCrary, Frank R.	USN
92	Coombe, Reginald G.	USNRF
93	Landon, Henry H., Jr.	USNRF
94	Culbert, Frederic P.	USN
95	Feher, Anthony	USN
95a	Fitzsimon, Ricardo	Argentine Navy
95b	Pouchan, Ceferino M.	Argentine Navy
95c	Zar, Marcos A.	Argentine Navy
96	Coil, Emory W.	USN
96 ½	Chamberlain, Edmund G.	USMC
97	Strader, Ralph M.	USNRF
98	Talbot, Andrew B.	USNRF
99	Whitehouse, William P.	USNRF
100	Crompton, George	USNRF
100 ½	Pennoyer, Ralph G.	USN
100 ¾	Presley, Russell A.	USMC
101	Hamlen, Warner	USNRF
102	Little, Charles G.	USNRF

Naval Aviator Number	Name	Service
103	Brewer, Arthur D.	USNRF
104	Delano, Merrill P.	USNRF
104 ½	Kiely, Ralph	USN
105	Lansdowne, Zachary	USN
105 ½	Douglas, Gilbert W.	USNRF
106	Bell, Colley W.	USNRF
107	Chadwick, Noel	USNRF
108	Ditman, Albert J.	USNRF
109	Donnelly, Thorne	NNV
110	Carter, R. C.	USNRF
110 ½	Allen, Charles L.	USN
111	Stone, George W.	USN
111 ½	Bradford, Doyle	USNRF
112	Atwater, William B.	USNRF
112 ½	Webster, Clifford L.	USNRF
113	Fallon, Nugent	USNRF
114	Williams, Arthur S.	USNRF
115	Dietrich, Arthur F.	USN
116	Palmer, Carlton D.	USN
117	Murray, Cecil D.	USNRF
118	Taylor, Moseley	USNRF
119	Townsend, Richard S.	USNRF
120	Walton, Mark W.	USNRF
121	Depew, Ganson G.	USNRF
122	Goodyear, Frank	USNRF
123	McCormick, Alexander A.	USNRF
124	Schieffelin, John J.	USNRF
125	Rodman, Thomas C.	USNRF
126	Smith, Edward T.	USNRF
127	Otis, James S.	USNRF
128	Hawkins, Ashton W.	USNRF
129	Lufkin, Chauncey F.	USNRF
130	Potter, Stephen	USNRF
131	Fuller, Percival S.	USNRF
132	Decernea, Edward	USNRF
133	Ott, George A.	USN
134	Geary, John W.	USNRF
134 ½	Wetherald, Royal W.	USNRF
135	Hinton, Walter	USN
136	Willcox, Westmore	USNRF
137	Lee, Benjamin, II	USNRF
138	Stone, Emory A.	USNRF
139	Fuller, Charles F.	USNRF
140	Hutchins, Hurd	USNRF
141	Stocker, Robert M.	USNRF
142	Foster, John C.	USNRF

Naval Aviator Number	Name	Service
143	Allen, Frederic S.	USNRF
144	Amory, Francis I.	USNRF
145	Read, Duncan H.	USNRF
146	Goldthwaite, Duval R.	USNRF
147	McCann, Richard H.	USNRF
148	Wright, Arthur H.	USNRF
149	Swift, Henry	USNRF
150	Butler, Stuart M.	USNRF
151	Gordon, Harry B.	USNRF
152	Zunino, Frank A.	USNRF
153	Shea, Edward L.	USNRF
154	Forrestal, James V.	USNRF
155	Brackenridge, Gavin	USNRF
156	Gibson, Harold F.	USNRF
157	Mudge, William F.	USNRF
158	Clarkson, William F.	USNRF
159	McCoid, Paul H.	USNRF
160	Halstead, Jacob S.	USNRF
161	Randolph, Robert D.	USNRF
162	Matter, Robert	USNRF
163	Warburton, William J.	USNRF
163 ½	Peterson, Herman A.	NNV
164	Rutherford, John	NNV
165	Laughlin, George M., III	NNV
166	Evans, George B.	NNV
167	Johnson, Albert R.	NNV
168	McCulloch, David H.	USNRF
169	Peirce, Thomas J. H.	NNV
170	Page, Phillips W.	USNRF
171	Shaw, George W.	USNRF
172	Peck, Lyman S.	USNRF
173	Humphreys, William Y., Jr.	NNV
174	Berger, Frederick, G. B.	NNV
175	Boyd, Theodore P.	NNV
175 ½	Alexander, William H.	USN
176	White, Lawrence G.	NNV
177	Coddington, Dave H.	NNV
178	Kerr, Robert H.	USN
179	Whitted, James A.	USN
180	Haskell, Armory L.	USNRF
181	Hyde, Russell N.	USNRF
182	Keyes, Kenneth B.	USNRF
183	Warren, Alfred K.	USNRF
184	Eaton, Joseph A.	USNRF
185	Peterson, William L.	USNRF
186	Stanley, Henry T.	USNRF

Naval Aviator Number	Name	Service
187	Remey, John T.	USNRF
188	Palmedo, Roland	USNRF
189	Forbes, Duncan P.	USNRF
190	Allen, Francis G.	USNRF
191	Baker, Charles S.	USNRF
192	Greenough, Charles W.	USNRF
193	Ames, Charles B.	USNRF
194	Hofer, Myron A.	USNRF
195	Ives, Paul F.	USNRF
196	Clark, Robert F.	USNRF
197	Brewer, Edward S.	USNRF
198	Dumas, Gardner D.	USNRF
199	McNamara, John F.	USNRF
200	Rowen, Harold J.	USNRF
201	Compo, George L.	USNRF
202	Perrin, John	USNRF
203	Hutchinson, Lester B.	USNRF
204	MacCaulay, Donald M.	USNRF
205	Lochman, Dean E.	USNRF
206	Moore, Lloyd Ray	USN
207	Thomas, Reginald de Noyes	USNRF
208	Clements, James R.	USNRF
209	Schermerhorn, Horace	USNRF
210	Murphy, Dudley B.	USNRF
210 ½	Grosvenor, Theodore P.	USNRF
211	Roe, George T.	USNRF
212	Teulon, Arthur P.	USNRF
213	Marriner, Walter T.	USN
214	Pumpelly, Harold A.	USNRF
215	Biggers, Robert L.	USNRF
216	Farmer, Charles R.	USNRF
217	Rumill, George E.	USNRF
218	Greenfield, Edwin R.	USNRF
219	Weld, Lothrop M.	USNRF
220	Phelan, James	USNRF
220 ½	West, Winfield M.	USNRF
221	Lancto, Joseph W.	USNRF
222	Wilcox, Harold M.	USNRF
223	Hawkins, Rees	USNRF
224	Wenz, Edward A.	USNRF
225	Alvord, Donald B.	USNRF
226	Baum, James E., Jr.	USNRF
227	Smith, Frank S.	USNRF
228	Hawkins, Samuel S.	USNRF
229	Clapp, Kenneth H.	USNRF
230	Dowell, Benjamin B.	USNRF

Naval Aviator Number	Name	Service
231	Ostridge, Charles L.	USNRF
232	Bergin, Thomas M.	USNRF
233	Gadsden, Philip H.	USNRF
234	Graves, Justin D.	USNRF
235	Connolly, Leo W.	USNRF
236	McAdoo, William G., Jr.	USNRF
237	Wheeler, Oscar G.	USNRF
238	Benjamin, Henry R.	USNRF
239	Souther, Arthur F.	USNRF
240	Roberts, Charles H.	USNRF
241	Harris, Frederick M.	USNRF
242	Naylor, Henry R.	USNRF
243	Voorhees, Dudley A.	USNRF
244	Maxwell, Howard W., Jr.	USNRF
245	King, Frederick E.	USNRF
246	Lamar, Lamartine E.	USNRF
247	Bancroft, Frederick W., Jr.	USNRF
248	Griswold, Rettig A.	USNRF
249	Chapman, Thomas H.	USNRF
250	Frothingham, Philip B.	USNRF

The confusion regarding precedence and the assignment of numbers resulted in some qualified individuals being left off the list of naval aviator numbers. During WWI qualified civilian aviators joined the naval service and served as naval aviators. They were qualified pilots who flew as a Navy pilot or naval aviator but did not receive a naval aviator number or were overlooked in the assignment of a number because of administrative problems during the huge war build-up.

The Bureau of Navigation (redesignated Bureau of Naval Personnel in 1942) continued to issue naval aviator numbers and was the sole source until 31 July 1942. In a SECNAV letter dated 31 July 1942, the old method of designating naval aviators through the assignment of numbers was discontinued. The following system was put in place:

- Commandant, Naval Air Station, Pensacola, Fla., is directed to commence a series of numbers for the foregoing designations as Naval Aviator (HTA) Number P1, P2, P3, etc.
- Commandant, Naval Air Station, Jacksonville, Fla., is directed to commence a similar series as Naval Aviator (HTA) Number J1, J2, J3, etc.
- Commandant, Naval Air Station Corpus Christi, Tex., is directed to commence a similar series as Naval Aviator (HTA) Number C1, C2, C3, etc.
- Commanding Officer, Naval Air Station, Miami, Fla., is directed to commence a similar series, as Naval Aviator (HTA) Number M1, M2, M3, etc.
- Commanding Officer, Naval Air Station, Norfolk, Va., is directed to commence a similar series, as Naval Aviator (HTA) Number N1, N2, N3, etc.
- Commanding Officer, Naval Air Station, Alameda, Calif., is directed to commence a similar series as Naval Aviator (HTA) Number A1, A2, A3, etc.
- Commanding Officer, Naval Air Station, Lakehurst, N.J., is directed to commence a similar series as Naval Aviator Number L1, L2, L3, etc.
- Commanding Officer, Naval Air Station, Moffett Field, Calif., is directed to commence a similar series as Naval Aviator (LTA) Number S1, S2, S3, etc.

This letter also stated: "The original letter of designation will be delivered directly to the individual without prior reference to the Navy Department for approval." Copies of the letter of designation were to be forwarded to

the Bureau of Personnel; Bureau of Aeronautics; Commandant, U.S. Marine Corps; and Bureau of Medicine and Surgery (in the case of flight surgeons). Because of the decentralization of this numbering system, a complete listing of naval aviators and their designation numbers has not been found for the WWII period even though the Bureau of Personnel was to receive a copy of all the letters of designation.

On 28 November 1942, a Secretary of Navy letter issued a modification to the commands designating Naval Aviators. Changes in this letter were as follows:

- The Commandant, Naval Air Training Center, Pensacola, Fla., assumed the duties of designating Naval Aviators vice the Commandant, Naval Air Station, Pensacola. There is no indication the use of the numbering series P1, P2, P3, etc., was changed.
- The Commandant, Naval Air Training Center, Corpus Christi, Tex., assumed the duties of designating Naval Aviators vice the Commandant, Naval Air Station, Corpus Christi. There is no indication the use of the numbering series C1, C2, C3, etc., was changed.
- The Commandant, Naval Air Center, Hampton Roads, Va., was directed to assume the duties of designating Naval Aviators vice the Commanding Officer, Naval Air Station, Norfolk, Va. There is no indication the use of the numbering series N1, N2, N3, etc., was changed.

This system remained in effect until 1949. A Secretary of the Navy letter of 29 March 1949 cancelled its previous letters regarding designation of Naval Aviators (letters of 31 July 1942, 28 November 1942, and 9 January 1943) and authorized the Commander, Naval Air Training; Commander, Naval Air Advanced Training; and the Chief of Naval Airship Training and Experimentation to designate Naval Aviators (and assign numbers). By the time this letter was issued the other training commands had already been disestablished or consolidated under the control of these three commands. In step with the previous decentralized system, the following system was established:

- Chief of Naval Air Training was directed to commence a series of numbers for the foregoing designations as Naval Aviators, (HTA), Number T-1, T-2, T-3, etc.
- Chief of Naval Air Advanced Training is directed to commence a series of numbers for the foregoing designations of Naval Aviators (HTA), Number V-1, V-2, V-3, etc.
- Chief of Naval Airship Training and Experimentation is directed to commence a similar series as Naval Aviators (LTA) using the L series, carrying on from the last number used in this series by the Commanding Officer, Naval Air Station, Lakehurst, N.J.

The Chief of Naval Air Training quit issuing Naval Aviator Numbers sometime in the 1970s. Documentation has not been located that gives the date or provides reasons why the assignment of Naval Aviator numbers was discontinued. To date, no complete listing of all Naval Aviator numbers, including the letter-number designations, has been found. Moreover, it is highly unlikely a complete list exists because of the decentralization of the system during WWII. Bits and pieces of the listing for Naval Aviator numbers is held by the Naval Aviation History Office. However, the WWII and post-war period list is not organized in any alphabetical or chronological order, consequently, it is extremely difficult to find any individual's number.

Background on the Evolution of Naval Aviation Pilots

The evolution of the Naval Aviation Pilot designation for enlisted men is more complicated because of the lack of a clear Navy policy regarding enlisted pilots during naval aviation's first decade and the misconceptions surrounding the terminology regarding designations used for enlisted pilots. By setting the standards for qualification and certification of officers as Naval Aviators in the early phase of naval aviation, a stable policy was put into effect. The failure to establish a clear-cut policy regarding programs for training enlisted pilots caused considerable confusion that affected the enlisted pilot program during its entire existence.

The confusion begins with terminology and how it was applied to those people "involved in actual flight." Enlisted men had been undergoing aeronautic training from the time the aeronautic station was established at Pensacola, Fla., in January 1914. Training for enlisted men can even be traced back to the first aeronautic station at Greenbury Point, Md. However, more publicity for enlisted aeronautic training and its resultant positions developed in March 1915, when a law was passed by Congress that extended increased pay and allowances to enlisted men and student aviators, as well as qualified pilots, while on duty involving flight. Prior to the passage of this law, Congress had authorized special pay only for officers detailed to duty as flyers. The allure of flight, more pay and the continued

development of the small aviation section of the Navy brought about a greater interest by enlisted personnel in the naval aeronautic field. It was only natural that some enlisted men, aside from their regular duties of maintaining the craft and flying as crewmembers, developed an interest in piloting aircraft.

There is some confusion surrounding the first training of enlisted men as pilots. References are made to the beginning of pilot training at NAS Pensacola, Fla., for the first group of enlisted men on 6 January 1916.

In a letter to Lt. Cmdr. Henry C. Mustin, Commandant, NAS Pensacola, Fla., dated 4 January 1916, Capt. Mark L. Bristol, Director of Naval Aeronautics, states,

In an order issued the other day, we organized a class of men for training as aviators, specifying men of the seamen's branch. It may happen that the machinists at the present time are best fitted for this training, but we can not establish such a precedent. It would lead to all kinds of future complications, so start square on this subject.

In his 10 January 1916 response to Bristol's letter, Mustin wrote,

As regards the distinction between Naval Aviator and Navy Air Pilot, I think that the term Naval Aviator, in view of the term Military Aviator used in the Army, is not altogether suitable for our enlisted men; also in view of the present wording of the law there may be some complications. However, I think we have the sense of what you desire in this line of work regardless of titles and that is a matter that can be straightened out later. In the meantime, we are going ahead with the first class of enlisted men and they are taking hold of the flying part of it very well.

From these two letters we can be fairly certain the first pilot training class for enlisted men began in January 1916 at NAS Pensacola, Fla. The question regarding the designation of an enlisted pilot appears to have been left up in the air. Mustin does make a reference to using the old title "Navy Air Pilot" that had been used for officers prior to March 1913. However, Bristol left his position as Director of Naval Aeronautics in March 1916 before a decision was made on the subject.

The Bureau of Navigation's January 1916 "Course of Instruction . . ." mentioned above, identifies enlisted categories of Student Airman; Airman; Quartermaster, aeroplane; Quartermaster, dirigible; and Machinist, aeronautic. Just like the designations involving Naval Aviator, the Navy had two organizations (the Bureau of Navigation and the CNO's Director of Naval Aeronautics) that were dealing with aviation training and issuing directives that sometimes had conflicting uses for designations. The Bureau of Navigation's January 1916 "Course of Instructions and Required Qualifications of Personnel for the Air Service of the Navy" also set up a "Certificate of Qualification for Airman."

Thus, in 1916, NAS Pensacola, Fla., began issuing "Certificates of Qualification as Airman" to enlisted personnel meeting the requirements set up by the Bureau of Navigation. From a handwritten logbook maintained at Pensacola, the certificates were numbered, beginning with 1 and ending at 358. The Number 1 Certificate of Qualification as Airman was issued to CMM Harry E. Adams on 15 December 1916, with a course completion date of 27 November 1916. This airman certificate should not be confused with the enlisted qualifications for a pilot; there is no connection between the two designations. A note in the logbook indicates the issuance of a Certificate of Qualification from the Aeronautic School at Pensacola for Airman was discontinued on 1 October 1917. It is believed Pensacola discontinued the enlisted certificate program because of the changes in the "Course of Instructions," the addition of other training stations, and the influx of a large number of enlisted men during WWI. However, the name Airman continued to be applied to enlisted personnel in the aviation field. Needless to say, there were other qualified enlisted men in naval aeronautics who preceded the establishment of this list of designated "Airman."

The forgoing discussion about "Airman" is provided here to clarify the fact that "Airmen" were not being defined as enlisted pilots. However, some enlisted men who received "Certificates" as Airman did become qualified pilots, and this is where the confusion begins. The first official class of enlisted men to undergo pilot training in January 1916 included:

P. J. Dunleavy, CBM	F. Grompe, CMAA	A. A. Bressman, CTC
L. A. Welty, CTC	A. Hayes, CTC	A. P. Bauer, GM1c
J. Makolin, 1stSgt, USMC	W. E. McCaughtry, GunSgt, USMC	A. F. Dietrich, BM2c.

The last man to join this class was Walter D. Bonner, BM2c, and he appears on the 1 March 1916 Flying School's list of Enlisted Personnel undergoing Flying Instruction.

Capt. Mark Bristol, Director of Naval Aeronautics, sent a memo to the Secretary of the Navy on 4 March 1916, which stated, "On the 1st of January, 1916, a class of 10 enlisted men was formed and placed under instruction in flying. These men were selected from the bluejackets and marines already on duty at the station or on board *North Carolina*. These men are making excellent progress. There will be a class of them ordered every three months hereafter." Records do not indicate any succeeding classes of enlisted pilot training groups every three months as indicated by Bristol's letter. The next reference to a class of enlisted men undergoing flight training at NAS Pensacola is 15 May 1916, in a "Semi-Monthly Report of Aviators (Enlisted Personnel)." This lists the following personnel undergoing training as aviators:

A. A. Bressman	L. A. Welty	A. Hayes
A. F. Dietrich	W. D. Bonner	J. Makolin
W. E. McCaughtry	C. L. Allen	J. Sunderman
W. Diercks	J. Salsman	A. Ward
T. H. Murphy	G. Verini	

In the fall of 1917 several changes were implemented in the pilot training program that affected enlisted personnel. In a CNO letter to the Commandant, Pensacola Aeronautic Station, Fla., dated 8 August 1917, paragraph 2 states "It is desired to train no more enlisted personnel as pilots. Excellent Officer material in enlisted personnel will be treated in accordance with reference (c)." Reference (c) was the Bureau of Navigation's circular letter #9879-495, of 2 August 1917. In a letter from the Commandant, NAS Pensacola, Fla., dated 30 November 1917, to the Bureau of Navigation, clarification was requested regarding aviation designations for 10 enlisted personnel who had qualified and were given orders as Quartermaster Seaplane. This designation identified these personnel as qualified enlisted pilots.

The letter goes on to ask whether new orders should be issued to these men designating them as Naval Aviators. The ten men were:

CBM A. F. Dietrick	CQM J. T. Sunderman	CGM G. Enos
QM2c(A) John H. Bunt	QM2c(A) James A. Whitted	CTC A. Feher
CE Carlton D. Palmer	QM2c George W. Stone	CBM Robert H. Kerr
QM2c(A) C. A. Suber		

The Bureau of Navigation's response, dated 8 December 1917, states, "Men mentioned in this enclosure (the enclosure was a copy of NAS Pensacola's 30 November 1917 letter listing the 10 men) will have their designations changed to Naval Aviators, but no new orders are necessary." The second paragraph of this letter indicated a new policy was being issued with regard to enlisted pilots, it stated, "In separate correspondence, instructions are being issued concerning future designations as Naval Aviators for enlisted men who qualify for pilot duty, and new blanks (Navigation Form N. Nav. 442, October 1917) are being sent out on which reports should be made in the future."

It appears the Bureau of Navigation, in its Aviation Circular dated 1 January 1913, set up the policy that identified the course of flight training instruction and the passing of flight tests for officers, and later on applied it to enlisted men who could qualify for pilot duty. However, it also appears that the Bureau of Navigation did not make any modifications in its circulars to reflect the changes that occurred in pilot designations between 1913 and 1915, such as Navy Air Pilot and Naval Aviator and the appropriate references to enlisted men who became pilots. All ten enlisted men referenced in NAS Pensacola's 30 November 1917 letter were eventually commissioned. However, several of them maintained their enlisted pilot status for more than a year before receiving their commission.

In the latter part of 1917, as a result of the great need to increase the number of aviation personnel, the Navy instituted a policy of taking enlisted men for pilot training and then qualifying them for a commission and designation as a Naval Aviator. Many of the regular enlisted men who could qualify for the pilot training program would be discharged from the regular Navy and enrolled in the Naval Reserve for training and commission in the Naval Reserve Flying Corps. The majority of the personnel entering naval aviation service during the war came from the civilian community and joined the Naval Reserve for duty with the Naval Reserve Flying Corps. Needless to say, there were exceptions to these policies during WWI. This was particularly true for enlisted personnel who received pilot training in Europe.

On 5 June 1917, the Navy's First Aeronautic Detachment, and the first U.S. military unit sent to Europe in WWI, arrived at Pauillac, France. The second section of the detachment arrived on 8 June at St. Nazaire, France. The First Aeronautic Detachment was commanded by Lt. Kenneth Whiting and consisted of 7 officers and 122 enlisted men. Only four of the officers were pilots, two were supply officers, and one a doctor. The majority of the enlisted personnel were students in the aviation field. After a meeting between American and French officers, the French agreed to train the detachment's personnel. Approximately 50 enlisted men were to be trained as seaplane pilots at Tours while another 50 would be trained as "mechanicians" at St. Raphael.

On 22 June 1917, preliminary flight training for the enlisted men began in Caudron aircraft under French instructors at the École d'Aviation Militaire at Tours. One of the French procedures for flight training was to teach their pilots land flying first, hence, Lt. Whiting had to deal with the French Army, as well as with the Navy. Changes were made to the flight training plans and 14 of the enlisted men were redirected to fill the requirement for observer training. Under French training, an observer was a prototype of aircrewmen whose duties involved observing, acting as bombardier, and handling such armament as existed on the plane. On 7 July 1917, Lt. Whiting reported that 50 persons were undergoing pilot instruction at Tours, with 38 taking machinist and 14 observer training at St. Raphael.

The French required a ratio of 10 enlisted men for each pilot under its aviation program. Consequently, the American Navy representative in France, along with Lt. Whiting, requested an increase in personnel for aviation training in France. The Navy Department again found itself divided, some wanted to continue sending men to France for aviation training, while others wanted to conduct the training in the United States and have some final, on-site training conducted in France. By the early summer months of 1918 many of the problems of training, organization, and movement of aviation personnel abroad had begun to be solved. However, all aviation training matters were not smoothed out prior to the signing of the Armistice.

The policy regarding the enlisted pilots that were trained in Europe, either in France, Britain, or Italy, generally followed the same procedures adhered to in the United States at the end of 1917. Many of the enlisted pilots would receive commissions once they had completed flight training and been certified as pilots. They did not, however, always receive their commissions immediately after pilot qualification. Some flew many patrol missions before the administrative system authorized their commissioning in the Naval Reserve Flying Corps. When the Armistice was signed, the total strength of the U.S. Naval Aviation Force, Foreign Service (those serving overseas) was 1,147 officers and 18,308 enlisted men. The majority of them were assigned to air stations in France, followed by those in England, Ireland, and Italy.

With the end of WWI, naval aviation, along with other elements of the Navy, underwent a major demobilization that drastically reduced its size. Some of the officers and enlisted men on active duty in the Naval Reserve were offered a chance to convert to a regular status in the Navy. In some cases, enlisted men who had received their commissions following their completion of pilot training reverted to an enlisted status. This, of course, presented a problem for the Navy since they no longer had a program for enlisted personnel with pilot designations.

Following the massive demobilization, naval aviation again experienced the problems of maintaining an adequate supply of qualified aviation personnel, both enlisted men and officers. In 1919, various aviation issues were discussed by the Navy's General Board; the Commander in Chief Atlantic Fleet, Admiral H. T. Mayo; and various offices of the Chief of Naval Operations and the bureaus. On 23 June 1919, the General Board forwarded its final recommendations on aviation policy to the Secretary of the Navy, via the Chief of Naval Operations. One of those recommendations was "as many enlisted men as possible should be trained and used as pilots." Capt. Thomas T. Craven, the Director of Naval Aviation, submitted his comments on the General Board's recommendations on 17 July 1919. He stated, "It is believed that a limited number of enlisted men should be trained as pilots." On 24 July 1919, the Secretary of the Navy added his endorsement on the board's recommendations. However, his comments on personnel were very brief, stating, "Study will be made with regard to Aviation personnel." While these developments were important, they were eventually superseded by other events that occurred in 1919 between NAS Pensacola, Fla., other naval aviation organizations in the fleet, the CNO, and the Bureau of Navigation. These events set in motion the eventual establishment of the designation Naval Aviation Pilot (enlisted pilots).

During 1919, significant correspondence took place between the Commandant, NAS Pensacola, Fla., and various upper echelon commands regarding flight training and designations for aviation personnel. In a 12 February 1919 letter from the Commandant to the Supervisor Naval Reserve Flying Corps (a CNO office), a request was made to continue flight training and give Naval Aviator designations to four enlisted men. These four—CBM(A) Edwin Nirmaier, CQM(A) George R. Groh, CMM(GE) Lamont C. Fisher, and CQM(A) Percy M. Fuller—all had had foreign duty and had either qualified as pilots on active service or were undergoing pilot training when the war ended. None wanted to be discharged from the regular Navy and reenrolled with a commission in the Reserves.

The Bureau of Navigation returned the request on 31 March 1919 recommending reconsideration and further recommendation for the four enlisted men.

A 17 April 1919 letter from CNO (Aviation) to a wide range of commands, reconsidered the position on training of enlisted personnel and stated,

1. It has been decided to consider the flight training, or continuance of the interrupted flight training, of enlisted ratings of the regular service who, in addition to being unquestionable officer material, can successfully meet the following requirements: (a) That had been regularly enlisted in the Navy, and obtained the rating of second class petty officer prior to April 6, 1917, or that enlisted for Aviation duty only, in accordance with Enclosure (a).

However, the letter also indicated that these men would be commissioned in the Naval Reserve Force and retained on active duty until the issue of transferring Naval Reserve officers to the regular Navy had been definitely decided.

A Bureau of Navigation letter of 18 June 1919 modified BuNav's Circular Letter No. 57-19 and authorized the enlisted pilot training policy as stated in the CNO's letter of 17 April 1919. This BuNav circular letter was instrumental in setting in motion the third class of enlisted men authorized for pilot training at NAS Pensacola, Fla. A 20 August 1919 letter from the Bureau of Navigation to the Commandants of All Naval Districts, All Naval Air Stations and Aviation Detachments, set forth the requirements for training of enlisted pilots. The letter indicated that enlisted men would be designated Naval Aviators upon successfully completing the course. However, it made no references to a requirement for commissioning in the Naval Reserves.

This omission resulted in a letter from the Commanding Officer of NAS Pensacola, Fla., dated 15 September 1919, requesting Naval Aviator Appointments for warrant officers. The letter made a reference to Bureau of Navigation's 20 August letter, stating, "1. Reference (b) specifies that enlisted men are to be trained as Naval Aviators and, without commissioning, are to be given Naval Aviator Appointments and Insignia." In the Bureau's letter of 22 September 1919, it disapproved designating warrant officers as Naval Aviators, instead they were to be commissioned and then designated. However, this letter made no mention of commissioning enlisted pilots as officers. It did not take long for NAS Pensacola to send another letter, dated 3 October 1919, questioning the Bureau of Navigation's policy on Naval Aviator Appointments for Warrant Officers. In a 14 October 1919 letter from the Bureau of Navigation, the policy for training of enlisted and warrant officer Aviation Pilots was set forth. This letter cancelled the Bureau of Navigation letter dated 20 August 1919. It stated,

1. In the future it will be the policy of the Bureau to select a certain number of warrant officers and enlisted men for flight training and duty as pilots of large heavier-than-air craft and directional pilots of dirigibles. . . . 3. Warrant officers and men who are selected in accordance with this letter will be given the complete course of instruction for qualification as pilot. Upon successfully completing the course, they will be issued certificates of qualification as 'Naval Aviation Pilots' by the Navy Department. Such certificates will entitle the pilots to wear the aviation insignia authorized for Naval Aviators. Warrant Officers and men who hold certificates as Naval Aviation Pilots will, while detailed for duty involving actual flying be entitled to fifty percent additional pay.

This is the first official reference to the designation "Naval Aviation Pilot" and it set in motion the beginning of the enlisted pilot program. Thus, the initial program for Naval Aviation Pilots was done without authorization from Congress. The Congressional program involving enlisted pilots was not developed until the mid-1920s.

In the October and November 1919 letters from the Bureau of Navigation, the bureau notified appropriate commands of its intention to detail classes of approximately 25 enlisted men to begin flight training in heavier-than-air and lighter-than-air. The CNO Daily Aviation News Bulletin for 10 December 1919 stated "A class of twenty-five enlisted men has been ordered to Pensacola, Fla., to take the course preliminary to appointment as Naval Aviation Pilots." An NAS Pensacola letter of 9 December 1919 to the Bureau of Navigation stated, "This Station can start the Heavier-than-Air Course of Training for a class of twenty-five (25) enlisted men on February 1st, 1920." This was the third class of enlisted men to undergo flight training at Pensacola, Fla., but the first class whereby the graduates were identified as Naval Aviation Pilots and retained their enlisted status.

A 5 February 1920 NAS Pensacola memorandum listed classes undergoing instruction in aviation. Enlisted Class No. 1 (Heavier-than-Air) has the following personnel listed:

CMM(A) Floyd Bennett	CMM(A) Chas P. Brenner	CMM(A) Kenneth D. Franklin
CMM(A) Anthony Iannucci	CMM(A) Leo C. Sullivan	CMM George N. Tibbetts
CMM(A) Jacob W. Utley	CMM(A) Thomas P. Wilkinson	CMM(A) Francis C. Barb
CMM(G) John W. Green	CMM(A) Clarence I. Kessler	CMM(A) R. B. Lawrence
CMM(A) Francis E. Ormsbee	CMM(A) Eugene T. Rhoads	CMM(A) Bert Strand
CMM(A) Harry A. Rossier	CMM(A) N. Wayne L. Carleto	CCM(A) Chas. I. Elliott
CGM(A) Ralph A. Jury	CCM(A) Herbert L. Hoobler	CE(G) William B. Livingston
CQM(A) Owen J. O'Connor	CGM George N. Strode	CEL(A) Clyde O. Switzer
BTSN(A) Lamont C. Fisher	CCM(A) Cecil H. Gurley	CEL(R) Claude G. Alexander
CGM(A) Henry Brenner	CQM(A) William August Clutne	CQM Owen J. Darling
CCM(A) Garrett H. Gibson	BM2c Harvey A. Griesy	CEL(R) Arthur E. LaPorte
CGM(A) Cyrus L. Sylvester	GM1c(A) W. T. Sweeny	CBM Stephen J. Williamson.

The list for students (Lighter-than-Air) included the following enlisted men:

BTSN William L. Buckley	MACH William L. Coleman	Gunner Ralph T. Bundy
Gunner Willfred H. Smart	CMM(A) L. E. Crowl	CQM(D) Horace M. Finch
CBM S. R. Soulby	CQM(A) G. K. Wilkinson.	

A second class of enlisted men began undergoing heavier-than-air pilot training on 1 August 1920 at NAS Pensacola, Fla., and consisted of 33 enlisted men. A third class of enlisted pilot training was scheduled to begin on 1 March 1921.

Designation List of Early Naval Aviation Pilots (NAPS)

The program for Naval Aviation Pilot designation numbers produced the same type of situation and confusion that surrounded the numbering of Naval Aviators. The Navy Department, once a policy was decided upon in late 1919 to designate enlisted men as Naval Aviation Pilots, started issuing certificates of qualification as Naval Aviation Pilots to some enlisted personnel who had qualified as pilots during WWI. Hence, the precedence list for Naval Aviation Pilots includes personnel not part of the enlisted class that began training in February 1920. It appears a number of these enlisted personnel were instructors at NAS Pensacola, Fla., in late 1919 and early 1920. CQM(A) Harold H. Karr received a letter, dated 9 March 1920, from the Bureau of Navigation that certified him as a qualified pilot and designated a Naval Aviation Pilot. Naval Aviation Pilot designation numbers were placed on a handwritten ledger maintained at NAS Pensacola, Fla. Karr is listed with Naval Aviation Pilot number 1 with the date of issue as 22 January 1920. It is believed the difference between the 22 January date and the 9 March 1920 date is the time difference between the reporting from NAS Pensacola, Fla., to the Bureau of Navigation and its response to Karr.

The enlisted men who were part of the first two classes to receive training as aviators in 1916 may be considered the forerunners of the enlisted men who were designated Naval Aviation Pilots. However, because the program and designation for Naval Aviation Pilots was not established at the time of their training or because most of them received commissions and designations as Naval Aviators, they are not included in this list of early Naval Aviation Pilots. Discrepancies in the sources listing Naval Aviation Pilots made it impossible to resolve all the numbering problems. For this reason, only the first 69 Naval Aviation Pilots are listed.

Naval Aviation Pilot Designations			
Pilot No.	Name	Rate	Date Designated
1	Karr, Harold H.	CQM(A)	1/22/20
2	Lee, Robert E.	NM1C(A)	1/22/20
3	Niramaier, Edwin	CBM(A)	4/14/20
4	Lovejoy, Francis E.	CQM(A)	11/22/20
5	Seiler, Walter L.	CQM(A)	1/22/20
6	Woods, Clarence	CQM(A)	1/22/20
7	Alexander, Claud G.	CE(R)	10/7/20
8	Barb, Francis C.	CMM(A)	10/8/20
9	Bennett, Floyd	CMM(A)	10/7/20
10	Byrne, Patrick J.	CMM(A)	10/8/20
11	Carleton, Wayne L.	CBM(A)	10/8/20
12	Cluthe, William A.	CQM(A)	10/8/20
13	Darling, Owen M.	CQM(A)	10/8/20
14	Elliott, Charles I.	CCM(A)	10/7/20
15	Fisher, Lawrence C.	CMM(A)	10/7/20
16	Franklin, Kenneth D.	CMM(A)	10/7/20
17	Graham, Paul E.	CMM(A)	10/8/20
18	Griesy, Harvey A.	BM2C	10/8/20
19	Hoobler, Herbert L.	CCM(A)	10/8/20
20	Insley, Cecil H.	CCM(A)	10/7/20
21	Kesler, C. I.	CMM(A)	10/8/20
22	LaPorte, Arthur E.	CE(R)	10/7/20
23	Lawrence, K. B.	CMM(A)	10/7/20
24	O'Conner, Owen J.	CQM(A)	10/7/20
25	Ormsbee, Frank E.	CMM(A)	10/8/20
26	Peterson, Allen K.	Ch.Ptr.(A)	10/8/20
27	Rhoads, Eugene S.	CMM(A)	10/8/20
28	Rossier, Harry A.	CMM(A)	10/8/20
29	Stinson, John H.	CMM(A)	10/7/20
30	Sullivan, Leo C.	CMM(A)	10/7/20
31	Tibbetts, George N.	CMM(A)	10/7/20
32	Utley, Jacob W.	CMbl(A)	10/7/20
33	Wilkinson, Thomas P.	CMM(A)	10/7/20
34	Williamson, S. J.	CBM(A)	10/8/20
35	Demshock, John J.	CE(G)A	3/8/21
36	Baker, H. T.	CMM(A)	3/8/21
37	Buckley, James W.	CMM	3/8/21
38	Elmore, William L.	CGM	3/8/21
39	Griggs, Herbert B.	CE(G)	3/8/21
40	Grobe, C. H.	MM1C	3/8/21
41	Gustafson, R. F.	MM1C(A)	3/8/21
42	Hill, William F.	CMM(A)	3/8/21
43	Jackson, Willard B.	CMM(A)	3/8/21
44	Kirkeby, C. D.	MM1C(A)	3/8/21
45	Linder, Frank M.	CE	3/8/21

Naval Aviation Pilot Designations			
Pilot No.	Name	Rate	Date Designated
46	McPeak, N. B.	MM1C	3/8/21
47	Markham, E. L.	MM2C	3/8/21
48	Merritt, R. J.	GM1C	3/8/21
49	Miller, Joseph H.	CMM	3/8/21
50	McLean, M. C.	CMM	3/8/21
51	McIntosh, Enoch B.	QM1C	3/8/21
52	O'Brien, John J.	CMM	3/8/21
53	Preeg, Felix F.	CY	3/8/21
54	Raney, Charles B.	CY	3/8/21
55	Rawlings, John E.	CMM	3/8/21
56	Stultz, W. L.	MM1C	3/8/21
57	Steelman, Charlie	CQM(D)*	3/23/21
58	Tobin, Frederick J.	CMM(A)*	3/23/21
59	Andrews, Walter J.	ACMM	8/15/21
60	Dunn, Stephen	AMM1C	8/15/21
61	Frank, Edwin George	ACMM	8/15/21
62	Flynn, Elliott J.	AMM1C	8/15/21
63	Heinz, Edward A.	AMM1C	8/15/21
64	Holdredge, Herman J.	ACMM	8/15/21
65	Krueger, Charley E.	ACMM	8/15/21
66	Muller, Leo G.	AMM1C	8/15/21
67	Smith, Sidney N.	ACMM	8/15/21
68	Sylvester, Cyrus L.	CGM	8/15/21
69	Harrigan, John J.	ACR	8/15/21

* Airship

Enlisted to Warrant Naval Aviator and NFO Program

The CNO issued NavAdmin 031/06 on 19 January 2006 to establish the Active Duty Flying Chief Warrant Officer Pilot and Naval Flight Officer Program. The Navy designed the program to take highly qualified and “hard-charging” enlisted sailors in paygrades E-5 through E-7 and commission them as chief warrant officers. When they completed training as naval aviators or naval flight officers they would be “winged” and designated naval aviators or naval flight officers.

The targeted communities for Warrant Naval Aviator and Naval Flight Officers included HSC, HSL, VP, and VQ squadrons, from whom the service sought an initial 30 applicants. Vice Admiral John C. Harvey Jr., Chief of Naval Personnel, noted that “The CWO program is intended to create flying specialists unencumbered by the traditional career paths of the unrestricted line community.” The first group of Aviator Chief Warrant Officers commissioned on 1 December 2006, and included ten pilots and four naval flight officers, four of whom possessed civilian pilot’s licenses, and seven already served as naval aircrew.

The first group that completed flight training and “winged” as naval aviators were:

Adams, Michael S., Jr.	Chandler, Matthew P.	Clements, Joshua A.
Ditamore, Stephen J.	Haller, Daniel R.	Holland, Kevin R.
Jacobson, Brandon R.	Kleperek, Anton K.	Miltner, Keith P.
Reyes, Robert		

The first group that completed flight training and “winged” as naval flight officers were:

Courtney, Jerry D., Jr.	Greteman, Bernard G.	Langschied, Jason R.
Rittierodt, Joseph A.		

In addition, the July 2007 board selected the remaining 10 pilots and six naval flight officers. Three enlisted sailors—AW1 Robert Antonucci and AD1 John Fuller assigned to HSL-43, and AW2 John Barile of HSL-45—commissioned on 1 December 2007, at NAS North Island, Calif. On the 20th of that month, CWO2s Dale Courtney and Adam Rittierodt of VP-30 received their wings as naval flight officers as two of the initial applicants, at NAS Jacksonville, Fla. Two German officers, Lts. 2nd Grade Christian Hegemann and Patrick Leisner, also received naval flight officer wings.

General Background on Training

The story of naval aviator training is complex, and involved many changes in the various programs and where students received their training. Training of naval aviators first began with the assignment of Lt. Theodore G. Ellyson to the Glenn Curtiss camp at San Diego, Calif., (North Island) in December 1910. He arrived there in January 1911. This established the Navy policy of using the facilities of private aircraft manufacturers to train its aviators, which was tied to contracts that purchased aircraft for the Navy Department. The first aircraft contracts were with Curtiss Aeroplane Company and the Wright Company. So the early naval aviators were trained at San Diego, Calif., and Hammondsport, N.Y., used by the Curtiss company; Dayton, Ohio, used by the Wrights; and Marblehead, Mass., used by the Burgess Company for training in Wright Company aircraft.

With the acquisition of aircraft and the training of several naval aviators, the Navy was able to terminate its dependence on private manufacturers for training. In August 1911 the Navy set up an Engineering Experiment Station and aviation school at Greenbury Point, Annapolis, Md. During the winter of 1912–1913, the aviation camp moved to Guantánamo Bay, Cuba, for its first exercises with the Fleet. Capt. Washington I. Chambers’ report to the Chief of the Bureau of Navigation in 1913 identified the following naval aviators:

Theodore G. Ellyson	John Rodgers	John H. Towers
Victor C. Herbster	Patrick N. L. Bellinger	Bernard L. Smith
Godfrey de C. Chevalier	Alfred A. Cunningham	William D. Billingsley
Laurance N. McNair	Holden C. Richardson	Isaac F. Dortch
Henry C. Mustin	J. D. Burray	

The last seven in this list of naval aviators were Navy-trained.

In accordance with the recommendations from the Board on Naval Aeronautic Service, the aviation school at Greenbury Point, Md., was moved to Pensacola, Fla. On 20 January 1914 the Greenbury Point aviation unit arrived at Pensacola to set up a flying school. It consisted of nine officers, 23 men, seven aircraft, portable hangars, and other equipment.

The training of naval aviators at Pensacola was conducted using the same informal methods that had been used at Greenbury Point. Students were taught how to fly, and instructed in the rudiments of the construction and maintenance of their planes. Every man was given as much time as necessary to master his ground and flight instruction. No one washed out.

The Bureau of Navigation issued a formal training syllabus in June 1914, BUNAV Bulletin No. 532. This syllabus established a one-year course for pilots. Revised in January 1916, the new syllabus, “Courses of Instruction and Required Qualification of Personnel of the Air Service of the Navy,” outlined courses for Naval Aviation Pilots, Naval Aviators, Student Airmen, Quartermasters (Aviation), Quartermasters (Deck), and Machinists Mates (Aviation). During summer 1916, a syllabus was also established for the training of lighter-than-air pilots (dirigible and balloon). Flight instruction procedures were altered by a constant stream of suggestions from the pioneers at Pensacola.

In 1916 the Naval Appropriation Act provided for the establishment of a Naval Flying Corps. It also provided for the establishment of a Naval Reserve Force of six classes, including a Naval Reserve Flying Corps. One of the first groups to organize under the corps was the First Yale Group/Unit. Most of the men in this organization received their training independently of the Navy and were later qualified as Naval Aviators. Training for many of the corps personnel fell on the shoulders of Pensacola until a training system evolved and was established during WWI.

With the U.S. entry into WWI, numerous changes occurred in the training of naval pilots. Besides the training in England, France, and Italy, a group of 24 Americans reported at the University of Toronto on 9 July 1917 to begin flight instruction under the Canadian Royal Flying Corps. In the United States, training expanded from the site at NAS Pensacola, Fla., to include preliminary flight training at Squantum, Mass.; Bay Shore (Long Island), N.Y.; Miami, Fla.; Key West, Fla.; and San Diego, Calif. By late January 1918, the following air stations were conducting aviation training: Chatham, Mass.; Montauk, N.Y.; Bay Shore, N.Y.; Rockaway, N.Y.; Cape May, N.J.; Hampton Roads, Va.; Miami, Fla.; Key West, Fla.; Pensacola, Fla.; and San Diego, Calif. There were also naval aviation detachments scattered around the country that were involved in aviation training. These included MIT at Cambridge, Mass.; Great Lakes Training Station, Ill.; Goodyear at Akron, Ohio; Curtiss Aeroplane at Buffalo, N.Y.; Aeromarine Company at Keyport, Mass.; the Naval Aircraft Factory at Philadelphia, Pa.; Packard Motor Car Company in Detroit, Mich.; Delco Ignition Laboratories in Dayton, Ohio; Lincoln Motor Company in Detroit, Mich.; and Savage Arms Corporation in Utica, N.Y. With the end of WWI, most of these stations ended their aviation training programs and NAS Pensacola, Fla., again became the primary training location.

With the beginning of WWII the training of Naval Aviators again became decentralized and expanded across the country, just as it had done during WWI. Following the end of WWII, the different phases of training for Naval Aviators continued to be conducted at several different air stations. That situation continues to exist today.

Number of Naval Aviators Designated (Trained)

Obviously, the variances in the naval aviator training program and its decentralization as described above make it very difficult to provide an infallible number for the output of naval aviators since 1911. Personnel trained by the Navy are designated naval aviators, whether they serve in the U.S. Navy, Marine Corps, or Coast Guard. The list below also includes foreign personnel trained by the U.S. Navy Department as naval aviators, as well as a few U.S. military and civilian personnel from other federal agencies. In some cases these special groups were included in the number count, but in other cases they were not. It is extremely difficult to identify the years in which special groups were included and the years in which they were not. Hence, the following list identifying the number of naval aviators trained (and officially designated as naval aviators) is the best available. The numbers for the more recent years are by fiscal year. In 1976 the government changed its fiscal year from 1 July–30 June to 1 October–30 September. Consequently, there is an additional entry for 1976 covering the 1 July to 30 September time frame.

Year	Number Trained (Designated)
1911 to 1919	2,834
1920	82
1921	72
1922	106
1923	25
1924	32
1925	35
1926	35
1927	123
1928	140
1929	66
1930	348
1931	321
1932	168
1933	138
1934	35
1935	100
1936	212
1937	527
1938	543

Year	Number Trained (Designated)
1939	450
1940	708
1941	3,112
1942	10,869
1943	20,842
1944	21,067
1945	8,880
1946	2,635
1947	1,646
1948	446
1949	688
1950	1,691
1951	1,288
1952	932
1953	1,701
1954	2,338
1955	2,851
1956	2,571
1957	2,951
1958	2,513

Year	Number Trained (Designated)
1959	1,785
1960	1,602
1961	1,478
1962	1,413
1963	1,701
1964	1,701
1965	1,715
1966	1,907
1967	2,046
1968	2,334
1969	2,559
1970	2,450
1971	1,809
1972	1,853
1973	1,650
1974	1,447
1975	1,337
1976	1,375
Jul-Sep 1976	314
1977	1,196
1978	934
1979	871
1980	1,471
1981	1,482
1982	1,515
1983	1,424
1984	1,366

Year	Number Trained (Designated)
1985	1,343
1986	1,439
1987	1,482
1988	1,454
1989	1,528
1990	1,483
1991	1,342
1992	1,216
1993	865
1994	874
1995	1,155
1996	983
1997	978
1998	1,156
1999	1,183
2000	1,218
2001	1,109
2002	1,237
2003	1,243
2004	1,170
2005	1,271
2006	1,251
2007	1,231
2008	1,187
2009	1,209
2010	1,191
Total	170,654

Evolution of Naval Wings (Breast Insignia)

Naval Aviator Wings

The origin of a distinctive device for naval aviators is somewhat obscure, but the idea was undoubtedly influenced by outside forces. It appears that the need for a distinguishing mark was voiced by the aviators themselves, particularly after Army aviators began wearing “badges” in 1913. Other influence outside the naval service also appears to have provided some of the initial impetus.

A review of the records indicates a lack of coordination within the Navy during the process to develop a naval aviation device. The dated correspondence of the Bureau of Navigation (BuNav) and the Chief of Naval Operations (CNO) Aviation Section relating to the “wings” does not coincide with the dated changes to the uniform regulations. The change to the uniform regulations that first identified the new “wings” was issued before the CNO’s Aviation Section and BuNav had agreed upon a final design. Several separate evolutions occurred in 1917.

A 29 June 1917 letter from the G. F. Hemsley Co., stating that the sender “takes the liberty” of forwarding a design for an aviation cap and collar ornament, may well have started official action. The first official correspondence on the subject appears to have been a CNO letter to BuNav dated 19 July 1917. This letter, which forwarded the suggestion from the G. F. Hemsley Co., rejected the ornaments but went on to say that since foreign countries and the U.S. Army had adopted an aviation device, naval aviators also should be given “some form of mark or badge to indicate their qualification, in order that they have standing with other aviation services.” The letter, prepared in the Aviation Section of CNO, enclosed a representative design for wings. From that date, the subject was kept alive by the exchange of correspondence concerning the design and production of the insignia by interested firms.

Lt. Cmdr. John H. Towers, assigned to the aviation desk under CNO, requested the assistance of Lt. Henry Reuterdaahl in designing the naval aviator wings. Reuterdaahl played an important part in the design development. He was later assigned as an artist to record the first transatlantic flight in May 1919, which was planned to be made by four NC aircraft. In a 28 September 1917 letter to Bailey, Banks, and Biddle Company, he recommended simplifying the wings by bolder chasing (engraving) and a reduction in the number of feathers, noting that “most naval ornaments are too fine and not broad enough in character.” He also recommended changes in the anchor and rope and the introduction of a slight curve to conform to the shape of the body. He summarized his remarks by saying, “My idea has been to reduce all corners so that there will be no points which might catch in the clothing.”

Several different designs were proposed and submitted for approval. The sample pins passed through a number of changes. Bronze, the first metal suggested, was quickly rejected in favor of a gold and silver combination. This, in turn, was changed to all silver and finally, in October 1917, all gold was selected. The size changed from more than three inches to the final of 2³/₄ inches. The “U.S.” was dropped from the design and stars on the shield were proposed and rejected as violating the laws of heraldry.

By October 1917 the Bailey, Banks, and Biddle Company took the lead over its competitors and on 24 October submitted its first sample pin. In early November it submitted other samples and was ready to make “prompt delivery of such number of devices as you may desire.” It is believed these various sample pins added to the confusion regarding the existence of official naval aviator wings. On the final decision to place an order, the record is obscure but it may have been a BuNav letter to the supply officer at NAS Pensacola, Fla., dated 21 November 1917, selecting “the higher priced pin” (\$1.15 each). The company was not named, but it seems fairly certain that it was Bailey, Banks, and Biddle. Its letter to BuNav dated 19 December 1917 confirms a telegram stating: “balance aviator insignia shipped tomorrow.”

The first wings, made by Bailey, Banks, and Biddle of Philadelphia, Pa., were received by the Navy in December 1917 and issued early in the following year. The fact that the first pins were delivered in this month is also confirmed in a 26 December letter from BuNav to NAS Pensacola reporting that the new pins had been received and “will be sent out as soon as they can be engraved to show the Aviator’s number, his name and branch of service.” The bureau asked the jeweler not to sell the wings to individuals.

The requirement to engrave the aviator’s number posed a problem concerning the precedence list of trained naval aviators. This was solved by the preparation of an aviators’ precedence list, covering numbers 1 through 282, by the CNO Aviation Section. Thus, the development of wings was responsible for the first precedence list and, in addition, was a factor in the later assignment of fractional numbers to many aviators omitted from this first compilation.

When forwarded to BuNav on 19 January 1918, distribution of the first wings could begin. After almost eight years of naval aviation and nine months of war, naval aviators had wings—a badge of qualification that would set them apart. It seems likely that Cmdr. Towers, senior naval aviator in Washington at the time, was an early—if not the first—recipient. The engraving of the individual’s name, naval aviator number, and branch of service was discontinued sometime during WWI.

The official approval for naval aviator wings was announced before a final design had been agreed upon. On 7 September 1917, the Secretary of the Navy approved Change 12 to the 1913 uniform regulations. The pertinent portion stated: “A Naval Aviator’s device, a winged fowl anchor with the letters ‘U.S.’, is hereby adopted to be worn by qualified Naval Aviators. This device will be issued by the Bureau of Navigation (BuNav) to officers and men of the Navy and Marine Corps who qualify as Naval Aviators, and will be worn on the left breast.”

However, before any such wings were issued, the design was modified by Change 14, approved 12 October 1917 and issued in BuNav Circular Letter 40-17 of 20 November 1917: “The device for Naval Aviators will be a winged fowl anchor, but the letters ‘U.S.’ given in Change in Uniform Regulations No. 12, have been omitted.” Several other changes to the 1913 uniform regulations occurred regarding the wings before the design was finalized. Uniform Regulations, Change Number 18 of 1 April 1918, states “Naval Aviator’s Device—Device for naval aviators will be a winged fowl anchor, to be worn by qualified naval aviators. This device will be issued . . . and worn on the left breast.” Change number 20 (undated) has the following pertinent information:

Chapter 10 and changes 11, 12, 14, 16, and 18 of Uniform Regulations, 1913, are annulled and in lieu thereof this chapter is substituted: NAVAL AVIATOR’S DEVICE—Device for naval aviators will be a winged fowl anchor, to be worn by qualified naval aviators. This device will be issued by the Bureau of Navigation to officers and men of the Navy and Marine Corps who qualify as naval aviators, and will be worn on the left breast.

Another modification to the 1913 uniform regulation was made by Change 29, dated 13 May 1920. In Article 262, under “Naval Aviator’s Device” the title of the paragraph was changed to read “Naval Aviation Insignia” and the first sentence read: “Insignia to be worn by qualified naval aviators and by warrant officers and enlisted men holding certificate of qualification as naval aviation pilots, is a winged fowl anchor.”

The 1922 uniform regulations, approved on 20 September 1922, described the wing design in more detail: “A gold embroidered or bronze gold-plated metal pin, winged, fowl anchor surcharged with a shield $\frac{1}{2}$ inch in height, $2\frac{3}{4}$ inches from tip to tip of wings; length of fowl anchor 1 inch.” Except for a reduction in the length of the fowl anchor from 1 to $\frac{7}{8}$ inch, made by Change 1 to the above regulations, and an elaboration of the description in 1951 which added dimensions for the shield ($\frac{7}{16}$ inch high and at its widest point) and for the width of the anchor ($\frac{11}{16}$ inch at the flukes and $\frac{7}{16}$ at the stock), the original design has changed very little since 1922.

The design pictured below was published by the *Air Service Journal* on 27 September 1917. A short article in the journal identified it as a “Naval Aviator’s Device” of gold and silver metal as described by a change in Uniform Regulations No. 10. It is believed the article may have been referring to Change 12 in the uniform regulations, which was issued on 7 September 1917. This published design, most likely an artist’s rendition, also failed to take into account the shield.



The following artist’s rendition is most likely the design referenced in Change 12 of Uniform Regulations, 1913, and issued on 7 September 1917:



The photograph below is of the original design authorized by Change 14 of the 1913 uniform regulations, approved 12 October 1917, and quoted in BuNav Circular Letter 40-17 of 20 November 1917. This is the officially approved design made by Bailey, Banks, and Biddle and issued to naval aviators in early 1918.



The following photographs trace the evolution of the wings during the 1920s, 30s, and early 40s:



During World War II, the wings began showing a series of dots, or circles in the upper part of the design where the wings break. The original design shows these as small feathers, not dots or circles.



On most Naval Aviator wings there is a small dot or circle on one of the anchor flukes. That design is part of the normal structure of an anchor called a becket, which is an eye with a line attached used for securing the anchor to the side of the ship to keep it from moving when the ship is underway.



This wing design in gold or a gold finish has been the standard design since the 1950s.

Aircrew (Air Crew)/Combat Aircrew Wing Insignia

During WWII a new aviation breast insignia was designed in response to numerous recommendations from the fleet to recognize the job done by enlisted aircrew personnel flying in combat. In a Navy Department press release of 18 May 1943, the new Air Crew insignia was described as follows: “The Air Crew insignia consists of silver wings with a center disk surcharged with fouled anchor. Below the disk is a scroll with the legend ‘Air Crew,’ and above it is a bar on which gold stars can be placed.”

The Bureau of Naval Personnel (BuPers) Circular Letter Number 90-43 of 29 May 1943 announced the approval of an air crew insignia, recognizing the air-fighting ability of flight crews. It was intended primarily for enlisted ratings in the flight crews of naval aircraft. However, any commissioned or warrant officer, other than pilots or designated naval aviation observers, who met the qualification requirements, were eligible to wear the insignia. The initial requirements were:

- a. Having served, subsequent to 7 December 1941, for a total of three months as a regularly assigned member of the Air Crew of a combatant craft.
 1. “Combat aircraft” shall be considered as all operating aircraft of the Fleet or Frontier Forces, and excepts utility aircraft, which are neither designed nor fitted out for offensive (or defensive) operations.
 2. The term “regularly assigned member of the Air Crew” shall be interpreted literally, and shall be substantiated by the battle station bill of the unit, under such instructions that may be approved and promulgated by the Bureau of Naval Personnel.

b. Having suffered injuries or other physical impairment, while engaged in combatant operations since 7 December 1941, as a regularly assigned member of a combatant aircraft, which precludes the possibility of fulfillment of the time requirements, stated in subparagraph (a) above, and is recommended by the Commanding Officer of the Unit in which injury or physical impairment was received.

c. Individual combat stars will be authorized by Unit Commanders, in conformance with instructions issued by Commander-in-Chief, United States Fleet, to those members of Air Crews who:

1. Engage enemy aircraft, singly or in formation.
2. Engage armed enemy combatant vessels with bombs, torpedoes, or machine guns.
3. Engage in bombing offensive operations against enemy fortified positions.
4. A maximum of three combat stars shall be awarded for display on the Air Crew Insignia; combat actions reports in excess of three will be credited only in the record of the individual concerned.

d. Personnel qualified by provisions of subparagraphs (a) and (b) above may wear the Air Crew Insignia permanently.

The qualification requirements to wear the insignia were modified several times. BuPers Circular Letter Numbers 173-43 of 8 September 1943, 22-44 of 29 January 1944, and 174-44 of 16 June 1944 all make modifications to the qualifications but do not give a detailed description of the insignia.

BuPers Circular Letter Number 395-44, dated 30 December 1944, provided a comprehensive description of the wings:

The Aircrew Insignia is a silver-plated or silver-color, winged, metal, pin, with gold-color circular shield with surcharged fowl anchor, superimposed on wing roots, with words "AIRCREW" below circular shield; a silver-color bar over the circular shield with three threaded holes to receive three gold-color combat stars when officially awarded. The insignia will measure two inches from tip to tip of the wings: circle on shield $\frac{5}{16}$ "; total depth of the shield from the top of the circle to the bottom of the shield $\frac{9}{16}$ ".

The uniform regulations of 2 May 1947 provided a modified description of the wings:

A silver-plated or silver color, winged, metal pin, with gold circular shield surcharged with fowl anchor, superimposed on wing roots, with word "AIRCREW" in raised letters on a silver-color background below the circular shield; above the shield there shall be a silver-color scroll; the insignia to measure 2" from tip to tip of the wings; circle on shield $\frac{5}{16}$ " in diameter; total height of the shield and silver background beneath the shield $\frac{9}{16}$ ". The scroll shall be $\frac{1}{8}$ " wide and $\frac{3}{4}$ " long and shall be centered over the wings. Gold stars to a total of three, as merited, shall be mounted on the scroll, necessary holes being pierced to receive them. A silver star may be worn in lieu of three gold stars.



This drawing of an early Aircrew Insignia without stars was published in the April 1943 issue of *Naval Aviation News*.

In 1958 there was a major change in the insignia. On 10 April 1958 Change 5 to the 1951 uniform regulations was issued. The name Aircrew or Air Crew insignia was redesignated Combat Aircrew insignia. Beside the redesignation, there were a few minor changes to the breast insignia. The new description read:

A silver color, metal pin; winged, with gold color circular shield surcharged with a fowl anchor, superimposed on wing roots; with word "AIRCREW" in raised letters on a silver background

below the shield. Above the shield there shall be a silver color scroll. The insignia shall measure 2" from tip to tip of wings; the circular shield shall be $\frac{3}{8}$ " in diameter; height of anchor $\frac{1}{4}$ " with other dimensions proportionate; total height of shield and silver background beneath $\frac{9}{16}$ "; the scroll shall be $\frac{3}{4}$ " long and $\frac{1}{4}$ " wide; centered over the shield, each end to rest on top of wings. Gold stars of a size to be inscribed in a circle $\frac{1}{8}$ " in diameter, to a total of three, as merited, shall be mounted on the scroll, necessary holes being pierced to receive them. A silver star may be worn in lieu of three gold stars.

In 1958 the Navy redesignated the Aircrew Wing Insignia—that had been approved in 1943 to recognize and be awarded to personnel who flew in combat on naval aircraft—to the new designation Combat Aircrew Wings and then created a new design for Aircrew Wings Insignia. The new aircrew insignia was worn by naval aviation person who flew as crewmembers on board naval aircraft but had nothing to do with whether they flew in combat or non-combat missions.

Following the 1958 redesignation, the Navy continued to allow the wearing of the redesignated Aircrew insignia for those Navy individuals who had previously been authorized to wear the device.



With the establishment of a new aircrew wing insignia the Navy no longer awarded or issued the combat aircrew wing insignia that had been created in 1943 to Navy personnel. The 1978 U.S. Navy uniform regulations removed the Combat Aircrew insignia from the authorized list of aviation breast insignia. However, the Marine Corps continued to use the 1943 aircrew insignia design, now called Combat Aircrew Wings, and awarded the wings to personnel who met the qualification requirements.

A Bureau of Naval Personnel Memorandum, approved by Chief of Naval Operations on 7 November 1994, authorized Navy personnel, who flew as aircrew with Marine Corps units in combat, to wear the combat aircrew wings. However, they are not authorized for Navy personnel flying in combat on board Navy aircraft. They are only authorized to wear the aircrew wings. The appropriate change was made to the Navy uniform regulations.

Aircrew Insignia Wings



Change 5 to the 1951 Uniform Regulations, dated 10 April 1958, redesignated the 1943 designed Aircrew insignia to Combat Aircrew insignia and also established a new Aircrew insignia design. The new aircrew insignia was patterned along the basic lines of the Naval Aviation Observer insignia and was described as: "Shall be a gold color metal pin; winged, with a circular center design and anchor upon which the block letters AC are superimposed. Width between tips of wings shall be $2\frac{3}{4}$ "; circle diameter shall be $\frac{3}{4}$ "; height of anchor shall be $\frac{1}{2}$ " with other dimension proportionate."

On 11 August 1965, BuPers Notice 1020 authorized the wearing of the aircrew breast insignia on a permanent basis. From the establishment of the newly designed Aircrew insignia in 1958 and until 1965, the insignia could only be worn by qualified personnel serving in an aircrew position. If an individual was assigned to a shore billet and not involved in aircrew duties, then they were not authorized to wear the insignia. Under the new guidance, a person who qualified to wear the Aircrew insignia could continue to wear the breast device at anytime during their military service or unless the person was disqualified for aircrew duty.

Naval Aviation Experimental Psychologists and Naval Aviation Physiologists Wings



On 12 April 1967, the Under Secretary of the Navy approved a change to the Navy uniform regulations that authorized a new wing insignia for aviation experimental psychologists and aviation physiologists. In February 1966, both were designated as crew members and ordered to duty involving flying. These individuals were assigned to duties such as in-flight analysis of human performance in fleet and training operations covering a myriad of weapons systems and tactics, providing extensive training for all aircrew personnel in airborne protective equipment and egress systems, and test and evaluation of new and improved aircraft systems.

Their gold wings are similar to those worn by flight surgeons, except the gold oak leaf does not have the acorn. The photo below shows the wings of the naval aviation experimental psychologists and physiologists.

Naval Aviation Supply Wings



Plans began in 1982 for the establishment of a naval aviation supply officer program and the authorization for a breast insignia for qualifying Supply Corps officers. On 8 May 1984, during the 73rd annual Aviation Ball, the first naval aviation supply wings were presented by Vice Adm. Robert F. Schultz, Deputy Chief of Naval Operations (Air Warfare), to Vice Adm. Eugene A. Grinstead Jr., SC, USN; Rear Adm. Andrew A. Giordano, SC, USN (Ret); and Commo. John H. Ruehlin, SC, USN, Commanding Officer, Aviation Supply Office, Philadelphia, Pa. Officers qualified to wear the naval aviation supply wings must complete a demanding qualification program that requires approximately 350 hours of study and practical experience. They must also pass an oral examination administered by supply and aviation maintenance officers at their operating sites.

The naval aviation supply wings consist of the traditional naval aviator wing style with an oak leaf cluster in the center. The photograph below is a line drawing depicting the wings.

Enlisted Aviation Warfare Specialist Wings



In order to recognize enlisted personnel serving in naval aviation who were not aircrew members, a new program and set of wings was established. The Operational Navy Instruction (OPNAVINST) 1412.5 of 19 March 1980 established the Enlisted Aviation Warfare Qualification Program and the new wing insignia. The enlisted aviation warfare specialist wings are issued to enlisted personnel who acquired the specific professional skills, knowledge, and military experience that resulted in unique qualification for service in the aviation activities of the Navy.

The 1981 uniform regulations described the aviation warfare wings as follows: "A silver embroidered or silver color metal pin (for enlisted); winged, with a central device consisting of a shield with an anchor superimposed thereon and a scroll at the bottom of the insignia."

Balloon Pilot Wing Insignia



The exact date the balloon pilot wing device was approved is not clear. However, the description of the wing first appeared in the uniform regulations of 20 September 1922. In this regulation the following statement appears: "Enlisted men holding certificates of qualification as balloon pilots shall wear the same insignia as in paragraph (a) but with the right wing removed." Paragraph (a) was a description of the naval aviator wings. There were no changes between 1922 and 1947. In the uniform regulations of 2 May 1947, the words "Enlisted men" are replaced by "Persons" in the above statement. The 1978 U.S. Navy uniform regulations removed the Balloon Pilot insignia from the authorized list of aviation breast insignia.

Flight Nurse Wing Insignia

BuPers Circular Letter Number 86-45 of 30 March 1945 announced the Secretary of the Navy had approved an insignia for naval flight nurses on 15 March 1945. The change to the 1941 uniform regulations read:

Aviation Insignia, Naval Flight Nurses—Nurses who have been designated as Naval Flight Nurses shall wear the following insignia: Gold-plated metal pin, wings, with slightly convex oval crest with appropriate embossed rounded edge and scroll. The central device shall be surcharged with gold anchor, gold spread oak leaf and silver acorn, symbol of the Nurse Corps insignia. The insignia shall measure 2" from tip to tip of the wings; oval crest $\frac{9}{16}$ " in vertical dimension and $\frac{7}{16}$ " in width; oak leaf $\frac{13}{32}$ " in length, $\frac{7}{32}$ " in width, to be diagonally mounted surcharged on the anchor; silver acorn $\frac{1}{8}$ " in length surmounted on oak leaf.

The insignia was to be worn until the designation "Flight Nurse" was revoked.



These are the 1945 Flight Nurse Wings.

On 11 August 1952, the Secretary of the Navy approved a revision to the insignia. The BuPers Change Memo 1-2 of 6 February 1953 described the new version as: "The insignia shall consist of a gold color metal pin of the same design as that prescribed for Flight Surgeons . . . except that the acorn shall be omitted, and the width between wing tips shall be 2"; oval width $\frac{15}{32}$ " vertical and $\frac{5}{16}$ " horizontal axis; thickness at leaf center, $\frac{1}{8}$."



This version of the Flight Nurse Wing Insignia was approved in 1952.

Flight Surgeon Wing Insignia

On 18 May 1942, the Chief of Naval Personnel approved an insignia for naval flight surgeons. BuPers Circular Letter Number 107-42 of 29 July 1942 announced changes to the 1941 uniform regulations. These, as approved by the Secretary of the Navy, included the establishment of the new flight surgeon wings. The change read:

Officers of the Medical Corps who have qualified as Naval Flight Surgeons shall wear the following insignia on the left breast: A gold plated metal pin, winged, with slightly convex oval crest, with appropriate embossed rounded edge and scroll. The central device to be surcharged with gold

oak leaf and silver acorn, symbol of Medical Corps insignia. The metal pin shall be of dull finish. Dimensions: $2\frac{3}{4}$ inches between wing tips, central device 1 inch in vertical dimension to lower edge of fringe. Lateral width of oval crest, $\frac{3}{4}$ inch. Oak leaf $\frac{7}{8}$ inch in length, $\frac{9}{16}$ inch in width, to be vertically mounted surcharged on oval. Silver acorn $\frac{3}{8}$ inch in length surmounted on oak leaf.

A Navy Press Release issued a few days earlier, on 27 July 1942, noted, "It will consist of wings which are a modification of the Perian Ferroher with a central design consisting of convex oval crest with appropriate scroll and rounded edge. The central device is to be surcharged with the gold leaf and silver acorn that serves as the Medical Corps symbol."



These are the Flight Surgeon Wings approved in 1942.

On 11 August 1952, the Secretary of the Navy approved a major revision to the flight surgeon wings. The new design superimposed the Medical Corps device (gold oak leaf and silver acorn) on the style of wings used for the naval aviator wing insignia. BuPers Memo 1-2 of 6 February 1953 and the change to the 1951 uniform regulations describes the new design:

A gold embroidered or gold color metal pin; winged; with an oval center design upon which the Medical Corps device (a gold oak leaf and silver acorn) is superimposed. Width between tips of wings shall be $2\frac{3}{4}$ " ; oval with $\frac{5}{8}$ " vertical and $1\frac{13}{32}$ " horizontal axis; thickness with acorn $\frac{3}{16}$ " ; acorn and cup $\frac{7}{32}$ " long; acorn width $\frac{1}{8}$ " ; cup depth $\frac{11}{16}$ " ; cup width $\frac{11}{64}$ " .



These are the revised Flight Surgeon Wings of 1952.

Naval Astronaut (Naval Flight Officer) Wings



The 1984 uniform regulations, issued on 6 February 1984, authorized the wearing of the new naval astronaut (naval flight officer) wings. The regulations described them as: "Naval Astronaut (NFO) Insignia. A gold embroidered or solid gold metal pin; winged and containing a shooting star with an elliptical ring surrounding the trailing shafts; superimposed diagonally from bottom right to top left, on the shield of the traditional Naval Flight Officer's Wings."

A naval flight officer or an active duty officer qualified as a Naval Astronaut (Specialist), who is not a Navy pilot or NFO, may wear the naval astronaut (NFO) wings if they are designated by the CNO or Commandant of the Marine Corps after meeting the following qualifications:

- a. Currently on flying status as a naval flight officer or a payload specialist as a shuttle astronaut (but not qualified as a Navy pilot or NFO) in either the Navy, Marine Corps, or their Reserve components.
- b. Trained, qualified, and certified to fly as a mission or payload specialist in powered vehicles designed for flight above 50 miles from the earth's surface.
- c. Have completed a minimum of one flight as a mission or payload specialist aboard an extraterrestrial vehicle in a flight above 50 miles from the earth's surface.

Naval Astronaut (Pilot) Wings



The Navy's first naval astronaut (pilot) wings were presented to Cmdr. Alan B. Shepard Jr. on 6 December 1961 by the Chief of Naval Operations, Adm. George W. Anderson. On 18 December 1962, the Secretary of the Navy officially approved the Uniform Board's recommendation to include a description and photograph of the naval astronaut wing insignia in the 1959 uniform regulations. The naval astronaut (pilot) wings are identical to the Navy pilot wings with the addition of a shooting star superimposed over the shield. The shooting star symbolized the astronaut's spatial environment.

The *Naval Military Personnel Manual* states the criteria for designation as a Naval Astronaut (Pilot). A naval pilot may wear the wings upon designation by the CNO or Commandant of the Marine Corps after meeting the following qualifications:

- a. Currently on flying status as a naval pilot in either the Navy, Marine Corps, or their reserve components.
- b. Trained, qualified, and certified to fly a powered vehicle designed for flight above 50 miles from the earth's surface.
- c. Completed a minimum of one flight as a pilot or mission specialist aboard an extraterrestrial vehicle in a flight above 50 miles from the earth's surface.

Naval Aviation Observer Wings

The Naval Aviation Observer (NAO) designation had its origin in an act of Congress on 12 July 1921, which created the Bureau of Aeronautics and provided that its chief qualify within one year of his appointment as an "aircraft pilot or observer." The functions and qualifications for an observer were first defined on 27 March 1922; on 17 June of the same year, Rear Adm. William A. Moffett became the first to qualify for the designation as a Naval Aviation Observer.

The 1922 uniform regulations, approved 20 September, provided that officers designated as Naval Aviation Observer wear the same insignia as that worn by naval aviators, except with the right wing and shield removed and an "O" superimposed on the fowl anchor.



This, the first Naval Aviation Observer Wing Insignia, was used from 1922 to January 1927.

A 26 January 1927 change to the 1922 uniform regulations (Change Number 3) modified the design and changed it to the same insignia worn by naval aviators except that it was to be in silver.



Between January 1927 and October 1929 the design of Naval Aviation Observer Wings was identical to the gold Naval Aviator Wings except the observer wings were silver.

Bureau of Navigation Circular Letter 71-29 of 19 October 1929 (Change Number 7 to the 1922 uniform regulations) directed another change. This described the new design as: "an insignia the same as for naval aviators as to gold wings, but that the central device shall be an 'O' circumscribing an erect plain anchor, both in silver.

The 'O' and anchor to be in bold relief, the center of the 'O' being filled in gold." The 1941 uniform regulations, of 31 May 1941, repeated the previous description and added dimensions: "... outer diameter of 'O' shall be $\frac{3}{4}$ inch, inner diameter $\frac{9}{16}$ inch. Height of anchor shall be $\frac{1}{2}$ inch."



This Naval Aviation Observer Wing design was used by the Navy between 1929 to 1968.

The wings made the same transition that occurred to the naval aviator wings during WWII. A change to the 1951 uniform regulations, issued on 6 February 1953 as BuPers Change Memorandum 1-2, directed the wing style used by the naval aviator breast insignia be adopted for the Naval Aviation Observer insignia. Hence, the series of dots, or circles were incorporated into the upper-part of the design where the wings break.

This detailed description of the insignia is from the uniform regulations of 6 April 1959:

A gold embroidered or gold color metal pin, winged, with a central device consisting of an O circumscribing an erect, plain anchor, both in silver; the O and the anchor to be in bold relief, the center of the O being filled with gold. The insignia shall measure $2\frac{3}{4}$ " between wing tips; outer diameter of O shall be $\frac{3}{4}$ "; inner diameter of O shall be $\frac{9}{16}$ "; height of anchor shall be $\frac{1}{2}$ " with other dimensions proportionate.



This Naval Aviation Observer Insignia shows the dots in the upperpart of the wing.

In the 1950s and 1960s, the naval aviation observer wings were worn by officers who were radar intercept operators (RIOs), bombardier/navigators (BNs), and airborne electronic countermeasures operators (AECMs). They were also worn by enlisted personnel who were qualified navigators, airborne electronic countermeasures operators, airborne radio operators, VG jet aircraft flight engineers, and qualified observers.

On 18 July 1968, the CNO approved a new qualification breast insignia for Navy and Marine Corps personnel designated as Naval Flight Officers (NFOs). BuPers Notice 1020 of 24 August 1968 issued the change to the uniform regulations (NavPers 15665) for the new naval flight officer wings: "This new insignia will replace the Naval Aviation Observer insignia currently worn by Naval Flight Officers and will be authorized for wear upon source availability.

The Naval Aviation Observer insignia will become obsolete after 31 December 1968." This ended the old naval aviation observer wings for a short period of time. However, they were destined for continued use by naval aviation.

Naval Aviation Observer and Flight Meteorologist Wings

On 21 May 1969, the CNO approved the use of the naval aviation observer wings for wear by flight meteorologists and for those officers formerly entitled but not selected as naval flight officers. This change was incorporated into the 1959 uniform regulations by Bureau of Personnel Notice 1020 of 16 June 1969.

The 1969 uniform regulations, issued on 17 October 1969, did not mention the Flight Meteorologist insignia. However, the 1975 uniform regulations, which replaced the 1969 edition, listed the naval aviation observers and flight meteorologist wings. The 1975 regulations state:

Naval Aviation Observer and Flight Meteorologist Insignia. A gold embroidered or gold color metal pin; winged, with a central device consisting of an O circumscribing an erect, plain anchor, both in silver; the O and the anchor to be in bold relief, the center of the O being filled with gold. The embroidered device shall be on a background to match the color of the uniform on which worn.

Qualifications to wear the naval aviation observer wings, the second oldest wings in the Navy, are outlined

in the *Naval Military Personnel Manual*. Although not aeronautically designated, the following types of officers are authorized to wear NAO wings upon initial qualification: Flight Meteorology and Oceanography Officer; Special Evaluator (officers and warrant officers from the cryptologic community); Aviation Operations Limited Duty Officer (632X); Aviation Operations Technician Warrant Officer (732X); and other officers assigned by the Chief of Naval Personnel to duty involving flying as technical observers and airborne command post crew members.

The Marine Corps authorized the use of the old naval aviation observer wings for personnel completing the Naval Aviation Observer School at Marine Corps Air Station New River. Qualified aerial observers were to provide commanders with information of intelligence value not readily available from normal ground sources regarding enemy forces; procure information concerning terrain, and to supplement operational information of friendly forces; direct supporting fires for ground forces to include artillery, naval gunfire, and close air support; to perform utility and liaison missions as directed from an observation aircraft and to advise commanders of ground units on matters pertaining to aerial observation.

See the section on Naval Aviation Observer Wings for a photograph of the device.

Naval Aviation Observer (Navigation) Wings



BuPers Circular Letter 88-45 of 31 March 1945 announced the Secretary of the Navy had approved an insignia for Naval Aviation Observers (Navigation) on 30 March 1945. It revised the 1941 uniform regulations by adding the following:

Officers designated as Naval Aviation Observers (Navigation) by the Chief of Naval Personnel shall wear the following insignia: A gold-embroidered or bronze gold-plated metal pin, winged, with silver center device superimposed upon crossed gold-color fowl anchors. The centerpiece shall have superimposed upon it, in bold relief and in gold color, one gold disc with eight intercardinal points of the compass; superimposed upon this gold disc will be a second disc, in bold relief and in gold color, with four cardinal points and four intercardinal points of the compass. The insignia shall measure $2\frac{3}{4}$ " from tip to tip of wings; silver center device shall be approximately $\frac{15}{32}$ " in diameter; crossed fowl anchors shall be of a size to be inscribed in a circle $\frac{3}{4}$ " in diameter; the inner gold disc shall be approximately $\frac{1}{8}$ " in diameter, and the outer gold disc shall be approximately $\frac{1}{4}$ " in diameter. Naval Aviators and Naval Aviation Observers will not wear the Naval Aviation Observer (Navigation) insignia.

A Bureau of Naval Personnel letter dated 18 March 1947 abolished the Naval Aviation Observer (Navigation) insignia and authorized all officers designated as Naval Aviation Observer (Navigation) to wear the same insignia as that worn by Naval Aviation Observers.

Naval Aviation Observers (Radar) Wings



The Secretary of the Navy approved the Naval Aviation Observer (Radar) insignia on 29 August 1945. BuPers Circular Letter Number 313-45 of 17 October 1945 announced the insignia and a subsequent change was made to the 1941 uniform regulations. The letter described the wings as follows: "Naval Aviation Observers (Radar) shall wear a gold embroidered or bronze gold-plated metal pin, winged, with silver center device superimposed upon crossed gold-color fowl anchors. The center piece shall have superimposed upon it, in bold relief and in gold color, a symbolic radar manifestation. The insignia shall measure $2\frac{3}{4}$ " from tip to tip of wings; silver center device shall be approximately $\frac{15}{32}$ " in diameter; crossed fowl anchors shall be of a size to be inscribed in a circle $\frac{3}{4}$ " in diameter. Naval Aviation Observers (Radar) shall not wear any other aviation breast insignia."

A Bureau of Naval Personnel letter dated 18 March 1947 abolished the Naval Aviation Observers (Radar) insignia, and authorized all officers designated as Naval Aviation Observers (Radar) to wear the same insignia

prescribed for Naval Aviation Observers.

Naval Aviation Observers (Tactical) Wing



On 19 January 1946, the Secretary of the Navy approved the naval aviation observers (tactical) wings for Navy and Marine Corps officers performing duty as gunfire and artillery spotters and general liaison operations. A BuPers Circular Letter Number 28-46 of 5 February 1946 changed the 1941 uniform regulations to reflect that Naval Aviation Observers (Tactical) would wear a device similar to the Naval Aviation Observer (Navigation) insignia except "the centerpiece shall have two crossed guns superimposed upon it, in bold relief and in gold color." The BuPers letter provided the following description:

Naval Aviation Observers (Tactical) shall wear a gold embroidered or bronze gold-plated metal pin, winged, with silver center device superimposed upon crossed gold-color fowl anchors. The center piece shall have two crossed guns superimposed upon it, in bold relief and in gold color. The insignia shall measure $2\frac{3}{4}$ " from tip to tip of wings; silver center device shall be approximately $\frac{15}{32}$ " in diameter; crossed fowl anchors shall be of a size to be inscribed in a circle $\frac{3}{4}$ " in diameter and the crossed guns shall be of a size to be inscribed in a circle $\frac{13}{32}$ " in diameter.

A Bureau of Naval Personnel letter dated 18 March 1947 abolished the Naval Aviation Observers (Tactical) insignia and authorized all officers designated as Naval Aviation Observers (Tactical) to wear the same insignia prescribed for Naval Aviation Observers.

Naval Aviation Observer (Aerology)

BuPers Circular Letter Number 87-47 of 15 May 1947 established the designation Naval Aviation Observer (Aerology). Besides establishing the qualifications necessary for the designation, the circular letter also stated that: "Officers designated naval aviation observers (aerology) by the Chief of Naval Personnel will be authorized to wear the insignia already established for naval aviation observers . . ." BuPers letter (Pers-329-MEB A2-3) of 24 February 1948 issued Change 1 to the 1947 uniform regulations and states:

Naval Aviation Observer Insignia. Officers who have been designated as naval aviation observers, Naval Aviation Observers (Aerology), Naval Aviation Observers (Navigation), Naval Aviation Observers (Radar), or Naval Aviation Observers (Tactical) by the Chief of Naval Personnel shall wear the following insignia: A gold embroidered or bronze gold-plated metal pin, winged, with a central device consisting of an "O" circumscribing an erect, plan anchor, both in silver; the "O" and the anchor to be in bold relief, the center of the "O" being filled with gold. The insignia shall measure $2\frac{3}{4}$ " between wing tips; the outer diameter of the "O" shall be $\frac{3}{4}$ ", the inner diameter $\frac{9}{16}$ "; height of anchor shall be $\frac{1}{2}$ ". The embroidered device shall be on a background to match the color of the uniform.

See the Naval Aviation Observer Wing section for a photograph of the Naval Aviation Observer wing.

Naval Flight Officer Wings



On 8 February 1965, a change to Bureau of Personnel Instruction 1210.4C authorized a new designator and name, Naval Flight Officer (NFO). The new designator was appropriate for "an unrestricted line officer, a member of the aeronautical organization . . . who may fill any billet not requiring actual control knowledge of an aircraft." Eight subspecialties were available at the time: bombardier, controller, electronic countermeasures evaluator, navigator, interceptor, photographer-navigator, tactical coordinator, and reconnaissance navigator. The new NFOs continued wearing the naval aviation observer wings.

On 18 July 1968, the CNO approved a new qualification breast insignia for Navy and Marine Corps personnel designated as Naval Flight Officers (NFOs). BuPers Notice 1020 of 24 August 1968 changed the uniform regulations (NAVPers 15665). The notice stated: "This new insignia will replace the Naval Aviation Observer insignia currently worn by Naval Flight Officers and will be authorized for wear upon source availability. The Naval Aviation Observer insignia will become obsolete after 31 December 1968." In this change to the uniform regulations (NAVPERS 15665) all references to Naval Aviation Observers were changed to Naval Flight Officer. Article 0157.2d. of the uniform regulations read: "Naval Flight Officer Insignia. A gold embroidered or gold color metal pin; winged, with a central device consisting of a shield superimposed on a set of small, crossed, fouled anchors. The embroidered device shall be on a background to match the color of the uniform on which worn."

The naval flight officer wings were approved to keep pace with the changes to the designators and new titles for personnel that had been designated Naval Aviation Observers. Flight officers are more closely aligned with pilots as opposed to meteorologists and other scientists. Also, the flying officer/crewmen were line officers who were allowed to compete for and earn any command assignment for which they qualify by demonstrated performance and ability, with the exception of a billet that required actual control knowledge of an aircraft. Hence, naval flight officers were line officers who could qualify for command of a ship or carrier or commanding officer of a squadron just like naval aviators.

Professional Aviation Maintenance Officer Wing Insignia

NAVADMIN 051/09 issued by CNO message of 10 February 2009 (102033Z FEB 09) approved the Professional Aviation Maintenance Officer (PAMO) designation and wing insignia that had been recommended for approval by the Navy Uniform Board in November 2008. Qualification requirements for the PAMO were outlined in OPNAV Instruction 1412.11 of 19 May 2009. The designation and wings are designed to recognize the significant contributions made by aviation ground officers in support of the Navy's aviation mission and warfighting capabilities.

The PAMO wing insignia is $2\frac{3}{4}$ inches by $1\frac{1}{8}$ inches. It is a gold and silver metal device showing the silver eagle and shield superimposed over gold aviation wings with a gold banner depicting "AERO MAINTENANCE". It will have either an anodized or oxidized finish.

Navy and Marine Corps Parachutist Wing Insignia



BuPers Notice 1020 of 12 July 1963 issued information on a change to the 1959 uniform regulations concerning the adoption of a new wing insignia for Navy and Marine Corps parachutists. This notice stated: "The old parachutist insignia . . . shall be renamed the 'Basic Parachutist Insignia' in conformance with the Army and Air Force nomenclature. The subject insignia shall be referred to as the 'Navy and Marine Corps Parachutist Insignia.'" The insignia was described as:

A gold embroidered (Navy only) or gold-colored metal pin, same as that provided for Naval Aviator's insignia, except that a gold-colored open parachute shall be centered on the wings vice the shield and foul anchor; width of the wings from tip to tip shall be $2\frac{3}{4}$ "; width of the parachute $\frac{1}{2}$ " at the widest part; length of the parachute from top to bottom $1\frac{3}{16}$ ".

General qualifications for wearing the Navy and Marine Corps Parachutist Wings were:

1. Have previously qualified for the Basic Parachutist insignia by completing formal parachutist training at an armed services installation.
2. Have completed a minimum of five additional parachute jumps, under competent orders, with a Navy or Marine Corps organization whose mission includes parachute jumping.

Once a person qualified for the Navy and Marine Corps parachutist insignia it will be worn in lieu of the basic parachutist insignia.

Basic Parachutist Wing Insignia



The first mention of a parachutist designation and qualification badge is found in a change to the 1941 uniform regulations issued by a BuNav Circular Letter Number 51-42 of 31 March 1942. It stated:

The following Parachute Regulations, having been approved by the Secretary of the Navy on 6 February 1942, are published herewith for the information of all concerned:

1. (2) DESIGNATION: The designation (ratings) of "Parachutist" and "Student Parachutist" are hereby established for officers, warrant officers, and enlisted men of the Navy and Marine Corps of the United States, which designations (ratings) shall be in addition to such military or Naval ratings or ranks as are now or may hereafter be authorized by law.
- (5) RETENTION OF DESIGNATION AS PARACHUTIST OR STUDENT PARACHUTIST: An officer, warrant officer or enlisted man of the Navy . . . who has attained a designation (rating) as a parachutist or student parachutist . . . provided, that officers, warrant officers, and enlisted men . . . who have been designated as parachutists pursuant to these regulations are authorized to retain permanently and to wear such qualification badge as parachutists as may be prescribed by competent authority.

However, the Secretary of the Navy did not authorize the parachutist badge, even though the above change to the 1941 uniform regulation references the wearing of such a qualification badge. There is no description of a parachutist insignia until January 1947. A BuPers letter (Pers-329-MEB A2-3) of 17 January 1947 issued changes to the 1941 uniform regulations as approved by the Secretary of the Navy. This letter states:

- (j) A parachutist insignia, enclosure (B), has been authorized for enlisted personnel who have been designated as parachutists in accordance with the Bureau of Naval Personnel Manual. This insignia is the same as the parachutist insignia authorized by the Marine Corps and the Army.
2. The wearing of the parachutist insignia, enclosure (B), by officers and warrant officers who have been designated as parachutists in accordance with the Bureau of Naval Personnel Manual has also been authorized. Pending a revision of Chapters II and III, U.S. Navy Uniform Regulations, 1941, officers and warrant officers who are eligible to wear the parachutist insignia may do so under similar regulations contained in Art. 8-8 of enclosure (A).

A 14 February 1947 letter from BuPers issued the new Chapter II to the 1941 uniform regulations and included the parachutist insignia.

The 1951 uniform regulations described the parachutist insignia as: "An open parachute, in silver, flanked on each side by wings, curved upward; the device to be 1½" wide and ¾" high." A BuPers Notice 1020 of 12 July 1963 issued information on a change to the 1959 uniform regulations concerning the adoption of a new wing insignia for Navy and Marine Corps Parachutists. This notice stated: "The old parachutist insignia . . . shall be renamed the 'Basic Parachutist Insignia' in conformance with the Army and Air Force nomenclature."

Marine Aerial Navigator Wings

In June 1976, the Marine Corps approved the use of the old WWII Naval Aviation Observer (Navigation) wings for use by Marine Corps personnel who qualified as Marine Aerial Navigators. See the section on Naval Aviation Observer (Navigation) wings for a description and photograph of the wings.

Marine Aerial Observer Wings

See the section on Naval Aviation Observer and Flight Meteorologist Wings. These are the wings worn by Marine aerial observers.

Aviation Ratings

Enlisted men have served in naval aviation since its inception. The first men reported for duty with Lt. Theodore G. Ellyson and Lt. John Rodgers when they began flight training in 1911. Their numbers increased as the number of aviators and aircraft on hand increased. Despite the specialties involved in aviation, it was a number of years before these men were required to meet special qualifications beyond those of their basic rating. Such special courses as enlisted men received in the 1916–1917 period gave them a certificate to prove satisfactory completion and made them better qualified to carry out aviation duty. However, it had no effect on their basic ratings, the qualifications for which were still based on the requirements of the regular naval service.

Greater emphasis on aviation requirements accompanied the expansion for WW I and with it the basic requirements of the pre-war period were somewhat relaxed but not completely forgotten. One indication of change was a parenthetical addition to the rating to indicate aviation duty, as for example, Machinist's Mate (Aviation) or MM (A). But it was not until 1921 that aviation ratings received recognition as a special branch and the first strictly aviation ratings were established. Since then, adjustments to the rating structure have been frequent. These produced a number of changes and additions to the original basic ratings as well as a great variety of subdivisions within them, some representing a mere change in title, others reflecting changing technology.

The following list covers the aviation basic ratings, shown in alphabetical order.

Aerographer



Rating (**Aerog**) established effective 1 Jul 1924 by CL 99-23 of Dec 1923; distinguishing mark approved by CL 62-26 of 29 Oct 1926; See Aerographer's Mate.

Aerographer's Mate



Aerographer rating (**Aerog**) redesignated Aerographer's Mate (**AerM**) by CL 113-42 of 8 Aug 1942, abbreviation changed to (**AG**) by CL 106-48 of 9 Jun 1948.

Air Controlman



Rating (**SP**) established effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947; abbreviation changed to (**AC**) by CL 106-48 of 9 Jun 1948; See Air Traffic Controller.

Aircraft Maintenceman

A master chief's rating (**AFCM**) approved by SecNav, 5 Nov 1963. *See Aviation Machinist's Mate.*

Aircrew Survival Equipmentman



Parachute Rigger rating (**PR**) redesignated Aircrew Survival Equipmentman effective 7 Dec 1965 by BuPers Note 1440 of 2 Feb 1966, without change of abbreviation.

Airship Rigger

The insignia for the Airship Rigger rating consists of a pair of wings extending horizontally from a central point. Above the wings is a stylized anchor, and below the wings is a horizontal bar with a small circular element on the right side.

Rating (**AR**) established by CL 205-43 of 12 Oct 1943; distinguishing mark approved by CL 58-44 of 29 Feb 1944; abolished effective 2 Apr 1948 by CL 246-47 of 15 Dec 1947.

Air Traffic Controller

The insignia for the Air Traffic Controller rating features a pair of wings extending horizontally from a central point. Above the wings is a circular emblem containing a four-pointed star or compass rose design.

Air Controlman rating (**AC**) redesignated Air Traffic Controller by BuPers Note 1220 of 10 December 1977, without change in abbreviation.

Aviation Antisubmarine Warfare Operator

The insignia for the Aviation Antisubmarine Warfare Operator rating features a pair of wings extending horizontally from a central point. Above the wings is a stylized atomic symbol, and below the wings are wavy lines representing water.

Rating (**AW**) established effective 1 Sep 1968 by BuPers Note 1440 of 29 Feb 1968. The Aviation Antisubmarine Warfare Operator rating was redesignated Aviation Warfare Systems Operator by BuPers Note 1440 of 16 November 1993 without change of abbreviation; *See Aviation Warfare Systems Operator.*

224 | Personnel

Aviation Antisubmarine Warfare Technician



Rating (**AX**) was established effective 1 Dec 1962 by BuPers Note 1440 of 29 Jun 1962. The AX rating was absorbed into the (**AT**) rating by amendments to NAVOP 075/89 of 23 Aug 1990, effective 1 Jan 1991; *See* Aviation Electronics Technician.

Aviation Boatswain's Mate



Rating (**ABM**) established by CL 268-44 of 14 Sep 1944; distinguishing mark approved CL 363-44 of 30 Nov 1944; abbreviation changed to (**AB**) by CL 106-48 of 9 Jun 1948. Three sub-ratings were created for the Aviation Boatswain's Mate. Responsibilities for the (**ABH**) rating (Aviation Boatswain's Mate–Aircraft Handler) include movement, spotting and securing of aircraft and equipment ashore and afloat; performing crash rescue, fire fighting, crash removal, and damage control duties in connection with launching and recovery of aircraft. The (**ABF**) Aviation Boatswain's Mate–Fuels responsibilities include operating, maintaining, and performing organizational maintenance on aviation fueling and lubricating oil systems on CVs, CVNs, LPHs, and LPDs; observing and enforcing handling safety precautions and maintaining fuel quality surveillance and control in aviation fuel systems; supervising the operation and servicing of fuel farms and equipment associated with the fueling and defueling of aircraft ashore and afloat; and training, directing, and supervising fire fighting crews, fire rescue teams, and damage control parties in assigned fuel and lubricating oil spaces. Aviation Boatswain's Mate–Launch/Recovery (**ABE**) responsibilities include maintaining and performing organization maintenance on hydraulic and steam catapults, barricades, arresting gear, and arresting gear engines; operating catapult launch and arresting consoles, firing panels, water brakes, blast deflectors, and cooling panels; and performing aircraft-handling duties related to the operation of launching and recovery of naval aircraft. The (**AB**) designation is used only for the pay grade E-9 (Master Chief).

Aviation Bombsight Mechanic



Rating (**AOMB**) established as a sub-rating of Aviation Ordnanceman by CL 205-43 of 12 Oct 1943; *See* Aviation Bombsight and Fire Control Mechanic.

Aviation Bombsight And Fire Control Mechanic



Aviation Bombsight Mechanic rating (**AOMB**) renamed Aviation Bombsight and Fire Control Mechanic by CL 355-44 of 27 Nov 1944, without change in abbreviation. The Aviation Bombsight and Fire Control Mechanic (**AOMB**) was redesignated Aviation Fire Controlman (**AFC**) and was designated a basic rate by CL 39-45 of 15 Feb 1945; *See* Aviation Fire Controlman.

Aviation Carpenter's Mate



The Aviation Carpenter's mate rating (**ACM**) was established effective 1 Jul 1921 by CL 9-21 of 24 Mar 1921; distinguishing mark approved by CL 62-26 of 29 Oct 1926; the (**ACM**) rating was abolished effective 30 Jun 1940 by CL 36-40 of 21 May 1940 and redesignated Aviation Metalsmith (**AM**); *See* Aviation Metalsmith.

Aviation Electrician's Mate



The Aviation Electrician's Mate rating (**AEM**) was established by CL 129-42 of 4 Sep 1942; abbreviation changed to (**AE**) by CL 106-48 of 9 Jun 1948.

Aviation Electronicsman



The Aviation Radioman rating (**ARM**) was redesignated Aviation Electronicsman effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947, without change in abbreviation; abbreviation changed to (**AL**) by CL 106-48 of 9 Jun 1948; abolished by BuPers Instruction 1440.10B of 18 Dec 1959.

Aviation Electronics Technician



Aviation Electronics Technician's Mate rating (**AETM**) was redesignated Aviation Electronics Technician (**AET**) effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947; abbreviation changed to (**AT**) by CL 106-48 of 9 Jun 1948. Ratings (**AQ**), (**AX**), and (**AV**) were scheduled to merge and be redesignated (**AT**) by NAVOP 075/89 of 27 Jun 1989; the (**AV**) rating was removed so only ratings (**AQ**) and (**AX**) were absorbed into the already existing rate of (**AT**) by amendments to NAVOP 075/89 of 23 Aug 1990, effective 1 Jan 1991. The Master Chief rating for Aviation Electronics Technician (Intermediate) and (Organization) remained (**AVCM**). *See* Avionics Technician.

Aviation Electronics Technician's Mate



Aviation Radio Technician rating (**ART**) redesignated Aviation Electronics Technician's Mate (**AETM**) by CL 325-45 of 31 Oct 1945. The Aviation Electronics Technician's Mate rating (**AETM**) was redesignated Aviation Electronics Technician (**AET**) effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947; *See* Aviation Electronics Technician.

Aviation Fire Controlman



Aviation Bombsight and Fire Control Mechanic (**AOMB**) was redesignated Aviation Fire Controlman (**AFC**) and became a basic rate by CL 39-45 of 15 Feb 1945; abolished effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947; *See* Aviation Fire Control Technician.

Aviation Fire Control Technician



The Aviation Fire Control Technician rating (**AQ**) was established in 1954 from sub-ratings of the former Aviation Fire Controlman and in a sense a revival of that rating; under amendments to NAVOP 075/89 of 23 Aug 1990 the (**AQ**) rating was absorbed into the (**AT**) rating; *See* Aviation Electronics Technician.

Aviation Guided Missileman



The Aviation Guided Missileman rating (**GF**) was established and approved by SecNav 23 Jan 1953; abolished by BuPers Instruction 1440.25 of 10 Jun 1960, effective 1 Jul 1960.

Aviation Machinist's Mate



The Aviation Machinist's Mate rating (**AMM**) was established effective 1 July 1921 by CL 9-21 of 24 Mar 1921; distinguishing mark approved by CL 17-41 of 11 Feb 1941; abbreviation changed to (**AD**) by CL 106-48 of 9 Jun 1948.

Aviation Maintenance Administrationman



The Aviation Maintenance Administrationman rating (**AZ**) was established effective 1 Jan 1964 by BuPers Note 1440 of 22 Jan 1963.

Aviation Metalsmith



The Aviation Metalsmith rating (**AM**) was established effective 1 Jul 1921 by CL 9-21 of 24 Mar 1921; the Aviation Carpenter's Mate rating (**ACM**) was abolished and incorporated into the Aviation Metalsmith (**AM**) rating by CL 36-40 of 21 May 1940; the Aviation Metalsmith rating (**AM**) was redesignated Aviation Structural Mechanic effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947, without change in abbreviation. *See* Aviation Structural Mechanic.

Aviation Ordnanceman



The Aviation Ordnanceman rating (**AOM**) was established by CL 14-26 of 2 Mar 1926; abbreviation changed to (**AO**) by CL 106-48 of 9 Jun 1948.

Aviation Photographer's Mate



See Photographer's Mate.

Aviation Pilot



Rating (**AP**) established by CL 18-24 of 13 Mar 1924, changed to Chief Aviation Pilot and Aviation Pilot First Class by CL 66-27 of 21 Sep 1927, and abolished by a change from a rating to a designation by CL 10-33 of 28 Mar 1933; distinguishing mark approved by CL 24-33 of 30 June 1933; reestablished as a rating by CL 43-42 of 17 Mar 1942, and again abolished by a change to a designation, effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947. *See* Chapter 8 for more information on Naval Aviation Pilots.

Aviation Quartermaster (Quartermaster, Aviation)



The Quartermaster, Aviation rating was established by BuNav Letter N9H/B-5690 of 16 October 1918; the Quartermaster, Aviation rating was redesignated Aviation Rigger (**AR**) effective 1 Jul 1921 by CL 9-21 of 24 Mar 1921; *See* Aviation Rigger.

Aviation Radioman



The Aviation Radioman rating (**ARM**) was established by CL 5-42 of 13 Jan 1942; the distinguishing mark for the Aviation Radioman (**ARM**) and Aviation Radio Technician (**ART**) are identified as the same specialty marking used by both in the 1944 edition of *The Bluejackets Manual*; See Aviation Electronicsman.

Aviation Radio Technician



Rating (**ART**) established by CL 169-42 of 11 Dec 1942, according to the 1944 edition of *The Bluejackets Manual* the same specialty marking was used for Aviation Radioman (**ARM**) and Aviation Radio Technician (**ART**); See Aviation Electronics Technician's Mate.

Aviation Rigger



Aviation Quartermaster rating was redesignated Aviation Rigger (**AR**) effective 1 Jul 1921 by CL 9-21 of 24 Mar 1921; abolished effective 30 Jun 1927 by CL 13-26 of 25 Feb 1926.

Aviation Storekeeper



The Aviation Storekeeper rating (**SKV**) was established and approved by SecNav on 28 Sep 1943; distinguishing mark approved by CL 65-45 of 15 Mar 1945; abbreviation changed to (**AK**) by CL 106-48 of 9 Jun 1948. Aviation Storekeeper rate (**AK**) was abolished NAVADMIN 023/00 dated 10 Feb 2000 with final conversion of all AKs to Storekeeper (**SK**) by 1 Jan 2003.

Aviation Structural Mechanic



Aviation Metalsmith rating (**AM**) redesignated Aviation Structural Mechanic effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947, without change in abbreviation. Three sub-ratings for (**AM**) were created: (**AME**) Aviation Structural Mechanic–Safety Equipment, (**AMH**) Aviation Structural Mechanic–Hydraulics, and (**AMS**) Aviation Structural Mechanic–Structures. NAVADMIN dated 21 Jun 2000 announced the merger of the sub-ratings (**AMS**) and (**AMH**) into the general (**AM**) rating using the regular (**AM**) rating badge. The effective date for the completion of this action was 1 Mar 2001.

Aviation Support Equipment Technician



The Aviation Support Equipment Technician rating (**AS**) was established effective 1 Sep 1966 by BuPers Note 1440 of 24 Feb 1966.

Aviation Warfare Systems Operator



Aviation Antisubmarine Warfare Operator rating (**AW**) was established on 1 Sep 1968 by BuPers Note 1440 of 29 Feb 1968 and redesignated Aviation Warfare Systems Operator by BuPers Note 1440 of 16 Nov 1993, without change of abbreviation. NavAdmin 092/05 of 2 May 2005 directed the consolidation of Enlisted Naval Aircrew (**NAC**) ratings into Naval Aircrewman (**AW**) with five subspecialties and eliminated the Aviation Warfare Systems Operator designation. *See* Naval Aircrewman.

Avionics Technician



A master chief's rating (**AVCM**) established and approved by SecNav, 5 Nov 1963, this rating applies to the functional areas of Aviation Electronics Technician (Intermediate) and (Organizational); *See* Aviation Electronics Technician.

Naval Aircrewman



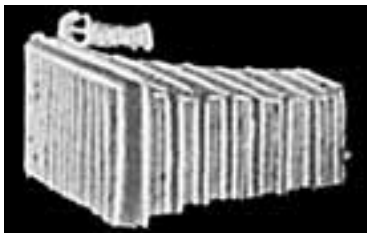
The Naval Aircrewman (**AW**) rating was established by NavAdmin 092/05 of 2 May 2005 and eliminated the rating Aviation Warfare Systems Operator but maintained the (**AW**) designation. The (**AW**) designation is only for Master Chief Naval Aircrewman effective 1 October 2008. There are five subspecialties of Naval Aircrewman: (**AWF**) for Naval Aircrewman Mechanical, (**AWO**) for Naval Aircrewman Operator, (**AWS**) for Naval Aircrewman Helicopter, (**AWR**) for Naval Aircrewman Tactical Helicopter, and (**AWV**) for Naval Aircrewman Avionics. Naval Aircrewman will continue to use the Aviation Warfare Systems Operator rating badge.

Parachute Rigger



The Parachute Rigger rating (**PR**) was established by CL 33-42 of 24 Feb 1942; the Parachute Rigger rating was redesignated Aircrew Survival Equipmentman effective 7 Dec 1965; *See* Aircrew Survival Equipmentman.

Photographer



Rating (**P**) established in the Aviation Branch effective 1 Jul 1921 by CL 9-21 of 24 Mar 1921, apparently later transferred to Special Branch, but returned to the Aviation Branch by CL 14-26 of 2 Mar 1926; *See* Photographer's Mate.

Photographer's Mate



Photographer's rating (**P**) redesignated Photographer's Mate (**PhoM**) by CL 113-42 of 8 Aug 1942 and removed from the Aviation Branch; rating split into Photographer's Mate and Aviation Photographer's Mate (both **PhoM**) effective 2 Apr 1948 by CL 40-47 of 21 Feb 1947; abbreviation changed to (**AF**) by CL 106-48 of 9 Jun 1948; ratings combined to become Photographer's Mate (**PH**) of the Aviation Group by CL 116-50 of 31 Jul 1950. The (**PH**), (**JO**), (**LI**), and (**DM**) ratings were merged to form a new rating called Mass Communications Specialist (**MC**) as directed by NAVADMIN 339/05 OF 28 Dec 2005.

Photographic Intelligenceman



The Photographic Intelligenceman rating (**PT**) was established by BuPers Note 1223 of 2 Oct 1957. The (**PT**) rate merged with (**YN**) NEC 2505 to form Intelligence Specialist (**IS**) (not an aviation rating) by BuPers Note 1440 of 6 Dec 1974.

Tradevman (Training Devices Repairman and Instructor)



The Tradevman rating (**TD**) was established by CL 106-48 of 9 Jun 1948; rate slated for disestablishment by BuPers Note 1440 of 22 Jul 1982 beginning in Fiscal Year (FY) 1984 with all conversions of personnel in this rate to be completed by the end of FY 1988.

* Distinguishing marks are for non-rated qualified as striker in a particular aviation rating (e.g. Aviation Machinist's Mate). The mark is worn midway between the wrist and elbow of the left sleeve. Distinguishing marks were superseded by the introduction of group rates used with striker marks by non-rated men in 1948.

Aviation Personnel on Active Duty

1 July	Navy					Marine Corps				
	Officers			Enlisted		Officers			Enlisted	
	Pilots	NFO	Other	Pilots	Aviation Rates	Pilots	NFO	Other	Pilots	Aviation Rates
1920	630		243		4,404					
1921	370		108		3,494					
1922	314		220		2,209					
1923	326		241		1,612					
1924	328		161		1,788					
1925	382		137		1,711					
1926	426		173		1,722					
1927	472		177	108	1,984					
1928	466		196	141	2,644					
1929	520		207	173	2,894					
1930	614		221	244	2,651	82		17	24	1,112
1931	737		427	330	2,806	98		15	33	999
1932	803		396	355	2,958	101		17	32	917
1933	826		450	337	11,949	103		15	30	913
1934	834		496	306	11,667	104		16	34	938
1935	867		559	280	12,129	110		15	28	985
1936	963		502	297	13,055	113		20	29	978
1937	1,002		530	355	15,091	135		20	41	1,093
1938	1,059		580	447	19,463	171		23	46	1,082
1939	1,068		609	533	19,907	180		16	47	1,091
1940	2,203		145	349	5,924	304		17	45	1,677
1941	3,483		963	629	10,640	453		27	52	3,051
1942	9,059		5,716	732	27,286	1,284		345	85	12,583
1943	20,847		20,958	774	105,445	4,898		2,419	132	50,485
1944	37,367		26,596	475	183,886	10,416		4,406	41	91,246
1945	49,380		27,946	439	241,364	10,229		5,080	47	96,354
1946	Data not available									
1947	10,052		3,054	537	44,201					
1948	10,232		2,475	629	56,767	1,955		213	352	11,629
1949	11,509		2,343	622	73,631	1,975		221	269	14,631
1950	9,481		1,906	920	63,505	1,922		214	255	12,017
1951	14,079		3,936	775	114,038	3,127		785	237	25,025
1952	15,774		4,633	715	129,412	4,169		1,472	210	38,359
1953	17,612		4,403	684	137,218	4,484		1,475	131	49,742
1954	16,722		4,078	631	125,102	3,848		1,647	123	39,748
1955	16,448		3,823	622	115,011	4,208		1,976	120	38,173
1956	17,193		4,209	264	135,600	4,399		1,778	109	36,232
1957	17,993		4,662	243	140,283	4,348		1,780	101	39,433
1958	18,236		4,683	210	134,212	4,225		1,697	102	37,027

1 July	Navy					Marine Corps				
	Officers			Enlisted		Officers			Enlisted	
	Pilots	NFO	Other	Pilots	Aviation Rates	Pilots	NFO	Other	Pilots	Aviation Rates
1959	17,813		4,572	179	127,811	3,937		1,281	105	32,900
1960	17,090		4,977	124	121,985	3,958		1,329	96	30,326
1961	17,354		4,475	87	123,134	4,031		1,349	66	34,253
1962	18,301		6,436	70	135,453	4,087		1,437	51	41,476
1963	17,613		6,567	59	132,538	4,131		1,594	27	41,834
1964	17,074		7,069	51	130,742	4,234		2,132	23	41,791
1965 ^s	16,570		7,932	43	126,988	4,372		2,346	17	41,563
1966	16,469		8,649	37	133,359	4,541		2,963	13	36,232
1967	15,973		8,985	35	139,742	4,401		3,987	12	60,192
1968	15,767		9,633	30	141,713	4,440		3,887	9	63,361
1969	15,274		10,220	27	147,679	4,648		3,973	5	62,858
1970	14,594		8,433	22	135,945	4,892		4,241	4	62,032
1971	14,890		8,215	13	120,301	4,917		3,569	4	54,672
1972	14,245		7,978	5	114,136	4,787		2,124	3	53,605
1973	13,665		7,701	3	111,329	4,384		3,126		48,110
1974	13,236		7,690	1	108,203	4,042		2,927		32,527
1975 ^t	13,056		7,643	1	105,619	3,921		2,671		32,454
1976 ^{ll}	12,560	4,128	2,302	1	101,058	3,712		2,744		30,338
1977 ^t	11,608	3,970	2,343	1	102,445	3,644		2,679		30,499
30 Sep										
1978	10,632	4,268	2,271	1	108,180	3,429		2,850		28,176
1979	9,707	4,327	2,123	1	107,669	3,219		2,856		29,369
1980	9,487	4,377	2,012	1	107,996	2,312 [#]	61 [#]			34,059 [#]
1981	9,828	4,666	1,954		109,915	2,532 [#]	66 [#]			33,832 [#]
1982	10,203	4,819	1,891		112,209	2,780 [#]	73 [#]			35,532 [#]
1983	10,483	5,160	2,223		114,722	2,991 [#]	82 [#]			37,972 [#]
1984	10,479	5,280	2,425		115,325	3,086 [#]	85 [#]			41,408 [#]
1985	10,559	5,566	2,685		114,866	3,119 [#]	99 [#]			42,050 [#]
1986	10,516	5,734	2,796		117,886	3,056 [#]	96 [#]			39,846 [#]
1987	10,748	5,966	2,749		122,563	3,357 [#]	120 [#]			38,163 [#]
1988	10,835	6,111	2,723		123,428	3,423 [#]	145 [#]			36,523 [#]
1989	11,022	6,241	2,641		123,651	3,429 [#]	154 [#]			36,136 [#]
1990	11,018	6,340	2,534		118,611	3,492 [#]	193 [#]			37,024 [#]
1991	10,491	6,109	2,487		114,056	3,582 [#]	223 [#]			37,114 [#]
1992	10,338	6,060	2,443		113,943	3,536 [#]	259 [#]			36,644 [#]
1993	9,162	5,222	1,116		72,182 [#]	3,556 [#]	303 [#]			34,365 [#]
1994	8,287	4,537	977		69,725 [#]	3,473 [#]	324 [#]			33,260 [#]
1995	7,751	4,079	939		63,309 [#]	3,579 [#]	353 [#]			32,605 [#]
1996	†	†	†		†	3,552 [#]	361 [#]			32,680 [#]
1997	7,915	4,050	4,109 [”]		69,085 [#]	3,467 [#]	360 [#]			32,843 [#]
1998	7,431	3,848	4,313 [”]		67,179 [#]	3,401 [#]	371 [#]			33,851 [#]
1999	7,276	3,759	4,195 [”]		67,583 [#]	3,441 [#]	384 [#]			34,942 [#]
2000	7,286	3,741	4,254 [”]		68,654 [#]	3,475 [#]	403 [#]			35,401 [#]

30 Sep	Navy					Marine Corps				
	Officers			Enlisted		Officers			Enlisted	
	Pilots	NFO	Other	Pilots	Aviation Rates	Pilots	NFO	Other	Pilots	Aviation Rates
2001	7,348	3,871	4,030 ^{**}		79,345 [#]	‡	‡			35,580 [#]
2002	7,469	3,871	4,233 ^{**}		82,293 [#]	‡	‡			36,327 [#]
2003	7,686	3,838	4,308 ^{**}		82,725 [#]	‡	‡			36,735 [#]
2004	7,859	3,801	4,016 ^{**}		80,967 [#]	4,006 [#]	458 [#]			37,675 [#]
2005	7,823	3,738	3,860 ^{**}		78,871 [#]	3,965 [#]	469 [#]			37,768 [#]
2006	7,779	3,618	3,789 ^{**}		74,132 [#]	3,924 [#]	461 [#]			36,824 [#]
2007	7,808	3,540	4,020 ^{**}		70,525 [#]	3,956 [#]	465 [#]			37,531 [#]
2008	7,022	3,273	4,080 ^{**}		62,684 [#]	3,913 [#]	444 [#]			39,345 [#]
2009	7,014	3,236	4,064 ^{**}		62,184 [#]	3,978 [#]	429 [#]			40,372 [#]
2010	6,929	3,191	4,208 ^{**}		62,604 [#]	4,088 [#]	401 [#]			40,378 [#]

[†] Navy figures are for 31 Mar 1975. USMC figures are for 30 Jun 1975.

[‡] Navy figures are for 30 Jun 1977. USMC figures are for 30 Sep 1977.

[‡] Data not available.

[§] Naval Aviation Observers (NAO) redesignated Naval Flight Officers (NFO) by BuPers Instruction 1210.4C of 8 Feb 1965, effective 1 May 1965.

^{||} NFO designation separated from other non-pilots.

[#] Annual Report, *Bureau of Naval Personnel Statistics* (Report 15658), discontinued in mid FY 1993. Figures for Navy enlisted personnel in aviation rates provided directly from BuPers. Figures for Marine Corps Pilots, NFO and Aviation Rates from 1980 to 2010 provided by HQMC Aviation.

^{**} These figures include Pilot or NFO rating that has been terminated, training to be a pilot or NFO, Aeronautical Engineering and Maintenance Specialties, LDO for Aviation Deck, Aviation Operations, Aviation Maintenance, Aviation Ordnance, Avionics, and Air Traffic Control.

Note: Does not include men in training. Aviation rates under Navy for years 1933–39 include general service ratings assigned to aviation duty. Enlisted pilots for 1920–26 are included under aviation rates. All Navy figures for WWII period, 1940–45, include Coast Guard. Figures not available for Marine Corps, 1920–29.

Medal of Honor Awards in Naval Aviation

To Naval Aviators and Naval Aviation Pilots in Connection with Aviation

Name	Rank/Service	N.A. Number	Occasion for Award
Bauer, Harold W.	Lt. Col., USMC	4189	Action in air combat, South Pacific area; 28 Sep–3 Oct 1942
Bennett, Floyd	CWO, USN	NAP-9	Piloted plane on first flight over North Pole; 9 May 1926
Boyington, Gregory	Maj., USMC	5160	Action in air combat, Central Solomons area; 12 Sep 1943–3 Jan 1944
Byrd, Richard E.	Lt. Cmdr., USN	608	Commanded plane on first flight over North Pole; 9 May 1926
Corry, William M.	Lt. Cmdr., USN	23	Attempted rescue of pilot from burning aircraft; 2 Oct 1920
DeBlanc, Jefferson J.	Capt., USMC	12504	Action as leader of a fighter mission in air combat off Kolombangara Island, South Pacific; 31 Jan 1943
Elrod, Henry T.	Capt., USMC	4093	Action in air and ground combat in defense of Wake Island; 8–23 Dec 1941
Estocin, Michael J.	Lt. Cmdr., USN		Action as leader of air attack against enemy targets in North Vietnam; 20 and 26 Apr 1967
Fleming, Richard E.	Capt., USMC	6889	Action as leader of dive bombing attack, Battle of Midway; 4–6 Jun 1942
Foss, Joseph J.	Capt., USMC	7290	Action in air combat in defense of Guadalcanal; 9 Oct–19 Nov 1942
Galer, Robert E.	Maj., USMC	5197	Action in air combat, South Pacific area; Aug–Sep 1942
Gordon, Nathan G.	Lt., USN	11421	Rescue of 15 officers and men under fire in Kavieng Harbor; 15 Feb 1944
Hall, William E.	Lt. j.g., USN	6072	Determined attacks on enemy carrier, Battle of Coral Sea; 7–8 May 1942
Hammann, Charles H.	Ens., USNRF	1494	Rescue of fellow pilot under fire during raid on Pula, Austria; 21 Aug 1918
Hanson, Robert M.	1st Lt., USMC		Action in air combat at Bougainville; 1 Nov 1943, and New Britain; 24 Jun 1944
Hudner, Thomas J., Jr.	Lt. j.g., USN		Attempted rescue of squadron mate downed behind enemy lines in Korea; 4 Dec 1950
Hutchins, Carlton B.	Lt., USN	3435	Remained at controls of his aircraft after a mid-air collision to allow his crew to escape; 2 Feb 1938
Koelsch, John K.	Lt. j.g., USN		Attempted rescue by helicopter during heavy overcast and under fire, Korea; 3 Jul 1951
Lassen, Clyde E.	Lt. j.g., USN		Night helicopter rescue under enemy fire of two downed aviators in North Vietnam; 19 Jun 1968
McCampbell, David	Cmdr., USN	5612	Action in air combat during Battle of Philippine Sea and Leyte Gulf; June and Oct 1944
O'Hare, Edward H.	Lt., USN	6405	Action in air combat in defense of carrier off Rabaul; 20 Feb 1942
Pless, Stephen W.	Capt., USMC		Helicopter rescue under enemy fire of four American soldiers beset by a large group of Viet Cong; 19 Aug 1967
Powers, John J.	Lt., USN	6880	Determined attacks on enemy ships during Battle of Coral Sea; 4–8 May 1942

Name	Rank/Service	N.A. Number	Occasion for Award
Schilt, Christian F.	1st Lt., USMC	2741	Air evacuation of wounded under fire, Qualili, Nicaragua; 6–8 Jan 1928
Smith, John L.	Maj., USMC	5978	Action in air combat in defense of Guadalcanal; 21 Aug–15 Sep 1942
Swett, James E.	1st Lt., USMC	11893	Action in air combat, Solomon Islands area; 7 Apr 1943
Talbot, Ralph	2d Lt., USMC	802	Action in air combat, Europe; 8 and 14 Oct 1918
Van Voorhis, Bruce	Lt. Cmdr., USN	3859	Determined low-level heavy bomber attack, Battle of the Solomon Islands; 6 Jul 1943
Walsh, Kenneth A.	1st Lt., USMC		Action in air combat at Vella Lavella; 15 and 30 Aug 1943

To Naval Aviators for Action not Associated with Aviation

Name	Rank/Service	N.A. Number	Occasion for Award
Antrim, Richard N.	Lt., USN	6750	Action on behalf of fellow prisoners while POW; April 1942
Edson, Merritt A.	Col., USMC	3026	Leading ground action in defense of the airfield at Guadalcanal; 13–14 Sep 1942
Stockdale, James B.	Capt., USN		Action on behalf of fellow prisoners while POW; 4 Sep 1969

To Officers and Men later Designated Naval Aviator, NAP, Naval Aviation Observer, and NFO

Name	Rank/Service	N.A. Number	Occasion for Award
Commiskey, Henry A.	2d Lt., USMC		Leading ground attack on strong enemy position near Yongdungpo, Korea; 20 Sep 1950
McDonnell, Edward	Ens., USN	18	Establishing signal station ashore and maintaining communications while under fire at Veracruz; 21–22 Apr 1914
Moffett, William A.	Cmdr., USN	NAO-1	Action in command of a ship at Veracruz; 21–22 Apr 1914
Ormsbee, Francis, Jr.	CMM(A), USN [†]	NAP-25	Rescuing enlisted men and attempted rescue of pilots downed in seaplane crash in Pensacola Bay; 25 Sep 1918

To Non-Aviators for Action Associated with Aviation

Name	Rank/Service	N.A. Number	Occasion for Award
Clausen, Raymond M.	PFC, USMC		Repeated rescues by helicopter of men trapped by enemy fire and minefield, South Vietnam; 30 Jan 1970
Finn, John W.	AOC, USN [‡]		Action under fire under the attack NAS Kaneohe; 7 Dec 1941
Gary, Donald A.	Lt. j.g., USN		Repeated rescues of trapped men on board <i>Franklin</i> (CV 13), severely damaged by enemy attack; 19 Mar 1945
McGunigal, Patrick	SF1c, USN [§]		Rescue of a kite balloon pilot entangled underwater in the balloon rigging, <i>Huntington</i> (ACR 5); 17 Sep 1917
O'Callahan, Joseph T.	Lt. Cmdr., USN (CHC)		Inspiration, leadership, and repeated rescues on board <i>Franklin</i> (CV 13) damaged by air attack; 19 Mar 1945
Ricketts, Milton E.	Lt., USN		Leading damage control party on board <i>Yorktown</i> (CV 5) damaged during Battle of Coral Sea; 8 May 1942
Robinson, Robert G.	Gy. Sgt., USMC		Action during air combat as gunner to Lt. Ralph Talbot, USMC; 8 and 14 Oct 1918

To Aviators for Participating in the Space Program

The Congressional Space Medal of Honor, first awarded to former astronauts by President Jimmy Carter on 1 October 1978, was authorized by Congress on 29 September 1969 to recognize “any astronaut who in the performance of his duties has distinguished himself by exceptionally meritorious efforts and contributions to the welfare of the Nation and mankind.”

Name	Rank/Service	N.A. Number	Occasion for Award
Armstrong, Neil A.			Participated in the Gemini 8 and Apollo 11 space flight missions. On Apollo 11, he became the first person to walk on the moon; 1 Oct 1978
Conrad, Charles, Jr.	Capt., USN		Participated in four space flight missions: Gemini 5, Gemini 11, Apollo 12, and Skylab 2. Commanded the crew of the first manned Skylab mission that conducted repairs on the orbital workshop; 1 Oct 1978
Glenn, John H., Jr.	Col., USMC		One of the original Mercury Astronauts and the first American to orbit the Earth; 1 Oct 1978
Lovell, James A., Jr.	Capt., USN		Participated in four space flight missions: Gemini 7, Gemini 12, Apollo 8, and Apollo 13. Commanded the crew of Apollo 13; 26 July 1968
Shepard, Alan B., Jr.	Rear Adm., USN		One of the original Mercury Astronauts and the first American into space. Commanded the Apollo 14 mission; 1 Oct 1978
Young, John W.	Capt., USN		Participated in five space flight missions: Gemini 3, Gemini 10, Apollo 10, and Apollo 16, and STS-1 (Space Shuttle <i>Columbia</i>) benefiting human progress in space; 19 May 1981

* Received award posthumously

† Chief Machinist's Mate (Aviation)

‡ Aviation Ordnance Chief; later promoted to commissioned status

§ Shipfitter 1st Class

U.S. Navy and Marine Corps Aces

The Navy Department has never officially compiled or issued a list of “Aces”. During WWII, the period with the largest number of aerial shoot-downs for naval flyers, the Navy did not keep an overall record of individual scores in aerial combat; hence, there is no official list of confirmed shoot-downs.

The most comprehensive work done on Navy and Marine Corps WWII aces was written and published by Frank Olynyk. His two books are *USN Credits for the Destruction of Enemy Aircraft in Air-to-Air Combat World War II, Victory List No. 2*, published in 1982, and *USMC Credits for the Destruction of Enemy Aircraft in Air-to-Air Combat World War II*, published in 1981. In 1986 *Naval Aviation News* magazine published a list of U.S. Navy and Marine Corps aces that had been compiled by Olynyk. The following list of aces, as published by the magazine in 1986, includes his WWII list and also those from WWI, Korea, and Vietnam.

Name	Service	Time Frame ^s
* Aldrich, Donald N.	USMC	
Alley, Stuart C., Jr.	USMC	
Amsden, Benjamin C.	USN	
Anderson, Alexander L.	USN	
Anderson, Robert H.	USN	
‡ Andre, John W.	USMC	
Axtell, George C.	USMC	
Bailey, Oscar C.	USN	
Baird, Robert	USMC	
* Baker, Douglas	USN	
Baker, Robert M.	USMC	
Bakutis, Fred E.	USN	
Balch, Donald L.	USMC	
Baldwin, Frank B.	USMC	
Balsiger, Henry W.	USN	
Banks, John L.	USN	
Barackman, Bruce M.	USN	
Bardshar, Frederic A.	USN	
Bare, James D.	USN	
Barnard, Lloyd G.	USN	
Barnes, James M.	USN	
Bartol, John W.	USN	
† Bassett, Edgar R.	USN	
Bate, Oscar M., Jr.	USMC	
Batten, Hugh N.	USN	
Bauer, Harold W.	USMC	
Beatley, Redman C.	USN	
Beaudry, Paul H. N.	USN	
Beebe, Marshall U.	USN	
Berkheimer, Jack S.	USN	
Berree, Norman R.	USN	
Bertelson, Richard L.	USN	
† Billo, James D.	USN	
Bishop, Walter D.	USN	
Blackburn, John T.	USN	

Name	Service	Time Frame ^s
† Blair, Foster J.	USN	
Blair, William K.	USN	
Blaydes, Richard B.	USN	
Blyth, Robert L.	USN	
Bolduc, Alfred G.	USN	
Bolt, John F., Jr.	USMC	
Bolt, John F., Jr.	USMC	Korea
Bonneau, William J.	USN	
Bordelon, Guy P.	USN	Korea
Borley, Clarence A.	USN	
* Boyington, Gregory	USMC	
Boyle, Gerald F.	USN	
Brassfield, Arthur J.	USN	
Braun, Richard L.	USMC	
Brewer, Charles W.	USN	
Bridges, Johnnie J.	USNR	
Bright, Mark K.	USN	
Brocato, Samuel J.	USN	
Brown, Carl A., Jr.	USN	
Brown, William P., Jr.	USMC	
Bruneau, Paul J.	USN	
Brunmier, Carland E.	USN	
Bryce, James A.	USN	
Buchanan, Robert L.	USN	
Buie, Paul D.	USN	
Burckhalter, William E.	USN	
Burley, Franklin N.	USN	
Burnett, Roy O., Jr.	USN	
Burriss, Howard M.	USN	
† Bushner, Frances X.	USN	
* Byrnes, Matthew S., Jr.	USN	
Cain, James B.	USN	
Carey, Henry A., Jr.	USN	
Carl, Marion E.	USMC	
Carlson, Robert B.	USN	

Name	Service	Time Frame [§]
Carlton, William A.	USMC	
Carmichael, Daniel A., Jr.	USN	
Carr, George R.	USN	
Carroll, Charles H.	USN	
Case, William N.	USMC	
Caswell, Dean	USMC	
Chambers, Cyrus J.	USN	
Champion, Henry K.	USN	
Chandler, Creighton	USMC	
Check, Leonard J.	USN	
Chenoweth, Oscar I., Jr.	USN	
Clark, Lawrence A.	USN	
Clark, Robert A.	USN	
Clarke, Walter E.	USN	
Clements, Robert E.	USN	
Clements, Donald C.	USN	
Coats, Robert C.	USN	
Coleman, Thaddeus T., Jr.	USN	
Coleman, William M.	USN	
Collins, William M., Jr.	USN	
Conant, Arthur R.	USMC	
Conant, Edwin S.	USN	
Conger, Jack E.	USMC	
Conroy, Thomas J.	USN	
Copeland, William E.	USN	
Cordray, Paul	USN	
Cormier, Richard L.	USN	
† Cornell, Leland B.	USN	
Cowger, Richard D.	USN	
Cozzens, Melvin	USN	
Craig, Clement M.	USN	
Cronin, Donald F.	USN	
Crosby, John T.	USN	
Crowe, William E.	USMC	
Cunningham, Daniel G.	USN	
Cunningham, Randall H.	USN	Vietnam
Cupp, James N.	USMC	
Dahms, Kenneth J.	USN	
Davenport, Merl W.	USN	
Davidson, George H.	USN	
Davies, Clarence E.	USN	
Davis, Leonard K.	USMC	
Davis, Robert H.	USN	
Dean, William A., Jr.	USN	
Dear, John W., Jr.	USN	
De Blanc, Jefferson J.	USMC	
De Cew, Leslie	USN	
‡ Delong, Philip C.	USMC	
Denman, Anthony J.	USN	

Name	Service	Time Frame [§]
Denoff, Reuben H.	USN	
Devine, Richard O.	USN	
Dewing, Lawrence A.	USN	
Dibb, Robert A. M.	USN	
Dillard, Joseph V.	USMC	
Dillow, Eugene	USMC	
Dobbin, John F.	USMC	
Donahue, Archie G.	USMC	
Doner, Landis E.	USN	
Dorroh, Jefferson D.	USMC	
Doyle, Cecil J.	USMC	
Drake, Charles W.	USMC	
Driscoll, Daniel B. J.	USN	
Driscoll, William P. (NFO)	USN	Vietnam
Drury, Frank C.	USMC	
Drury, Paul E.	USN	
Duffy, James E.	USN	
Duncan, George C.	USN	
Duncan, Robert W.	USN	
Dungan, Fred L.	USN	
Dunn, Bernard	USN	
Durnford, Dewey F.	USMC	
Eastmond, Richard T.	USN	
Eberts, Byron A.	USN	
† Eccles, William G	USN	
Eckard, Bert	USN	
Eder, William E.	USN	
Edwards, William C., Jr.	USN	
Elliott, Ralph E., Jr.	USN	
Elwood, Hugh M.	USMC	
Enman, Anthony J.	USN	
Erickson, Lyle A.	USN	
Evenson, Eric A.	USN	
Everton, Loren D.	USMC	
Fair, John W.	USN	
Farmer, Charles D.	USN	
Farnsworth, Robert A., Jr.	USN	
Farrell, William	USMC	
Fash, Robert P.	USN	
Fecke, Alfred J.	USN	
Feightner, Edward L.	USN	
Ferko, Leo M.	USN	
Finn, Howard J.	USMC	
Fisher, Don H.	USMC	
† Flatley, James H., Jr.	USN	
Fleming, Francis M.	USN	
Fleming, Patrick D.	USN	
Flinn, Kenneth A.	USN	
Foltz, Frank E.	USN	

Name	Service	Time Frame [§]
Foltz, Ralph E.	USN	
Fontana, Paul J.	USMC	
Ford, Kenneth M.	USMC	
Formanek, George, Jr.	USN	
Forrer, Samuel W.	USN	
* Foss, Joseph J.	USMC	
Foster, Carl C.	USN	
Fowler, Richard E., Jr.	USN	
Franger, Marvin J.	USN	
Franks, John M.	USN	
Fraser, Robert B.	USMC	
Frazier, Kenneth D.	USMC	
Freeman, Doris C.	USN	
Freeman, William B.	USMC	
French, James B.	USN	
Frendberg, Alfred L.	USN	
Funk, Harold N.	USN	
Gabriel, Franklin T.	USN	
Galer, Robert E.	USMC	
Galt, Dwight B., Jr.	USN	
Galvin, John R.	USN	
Gayler, Noel A. M.	USN	
Gildea, John T.	USN	
Gile, Clement D.	USN	
Gillespie, Roy F.	USN	
Godson, Lindley W.	USN	
Gordon, Donald	USN	
Graham, Vernon E.	USN	
Gray, James S., Jr.	USN	
Gray, John F.	USN	
Gray, Lester E., Jr.	USN	
Gregory, Hayden A.	USN	
Griffin, Richard J.	USN	
Gustafson, Harlan I.	USN	
Gutt, Fred E.	USMC	
Haas, Walter A.	USN	
Haberman, Roger A.	USMC	
Hacking, Albert E., Jr.	USMC	
Hadden, Mayo A., Jr.	USN	
Hall, Sheldon O.	USMC	
Hamblin, Lewis R.	USN	
Hamilton, Henry B.	USMC	
Hamilton, Robert M.	USN	
Hanks, Eugene R.	USN	
Hansen, Herman, Jr.	USMC	
* Hanson, Robert M.	USMC	
Hardy, Willis E.	USN	
Hargreaves, Everett C.	USN	
Harman, Walter R.	USN	

Name	Service	Time Frame [§]
* Harris, Cecil E.	USN	
Harris, Leroy E.	USN	
Harris, Thomas S.	USN	
Harris, William H., Jr.	USN	
Haverland, Charles H., Jr.	USN	
Hawkins, Arthur R.	USN	
Hayde, Frank R.	USN	
Hearrell, Frank C., Jr.	USN	
Heath, Horace W.	USN	
Hedrick, Roger R.	USN	
Heinzen, Lloyd P.	USN	
Henderson, Paul M., Jr.	USN	
Henry, William E.	USN	
Hernan, Edwin J., Jr.	USMC	
Hibbard, Samuel B.	USN	
Hildebrandt, Carlos K.	USN	
Hill, Harry E.	USN	
Hills, Hollis H.	USN	
Hippe, Kenneth G.	USN	
Hoag, John B.	USN	
Hoel, Ronald W.	USN	
Hollowell, George L.	USMC	
Hood, William L., Jr.	USMC	
Houck, Herbert N.	USN	
Hudson, Howard R.	USN	
Huffman, Charles W., Jr.	USN	
Humphrey, Robert J.	USN	
Hundley, John C.	USMC	
Hurst, Robert	USN	
Ingalls, David S.	USN	WWI
Ireland, Julius W.	USMC	
Jaques, Bruce D.	USN	
Jennings, Robert H., Jr.	USN	
Jensen, Hayden M.	USN	
Jensen, Alvin J.	USMC	
Johannsen, Delmar K.	USN	
Johnson, Byron M.	USN	
Johnson, Wallace R.	USN	
Johnston, John M.	USN	
Jones, Charles D.	USMC	
Jones, James M.	USN	
Kaelin, Joseph	USN	
Kane, William R.	USN	
Keith, Leroy W. J.	USN	
Kendrick, Charles	USMC	
* Kepford, Ira C.	USN	
Kerr, Leslie H., Jr.	USN	
Kidwell, Robert J.	USN	
Kincaid, Robert A.	USN	

Name	Service	Time Frame ⁶
Kingston, William J., Jr.	USN	
Kinsella, James J.	USN	
Kirk, George N.	USN	
Kirkpatrick, Floyd C.	USMC	
Kirkwood, Philip L.	USN	
Knight, William M.	USN	
Kostik, William J.	USN	
Kunz, Charles M.	USMC	
Laird, Dean S.	USN	
Laird, Wayne W.	USMC	
Lake, Kenneth B.	USN	
‡ Lamb, William E.	USN	
Lamoreaux, William E.	USN	
Laney, Willis G.	USN	
Langdon, Ned W.	USN	
Leonard, William N.	USN	
Leppa, John A.	USN	
Lerch, Alfred	USN	
Lillie, Hugh D.	USN	
Lindsay, Elvin L.	USN	
Loesch, Gregory K.	USMC	
Long, Herbert H.	USMC	
Lundin, Walter A.	USN	
Lynch, Joseph P.	USMC	
Maas, John B.	USMC	
Maberry, Lewin A.	USN	
Magee, Christopher L.	USMC	
Mahe, Thomas R., Jr.	USMC	
Mallory, Charles M.	USN	
Mankin, Lee P., Jr.	USN	
Mann, Thomas H., Jr.	USMC	
Manson, Armand G.	USN	
March, Harry A., Jr.	USN	
Marontate, William P.	USMC	
Martin, Albert E., Jr.	USN	
Masoner, William J., Jr.	USN	
Maxwell, William R.	USN	
May, Richard H.	USN	
May, Earl, Jr.	USN	
Mazzocco, Michele A.	USN	
* McCampbell, David	USN	
McCartney, Henry A.	USMC	
McClelland, Thomas G.	USN	
McClure, Edgar B.	USN	
McClurg, Robert W.	USMC	
McCormick, William A.	USN	
McCuddin, Leo B.	USN	
McCuskey, Elbert S.	USN	
McGinty, Selva E.	USMC	

Name	Service	Time Frame ⁶
McGowan, Edward C.	USN	
McGraw, Joseph D.	USN	
McKinley, Donald J.	USN	
McLachlin, William W.	USN	
McManus, John	USMC	
McPherson, Donald M.	USN	
McWhorter, Hamilton, III	USN	
Mehle, Roger W.	USN	
Menard, Louis A., Jr.	USN	
Mencin, Adolph	USN	
† Merritt, Robert S.	USN	
Michaelis, Frederick H.	USN	
Miller, Johnnie G.	USN	
Milton, Charles B.	USN	
Mims, Robert	USN	
Mitchell, Harris E.	USN	
Mitchell, Henry E., Jr.	USN	
Mollard, Norman W., Jr.	USN	
Mollenhauer, Arthur P.	USN	
Montapert, John R.	USN	
Moranville, Horace B.	USN	
Morgan, John L., Jr.	USMC	
Morris, Bert D., Jr.	USN	
Moseley, William C.	USN	
Mulcahy, Douglas W.	USN	
Mullen, Paul A.	USMC	
Munsen, Arthur H.	USN	
Murray, Robert E.	USN	
Narr, Joseph L.	USMC	
Nelson, Robert J.	USN	
Nelson, Robert K.	USN	
Noble, Myrvin E.	USN	
* Nooy, Cornelius N.	USN	
Novak, Marvin R.	USN	
Null, Cleveland L.	USN	
O'Hare, Edward H.	USN	
O'Keefe, Jeremiah J.	USMC	
O'Mara, Paul, Jr.	USN	
Olander, Edwin L.	USMC	
Olsen, Austin L.	USN	
Orth, John	USN	
Ostrom, Charles H.	USN	
Outlaw, Edward C.	USN	
Overend, Edmund F.	USMC	
Overton, Edward W., Jr.	USN	
Owen, Donald C.	USMC	
Owen, Edward M.	USN	
Owens, Robert G., Jr.	USMC	
Parrish, Elbert W.	USN	

Name	Service	Time Frame [§]
Paskoski, Joseph J.	USN	
Payne, Frederick R., Jr.	USMC	
Pearce, James L.	USN	
Percy, James G.	USMC	
Phillips, David P., III	USN	
Phillips, Edward A.	USN	
Phillips, Hyde	USMC	
Picken, Harvey P.	USN	
Pierce, Francis E., Jr.	USMC	
Pigman, George W., Jr.	USN	
Pittman, Jack, Jr.	USMC	
Plant, Claude W., Jr.	USN	
Pond, Zenneth A.	USMC	
Pool, Tilman E.	USN	
Pope, Albert J.	USN	
Porter, Robert B.	USMC	
Poske, George H.	USMC	
Post, Nathan T., Jr.	USMC	
Pound, Ralston M., Jr.	USN	
Powell, Ernest A.	USMC	
Prater, Luther D., Jr.	USN	
Presley, Frank H.	USMC	
Prichard, Melvin M.	USN	
Quiel, Norwald R.	USN	
† Ramlo, Orvin H.	USMC	
Reber, James V., Jr.	USN	
Redmond, Eugene D.	USN	
Register, Francis R.	USN	
Rehm, Dan R., Jr.	USN	
Reidy, Thomas H.	USN	
Reinburg, Joseph H.	USMC	
Reiserer, Russell L.	USN	
Rennemo, Thomas J.	USN	
Reulet, Joseph E.	USN	
Revel, Glenn M.	USN	
Rhodes, Thomas W.	USN	
Rieger, Vincent A.	USN	
Rigg, James F.	USN	
Roach, Thomas D.	USN	
Robbins, Joe D.	USN	
Robinson, Leroy W.	USN	
Robinson, Ross F.	USN	
Rosen, Ralph J.	USN	
Ross, Robert P.	USN	
Rossi, Herman J., Jr.	USN	
Ruhsam, John W.	USMC	
Runyon, Donald E.	USN	
Rushing, Roy W.	USN	
Sapp, Donald H.	USMC	

Name	Service	Time Frame [§]
Sargent, John J., Jr.	USN	
Savage, Jimmie E.	USN	
Scales, Harrell H.	USN	
Scarborough, Hartwell V., Jr.	USMC	
Schecter, Gordon E.	USN	
Schell, John L.	USN	
Scherer, Raymond F.	USMC	
Schiller, James E.	USN	
Schneider, Frank E.	USN	
Seckel, Albert, Jr.	USN	
See, Robert B.	USMC	
Segal, Harold E.	USMC	
Self, Larry R.	USN	
Shackford, Robert W.	USN	
Shands, Courtney	USN	
Shaw, Edward O.	USMC	
Sherrill, Hugh V.	USN	
Shields, Charles A.	USN	
Shirley, James A.	USN	
Shuman, Perry L.	USMC	
Sigler, Wallace E.	USMC	
Silber, Sam L.	USN	
Singer, Arthur, Jr.	USN	
Sipes, Lester H.	USN	
Sistrunk, Frank	USN	
Skon, Warren A.	USN	
Slack, Albert C.	USN	
Smith, Armistead B., Jr.	USN	
Smith, Carl E.	USN	
Smith, Clinton L.	USN	
Smith, Daniel F., Jr.	USN	
* Smith, John L.	USMC	
Smith, John M.	USN	
Smith, Kenneth D.	USN	
Smith, Nicholas J., III	USN	
Snider, William N.	USMC	
Sonner, Irl V., Jr.	USN	
Southerland, James J., III	USN	
* Spears, Harold L.	USMC	
Spitler, Clyde P.	USN	
Stanbook, Richard E.	USN	
Stanley, Gordon A.	USN	
Starkes, Carlton B.	USN	
Stebbins, Edgar E.	USN	
Stewart, James S.	USN	
* Stimpson, Charles R.	USN	
Stokes, John D.	USN	
Stone, Carl V.	USN	
Stout, Robert F.	USMC	

Name	Service	Time Frame [§]
Strane, John R.	USN	
Strange, Johnnie C.	USN	
Streig, Frederick J.	USN	
Sturdevant, Harvey W.	USN	
Sutherland, John F.	USN	
* Swett, James E.	USMC	
Swinburne, Harry W., Jr.	USN	
Swope, James S.	USN	
Symmes, John C. C.	USN	
Synar, Stanley T.	USMC	
Taylor, Ray A., Jr.	USN	
Taylor, Will W.	USN	
Terrill, Francis A.	USMC	
Thach, John S.	USN	
Thelen, Robert H.	USN	
Thomas, Franklin C., Jr.	USMC	
Thomas, Robert F.	USN	
* Thomas, Wilbur J.	USMC	
Toasperm, Edward W.	USN	
Topliff, John W.	USN	
Torkelson, Ross E.	USN	
Townsend, Eugene P.	USN	
Tracey, Fredrick W.	USN	
Troup, Franklin W.	USN	
Trowbridge, Eugene A.	USMC	
Traux, Myron M.	USN	
Turner, Charles H.	USN	
Turner, Edward B.	USN	
Twelves, Wendell V.	USN	
Ude, Vernon R.	USN	
Umphres, Donald E.	USN	
* Valencia, Eugene A.	USN	
Valentine, Herbert J.	USMC	
Van Der Linden, Peter J., Jr.	USN	
Van Dyke, Rudolph D., Jr.	USN	
Van Haren, Arthur, Jr.	USN	
Vedder, Milton N.	USMC	
Vejtasa, Stanley W.	USN	
Vineyard, Merriwell W.	USN	
Vita, Harold E.	USN	
Voris, Roy M.	USN	
Vorse, Albert O., Jr.	USN	
* Vraciu, Alexander	USN	
Wade, Robert	USMC	
* Walsh, Kenneth A.	USMC	
Ward, Lyttleton T.	USN	
Warner, Arthur T.	USMC	
Watson, Jack O.	USN	
Watts, Charles E.	USN	

Name	Service	Time Frame [§]
Webb, Wilbur B.	USN	
Weissenberger, Gregory J.	USMC	
Wells, Albert P.	USMC	
Wesolowski, John M.	USN	
West, Robert G.	USN	
White, Henry S.	USN	
Williams, Bruce W.	USN	
Williams, Gerard M. H.	USMC	
Wilson, Robert C.	USN	
Winfield, Murray	USN	
Winston, Robert A.	USN	
Winters, Theodore H., Jr.	USN	
Wirth, John L.	USN	
Wolf, John T.	USN	
Wood, Walter A.	USN	
Wooley, Millard J.	USN	
Woolverton, Robert C.	USN	
Wordell, Malcolm T.	USN	
Wrenn, George L.	USN	
Yeremain, Harold	USN	
Yost, Donald K.	USMC	
Yunck, Michael R.	USMC	
Zaeske, Earling W.	USN	
Zink, John A.	USN	

* Ace with 15 kills or more.

† Unconfirmed as ace in WWII.

‡ Ace status acquired from combined kills of WWII and Korea.

§ Timeframe is WWII unless indicated otherwise.

Early Naval Jet Pilots

The first flight in a turbojet aircraft in the United States was made at Muroc, Calif., on 1 October 1942, by Robert M. Stanley, chief test pilot of the Bell Aircraft Corporation. The next day Col. Lawrence C. Craigie of the U.S. Army Air Forces, took up the same plane for its first flight by a military pilot. The first jet flight by a naval aviator was made in the same plane at the same location on 21 April 1943 by Capt. Frederick M. Trapnell of Flight Test, NAS Anacostia, D.C. In each instance, the plane was a Bell XP-59A powered by two General Electric 1A turbojet engines. It was the first jet aircraft built in the United States and a prototype of the first jet aircraft acquired by the United States Navy.

Before the end of the war, the Navy had acquired three of the Bell Airacometes and in the first year after the war acquired two more. All were obtained from the Army Air Forces and assigned to NAS Patuxent River, Md. Their purpose was to provide a means of testing the adaptability of jet aircraft to naval requirements and a means of training pilots to fly the new aircraft type. They served through 1947.

Even before their acquisition, the Navy's interest in jet propulsion had been evident as it not only monitored the progress of jet programs in the Army Air Forces and took part in certain joint studies, but also initiated a study contract, which led to the development of the first Westinghouse jet engines. As early as 1943, two carrier fighter designs employing jet engines were initiated. The first with Ryan Aeronautical Company had the immediate objective of developing a fighter capable of operating from escort carriers as a replacement for the FM Wildcat. It resulted in the XFR-1 Fireball, which was powered by a Wright Cyclone engine in the nose, and a General Electric I-16 in the after section of the fuselage. Its development and production were handled on a crash basis and the first model flew in June 1944. Within a year it was assigned to a fleet squadron. Limited operations from escort carriers for short periods in the immediate post-war period uncovered numerous bugs and by July 1947 the decision to withdraw them from service had been made and carried out. A similar concept of composite power, carried out with the XF15C was abandoned after experimental models had been evaluated at Patuxent, Md.

The second contract of 1943 authorized the McDonnell Aircraft Corporation to design a twin-jet carrier fighter. To avoid disrupting wartime production and to meet the not-so-urgent objective of using the plane to explore the feasibility of jet operations on carriers, progress was intentionally slow. Even so, the airplane—the XFD-1 Phantom, powered by two Westinghouse 19B jets—took to the air for the first time on 26 January 1945. After another year and a half of flight testing, a production FD-1 was taken on board *Franklin D. Roosevelt* (CVB 42) and on 21 July 1946 the first jet operations from a U.S. carrier were conducted. A year later, the Phantom became the first jet aircraft assigned to a fleet squadron when two FDs were delivered to VF-17A at NAS Quonset Point, R.I.

In the meantime, studies and contracts had been let for other jet aircraft, which were to become operational. One of these, made in January 1945 with North American Aviation, produced the FJ-1 Fury equipped with a single Allison/GE jet. Claimed by some to be the hottest, straight-wing jet ever built, this airplane made its first flight in September 1946 and, in November of the next year, was delivered to VF-5A at NAS San Diego, Calif. On 10 March 1948, the squadron commanding officer and executive officer took the Fury on board *Boxer* (CV 21) for carrier suitability tests, conducting a number of takeoffs and landings. Shortly after, VF-17A completed carrier qualifications in the Phantom, by then redesignated FH, on board *Saipan* (CVL 48). The Navy's transition to jet aircraft had definitely begun.

By 1948, the number of naval aviators qualified to fly jets had assumed fairly generous proportions. Because it appeared desirable to have a list of the men who pioneered the Navy's effort in this field in the historical record, a project to obtain their names was initiated in October 1961 by Adrian O. Van Weyn, head of the Naval Aviation History Office.

It soon became apparent that there was no ready-made list and, further, that no official records had been kept from which one could be compiled. Even the flight logs from Patuxent, where the first jet aircraft had been assigned, seemed to have disappeared. It was then that a general appeal for help was made through a letter in the March 1962 issue of *Naval Aviation News*.

Help came from many sources. Twenty men in all answered this call giving not only the particulars of their first flights but also the names of others who had flown in the early period. One pilot sent a list of 73 men awarded Phantom Jockey Certificates by McDonnell Aircraft Corporation commemorating their flights in the Phantom jet. Perhaps the most unexpected, but no less useful, was a report from an officer assigned to the Aviation Safety Center listing all men involved in accidents in jet aircraft through 1948. From these replies and from other sources, a list was

made up of another 80 men who had probably qualified in the period 1943–48. Each was sent a letter asking for the particulars of his qualification as well as for the names of others who should be questioned. The project developed quickly into a letter writing campaign as almost every third answer added more names, which in turn spawned yet other possibilities.

When these leads had been exhausted, the project seemed about complete and preparations were made to put the list in order for publication. It was then that the earlier search for the Patuxent flight logs produced results. They were found at the Federal Records Center in Alexandria. With some interest but only a little expectancy of finding any more than confirmation of what was already known, a few were called over for leisurely perusal. The first one dispelled all dreams of the project being finished.

About two months and 31 logs later, another 200 names had been added to the probables list. But what names! Almost without fail, the log entries identified the pilot by last name only, giving no initials, no rank, and no indication of service affiliation. This should have presented no difficulty with the more unusual names but experience proved quickly that no names are unusual. Reference to unit rosters and Navy Registers helped some, and the Bureau of Personnel contributed its share, but when all available sources had been used, there were still about 100 names lacking identity.

Some of these were cleared up by a day spent at NATC Patuxent, Md., and the follow-up assistance of RAdm. Paul H. Ramsey's staff. Some remain only names, some of those identified could not be found, and many were not heard from. Several were no longer living. Others were separated from their logs by vacation or change of duty and could not give exact information. Still others reported their logs as lost or destroyed by fire and had no means of confirming their recollections. In spite of these difficulties, the list was compiled and because publication might resolve some still unanswered questions, it was printed in the March 1963 issue of *Naval Aviation News* as a tentative list.

Tabulation of the replies revealed interesting elements of history. The early date at which many qualified was perhaps most surprising, but under the circumstances should not have been. All aspects of early jet aircraft were highly classified. During the war years, the interests of security dictated that early jet engines be called superchargers. Even the XP-59A designation for the first jet airplane had a security angle. The original XP-59 was a conventional experimental fighter, and it was thought that use of the same designation with a suffix letter would hide the true identity of the new model. Its early operations at Muroc were also conducted under the veil of secrecy—if jet flight can be kept a secret. Admiral Frederick M. Trapnell wrote: "When flown, this aircraft was towed well out onto the lake bed, with tarpaulins covering most of the fuselage and with a fake wooden propeller on the nose. This, of course, was removed prior to run-up."

This airplane, relatively unknown even today as the Navy's first jet, was for obvious reason the one in which most Navy pilots made their first jet flights. In the period of its use through 1947, by which time 262 flights are listed, 196 were in the P-59. Because Patuxent was the center of flight testing and the first station to which jet aircraft were assigned, it topped all other locations as the scene of first flights through 1948. A number of pilots received their first indoctrination from the Army Air Forces and made their first flights at AAF bases in the southwest. Others attended RAF schools at Hullavington and Cranfield, England, and made their first flights there. When delivery of the FD Phantoms and FJ Furies began in 1947, the location of first flights extended to St. Louis, Mo.; Quonset Point, R.I.; Cherry Point, N.C.; and San Diego, Calif.

The first Navy pilot to qualify in jets was also the first Navy pilot to fly seven post-war jets, which he listed as the XFJ, XF2H, XF9F, XF3D, XF6U, XF-86, and the XF7U. Only five men with flag rank qualified and, prior to 1948, only three qualified while holding the rank of ensign. The majority qualified as lieutenant commanders (major for the Marines) and lieutenants (captain for the Marines), with the former leading the pack. The pilots of VF-5A and VF-17A, on board at the time the squadrons were being equipped with jets, are all members of this early group although some that were not heard from do not appear on the list.

The replies included many interesting comments supplementing the basic information. The somewhat naive attitude of the historian was rudely jolted very early in the project. Under the assumption that some training was necessary to fly a radically different airplane, he provided a place on the questionnaire to report the extent of training received. The answers, when they were given at all, were unanimously in the vein of one report, which stated: "In contrast to present practice, training consisted of looking at handbook, cockpit checkout, then go." Its elaboration by another qualifier was: "Your request for information on training is amusing. Training was very informal, to put it politely. It consisted of: 'This is the low pressure fuel cock; this is the high pressure fuel cock; it flies real easy.'" Even in the later period when the first squadrons were being equipped with jets, the training does not appear to have been extensive. One pilot reported, "VF-17A trained itself. Checkout consisted of reading the handbook and watching a movie on compressibility."

One pilot told of winning third place in the 1948 Bendix Trophy Race from Long Beach, Calif., to Cleveland, Ohio, in which he “landed at Cleveland dead stick, out of fuel the last 50 miles.” Another reported ferrying an FH-1 from Patuxent, Md., to Pensacola, Fla., in 1948 with the comment: “I daresay the only jet ever to use Station Field.” In a similar vein, one told of his work with another pilot on chase flights out of Point Mugu, Calif., in which they, “operated P-80s off a 5,000-foot Marston mat with full ammo and fuel, for two years without incident. The P-80 was not supposed to be landed in this configuration (we later found out).”

The men who qualified in flag rank had some toppers. The first of these, Adm. Alfred M. Pride, gave the following account of events leading to his qualification: “I had been ordered to relieve [Harold B.] Sallada as Chief and to report a month before the turnover date of 1 May. That gave me considerable time to look around. It then dawned on me that I would be up to my neck in jet procurement and that I had better find out a little about them at first hand. Furthermore, since no flag officer seemed to have soloed the things, it seemed appropriate that the Chief of the Bureau set the pace. So I went down and asked for a McDonnell but the Patuxent boys were not taking any chances with their new pet, I guess, and were ‘so sorry, but it was out of commission.’ I looked around and saw the P-59 sitting there and asked how about that one. They admitted it was ‘up’ and so I said that I would take it. It worked fair enough except that one engine gave out after I got out over the Bay and I had to yell for a clear runway and come on home. Never did find out what the trouble really was.”

Adm. Daniel V. Gallery reported: “Rear Admirals Apollo Soucek, Edgar A. ‘Bat’ Cruise and I checked out in Phantoms and flew a section formation at the opening of Idlewild and also at the Cleveland Air Races. Called ourselves the Gray Angels.” To that somewhat noncommittal statement, Adm. Edgar A. Cruise provided a footnote quoted here in full. He wrote:

For your information Admirals Soucek and Gallery flew with me, with Gallery leading, as the Gray Angels in both the Idlewild, N.Y., dedication and later at the National Air Races in Cleveland, Ohio, in September 1948. In Idlewild on one flight I ran out of fuel on one tank resulting in a flame-out. Inasmuch as our formation was only at 2600 feet and directly over the field, I elected to land dead stick on Idlewild. I never made a more precise approach and landing in my whole life.

At Cleveland the Gray Angels caused some consternation by passing the reviewing stand simultaneously with, but in the opposite direction from, a 90-plane Air Group. The Air Group leader was flying low (about 4–500 feet) which forced us down to 75–100 feet. Needless to say flying wing, I was somewhat perturbed.

Adm. Cruise, who was Head of the Air Warfare Division in DCNO (Air) when he was making the above flights, also reported that his forced landing at Idlewild was directly involved in the subsequent installation of a positive cross connection which would prevent future flame-outs from the same cause.

As might be expected, this list of early jet pilots includes several men who later achieved other prominence in flight. Turner Caldwell set a world speed record in the D-558-1 in August 1947, the first held by the Navy since Al Williams’ record in 1923. Marion Carl broke that record one week later in the same plane and later soared to a new altitude record for research aircraft in the D-558-2. Carl and Caldwell were also the first of their respective services to fly faster than sound in level flight. Larry Flint took the Phantom II to a new world altitude record in 1959 and F. Taylor Brown set a time-to-climb record to 20,000 meters in 1962, also in the Phantom II. Thomas H. Miller set a new speed record for 500 kilometers in the Phantom II in September 1960. The first U.S. Navy jet operations on a carrier were flown by James J. Davidson; Marion Carl flew tests of the P-80 on the same ship later in the year. Najeeb Halaby, former head of the FAA, was the first to fly a jet on continuous flight across the United States from Muroc, Calif., to Patuxent, Md., which he did in a P-80A on 28 June 1945. On the other side of the ledger, the list also includes the first pilot to bail out of a jet and the first to crash-land a jet in the water, both of whom shall be nameless.

In regard to the following list itself, words of explanation and caution are necessary. In explanation of the order, flights made on the same day are in the order of time of day when known, and alphabetical when not known. When only the month and year could be given for date, the flight appears after all others made during the month. Rank is that held at the time of first flight, and all are naval aviators on active duty at the time. Designations for the McDonnell Phantom appear as FD initially and as FH after the change made 21 August 1947.

The cautions are particularly important. First, qualification as a jet pilot was defined loosely. For this purpose, it was considered simply as the first flight on which complete command of the aircraft was held. Whether the first flight was also the last made in a jet by a particular pilot or the beginning of a whole career of jet flying, it was accepted as meeting the requirement. Second, only flights in pure jet aircraft were considered. The question of what to do about

the Ryan FR-1 Fireball came up early in the project. Several facts of its early existence give weight to its importance in the Navy's transition to jet aircraft. Yet the fact that it was equipped with a reciprocating engine for use in normal operations and with a turbojet engine for use as a booster during takeoff and maximum performance flights, removes it from the jet aircraft class. For this reason, justified or not, flights in the FR are not included.

Thirdly, only those men with whom we could make contact or about whom we could gain specific knowledge appear in the list. Those found in log books or otherwise reported as having flown jets in the early period who could neither be identified nor located had to be omitted. Those who died after their first jet flight (indicated by *) could be included only if the necessary information was available from another source. Their flight dates are generally the earliest found in Patuxent flight logs and may not be the actual first flight. Others deceased, reported as having flown in the period but for whom no specific information was found, had to be omitted from the order of precedence. They are: John E. Darden Jr., Ralph Fuoss, Bud B. Gear, John Magda, Alfred E. Nauman Jr., Albert D. Pollock Jr., Horatio G. Sickel, Warren P. Smith, and Conrad J. Wigge.

For the above reasons, the list is the best that could be updated and compiled. On the basis of evidence available, it is concluded that the completeness and accuracy of the list is best at the beginning and decreases as the precedence numbers increase.

The following is a list of the Early Jet Pilots in Order of First Jet Flight:

No.	Name	Rank	Date	Plane	Place
1	Trapnell, Frederick M.	Capt.	21 Apr 43	XP-59A	Muroc
2	Pearson, John B., Jr.	Cmdr.	27 May 43	XP-59	Muroc
3	Ramsey, Paul H.	Cmdr.	29 Jul 43	XP-59A	Muroc
4	Gayler, Noel A. M.	Lt. Cmdr.	13 Jan 44	YP-59A	Patuxent
5	Booth, Charles T.	Cmdr.	14 Jan 44	YP-59A	Patuxent
6	Halaby, Najeeb E.	Lt. j.g.	21 Jan 44	YP-59A	Patuxent
7	Ferguson, John A.	Lt.	14 Feb 44	YP-59A	Patuxent
8	Drewelow, Robert W.	Lt.	21 Apr 44	YP-59A	Patuxent
9	Owen, Edward M.	Lt. Cmdr.	15 May 44	YP-59A	Patuxent
10	Brown, Ira W., Jr.	Lt. Cmdr.	28 Jun 44	YP-59A	Patuxent
11	Burroughs, Sherman E.	Capt.	11 Jul 44	XP-59	Muroc
12	Hayward, John T.	Cmdr.	11 Jul 44	XP-59	Palmdale
13	Storrs, Aaron P.	Capt.	17 Jul 44	YP-59A	Patuxent
14	Canavan, Desmond E.	Lt. Col.	18 Jul 44	YP-59A	Patuxent
15	Rozamus, Michael J.	Lt. Cmdr.	20 Jul 44	YP-59A	Patuxent
16	Davenport, M. W.	Lt.	21 Jul 44	XP-59A	Patuxent
17	Runyon, Donald E.	Lt.	21 Jul 44	YP-59A	Patuxent
18	Gerberding, Jas. H.*	Lt. Cmdr.	30 Aug 44	YP-59A	Patuxent
19	Elder, Robert M.	Lt.	28 Sep 44	XP-80	Dayton
20	Milner, Robert M.	Lt. Cmdr.	24 Oct 44	YP-59A	Patuxent
21	Soule, Ernest D.	Lt.	24 Oct 44	YP-59A	Patuxent
22	Kelly, William W.	Lt.	30 Oct 44	YP-59A	Patuxent
23	Flint, Lawrence E.	Lt.	30 Oct 44	YP-59A	Patuxent
24	Guerrieri, Mario A.	Lt. Cmdr.	31 Oct 44	YP-59A	Patuxent
25	Harrington, Daniel J.	Lt. Cmdr.	01 Nov 44	YP-59A	Patuxent
26	Davidson, James J.	Lt.	02 Nov 44	YP-59A	Patuxent
27	Christofferson, F. E.	Lt.	02 Nov 44	YP-59A	Patuxent
28	Caffey, Kenneth W.	Lt. Cmdr.	07 Nov 44	YP-59A	Patuxent
29	Miller, Kenneth W., Jr.	Lt.	08 Nov 44	YP-59A	Patuxent
30	McNeely, Henry E.	Lt. Cmdr.	08 Nov 44	YP-59A	Patuxent
31	Wood, Charles R., Jr.	Lt. Cmdr.	08 Nov 44	YP-59A	Patuxent

No.	Name	Rank	Date	Plane	Place
32	Tuttle, Magruder H.	Cmdr.	08 Nov 44	YP-59A	Patuxent
33	Palmer, Fitzhugh L., Jr.	Cmdr.	09 Nov 44	YP-59A	Patuxent
34	Andrews, Clyde C.	Lt.	09 Nov 44	YP-59A	Patuxent
35	Gough, William V., Jr.	Lt. Cmdr.	09 Nov 44	YP-59A	Patuxent
36	Hollar, Frank E.	Maj.	09 Nov 44	YP-59A	Patuxent
37	Bauer, Louis H.	Cmdr.	11 Nov 44	YP-59A	Patuxent
38	Sutherland, John F.	Lt. Cmdr.	24 Nov 44	XP-80	Palmdale
39	Carl, Marion E.	Maj.	14 Feb 45	YP-59A	Patuxent
40	Wheatley, John P.	Lt.	15 Feb 45	YP-59A	Patuxent
41	Kenna, William E.	Cmdr.	15 Feb 45	YP-59A	Patuxent
42	Connolly, Thomas F.	Cmdr.	24 Feb 45	YP-59A	Patuxent
43	Neefus, James L.	Lt. Col.	10 Mar 45	YP-59A	Patuxent
44	Sallenger, Asbury H.	Lt.	14 Mar 45	YP-59A	Patuxent
45	Cleland, Cook	Lt.	- Mar 45	YP-59A	Patuxent
46	Schickel, Norbert H.	Lt.	25 Apr 45	YP-59A	Patuxent
47	Brown, Robert M.	Lt.	05 May 45	YP-59A	Patuxent
48	Schrefer, John F.	Lt. Cmdr.	09 May 45	YP-59A	Patuxent
49	Ellenburg, George W.	Lt. Cmdr.	23 May 45	YP-59A	Patuxent
50	Bakutis, Fred E.	Cmdr.	11 Jun 45	YP-59A	Patuxent
51	Schroeder, F. J.	Lt. Cmdr.	12 Jun 45	YP-59A	Patuxent
52	Larsen, Leif W.	Lt.	12 Jun 45	YP-59A	Patuxent
53	McClelland, T. G.	Lt.	27 Jun 45	YP-59A	Patuxent
54	Schiller, James E.	Lt.	27 Jun 45	YP-59A	Patuxent
55	Beveridge, Richard A.	Lt. Cmdr.	18 Jul 45	YP-59A	Patuxent
56	Thomas, John M.	Lt.	19 Jul 45	YP-59A	Patuxent
57	Hannegan, Edward A.	Capt.	21 Jul 45	YP-59A	Patuxent
58	Billett, Dudley S., Jr.	Lt. Cmdr.	23 Jul 45	YP-59A	Patuxent
59	Thawley, Charles B.	Lt. j.g.	08 Aug 45	YP-59A	Patuxent
60	May, Richard H.	Lt.	20 Aug 45	YP-59A	Patuxent
61	Houck, Herbert N.	Cmdr.	27 Oct 45	P-59B	Patuxent
62	Rees, Joseph R.	Lt.	27 Oct 45	P-59B	Patuxent
63	Tavernetti, Thomas F.	Lt. Cmdr.	29 Oct 45	P-59B	Patuxent
64	Mooty, Alfred F.	Lt.	30 Oct 45	P-59B	Patuxent
65	Franks, John M.	Lt.	30 Oct 45	P-59B	Patuxent
66	Earnest, Albert K.	Lt. Cmdr.	31 Oct 45	P-59B	Patuxent
67	Standring, Frank E.	Lt.	- Oct 45	Meteor	England
68	MacGregor, Robert A.	Lt. Cmdr.	03 Nov 45	P-59B	Patuxent
69	Hackett, Hugh J.	Lt.	29 Nov 45	P-59B	Patuxent
70	Callan, Allie W., Jr.	Lt.	02 Jan 46	P-59B	Patuxent
71	Myers, Raymond F.	Lt. Cmdr.	05 Jan 46	P-59B	Patuxent
72	Friesz, Robert P.	Lt. Cmdr.	11 Jan 46	P-59B	Patuxent
73	Leonard, William N.	Cmdr.	23 Jan 46	P-59B	Patuxent
74	Martin, William I.	Cmdr.	28 Jan 46	P-59B	Patuxent
75	Bolt, William H., Jr.	Lt. Cmdr.	07 Feb 46	P-59B	Patuxent
76	Morrison, Jack W.	Maj.	08 Feb 46	P-59B	Patuxent
77	Umpfres, Donald E.	Lt.	09 Feb 46	P-59B	Patuxent

No.	Name	Rank	Date	Plane	Place
78	Holley, Edward B.	Lt. Cmdr.	11 Feb 46	P-59B	Patuxent
79	Quilter, Charles J.	Lt. Col.	13 Feb 46	P-59B	Patuxent
80	Davis, Leslie D.	Lt. Cmdr.	19 Feb 46	P-59B	Patuxent
81	Jorgensen, John B.	Lt. Cmdr.	19 Feb 46	P-59B	Patuxent
82	Reedy, James R.	Cmdr.	20 Feb 46	P-59B	Patuxent
83	Sim, Vincent M.*	Lt. Cmdr.	21 Feb 46	P-59B	Patuxent
84	Sollenberger, Robert L.	Lt. Cmdr.	21 Feb 46	P-59B	Patuxent
85	Burnett, Robert G.	Lt. Cmdr.	26 Feb 46	P-59B	Patuxent
86	Somerville, Henry B.	Lt. Cmdr.	27 Feb 46	P-59B	Patuxent
87	Pugh, Paul E.	Lt. Cmdr.	01 Mar 46	P-59B	Patuxent
88	Smith, James W.	Lt. Cmdr.	01 Mar 46	Meteor	England
89	Fleming, Francis M.	Lt.	09 Mar 46	P-59B	Patuxent
90	Hey, Richard J.	Capt.	20 Mar 46	P-59B	Patuxent
91	Clarke, Robert A.	Lt.	21 Mar 46	YP-59A	Patuxent
92	Murray, Thomas O.	Cmdr.	22 Mar 46	YP-59A	Patuxent
93	Hanks, E. Ralph	Lt.	23 Mar 46	YP-59A	Patuxent
94	Smith, Francis A.	Lt.	26 Mar 46	YP-59A	Patuxent
95	Jackson, Mercer L.	Lt. j.g.	27 Mar 46	YP-59A	Patuxent
96	Guillory, Troy T.	Lt. Cmdr.	27 Mar 46	YP-59A	Patuxent
97	Kunz, Melvin M.	Lt.	27 Mar 46	P-59B	Patuxent
98	Kanze, Robert F.	Lt.	27 Mar 46	YP-59A	Patuxent
99	Mehle, Roger W.	Lt. Cmdr.	27 Mar 46	YP-59A	Patuxent
100	Tracy, Lloyd W.	Lt.	28 Mar 46	P-59B	Patuxent
101	Rodenburg, Eugene E.	Lt.	28 Mar 46	P-59B	Patuxent
102	Thoms, Joseph I.	Lt. j.g.	28 Mar 46	P-59B	Patuxent
103	Weaver, Victor H.	Lt.	01 Apr 46	P-59B	Patuxent
104	McHenry, Robert E.	Lt. Cmdr.	01 Apr 46	P-59B	Patuxent
105	Hoerner, Helmuth E.	Lt. Cmdr.	01 Apr 46	P-59B	Patuxent
106	Alford, William L.	Lt.	02 Apr 46	P-59B	Patuxent
107	Hine, Thomas L.	Lt.	03 Apr 46	P-59B	Patuxent
108	Cain, Mahlon E.	Lt. Cmdr.	03 Apr 46	P-59B	Patuxent
109	Deitchman, Richard P.	Lt. j.g.	05 Apr 46	YP-59A	Patuxent
110	Ness, Dwight O.	Lt. Cmdr.	05 Apr 46	YP-59A	Patuxent
111	Colvin, Louis E.	Lt. j.g.	09 Apr 46	P-59B	Patuxent
112	Westover, Roland W.	Lt.	09 Apr 46	P-59B	Patuxent
113	Daniel, Walter E.	1st Lt.	09 Apr 46	YP-59A	Patuxent
114	Fitzgerald, Joseph W.	Lt. j.g.	09 Apr 46	YP-59A	Patuxent
115	Valencia, Eugene A.	Lt.	19 Apr 46	P-59B	Patuxent
116	Adair, Robert F.	Lt.	23 Apr 46	P-59B	Patuxent
117	Alley, C. John	Lt. Cmdr.	23 Apr 46	P-59B	Patuxent
118	David, Edmonds	Lt. Cmdr.	23 Apr 46	P-59B	Patuxent
119	Junk, Winfield H.	Lt. Cmdr.	24 Apr 46	P-80A	March Field
120	Blackburn, John T.	Cmdr.	13 May 46	YP-59A	Patuxent
121	Miller, Thomas H.	Capt.	17 May 46	YP-59A	Patuxent
122	Foley, Walter A.	Lt. j.g.	17 May 46	YP-59A	Patuxent
123	Candler, William R.	Lt.	17 May 46	YP-59A	Patuxent

No.	Name	Rank	Date	Plane	Place
124	Mechling, Wallace B.	Capt.	21 May 46	P-59B	Patuxent
125	Sanders, Roger M.	1st Lt.	21 May 46	P-59	Patuxent
126	Matthews, Herbert S.	Lt. j.g.	22 May 46	YP-59A	Patuxent
127	Johnson, D. H.	Capt.	22 May 46	YP-59A	Patuxent
128	Aurand, Evan P.	Cmdr.	07 Jun 46	P-59B	Patuxent
129	Empey, Robert E.	Lt.	12 Jun 46	P-59B	Patuxent
130	Shryock, William A.	Lt. Cmdr.	13 Jun 46	P-59B	Patuxent
131	Giblin, Robert B.	Lt.	20 Jun 46	Meteor	England
132	Giese, Carl E.	Capt.	28 Jun 46	P-59B	Patuxent
133	Metsger, Alfred B.	Cmdr.	10 Jul 46	P-59B	Patuxent
134	Griffin, Edwin C.	Lt.	11 Jul 46	P-80A	Inyokern
135	Hyland, John J.	Cmdr.	15 Aug 46	P-59B	Patuxent
136	Pearce, James L.	Lt.	15 Aug 46	P-59B	Patuxent
137	Cram, Jack E.	Lt. Col.	19 Aug 46	P-59B	Patuxent
138	Ruefle, William J.	Lt. Cmdr.	– Aug 46	YP-59	Patuxent
139	Rembert, John P., Jr.	Capt.	04 Sep 46	P-59B	Patuxent
140	Larson, Vernon H.	Lt. Cmdr.	25 Sep 46	P-59B	Patuxent
141	Vatcher, Walter W.	1st Lt.	26 Sep 46	YP-59A	Patuxent
142	Rand, Herbert C.	Lt. Cmdr.	27 Sep 46	P-59B	Patuxent
143	Harris, Floyd L.	Lt.	03 Oct 46	P-59B	Patuxent
144	Byng, John W.	Cmdr.	07 Oct 46	P-59B	Patuxent
145	Arnold, James T.	Lt.	22 Oct 46	P-59B	Patuxent
146	Deasy, Charles J.	Lt. j.g.	22 Oct 46	YP-59A	Patuxent
147	Puckett, Ronald G.	Lt.	19 Nov 46	P-59B	Patuxent
148	Lee, Earl C.	Lt. j.g.	21 Nov 46	P-59B	Patuxent
149	Chapman, Melvin L.	Lt.	29 Jan 47	FD-1	St. Louis
150	Garton, Norman F.	Capt.	29 Jan 47	FD-1	St. Louis
151	Kneeland, Kenneth P.	Lt. j.g.	31 Jan 47	FD-1	St. Louis
152	Turner, Frank	Capt.	06 Feb 47	P-59B	Patuxent
153	Caldwell, Turner F.	Cmdr.	15 Feb 47	P-80	Muroc
154	Weems, George T.	Lt. Cmdr.	04 Mar 47	P-59B	Patuxent
155	Mulvihill, Francis	Lt. Cmdr.	17 Mar 47	P-59B	Patuxent
156	Pahl, Herschel A.	Lt.	21 Mar 47	P-80A	Chandler
157	Baumall, John F.	Lt.	27 Mar 47	P-59B	Patuxent
158	Nelson, Robert J.	Lt.	29 Mar 47	P-59B	Patuxent
159	Doerflinger, Carl	Cmdr.	31 Mar 47	P-59B	Patuxent
160	Crocker, John A.	Lt.	31 Mar 47	P-59B	Patuxent
161	Provost, Thomas C.	Lt. Cmdr.	31 Mar 47	P-59B	Patuxent
162	Danbury, William T.	Lt. Cmdr.	01 Apr 47	FD-1	St. Louis
163	O'Connor, Harry N.	Lt. j.g.	01 Apr 47	P-59B	Patuxent
164	Thompson, Harley F.	Lt. Cmdr.	03 Apr 47	P-59A	Patuxent
165	Whillans, Jack E.	Lt.	04 Apr 47	P-59A	Patuxent
166	Wood, Robert B.	Lt. Cmdr.	07 Apr 47	P-59A	Patuxent
167	Krantz, William F.	Lt. Cmdr.	10 Apr 47	Vampire	England
168	Reeves, Roy S.	Lt. Cmdr.	10 Apr 47	P-59B	Patuxent
169	McKinley, Charles E.	Lt.	10 Apr 47	P-59B	Patuxent

No.	Name	Rank	Date	Plane	Place
170	Coats, Robert C.	Lt. Cmdr.	15 Apr 47	P-59B	Patuxent
171	Hamilton, Chas. B., Jr.	Lt. j.g.	17 Apr 47	P-59B	Patuxent
172	Pride, Alfred M.	Rear Adm.	24 Apr 47	YP-59A	Patuxent
173	Clifton, Joseph C.	Capt.	01 May 47	P-59B	Patuxent
174	Ballinger, Richard R.	Capt.	01 May 47	P-59A	Patuxent
175	Bott, Alan R.	Lt. j.g.	08 May 47	P-59B	Patuxent
176	Franger, Marvin J.	Lt. Cmdr.	09 May 47	FD-1	Patuxent
177	McGinty, William G.	Lt.	19 May 47	P-80	Williams AFB
178	Cousins, Ralph W.	Cmdr.	20 May 47	P-59B	Patuxent
179	Simpler, Leroy C.	Capt.	21 May 47	FD-1	St. Louis
180	Billo, James D.	Lt. Cmdr.	04 Jun 47	P-59	Patuxent
181	Timmes, Francis X.	Lt. Cmdr.	12 Jun 47	P-59B	Patuxent
182	Neddo, Donald N.	Lt. Cmdr.	13 Jun 47	P-59B	Patuxent
183	Stapler, Charles R.	Lt. Cmdr.	16 Jun 47	YP-59A	Patuxent
184	Bates, Richard S.	Lt.	18 Jun 47	YP-59A	Patuxent
185	Smith, Joseph G.	Lt. Cmdr.	24 Jun 47	YP-59B	Patuxent
186	Weatherup, Robert A.	Lt. Cmdr.	25 Jun 47	P-59	Patuxent
187	Nester, Robert G.	Lt. Cmdr.	30 Jun 47	YP-59A	Patuxent
188	Dibble, Edgar J.	Lt.	30 Jun 47	YP-59A	Patuxent
189	Minter, Chas. S., Jr.	Cmdr.	02 Jul 47	YP-59B	Patuxent
190	Campbell, Robert K.	Lt. Cmdr.	03 Jul 47	YP-59A	Patuxent
191	Gates, Clark H.	Lt. Cmdr.	09 Jul 47	P-59B	Patuxent
192	Weymouth, Ralph	Lt. Cmdr.	11 Jul 47	P-59B	Patuxent
193	Collins, Francis L.	Lt. j.g.	12 Jul 47	FD-1	St. Louis
194	Russell, Hawley	Cmdr.	15 Jul 47	FD-1	Patuxent
195	Brehm, William W.	Lt. Cmdr.	17 Jul 47	FD-1	Patuxent
196	Miller, Charles G.	Lt.	17 Jul 47	P-59B	Patuxent
197	Dace, Carl C.	Lt. j.g.	17 Jul 47	P-59B	Patuxent
198	Perry, Adrian H.	Cmdr.	18 Jul 47	FD-1	Patuxent
199	Phillips, Thomas A.	Capt.	23 Jul 47	P-59	Patuxent
200	Clasen, William E.	Maj.	25 Jul 47	P-59B	Patuxent
201	Glover, John W.	Lt. j.g.	26 Jul 47	FD-1	Patuxent
202	Greenslade, John F.	Capt.	05 Aug 47	P-59B	Patuxent
203	Raposa, William C.	Lt. j.g.	06 Aug 47	FD-1	St. Louis
204	Mryo, Robert A.	Lt. Cmdr.	07 Aug 47	FD-1	Patuxent
205	Bicknell, John R.	Lt. j.g.	07 Aug 47	P-59B	Patuxent
206	Payne, Paul E.	Lt.	07 Aug 47	FD-1	Patuxent
207	Buxton, Elliott A.	Lt.	08 Aug 47	FD-1	Patuxent
208	Sullivan, John	Lt.	08 Aug 47	FD-1	Patuxent
209	Long, John O., Jr.	Ens.	08 Aug 47	FD-1	Patuxent
210	Cauble, Lawrence M.	Lt.	08 Aug 47	P-59B	Patuxent
211	Biggers, William D.	Lt. Cmdr.	09 Aug 47	FD-1	Patuxent
212	Davis, William V.	Capt.	10 Aug 47	P-59B	Patuxent
213	Taylor, Donald C.	Lt.	12 Aug 47	P-59B	Patuxent
214	Genta, John L.	Lt. Cmdr.	12 Aug 47	P-59B	Patuxent
215	McGowan, Edward C.	Lt.	12 Aug 47	XFD-1	NAS Mustin

No.	Name	Rank	Date	Plane	Place
216	Jensen, Alvin J.	Capt.	19 Aug 47	P-59B	Patuxent
217	Heath, Thomas W.	Lt. Cmdr.	23 Aug 47	FH-1	Patuxent
218	Ellis, Paul B.	Lt. Cmdr.	23 Aug 47	FH-1	Patuxent
219	Kimak, Charles	Maj.	26 Aug 47	P-59B	Patuxent
220	Newell, James H.	Cmdr.	29 Aug 47	FH-1	Patuxent
221	Fox, Frank A.	Lt.	10 Sep 47	FH-1	Quonset
222	Laird, Dean S.	Lt.	10 Sep 47	FH-1	Quonset
223	Wiktorski, Peter A.	Capt.	16 Sep 47	FH-1	Patuxent
224	Turner, Frederick G.	Lt. j.g.	18 Sep 47	FH-1	Quonset
225	Roberts, Carson A.	Col.	01 Oct 47	P-59B	Patuxent
226	McElroy, Richard S.	Lt. Cmdr.	02 Oct 47	P-59B	Patuxent
227	Werner, Ralph L.	Lt. Cmdr.	10 Oct 47	P-59B	Patuxent
228	James, George S., Jr.	Cmdr.	14 Oct 47	FH-1	St. Louis
229	Torry, John A., Jr.	Lt. Cmdr.	14 Oct 47	P-59B	Patuxent
230	Parker, Chester A.	Lt.	16 Oct 47	FH-1	Quonset
231	Helms, Jonee L.	1st Lt.	16 Oct 47	P-80	Williams AFB
232	Blackmun, Arvid W.	Maj.	23 Oct 47	P-59B	Patuxent
233	Barnett, Marvin E.	Lt. Cmdr.	04 Nov 47	FH-1	Quonset
234	Sedaker, Thomas S.	Lt.	04 Nov 47	FH-1	Quonset
235	Sells, Warren H.	Ens.	04 Nov 47	FH-1	Quonset
236	Couch, Eugene	Ens.	07 Nov 47	FH-1	Quonset
237	Oelrich, Martin E. W.	Maj.	12 Nov 47	FH-1	Cherry Point
238	Domina, Walter E.	1st Lt.	17 Nov 47	FH-1	Cherry Point
239	Panchision, Walter	1st Lt.	17 Nov 47	FH-1	Cherry Point
240	Connelly, Frederick G.	1st Lt.	18 Nov 47	FH-1	Cherry Point
241	Jeter, Manning T., Jr.	1st Lt.	18 Nov 47	FH-1	Cherry Point
242	Conner, Andrew B.	Lt. Cmdr.	19 Nov 47	P-59B	Patuxent
243	Gordon, Donald	Lt. Cmdr.	19 Nov 47	P-59B	Patuxent
244	Lindley, Johnny D.	Capt.	25 Nov 47	FH-1	Cherry Point
245	Green, Robert D.	1st Lt.	26 Nov 47	FH-1	Cherry Point
246	Iglehart, Louis T., Jr.	1st Lt.	26 Nov 47	FH-1	Cherry Point
247	Mars, William G., Jr.	1st Lt.	26 Nov 47	FH-1	Cherry Point
248	Seaman, Milford V.	1st Lt.	28 Nov 47	FH-1	Cherry Point
249	Blass, Lytton F.	MSGt.	05 Dec 47	FH-1	Cherry Point
250	Tate, Hugh J.	Lt. j.g.	07 Dec 47	P-59B	Patuxent
251	Schilt, C. Frank	Brig. Gen.	09 Dec 47	FH-1	St. Louis
252	Kinser, Dick R.	1st Lt.	09 Dec 47	FH-1	Cherry Point
253	Ramsay, Thomas W.	Lt. Cmdr.	16 Dec 47	FH-1	Patuxent
254	Ives, Donald A.	MSGt.	18 Dec 47	FH-1	Cherry Point
255	Bortz, William H.	1st Lt.	19 Dec 47	FH-1	Cherry Point
256	Roark, Walter N., Jr.	1st Lt.	19 Dec 47	FH-1	Cherry Point
257	McDaniel, James	1st Lt.	23 Dec 47	FH-1	Cherry Point
258	Bosee, Roland A.	Cmdr.	29 Dec 47	FH-1	Patuxent
259	Kibbe, Richard L.	Cmdr.	29 Dec 47	FH-1	Patuxent
260	Rockwell, John H.	Lt. Cmdr.	29 Dec 47	FH-1	Patuxent
261	Speirs, Carl L.	Lt. Cmdr.	30 Dec 47	FH-1	Patuxent

No.	Name	Rank	Date	Plane	Place
262	Morton, Wilbur Y.	Lt. Cmdr.	31 Dec 47	FH-1	Patuxent
263	Armstrong, Alan J.	Maj.	08 Jan 48	FH-1	Patuxent
264	Morton, Wilbur Y.	Maj.	08 Jan 48	FH-1	Patuxent
265	Stefan, Karl H.	Lt. Cmdr.	11 Jan 48	FH-1	Patuxent
266	Beatle, Ralph H.	Lt.	15 Jan 48	P-59B	Patuxent
267	Vail, Malcolm E.	Ens.	15 Jan 48	P-80A	Williams AFB
268	Brown, Nelson E.	1st Lt.	15 Jan 48	FH-1	
269	Jones, Charles D.	Capt.	15 Jan 48	FH-1	
270	Brown, F. Taylor	Ens.	16 Jan 48	P-80A	Williams AFB
271	Hansen, Dale W.	1st Lt.	16 Jan 48	FH-1	
272	Pierozzi, C. Nello	Ens.	18 Jan 48	P-80A	Williams AFB
273	Davis, Donald C.	Lt.	19 Jan 48	P-80A	Williams AFB
274	Pickett, Phillip G.	1st Lt.	22 Jan 48	FH-1	
275	Mooney, Thomas G.	MSgt.	26 Jan 48	FH-1	
276	McLean, Carl T.	Capt.	26 Jan 48	FH-1	
277	Schoch, Edwin F.	Lt. Cmdr.	29 Jan 48	FJ-1	Patuxent
278	Firebaugh, Gordon E.	Lt. Cmdr.	30 Jan 48	FH-1	Patuxent
279	Nifong, James M.	Lt.	31 Jan 48	FH-1	Patuxent
280	Bayers, Edward H.	Lt. Cmdr.	02 Feb 48	FH-1	Patuxent
281	Cotariu, Alan R.	Ens.	02 Feb 48	FH-1	Patuxent
282	Stetson, Thomas H.	Lt. Cmdr.	02 Feb 48	FH-1	Patuxent
283	Folsom, Samuel B.	Capt.	03 Feb 48	FH-1	Patuxent
284	Kelly, Vincent F.	Lt.	04 Feb 48	FJ-1	San Diego
285	Thompson, Lewis E.	Lt.	06 Feb 48	FJ-1	N. Island
286	Roach, Walter, Jr.	Lt.	09 Feb 48	FH-1	Patuxent
287	Capriotti, Anthony	Lt.	11 Feb 48	FJ-1	San Diego
288	Ritchie, James	Lt.	11 Feb 48	FJ-1	San Diego
289	Davidson, Paul D.	Lt. j.g.	12 Feb 48	FJ-1	N. Island
290	Smith, Robert R.	MSgt.	16 Feb 48	FH-1	Cherry Point
291	Wehmeyer, Wilbur J.	Cmdr.	17 Feb 48	FH-1	Patuxent
292	Stacy, James M.	Lt.	19 Feb 48	FH-1	
293	Nemoff, Alfred J.	Ens.	20 Feb 48	FJ-1	San Diego
294	Oeschlin, Robert E.	Ens.	24 Feb 48	FJ-1	San Diego
295	Pettiet, Rudolph L.	Lt. Cmdr.	24 Feb 48	FH-1	Patuxent
296	Coppola, Earnest J.	Lt. j.g.	25 Feb 48	FH-1	Patuxent
297	Bell, William R.	Lt. Cmdr.	06 Mar 48	FH-1	Patuxent
298	Meyersburg, R. B.	Maj.	10 Mar 48	Meteor	
299	Yunck, Michael R.	Maj.	11 Mar 48	P-80	Williams AFB
300	Jackson, Dewey H.	1st Lt.	12 Mar 48	P-80A	Williams AFB
301	Martin, Benjamin G.	1st Lt.	12 Mar 48	P-80A	Williams AFB
302	Ellis, James W.	Lt.	13 Mar 48	FH-1	Patuxent
303	Poulson, George W.	1st Lt.	13 Mar 48	P-80A	Williams AFB
304	Condon, John P.	Lt. Col.	16 Mar 48	P-80A	Williams AFB
305	Galer, Robert	Col.	16 Mar 48	FH-1	
306	Starkes, C. B.	Lt. Cmdr.	22 Mar 48	FH-1	
307	Pankurst, Paul L.	Capt.	23 Mar 48	FH-1	

No.	Name	Rank	Date	Plane	Place
308	Whitaker, James L.	Capt.	30 Mar 48	FH-1	
309	Gibson, Charles E.	Cmdr.	05 Apr 48	FH-1	Quonset
310	Durand, Paul H.	Lt. Cmdr.	06 Apr 48	FH-1	Patuxent
311	Ruehlow, Standley E.	Cmdr.	07 Apr 48	FH-1	
312	Severson, Martin A.	Lt. Col.	09 Apr 48	FH-1	
313	Houser, William D.	Lt. Cmdr.	15 Apr 48	FH-1	Patuxent
314	Spieß, Morris K.	Lt. j.g.	16 Apr 48	FH-1	Patuxent
315	McNeil, Wilfred J.	Lt.	26 Apr 48	FH-1	Patuxent
316	Gray, James S., Jr.	Cmdr.	11 May 48	P-80B	Okinawa
317	Dawson, Marion L.	Col.	12 May 48	FH-1	
318	Manchester, B. B., III	Lt. Col.	26 May 48	FH-1	
319	Roush, Martin B.	Capt.	29 May 48	FH-1	
320	Soucek, Apollo	Rear Adm.	01 Jun 48	FH-1	Patuxent
321	Millington, W. A.	Lt. Col.	03 Jun 48	FH-1	
322	Gallery, Daniel V.	Rear Adm.	09 Jun 48	FH-1	Patuxent
323	Peterson, Harry W.	Lt.	18 Jun 48	FJ-1	San Diego
324	McManus, John	1st Lt.	23 Jun 48	FH-1	
325	Cruise, Edgar A.	Rear Adm.	02 Jul 48	FH-1	Patuxent
326	Pawka, E. J.	Cmdr.	02 Jul 48	TO-1	San Diego
327	Weissenberger, G. J.	Lt. Col.	07 Jul 48	FH-1	
328	Johnson, Robert J.	Lt. Col.	07 Jul 48	FH-1	
329	Beebe, Marshall U.	Cmdr.	12 Jul 48	FH-1	Patuxent
330	Harris, Thomas S.	Lt.	15 Jul 48	FH-1	Quonset
331	Mueller, Richard C.	Lt. Cmdr.	22 Jul 48	FH-1	Patuxent
332	Spears, Paul H. A.	Lt.	— Jul 48	TO-1	Burbank
333	Billings, Thomas C.	1st Lt.	27 Jul 48	TO-1	
334	Fiegenger, Kenneth G.	1st Lt.	03 Aug 48	TO-1	El Toro
335	Rafferty, Edgar L.	1st Lt.	04 Aug 48	TO-1	
336	Harrison, Patrick	Capt.	04 Aug 48	TO-1	
337	Case, William N.	Capt.	04 Aug 48	TO-1	
338	Perry, Jack E.	1st Lt.	04 Aug 48	TO-1	
339	Smith, Stanley E.	Lt. j.g.	05 Aug 48	FH-1	Quonset
340	Guss, William F.	1st Lt.	05 Aug 48	TO-1	
341	Klingman, Robert R.	1st Lt.	05 Aug 48	TO-1	
342	Abbott, Edwin W., II	Lt. j.g.	05 Aug 48	FH-1	
343	Gourley, Norman W.	1st Lt.	05 Aug 48	TO-1	
344	Mitchell, Weldon R.	1st Lt.	06 Aug 48	TO-1	
345	Jarrett, Clyde R.	1st Lt.	06 Aug 48	TO-1	
346	Wolfe, Ted E., Jr.	Lt. Cmdr.	09 Aug 48	FH-1	Atlantic City
347	Brown, John B.	Capt.	09 Aug 48	FH-1	
348	Wilder, James H.	Ens.	09 Aug 48	FH-1	
349	Ganschow, Edward F.	Capt.	11 Aug 48	FH-1	Cherry Point
350	Parker, Elwin A.	Lt. Cmdr.	12 Aug 48	FH-1	Patuxent
351	Moro, Albert J.	Lt. j.g.	16 Aug 48	FH-1	Quonset
352	Furney, Maynard M.	Lt. Cmdr.	17 Aug 48	FH-1	Patuxent
353	Prahar, T. F.	Lt.	17 Aug 48	FH-1	Patuxent

No.	Name	Rank	Date	Plane	Place
354	Macomber, Brainard	Lt. Cmdr.	18 Aug 48	FH-1	Patuxent
355	Widhelm, William J.	Cmdr.	19 Aug 48	FH-1	Patuxent
356	Cloud, Guy M.	1st Lt.	30 Aug 48	TO-1	
357	Carter, Frank B.	Ens.	17 Sep 48	FH-1	Quonset
358	Nye, Robert D.	Lt. Cmdr.	17 Sep 48	FH-1	Quonset
359	Pugh, Edward L.	Col.	17 Sep 48	FH-1	
360	Ingalls, Chas. E., Jr.	Cmdr.	22 Sep 48	FH-1	Patuxent
361	Everton, Loren D.	Maj.	29 Sep 48	FH-1	
362	Brtek, F. C.	Lt. j.g.	06 Oct 48	FH-1	Quonset
363	Trammel, Thomas B.	Capt.	14 Oct 48	TO-1	El Toro
364	Stuckey, Harry B.	1st Lt.	14 Oct 48	TO-1	
365	Haley, Harold L.	1st Lt.	14 Oct 48	TO-1	
366	Robinson, Robert B.	1st Lt.	14 Oct 48	TO-1	
367	Austin, Marshall S.	1st Lt.	14 Oct 48	TO-1	
368	Pottinger, William K.	Lt. Col.	14 Oct 48	TO-1	
369	Grey, Jack R.	1st Lt.	14 Oct 48	TO-1	
370	Read, Robert R.	Maj.	14 Oct 48	TO-1	El Toro
371	Sharp, James, II	1st Lt.	14 Oct 48	TO-1	
372	Houser, Fred C.	Capt.	14 Oct 48	TO-1	
373	Connell, Herschell G.	1st Lt.	14 Oct 48	TO-1	
374	Johnson, Danny W.	1st Lt.	14 Oct 48	TO-1	
375	Schroeder, Charles	1st Lt.	14 Oct 48	TO-1	
376	Rutledge, Rockwell M.	1st Lt.	14 Oct 48	TO-1	
377	Frankovic, Boris J.	1st Lt.	14 Oct 48	TO-1	
378	Hemstad, Robert S.	1st Lt.	14 Oct 48	TO-1	
379	Davis, Leonard K.	Lt. Col.	14 Oct 48	FH-1	
380	Bright, Cruger L.	Maj.	15 Oct 48	FH-1	
381	Jernigan, Curtis	1st Lt.	22 Oct 48	FH-1	
382	McCullough, William F.	Lt. j.g.	26 Oct 48	F-80	
383	Stapp, Donald H.	Maj.	26 Oct 48	TO-1	El Toro
384	Holloway, Harding H.	1st Lt.	28 Oct 48	FH-1	
385	Russell, Allard G.	Lt. Cmdr.	04 Nov 48	TO-1	San Diego
386	Conger, Jack E.	Maj.	04 Nov 48	FH-1	
387	Jackson, Billy	Lt. j.g.	04 Nov 48	TO-1	San Diego
388	Plog, Leonard H.	Lt. j.g.	04 Nov 48	TO-1	San Diego
389	Lizotte, Wesley E.	Lt. j.g.	04 Nov 48	TO-1	San Diego
390	Freeman, Dewitt L.	Lt. j.g.	04 Nov 48	TO-1	San Diego
391	Lloyd, Marshall O.	Lt.	04 Nov 48	TO-1	
392	Sears, Harry E.	Cmdr.	05 Nov 48	FH-1	Patuxent
393	Johnson, James	1st Lt.	14 Nov 48	FH-1	
394	Jensen, Harvey	1st Lt.	15 Nov 48	TO-1	El Toro
395	King, George J.	1st Lt.	15 Nov 48	TO-1	
396	Oster, Eugene M.	1st Lt.	15 Nov 48	TO-1	
397	Meyer, Eugene W.	1st Lt.	15 Nov 48	TO-1	
398	Turcotte, Edward	1st Lt.	15 Nov 48	TO-1	
399	Toups, Thaddeus J.	1st Lt.	15 Nov 48	TO-1	

No.	Name	Rank	Date	Plane	Place
400	Harper, Edwin A.	Capt.	15 Nov 48	TO-1	
401	Hamilton, John	1st Lt.	15 Nov 48	TO-1	
402	Thornbury, Donald S.	Capt.	15 Nov 48	TO-1	
403	Croyle, Fred K.	1st Lt.	16 Nov 48	TO-1	
404	Keller, Harold F.	1st Lt.	19 Nov 48	TO-1	
405	Logan, Thomas B.	Lt.	01 Dec 48	TO-1	Patuxent
406	Wattenburger, Robert	Lt. j.g.	06 Dec 48	TO-1	Patuxent
407	Adams, Allan M., Jr.	Lt. j.g.	06 Dec 48	TO-1	Patuxent
408	Bunger, Samuel J.	Ens.	06 Dec 48	TO-1	
409	Smith, Mercer R.	1st Lt.	10 Dec 48	FH-1	Cherry Point
410	Regan, Robert F.	Lt.	13 Dec 48	FH-1	Quonset
411	Gilman, George L.	2nd Lt.	14 Dec 48	FH-1	
412	Campbell, Donald L.	Lt. j.g.	15 Dec 48	FH-1	Quonset
413	Davis, Judson C.	Lt.	15 Dec 48	FH-1	Quonset
414	Quilty, Joseph F.	Maj.	21 Dec 48	TO-1	
415	Funk, Harold N.	Cmdr.	22 Dec 48	FH-1	Patuxent
416	Hill, John S.	Lt. Cmdr.	23 Dec 48	FH-1	Patuxent
417	Penne, Harold B.	Maj.	28 Dec 48	FH-1	
418	Wenzell, R. M.	Lt.	28 Dec 48	FH-1	

Early Helicopter Pilots

The Bureau of Aeronautics issued a planning directive on 24 July 1942 calling for procurement of four Sikorsky helicopters for study and development by Navy and Coast Guard aviation forces. However, this was not the Navy's first interest in helicopters. That may be traced back to 5 December 1917 when the policy regarding helicopter development was established by the Secretaries of the Navy and War Departments on the basis of recommendations made by the Joint Technical Board on Aircraft. At that time, it was stated there was a need for improvements in power plants and propellers if a successful helicopter was to be obtained. Actual support of development efforts was to be limited to moral encouragement until a vendor had demonstrated a helicopter of military value.

The Navy's first rotary-wing vehicle was the XOP-1 autogiro ordered on 25 February 1931 from Pitcairn Aircraft. This machine was not a true helicopter because it had fixed wings and could not rise vertically. On 12 March 1935, the Navy issued a contract to Pitcairn Autogiro Company to remove the wings from the XOP-1, thereby converting it to the XOP-2, which thus became the Navy's first heavier-than-air aircraft without wings. Tests were conducted with the XOP-1, including landings on *Langley* (CV 1) in September 1931. However, conclusions from the tests, which compared the autogiros with fixed-wing aircraft, indicated the advantages were not great enough to override the disadvantages of payload, range, and the difficulties of flying. Personnel involved in the testing of the XOP-1 included future naval aviation greats such as Alfred Pride, Ralph A. Ofstie, Robert B. Pirie, and Frederick M. Trapnell. Other attempts were made between 1932 and 1937 to improve rotary-wing capabilities, but they were not successful. The Marine Corps used the OP-1 autogiro in Nicaragua in 1932 with the comment that its chief value in expeditionary duty was in inspecting small fields recommended by ground troops as landing areas, evacuating medical "sitting" cases, and ferrying of important personnel. In 1937 the Navy also experimented with the XOZ-1, a modified N2Y-1 with a cyclic controlled rotor, but the tests were not successful.

In the early 1940s, a class desk was established in the Bureau of Aeronautics for the Navy's helicopter program and staffed by a small group of individuals who saw the potential for rotary-wing development. They included Capt. Clayton C. Marcy, Cmdr. James W. Klopp, and Cmdr. Raymond Doll. The impetus for more Navy involvement in helicopters was spearheaded by the Coast Guard, which was very interested in its ASW and rescue capabilities. Their vision for the use of the helicopter, whose development responsibility had been assigned to the Army Air Corps, resulted in a 15 February 1943 directive from the Commander in Chief, U.S. Fleet that assigned responsibility for sea-going development of helicopters and their operation in convoys to the Coast Guard. Tests were to be carried out to determine if helicopters operating from merchant ships would be of value in combating submarines. On 4 May 1943, to expedite the evaluation of the helicopter in antisubmarine operations, the Commander in Chief, U.S. Fleet, directed that a "joint board" be formed with representatives from the Commander in Chief, U.S. Fleet; the Bureau of Aeronautics, the Coast Guard, the British Admiralty, and the Royal Air Force. The resulting Combined Board for the Evaluation of the Ship-Based Helicopter in Antisubmarine Warfare was later expanded to include representatives of the Army Air Forces (AAF), the War Shipping Administration, and the National Advisory Committee for Aeronautics (NACA). A few days later, on 7 May, Navy representatives witnessed landing trials in Long Island Sound of the XR-4 helicopter on board the merchant tanker SS *Bunker Hill* in a demonstration sponsored by the Maritime Commission. The pilot, Col. R. F. Gregory, AAF, made about 15 flights, some of which he landed on the water before returning to the platform on the deck of the ship. On 10 June 1943, Lt. Cdr. Frank A. Erickson, USCG, proposed that helicopters be developed for antisubmarine warfare, "not as a killer craft but as the eyes and ears of the convoy escorts." To this end he recommended that helicopters be equipped with radar and dunking sonar. With the foregoing proposals and developments, the Navy ordered and received its first helicopter—a Sikorsky YR-4B, Navy designation HNS-1—on 16 October 1943. It was accepted at Bridgeport, Conn., following a 60-minute acceptance test flight by Lt. Cdr. Erickson. Cmdr. Charles T. Booth, USN, delivered this helicopter to NAS Patuxent River, Md., on 22 October 1943. As stated by a memo from Cmdr. Booth, he had arrived at Bridgeport "to continue instructions and to deliver to NAS Patuxent the first Navy helicopter . . . Six hours additional flight time was obtained by Commander Booth prior to his return to NAS Patuxent, Md., on 22 October."

On the basis of his belief that tests indicated the practicability of ship-based helicopters, the Chief of Naval Operations, on 18 December 1943, separated the pilot training from test and development functions in the helicopter program. He directed that, effective 1 January 1944, a helicopter pilot training program be conducted by the U.S. Coast Guard at Floyd Bennett Field, N.Y., under the direction of the Deputy Chief of Naval Operations

(Air). This planning directive of 18 December 1943, also named Rockaway, N.Y., as an outlying field for training and stated that three Coast Guard and two Navy officers had qualified as helicopter pilots to date. The directive also indicated “It has been determined that after 25 hours of dual and solo flight time, a fixed-wing pilot is qualified as a helicopter pilot.” Thus, during WWII, the Coast Guard, at Floyd Bennett Field, N.Y., was responsible for pilot and enlisted mechanic training in helicopter aviation for the Navy. Helicopter pilots trained by the Coast Guard unit also included personnel from the Army Air Forces, the Civil Aeronautics Administration, and NACA.

Following the end of WWII, the Navy established VX-3 on 1 July 1946 at NAS New York (Floyd Bennett Field). This squadron took over the helicopter pilot training duties that had been done by the Coast Guard unit at Floyd Bennett Field, N.Y. VX-3 moved to NAS Lakehurst, N.J., on 10 September 1946 and continued training helicopter pilots until they were disestablished on 1 April 1948.

Helicopter Utility Squadron 2 (HU-2) was established on 1 April 1948 and took over the responsibility for training helicopter pilots at NAS Lakehurst, N.J. Many of the personnel from VX-3 helped form HU-2 when it was established. On 11 June 1948, the Chief of Naval Operations issued standards for training aviators as helicopter pilots and provided that helicopter pilots previously trained by the Coast Guard or VX-3 would retain their qualification. However, not all personnel received their qualification as a helicopter pilot from VX-3 or HU-2, even though they had been assigned the mission of training helicopter pilots. HU-2 would issue helicopter pilot qualifications to an individual that may have received training at NATC Patuxent River, Md., from HU-1, or from Connally Air Force Base in Texas.

HU-2 was not only responsible for training helicopter pilots but was also involved in providing helicopter detachments for utility services and search and rescue missions. Due to an increased demand for these services, as well as a need for more helicopter pilots, the Chief of Naval Operations decided to transfer the helicopter pilot training mission to the Naval Air Training Command at Ellyson Field, Pensacola, Fla. Helicopter Training Unit 1 (HTU-1) was established on 3 December 1950 at Pensacola, Fla. HU-2 shifted its responsibility for training helicopter pilots to HTU-1 in January 1951. HTU-1 was redesignated HTG-1 in March 1957. The HTG-1 designation was changed to HT-8 on 1 July 1960. HT-8 is still training helicopter pilots in the Pensacola area.

When a new program is established, especially one that entails listing personnel who are designated or qualified for a particular job code, the records for the evolution of that new program can be very sketchy. That is precisely what happened in the training program for helicopter pilots. The early helicopter pilots did not have a formal Navy training program to follow or the correct procedures in place to record and preserve their helicopter pilot qualifications. In fact, in 1943 the first group to qualify was sent to East Hartford, Conn., and trained by the Sikorsky Aircraft Company. They included Lt. Cmdr. Frank Erickson, USCG; Lt. A. N. Fisher, USCG; Lt. Stewart R. Graham, USCG; and Cmdr. Charles T. Booth, USN. None of these individuals were placed on the list of early helicopter pilots. In fact, the list, which appears to originate from VX-3 and HU-2 records, does not list any Coast Guard officers. The following list is the best that could be compiled from the available records on helicopter pilot qualification and training. It does not include the Coast Guard aviators.

Helicopter Pilot Number	Name	Rank	Service	Date of Qualification Designation
1	Knapp, William G.	Lt.	USNR	15 Apr 1944
2	Doll, Raymond E.	Cmdr.	USN	26 Sep 1944
3	Wood, Charles R.	Cmdr.	USNR	26 Sep 1944
4	Brown, Percy	Lt.	USNR	6 Feb 1945
5	Kembro, Marerie D.	Capt.	USN	9 Aug 1945
6	Long, Richard J.	Lt.	USN	9 Aug 1945
7	Marcy, Clayton C.	Capt.	USN	10 Oct 1945
8	Runyon, Joseph W.	Cmdr.	USN	31 Oct 1945
9	Houston, Charles E.	Cmdr.	USN	18 Dec 1945
10	Hoover, George	Lt.	USN	27 Dec 1945
11	Lawrence, M.	Lt.	USNR	28 Dec 1945
12	Wilcox, Donald E.	Capt.	USN	3 Jun 1946
13	Kosciusko, Henry M.	Lt. Cmdr.	USN	17 Jul 1946
14	Kubicki, Edward	Lt.	USN	26 Jul 1946
15	Schauffer, William G.	Lt. j.g.	USN	26 Jul 1946

Helicopter Pilot Number	Name	Rank	Service	Date of Qualification Designation
16	Delalio, Armand H.	Maj.	USMC	8 Aug 1946
17	Rullo, Guisepppe J.	Lt.	USN	28 Aug 1946
18	Reeves, George J.	Lt.	USN	28 Aug 1946
19	Lammi, James W.	Lt.	USN	27 Sep 1946
20	Junghans, Robert L.	Lt. Cmdr.	USN	1 Nov 1946
21	Sessums, Walter M.	Lt. Cmdr.	USN	5 Nov 1946
22	Tanner, Charles S.	Lt. Cmdr.	USN	9 Nov 1946
23	Fink, Christian	Lt. Cmdr.	USN	18 Dec 1946
24	Bott, Alan	Lt.	USN	18 Dec 1946
25	Tracy, Lloyd W.	Lt.	USN	23 Jun 1947
26	Glenzer, Hubert	Lt. j.g.	USN	14 Oct 1947
27	Anderson, Roy L.	1st Lt.	USMC	20 Nov 1947
28	Strieby, Robert A.	Capt.	USMC	20 Nov 1947
29	Garber, C. O.	Capt.	USMC	20 Nov 1947
30	Riley, Russell R.	Maj.	USMC	20 Nov 1947
31	Peters, Maurice A.	Cmdr.	USN	21 Nov 1947
32	Shawcross, William H.	Lt.	USN	24 Nov 1947
33	Bagshaw, James R.	Lt. j.g.	USN	24 Nov 1947
34	Montgomery, Marvin D.	Lt. j.g.	USN	24 Nov 1947
35	Morrison, Gene W.	1st Lt.	USMC	1 Dec 1947
36	Carleton, R. D.	Lt. j.g.	USN	20 Dec 1947
37	Arnold, E. A.	Lt. Cmdr.	USN	21 Dec 1947
38	Moseley, R. H.	Ens.	USN	22 Dec 1947
39	Higbee, J.	Capt.	USN	22 Dec 1947
40	Billett, Dudley S.	Lt. Cmdr.	USN	15 Jan 1948
41	Camp, R. W.	ADC(NAP)	USN	21 Feb 1948
42	McVicars, A. L.	1st Lt.	USMC	11 Mar 1948
43	Meshier, C. W.	Lt.	USN	12 Mar 1948
44	Blatt, W. D.	Capt.	USMC	17 Mar 1948
45	Polen, R. A.	1st Lt.	USMC	17 Mar 1948
46	Ward, C. E.	1st Lt.	USMC	19 Mar 1948
47	Pope, E. J.	1st Lt.	USMC	22 Mar 1948
48	Sebach, H. U.	Lt. Cmdr.	USN	31 Mar 1948
49	Fisher, A. G.	MSGt.	USMC	1 Apr 1948
50	Schmucker, S.	Ens.	USN	7 Apr 1948
51	Mathewson, F. F.	Lt.	USN	16 Apr 1948
52	Hanies, G. D.	Lt.	USN	16 Apr 1948
53	Matthews, J. H.	Capt.	USN	20 Apr 1948
54	Mounts, L. J.	MSGt.	USMC	26 Apr 1948
55	Fox, J. E.	Lt.	USN	29 Apr 1948
56	Leary, W.	Lt. j.g.	USN	29 Apr 1948
57	Grassi, J.	Ens.	USN	29 Apr 1948
58	Longstaff, R.	1st Lt.	USMC	12 May 1948
59	Hamilton, D. E.	ADC(AP)	USN	12 May 1948
60	Mitchell, G. D.	ADC(NAP)	USN	18 May 1948
61	Finn, L. A.	ADC(NAP)	USN	19 May 1948
62	Collins, V. W.	Lt.	USN	21 May 1948
63	Nebergall, M.	1st Lt.	USMC	19 Jun 1948

Helicopter Pilot Number	Name	Rank	Service	Date of Qualification Designation
64	Griffin, M. C.	Lt. j.g.	USN	7 Jul 1948
65	Brender, B. W.	Lt. j.g.	USN	8 Jul 1948
66	Hutto, C. H.	AC1(NAP) [†]	USN	8 Jul 1948
67	Lynch, R. E.	Ens.	USN	9 Jul 1948
68	Milner, F. D.	Lt.	USN	13 Jul 1948
69	Matthews, W. R.	Ens.	USN	22 Jul 1948
70	Torry, J. A. H.	Lt. Cmdr.	USN	6 Aug 1948
71	Nickerson, R. L.	Maj.	USMC	6 Aug 1948
72	Dyer, E. C.	Col.	USMC	6 Aug 1948
73	Ellis, W. Y.	Lt. Cmdr.	USNR	6 Aug 1948
74	Leonard, W. R.	Lt. Cmdr.	USN	16 Aug 1948
75	Cunha, G. D. M.	Cmdr.	USN	19 Aug 1948
76	Cox, W. J.	Ens.	USN	24 Aug 1948
77	Fridley, D. C.	Ens.	USN	24 Aug 1948
78	Dixon, W. C.	Lt.	USN	24 Aug 1948
79	Granger, R. P.	ADC(NAP) [†]	USN	26 Aug 1948
80	Crofoot, A. E.	Lt. j.g.	USN	27 Aug 1948
81	Johnson, F. E.	Ens.	USN	2 Sep 1948
82	Carey, J. F.	Lt. Col.	USMC	2 Sep 1948
83	Kilcore, W. H.	Lt. Cmdr.	USN	3 Sep 1948
84	Miller, R. A.	Lt. j.g.	USN	8 Sep 1948
85	Wrenn, E.	Lt. j.g.	USN	13 Sep 1948
86	Wheat, N. L.	Ens.	USN	14 Sep 1948
87	Garrison, R. G.	Ens.	USN	24 Sep 1948
88	Wiskirchen, R. L.	Lt.	USN	24 Sep 1948
89	Cabell, J. B.	Lt.	USN	24 Sep 1948
90	Zoecklein, W. O.	Lt. Cmdr.	USN	19 Oct 1948
91	Connolly, T. F.	Cmdr.	USN	15 Sep 1948
92	Sherby, S. S.	Cmdr.	USN	15 Sep 1948
93	Hyland, J. J.	Cmdr.	USN	15 Sep 1948
94	Rand, N. C.	Lt. Cmdr.	USN	15 Sep 1948
95	Davis, W. V., Jr.	Capt.	USN	15 Sep 1948
96	Timmins [‡]	Lt. Cmdr.	USNR	8 Oct 1948
97	Reilly, J. L.	Lt. j.g.	USN	20 Oct 1948
98	Denk, H. J.	Ens.	USN	20 Oct 1948
99	Little, J. C.	Lt.	USN	9 Nov 1948
100	Nash, D. E.	Lt. j.g.	USN	9 Nov 1948
101	Blades, J. L.	Lt. j.g.	USN	12 Nov 1948
102	Gauthier, A. C.	Lt.	USNR	12 Nov 1948
103	McMullen, B. E.	Lt. j.g.	USN	12 Nov 1948
104	Peterson, M. C.	ADC(NAP) [†]	USN	12 Nov 1948
105	Rust, D. T.	Lt. j.g.	USN	19 Nov 1948
106	Hamilton, R. C.	Ens.	USNR	23 Nov 1948
107	McCarthy, J. R.		CAA [†]	1 Dec 1948
108	Fisher, F. J.	Ens.	USNR	24 Nov 1948
109	Johnson, C. R.	Lt.	USN	6 Dec 1948
110	Berree, N. R.	Lt.	USN	7 Dec 1948
111	Schmeltzer, L. B.	Lt. j.g.	USN	7 Dec 1948

Helicopter Pilot Number	Name	Rank	Service	Date of Qualification Designation
112	Moore, B., Jr.	Cmdr.	USN	10 Dec 1948
113	Lieske, J. M.	ALC(NAP) [†]	USN	13 Dec 1948
114	Staples, C.		CAA [†]	14 Jan 1949
115	Olmsted, P. S.	Ens.	USNR	20 Jan 1949
116	Miller, H. M.	Lt. j.g.	USNR	21 Jan 1949
117	Hilton, J. J., Jr.	Cmdr.	USN	1 Feb 1949
118	Montgomery, W. G.	Lt.	USN	9 Feb 1949
119	Brown, H. F.	Lt.	USN	10 Feb 1949
120	Armstrong, J. G.	Lt.	USN	23 Feb 1949
121	Starr, M. R.	Ens.	USN	24 Feb 1949
122	Reed, M.	Lt.	USN	24 Feb 1949
123	Case, R. C.	1st Lt.	USMC	9 Mar 1949
124	Blackwood, R. R.	Ens.	USNR	11 Mar 1949
125	Cole, J. S.	Lt.	USN	14 Mar 1949
126	Mitchell, W. P.	Maj.	USMC	17 Mar 1949
127	Gill, R. J.	Lt. j.g.	USNR	15 Mar 1949
128	Pledger, W. G.	Lt. j.g.	USN	30 Mar 1949
129	Lueddeke, G. F.	Lt. j.g.	USN	5 Apr 1949
130	Marshall, A. R.	Lt.	USN	13 Apr 1949
131	Farwell, J. M.	Lt. j.g.	USN	13 Apr 1949
132	Tucci, F. A.	Lt.	USN	20 Apr 1949
133	Logan, I. C.	Lt. j.g.	USNR	21 Apr 1949
134	McClanan, F. H.	Lt. Cmdr.	USN	21 Apr 1949
135	Mayfield, A.	Lt. j.g.	USN	21 Apr 1949
136	Raddatz, R. W.	Lt.	USN	29 Apr 1949
137	Braun, J. F.	Lt. j.g.	USN	29 Apr 1949
138	Wrigley, G. R.	Lt. j.g.	USN	29 Apr 1949
139	Kaylor, J. O.	1st Lt.	USMC	29 Apr 1949
140	Sullivan, R. J.	1st Lt.	USMC	4 May 1949
141	Bolt, G. W.	Lt. Cmdr.	USN	6 May 1949
142	Duffey, H. J.		CAA [†]	9 May 1949
143	Kelley, F. E., Jr.	Ens.	USN	9 May 1949
144	Rohrich, W. H.	Lt. j.g.	USN	9 May 1949
145	Griffin [†]		CAA [†]	15 Mar 1949
146	Titterud, S. V.	Capt.	USMC	11 May 1949
147	Lammi, W. S.	Lt.	USN	19 May 1949
148	Holmgren, A. F.	Ens.	USN	15 Apr 1944
149	Crowe, G. T.	AD1(AP) [†]	USN	19 May 1949
150	Taylor, C. B.	ADC(AP) [†]	USN	20 May 1949
151	Mullen, J., Jr.	Lt. j.g.	USN	23 May 1949
152	Larkin, H. J.	Lt.	USN	26 May 1949
153	Close, R. A.	Lt. j.g.	USN	31 May 1949
154	Drinkwater, H. T.	Lt. j.g.	USN	31 May 1949
155	Williams, D. L.	Ens.	USNR	31 May 1949
156	Mundy, E. M.	Lt. Cmdr.	USNR	10 Jun 1949
157	Pennington, B. D.	Lt. j.g.	USN	15 Jun 1949
158	Highsmith, F. L.	Ens.	USNR	15 Jun 1949
159	Crowell, L. T.	Ens.	USNR	15 Jun 1949

Helicopter Pilot Number	Name	Rank	Service	Date of Qualification Designation
160	Buerckholtz, H. M.	Ens.	USNR	15 Jun 1949
161	Banks, W. F.	Lt. j.g.	USN	15 Jun 1949
162	Price, W. J.	Lt. j.g.	USNR	23 Jun 1949
163	Marchand, J. L.	Lt. Cmdr.	USNR	23 Jun 1949
164	Heibr, W. D.	Capt.	USMC	1 Jul 1949
165	Bancroft, A. R.	1st Lt.	USMC	8 Jul 1949
166	Moran, F. P.	1st Lt.	USMC	8 Jul 1949
167	Ford, A.	Lt.	USN	28 Jun 1949
168	Deitrich, V. S.	Cmdr.	USN	14 Jul 1949
169	Neuman, A. E.	Lt.	USNR	15 Jul 1949
170	Bromka, A. C.	Lt. j.g.	USNR	19 Jul 1949
171	Leedom, H. E.	Lt. Cmdr.	USN	20 Jul 1949
172	Seay, G. W.	Lt. j.g.	USN	20 Jul 1949
173	Chagnon, W. G.	PRC(AP) ⁺	USN	26 Jul 1949
174	Butler, W. C.	Lt.	USN	26 Jul 1949
175	Dally, F. E.	Cmdr.	USN	4 Aug 1949
176	Clabaugh, C. L.	Lt. Cmdr.	USNR	4 Aug 1949
177	Farish, G. B.	1st Lt.	USMC	8 Aug 1949
178	Armstrong, V. A.	Capt.	USMC	9 Aug 1949
179	Noble, E. V.	Cmdr.	USN	25 Aug 1949
180	Horn, F. H.	1st Lt.	USMC	7 Sep 1949
181	Vest, J. P. W.	Capt.	USN	16 Sep 1949
182	Tuffanelle, G. T.	Lt. j.g.	USN	17 Sep 1949
183	Marr, R.	AO1(AP) ⁺	USN	23 Sep 1949
184	Woolley, S. R.	MSgt	USMC	26 Sep 1949
185	Barnes, R. O.	Lt. j.g.	USN	27 Sep 1949
186	Anderson, W. A.	AD1(AP) ⁺	USN	27 Sep 1949
187	Dennison, G. E.	Lt. j.g.	USN	30 Sep 1949
188	Fisher, C. E.	Lt. j.g.	USN	5 Oct 1949
189	Treon, H. J.	Lt.	USN	6 Oct 1949
190	Foley, F. D.	Cmdr.	USN	7 Oct 1949
191	Asbury, D. A.	Lt.	USN	14 Oct 1949
192	Percy, G.	Maj.	USMC	17 Oct 1949
193	Rozier, W. R.	Capt.	USMC	17 Oct 1949
194	Cozine, M. E.	ADC(AP) ⁺	USN	20 Oct 1949
195	Holman, E. D.	ADC(AP) ⁺	USN	25 Oct 1949
196	Connant, E. S.	Lt. Cmdr.	USN	30 Sep 1949
197	Hudson, W. N.	Cmdr.	USNR	2 Oct 1949
198	Moody, J. T.	AO1(AP) ⁺	USN	2 Nov 1949
199	Voss, C. M.	Lt. j.g.	USNRV	4 Nov 1949
200	Scott, E. A.	Lt. j.g.	USN	4 Nov 1949
201	Stokes, W. E.	Ens.	USN	8 Nov 1949
202	Russell, J. B.	Lt.	USN	9 Nov 1949
203	Milburn, K. F.	AD1(AP) ⁺	USN	19 Nov 1949
204	Romer, R. D.	Lt. j.g.	USN	14 Nov 1949
205	Collup, W. D.	Capt.	USMC	30 Nov 1949
206	Koelsch, J. H.	Lt. j.g.	USN	9 Dec 1949
207	Proper, W. F.	Lt. j.g.	USN	14 Oct 1949

Helicopter Pilot Number	Name	Rank	Service	Date of Qualification Designation
208	Harrigan, D. W.	Capt.	USN	10 Dec 1949
209	Jenks, R. F.	AMC(AP)*	USN	14 Oct 1949
210	Hamilton, C. B.	Lt. j.g.	USN	20 Jan 1950
211	Brown, S. H.	Lt. Cmdr.	USN	23 Nov 1949
212	Bayers, E. H.	Lt. Cmdr.	USN	23 Nov 1949
213	Bach, H. A.	Lt. Cmdr.	USN	23 Nov 1949
214	Kurtz, L. A.	Lt.	USN	23 Nov 1949
215	Brownfield, R. H.	ADC(AP)*	USN	16 Jan 1950
216	Thorin, D. W.	AMC(AP)*	USN	16 Jan 1950
217	Scroggs, F. W., Jr.	TSgt	USMC	8 Feb 1950
218	Mullkoff, E.	Lt.	USNR	8 Feb 1950
219	Herring, G. W.	Lt. Col.	USMC	10 Feb 1950
220	Davis, R. O.	Lt. j.g.	USN	17 Feb 1950
221	Swinburne, H. W.	Lt.	USN	20 Mar 1950
222	Sundberg, H. J.	Lt.	USN	20 Mar 1950
223	Young, R. E.	Lt. j.g.	USN	20 Mar 1950
224	Cardoza, H.	AD1(AP)*	USN	9 Mar 1950
225	Marsh, E. D.	AD1(AP)*	USN	9 Mar 1950
226	Harbour, C. C.	Lt.	USN	31 Mar 1950
227	Omara, P.	Lt. j.g.	USN	31 Mar 1950
228	Huggins, J. C.	Lt.	USN	20 Apr 1950
229	Jones, C. C.	Lt. j.g.	USN	21 Apr 1950
230	Boegel, W. T.	AOC(AP)*	USN	21 Apr 1950
231	Larson, C. S.	Lt. j.g.	USNR	24 Apr 1950
232	Kakol, J. F.	ADC(AP)*	USN	25 Apr 1950
233	Smolen, F. E.	Lt.	USN	24 Apr 1950
234	Maghan, R. I.	Lt.	USN	28 Apr 1950
235	Richards, F. D.	Lt.	USN	4 May 1950
236	Felten, R. E.	Lt.	USN	4 May 1950
237	Jansen, T. E.	Lt.	USNR	4 May 1950
238	Bowen, J. B.	Capt.	USN	27 Apr 1950
239	Brock, M. A.	Lt.	USN	16 May 1950
240	Falabella, J. J.	Lt.	USNR	17 May 1950
241	Widmar, J. R.	Lt.	USNR	22 May 1950
242	Jensen, E. O.	Lt.	USNR	25 May 1950
243	Stearns, W. G.	Lt.	USN	2 Jun 1950
244	Hudson, F. W.	ACCA(AP)*	USN	9 Jun 1950
245	McFarlane, H.	Capt.	USAF	9 Jun 1950
246	Erwin, W. L.	Lt. j.g.	USN	13 Jun 1950
247	Englehardt, L. J.	1st Lt.	USMC	13 Jun 1950
248	Scott, J. L.	1st Lt.	USMC	13 Jun 1950
249	Waring, E. S.	Cmdr.	USN	27 Jun 1950
250	Albert, W. H.	Lt. j.g.	USNR	1 Jul 1950

Notes:

* NAP and AP: Naval Aviation Pilot, an enlisted pilot.

† Civil Aeronautics Administration

‡ Initials unknown

Naval Astronauts

Sailors have long studied the sky and have used the movements of celestial bodies to guide them across the trackless seas. Realizing the need to observe the movements of the stars and planets, the U.S. Navy established the Depot of Charts and Instruments on 6 December 1830. This is the Navy's oldest scientific institution. The Depot later became the U.S. Naval Observatory. Today it continues to provide the astronomical data necessary for navigation at sea, on land as well as in space.

In 1923 the Naval Research Laboratory (NRL) began operation. The idea for a U.S. Government-supported research laboratory was suggested by the American inventor Thomas Alva Edison during World War I. Secretary of the Navy Josephus Daniels seized the opportunity and invited Edison to become head of the Naval Consulting Board. The board made plans to create a modern scientific research facility, which became the Naval Research Laboratory. Robert Morris Page who was at NRL from the late 1920s to the mid-1960s invented the technology for pulse radar. During WWII his invention assisted the Allies in detecting enemy planes and ships. Without radar, today's space program would be impossible.

Over the nearly two decades since the Navy bought its first aircraft—the Curtiss A-1 Triad—in 1911, aviation advances had aircraft flying ever higher. On 8 May 1929 Lt. Apollo Soucek set the world altitude record for landplanes by flying a Wright Apache to 39,140 feet. Barely a month later, on 4 June, he set the altitude record for seaplanes, also in an Apache, reaching 38,560 feet.

At nearly 40,000 feet, the thin air and decreased pressure made it difficult for human beings to function and survive, but the airplane was a poor vehicle in which to study the upper reaches of the atmosphere. The balloon proved to be more suitable and, in the end, resulted in the first space race between the United States and the Soviet Union.

On 4 August 1933 Lt. Cmdr. Thomas Settle ascended aloft in the sealed life-support gondola of a balloon, but the attempt failed. A similar attempt in a balloon by Soviet aeronauts the following September, achieved the height of 62,230 feet.

Two months later, on 20 November, Settle and Maj. Chester L. Fordney, USMC, flying a 600,000 cubic-foot free balloon, set the world's altitude record of 61,237 feet. While it was an official world's record, it fell 1,000 feet shy of the actual Soviet achievement.

In December 1941, the United States entered WWII with no rocket weapons, while Germany was putting a great deal of effort into rocket development, basing much of its technology on the research of American scientist Robert H. Goddard.

By the end of the war, the U.S. rocket budget was \$1.3 million. Research in the use of rockets in jet-assisted takeoff (JATO) had been carried out by rocket pioneer Goddard, assisted by the Navy's Robert Truax. This program laid the groundwork for the use of rocket power in Navy guided missiles. JATO could reduce a takeoff run by 33 to 60 percent, or permit greater payloads.

After WWII, U.S. interest in high-altitude research experiments resumed. The Office of Naval Research (ONR) made plans for a manned balloon flight into the upper atmosphere through Project Helios, which called for the construction of plastic balloons with a gondola equipped with scientific observation instruments. This ambitious plan was replaced in 1947 by Project Skyhook, which used polyethylene balloons to carry instrument packages to extreme altitudes. Thousands of these balloons were sent into the stratosphere for basic research.

In 1952 a new technique was developed in which Deacon rockets were lifted above 70,000 feet by Skyhook balloons and then launched into space. The experiments proved to be so successful that in 1954 plans were made to entrust the lives of men to the Skyhook balloons.

Project Stratolab, a laboratory in the stratosphere, began in 1955. On 8 November 1956, Stratolab I, manned by Lt. Cmdrs. Malcolm D. Ross and Morton Lee Lewis reached a record altitude of 76,000 feet. Balloons, however, could not put a man in space; that would require rocket power.

Naval Research Laboratory scientists had been conducting experiments on the Aerobee and Viking sounding rockets during the early 1950s. An NRL study in 1954 indicated the feasibility of successfully placing a satellite in orbit, using a vehicle based on the Viking as a first stage and the Aerobee as the second.

In 1955 President Eisenhower announced that the United States would launch "small, unmanned, earth-circling satellites" as a part of the U.S. contributions to the International Geophysical Year, 1957–1958. The Naval Research Laboratory proposed that the Vanguard rocket, based on Viking technology, be used to launch the satellite.

The proposal was accepted with Project Vanguard having three missions: place at least one satellite in orbit during 1957–1958, accomplish a scientific experiment in space, and track the flight to demonstrate that the satellite had actually attained orbit.

Before Vanguard could launch a satellite into space, however, the Soviets announced that they had put *Sputnik* into orbit on 4 October 1957. *Sputnik*, the Russian word for travelling companion, was the earth's first artificial satellite. The perception by the United States that it was the leader in space technology was shattered, and the capability of Soviet rockets to fire weapons from space became apparent.

On 31 January 1958, the Army's Jupiter-C, a development of the Redstone rocket, put the first U.S. satellite, Explorer I, into orbit. On 31 March 1958, a Vanguard rocket launched from Cape Canaveral, Fla., put a second earth satellite into orbit.

In response to the Soviet challenge in space, the United States established the National Aeronautics and Space Administration (NASA) in July 1958, and initiated Project Mercury, which would put a man into orbit. On 15 May 1961, President John F. Kennedy went even further and stated in an address that the United States should commit itself to landing a man on the moon by the end of the decade. This goal was named Project Apollo.

The steps to the moon were incremental. First, NASA lobbed a chimpanzee into space on 31 January 1961. After this experiment proved successful, it was then believed possible to put a man into a similar sub-orbital flight. Cmdr. Alan B. Shepard Jr., was chosen to be the first American sent into space. On 5 May 1961, Shepard left earth's atmosphere in his space capsule, *Freedom 7*. It was a ballistic "cannon shot" atop an Army Redstone rocket. The capsule was recovered at sea by an HUS-1 helicopter from Marine Corps squadron HMR(L)-262, which transported it and the astronaut to the carrier *Lake Champlain* (CVS 39).

Subsequent Mercury missions successfully put other men in space and safely recovered each. On 20 February 1962, Lt. Col. John H. Glenn Jr., USMC, and his spacecraft, *Friendship 7*, made three orbits around the earth. In all, six men flew lone missions into space on board Mercury capsules. This program was followed by two-seat Project Gemini missions in 1965 and 1966. Many of these astronauts were naval aviators.

After having succeeded in demonstrating man's capability for surviving in space for extended periods, the ability to change and modify orbits, and of rendezvousing and docking, the moon was the next step. In December 1968, Lt. Cmdr. James A. Lovell Jr., was on the Apollo 8 flight that first flew to the moon and circled it, becoming among the first three men to view the side that is never seen from earth. Seven months later, on 20 July 1969 Neil A. Armstrong, a naval aviator, became the first man to walk on the moon during the Apollo 11 flight. In all, 11 missions were flown in the Apollo moon program, and of the 29 men who flew them, 14 were naval aviators. And of the 12 who walked on the moon, 7 were Navy.

The next U.S. space goal was to work and live in space. *Skylab* was the vehicle, a space laboratory in which the astronauts could live a fairly normal life, work on scientific experiments, eat, sleep, and have regular periods of recreation. Three separate crews of *Skylab* astronauts were launched into space during 1973; two were all-Navy crews.

One last Apollo mission was launched on 15 July 1975. Vance D. Brand, a former Navy pilot, was the command module pilot of this mission to dock with a Soviet Soyuz spacecraft. This was the first meeting between American astronauts and Soviet cosmonauts in space. The two crews then conducted scientific experiments before Apollo splashed down in the Pacific near Hawaii and was recovered by *New Orleans* (LPH 11). This was the last splashdown recovery of a manned space capsule by a Navy amphibious ship. The next American manned space vehicle, the Space Shuttle, would make such recoveries unnecessary.

The Space Shuttle was launched by rocket engines, but could land like an airplane, albeit an unpowered glider, thus it could make multiple trips into space. *Columbia* was the first shuttle and was launched on 12 April 1981 with an all Navy-aviator crew. It was followed by Space Shuttles *Challenger*, *Discovery*, *Atlantis*, and *Endeavour*. Subsequent shuttle flights were able to take up to ten astronauts on a single flight into space and stay there for longer periods of time and continued to conduct scientific experiments. Limited cooperation with the Russian Republic, part of the former Soviet Union, also continued. In 1995, *Atlantis* transported two Russian cosmonauts to the Russian space station *Mir* where American astronaut Norman Thagard, a former naval aviator, had been living for three months. *Atlantis* docked with *Mir* and returned the American to earth.

Naval aviation continues to play an important role in space. The following three sections provide statistical data on its contributions or involvement in the manned space program.

Members of Naval Aviation Who Have Become Astronauts

(This list includes naval aviators or naval aviation personnel and does not distinguish whether they were on active duty or separated from the Navy/Marine Corps/Coast Guard when involved in space flights.)

Andrew M. Allen	Scott D. Altman	Dominic A. Antonelli
Neil A. Armstrong	Jeffery Ashby	Michael A. Baker
Alan L. Bean	Charles F. Bolden Jr.	Stephen G. Bowen
Kenneth D. Bowersox	Vance D. Brand	Daniel C. Brandenstein
Randolph J. Bresnik	David M. Brown	James F. Buchli
John S. Bull	Daniel C. Burbank	Daniel W. Bursch
Robert D. Cabana	Kenneth D. Cameron	Malcolm Scott Carpenter
Gerald P. Carr	Manley L. Carter Jr.	Eugene A. Cernan
Roger B. Chaffee	Michael L. Coats	Kenneth D. Cockrell
Charles Conrad Jr.	John O. Creighton	Robert L. Crippen
Frank L. Culbertson	R. Walter Cunningham	Robert Curbeam Jr.
Joe F. Edwards Jr.	Ronald E. Evans	Christopher J. Ferguson
Michael J. Foreman	Stephen N. Frick	Dale A. Gardner
Jake E. Garn	Robert L. Gibson	John H. Glenn Jr.
Richard F. Gordon Jr.	Dominic L. Pudwill Gorie	S. David Griggs
Fred W. Haise Jr.	Ken Ham	Frederick H. Hauck
John Herrington	Kathryn P. Hire	David C. Hilmers
Charles O. Hobaugh	Douglas G. Hurley	Brent W. Jett Jr.
Gregory C. Johnson	Mark E. Kelly	Scott J. Kelley
Joseph P. Kerwin	Wendy B. Lawrence	David C. Leestma
Don L. Lind	Michael E. Lopez-Alegria	John M. Lounge
John R. Lousma	James A. Lovell Jr.	Jon A. McBride
Bruce McCandless II	William McCool	Michael J. McCulley
Thomas K. Mattingly II	Bruce E. Melnick	Edgar D. Mitchell
Franklin S. Musgrave	Carlos I. Noriega	Lisa M. Nowak
Bryan D. O'Connor	William Oefelein	Stephen S. Oswald
Robert F. Overmyer	John L. Phillips	Alan G. Poindexter
William F. Readdy	Kenneth S. Reightler Jr.	Richard N. Richards
Kent V. Rominger	Walter M. Schirra Jr.	Winston E. Scott
Elliot M. See	Alan B. Shepard Jr.	Michael John Smith
Robert C. Springer	Susan L. Still	Frederick W. Sturckow
Joseph R. Tanner	Norman E. Thagard	Stephen D. Thorne
Pierre J. Thuot	Richard H. Truly	James D. van Hoften
David M. Walker	Paul J. Weitz	James D. Wetherbee
Terrence W. Wilcutt	Clifton C. Williams	Donald E. Williams
Sunita Williams	Barry E. Wilmore	John W. Young
George D. Zamka		

Members of Naval Aviation Who Have Made Trips Into Space as of March 2011

(This list includes naval aviators or naval aviation personnel and does not distinguish whether they were on active duty or separated from the Navy/Marine Corps/Coast Guard when involved in space flights.)

One Flight

Randolph J. Bresnik	David M. Brown	Malcolm Scott Carpenter
Gerald P. Carr	Manley L. Carter Jr.	R. Walter Cunningham
Joe F. Edwards Jr.	Ronald E. Evans	Michael J. Foreman
Stephen N. Frick	Jake E. Garn	S. David Griggs
Fred W. Haise Jr.	Ken Ham	John Herrington
Douglas G. Hurley	Gregory C. Johnson	Scott J. Kelley
Joseph P. Kerwin	Don L. Lind	Jon A. McBride
William McCool	Michael J. McCulley	Edgar D. Mitchell
Lisa M. Nowak	William Oefelein	Alan G. Poindexter
Michael John Smith	Sunita Williams	Barry E. Wilmore

Two Flights

Dominic A. Antonelli	Neil A. Armstrong	Alan L. Bean
Stephen G. Bowen	Daniel C. Burbank	Frank L. Culbertson
Christopher J. Ferguson	Dale A. Gardner	John H. Glenn Jr.
Richard F. Gordon Jr.	Kathryn P. Hire	John R. Lousma
Bruce McCandless II	Bruce E. Melnick	Carlos I. Noriega
Bryan D. O'Connor	Robert F. Overmyer	John L. Phillips
Kenneth S. Reightler Jr.	Winston E. Scott	Alan B. Shepard Jr.
Robert C. Springer	Susan L. Still	Joseph R. Tanner
Richard H. Truly	James D. van Hoften	Paul J. Weitz
Donald E. Williams	George D. Zamka	

Three Flights

Andrew M. Allen	Jeffery Ashby	Daniel W. Bursch
Kenneth D. Cameron	Eugene A. Cernan	Michael L. Coats
John O. Creighton	Robert Curbeam Jr.	Dominic L. Pudwill Gorie
Frederick H. Hauck	Charles O. Hobaugh	Mark E. Kelly
David C. Leestma	Michael E. Lopez-Alegria	John M. Lounge
Thomas K. Mattingly II	William F. Readdy	Stephen S. Oswald
Walter M. Schirra Jr.	Pierre J. Thuot	Terrence W. Wilcutt

Four Flights

Scott D. Altman	Michael A. Baker	Charles F. Bolden Jr.
Kenneth D. Bowersox	Vance D. Brand	Daniel C. Brandenstein
James F. Buchli	Robert D. Cabana	Kenneth Cockrell
Charles Conrad Jr.	Robert L. Crippen	David C. Hilmers
Brent W. Jett Jr.	Wendy B. Lawrence	James A. Lovell Jr.
Richard N. Richards	Frederick W. Sturckow	David M. Walker

Five Flights

Robert L. Gibson

Kent V. Rominger

Norman E. Thagard

Six Flights

Franklin S. Musgrave

James D. Wetherbee

John W. Young

U.S. Space Flights with Navy/Marine Corps/Coast Guard Pilots/Astronauts Aboard (As of March 2011)				
Order*	Date	Designation	Crew†	Duration
1	5 May 61	Mercury Redstone 3 (<i>Freedom 7</i>)	Alan B. Shepard Jr.	15 min 22 sec; 1st American into space, sub-orbital
3	20 Feb 62	Mercury Atlas 6 (<i>Friendship 7</i>)	John H. Glenn Jr., USMC	4 hrs 55 min; 1st American to orbit the earth
4	24 May 62	Mercury Atlas 7 (<i>Aurora 7</i>)	Malcolm Scott Carpenter	4 hr 56 min 5 sec
5	3 Oct 62	Mercury Atlas 8 (<i>Sigma 7</i>)	Walter M. Schirra Jr.	9 hrs 13 min 11 sec
7	23 Mar 65	Gemini 3	John W. Young	4 hrs 53 min
9	21–29 Aug 65	Gemini 5	Charles Conrad Jr.	190 hrs 56 min 1 sec
10	4–18 Dec 65	Gemini 7	James A. Lovell Jr.	330 hrs 35 min 13 sec
11	15–16 Dec 65	Gemini 6	Walter M. Schirra Jr.	25 hrs 51 min 24 sec
12	16 Mar 66	Gemini 8	Neil A. Armstrong	10 hrs 42 min 6 sec
13	3–6 Jun 66	Gemini 9	Eugene A. Cernan	72 hrs 20 min 56 sec
14	18–21 Jul 66	Gemini 10	John W. Young	70 hrs 46 min 45 sec
15	12–15 Sep 66	Gemini 11	Richard F. Gordon Jr., Charles Conrad Jr.	71 hrs 17 min 8 sec
16	11–15 Nov 66	Gemini 12	James A. Lovell Jr.	94 hrs 34 min 31 sec
17	11–22 Oct 68	Apollo 7	Walter M. Schirra Jr., R. Walter Cunningham	206 hrs 9 min
18	21–27 Dec 68	Apollo 8	James A. Lovell Jr.	147 hrs 0 min 42 sec; 1st flight to the moon
20	18–26 May 69	Apollo 10	John W. Young, Eugene A. Cernan	192 hrs 3 min 23 sec
21	16–24 Jul 69	Apollo 11	Neil A. Armstrong	195 hrs 18 min 35 sec; 1st moon landing
22	14–24 Nov 69	Apollo 12	Charles Conrad Jr., Richard F. Gordon Jr., Alan L. Bean	244 hrs 36 min 25 sec
23	11–17 Apr 70	Apollo 13	James A. Lovell Jr., Fred W. Haise Jr.	142 hrs 54 min 41 sec
24	31 Jan–9 Feb 71	Apollo 14	Alan B. Shepard Jr., Edgar D. Mitchell	216 hrs 1 min 57 sec
26	16–27 Apr 72	Apollo 16	John W. Young, Thomas K. Mattingly II	265 hrs 1 min 5 sec
27	7–19 Dec 72	Apollo 17	Eugene A. Cernan, Ronald E. Evans	301 hrs 51 min 59 sec
28	25 May–22 Jun 73	Skylab 2	Charles Conrad Jr., Joseph P. Kerwin, Paul J. Weitz	672 hrs 49 min 49 sec; 1st U.S. manned orbiting space station; all-Navy crew
29	28 Jul–25 Sep 73	Skylab 3	Alan L. Bean; John R. Lousma, USMC	1,427 hrs 9 min 4 sec
30	16 Nov 73–8 Feb 74	Skylab 4	Gerald P. Carr, USMC	2,017 hrs 15 min 32 sec
31	15–24 Jul 75	Apollo-Soyuz Test Project	Vance D. Brand	217 hrs 28 min 24 sec

Space Shuttle Missions				
Flight*	Date	Orbiter	Crew†	Notes
STS-1	12–14 Apr 1981	<i>Columbia</i>	John W. Young, Robert L. Crippen	1st flight, all-Navy crew
STS-2	12–14 Nov 1981	<i>Columbia</i>	Richard H. Truly	
STS-3	22–30 Mar 1982	<i>Columbia</i>	John R. Lousma, USMC	
STS-4	27 Jun–4 Jul 1982	<i>Columbia</i>	Thomas K. Mattingly II	
STS-5	11–16 Nov 1982	<i>Columbia</i>	Vance D. Brand; Robert F. Overmyer, USMC	
STS-6	4–9 Apr 1983	<i>Challenger</i>	Paul J. Weitz; Franklin S. Musgrave, USMC	

Space Shuttle Missions				
Flight*	Date	Orbiter	Crew†	Notes
STS-7	18–24 Jun 1983	<i>Challenger</i>	Robert L. Crippen, Frederick H. Hauck, Norman E. Thagard	
STS-8	30 Aug–5 Sep 1983	<i>Challenger</i>	Richard H. Truly, Daniel C. Brandenstein, Dale A. Gardner	
STS-9	28 Nov–8 Dec 1983	<i>Columbia</i>	John W. Young	
STS-41-B	3–11 Feb 1984	<i>Challenger</i>	Vance D. Brand, Robert L. Gibson, Bruce McCandless II	1st untethered walk in space
STS-41-C	6–13 Apr 1984	<i>Challenger</i>	Robert L. Crippen, James D. van Hoften	
STS-41-D	30 Aug–5 Sep 1984	<i>Discovery</i>	Michael L. Coats	
STS-41-G	5–13 Oct 1984	<i>Challenger</i>	Robert L. Crippen, Jon A. McBride, David C. Leestma	
STS-51-A	8–15 Nov 1984	<i>Discovery</i>	Frederick H. Hauck, David M. Walker, Dale A. Gardner	
STS-51-C	24–27 Jan 1985	<i>Discovery</i>	Thomas K. Mattingly II; James F. Buchli, USMC	
STA-51-D	12–19 Apr 1985	<i>Discovery</i>	Donald E. Williams, S. David Griggs, Jake E. Garn	
STS-51-B	29 Apr–6 May 1985	<i>Challenger</i>	Robert F. Overmyer, USMC; Don L. Lind; Norman E. Thagard	
STS-51-G	17–24 Jun 1985	<i>Discovery</i>	Daniel C. Brandenstein, John O. Creighton	
STS-51-F	29 Jul 85–6 Aug 1985	<i>Challenger</i>	Franklin S. Musgrave, USMC	
STS-51-I	27 Aug 85–3 Sep 1985	<i>Discovery</i>	James D. van Hoften, John M. Lounge	
STS-51-J	3–7 Oct 1985	<i>Atlantis</i>	David C. Hilmers, USMC	
STS-61-A	30 Oct–6 Nov 1985	<i>Challenger</i>	James F. Buchli, USMC	
STS-61-B	26 Nov–3 Dec 1985	<i>Atlantis</i>	Bryan D. O'Connor, USMC	
STS-61-C	12–18 Jan 1986	<i>Columbia</i>	Robert L. Gibson; Charles F. Bolden Jr., USMC	
STS-51-L	28 Jan 1986	<i>Challenger</i>	Michael J. Smith	Shuttle destroyed, all on board killed
STS-26	29 Sep–3 Oct 1988	<i>Discovery</i>	Frederick H. Hauck; John M. Lounge; David C. Hilmers, USMC	
STS-27	2–6 Dec 1988	<i>Atlantis</i>	Robert L. Gibson, William M. Shepherd‡	
STS-29	13–18 Mar 1989	<i>Discovery</i>	Michael L. Coats, James Buchli, Robert Springer	
STS-30	4–8 May 1989	<i>Atlantis</i>	David M. Walker, Norman E. Thagard	
STS-28	8–13 Aug 1989	<i>Columbia</i>	Richard N. Richards, David C. Leestma	
STS-34	18–23 Oct 1989	<i>Atlantis</i>	Donald E. Williams, Michael J. McCulley	
STS-33	22–27 Nov 1989	<i>Discovery</i>	Manley L. Carter Jr.; Franklin S. Musgrave, USMC	
STS-32	9–20 Jan 1990	<i>Columbia</i>	Daniel C. Brandenstein, James D. Wetherbee	
STS-36	28 Feb–4 Mar 1990	<i>Atlantis</i>	John O. Creighton; David C. Hilmers, USMC; Pierre J. Thuot	
STS-31	24–29 Apr 1990	<i>Discovery</i>	Charles F. Bolden Jr., USMC; Bruce McCandless II	
STS-41	6–10 Oct 1990	<i>Discovery</i>	Richard N. Richards; Robert D. Cabana, USMC; Bruce E. Melnick, USCG; William M. Shepherd‡	
STS-38	15–20 Nov 1990	<i>Atlantis</i>	Frank L. Culbertson; Robert C. Springer, USMC	
STS-35	2–6 Dec 1990	<i>Columbia</i>	Vance D. Brand, John M. Lounge	
STS-37	5–11 Apr 1991	<i>Atlantis</i>	Kenneth D. Cameron, USMC	
STS-39	28 Apr–6 May 1991	<i>Discovery</i>	Michael L. Coats	
STS-40	5–14 Jun 1991	<i>Columbia</i>	Bryan D. O'Connor, USMC	
STS-43	2–11 Aug 1991	<i>Atlantis</i>	Michael A. Baker	
STS-48	12–18 Sep 1991	<i>Discovery</i>	John O. Creighton; Kenneth S. Reightler Jr.; James F. Buchli, USMC	
STS-44	24 Nov–1 Dec 1991	<i>Atlantis</i>	Franklin S. Musgrave, USMC; Mario Runco Jr.‡	
STS-42	22–30 Jan 1992	<i>Discovery</i>	Stephen S. Oswald; Norman E. Thagard; William F. Readdy; David C. Hilmers, USMC	
STS-45	24 Mar–2 Apr 1992	<i>Atlantis</i>	Charles F. Bolden Jr., USMC; David C. Leestma	

Space Shuttle Missions				
Flight*	Date	Orbiter	Crew†	Notes
STS-49	7–16 May 1992	<i>Endeavour</i>	Daniel C. Brandenstein; Bruce E. Melnick, USCG; Pierre J. Thuot	
STS-50	25 Jun–9 Jul 1992	<i>Columbia</i>	Richard N. Richards, Kenneth D. Bowersox	
STS-46	31 Jul–8 Aug 1992	<i>Atlantis</i>	Andrew M. Allen, USMC	
STS-47	12–20 Sep 1992	<i>Endeavour</i>	Robert Gibson	
STS-52	22 Oct–1 Nov 1992	<i>Columbia</i>	James D. Wetherbee, Michael A. Baker, William M. Shepherd‡	
STS-53	2–9 Dec 1992	<i>Discovery</i>	David M. Walker; Robert D. Cabana, USMC	
STS-54	13–19 Jan 1993	<i>Endeavour</i>	Mario Runco Jr.‡	
STS-56	8–17 Apr 1993	<i>Discovery</i>	Kenneth D. Cameron, USMC; Stephen S. Oswald; Kenneth D. Cockrell	
STS-51	12–22 Sep 1993	<i>Discovery</i>	Frank L. Culbertson Jr., William F. Readdy, Daniel W. Bursch	
STS-61	2–13 Dec 1993	<i>Endeavour</i>	Kenneth D. Bowersox; Franklin S. Musgrave, USMC	
STS-60	3–11 Feb 1994	<i>Discovery</i>	Charles F. Bolden Jr., USMC; Kenneth S. Reightler Jr.	
STS-62	4–18 Mar 1994	<i>Columbia</i>	Andrew M. Allen, USMC; Pierre J. Thuot	
STS-65	8–23 Jul 1994	<i>Columbia</i>	Robert D. Cabana, USMC	
STS-64	9–20 Sep 1994	<i>Discovery</i>	Richard N. Richards, Jerry M. Linenger‡	
STS-68	30 Sep–11 Oct 1994	<i>Endeavour</i>	Michael A. Baker; Terrence W. Wilcutt, USMC; Daniel W. Bursch	
STS-66	3–14 Nov 1994	<i>Atlantis</i>	Joseph R. Tanner	
STS-63	2–11 Feb 1995	<i>Discovery</i>	James D. Wetherbee	
STS-67	2–18 Mar 1995	<i>Endeavour</i>	Stephen S. Oswald, Wendy B. Lawrence	
STS-71	27 Jun–7 Jul 1995	<i>Atlantis</i>	Robert L. Gibson	
STS-69	7–18 Sep 1995	<i>Endeavour</i>	David M. Walker, Kenneth Cockrell	
STS-73	20 Oct–5 Nov 1995	<i>Columbia</i>	Kenneth D. Bowersox, Kent V. Rominger, Michael E. Lopez-Alegria	
STS-74	12–20 Nov 1995	<i>Atlantis</i>	Kenneth D. Cameron, USMC	
STS-72	11–20 Jan 1996	<i>Endeavour</i>	Brent W. Jett Jr., Winston E. Scott	
STS-75	22 Feb–9 Mar 1996	<i>Columbia</i>	Andrew M. Allen, USMC	
STS-77	19–29 May 1996	<i>Endeavour</i>	Daniel W. Bursch, Mario Runco Jr.‡	
STS-78	20 Jun–7 Jul 1996	<i>Columbia</i>	Charles E. Brady Jr.‡	
STS-79	16–26 Sep 1996	<i>Atlantis</i>	William F. Readdy; Terrence W. Wilcutt, USMC	
STS-80	19 Nov–7 Dec 1996	<i>Columbia</i>	Kenneth D. Cockrell; Kent V. Rominger; Franklin S. Musgrave, USMC	
STS-81	12–22 Jan 1997	<i>Atlantis</i>	Michael A. Baker, Brent W. Jett Jr., Jerry M. Linenger‡	
STS-82	11–21 Feb 1997	<i>Discovery</i>	Kenneth D. Bowersox, Joseph R. Tanner	
STS-83	4–8 Apr 1997	<i>Columbia</i>	Susan L. Still	
STS-84	15–24 May 1997	<i>Atlantis</i>	Carlos I. Noriega, USMC	
STS-94	1–17 Jul 1997	<i>Columbia</i>	Susan L. Still	
STS-85	7–19 Aug 1997	<i>Discovery</i>	Kent V. Rominger, Robert L. Curbeam Jr.	
STS-86	25 Sep–6 Oct 1997	<i>Atlantis</i>	James D. Wetherbee, Wendy B. Lawrence	
STS-87	19 Nov–5 Dec 1997	<i>Columbia</i>	Winston E. Scott	
STS-89	22–31 Jan 1998	<i>Endeavour</i>	Terrence W. Wilcutt, USMC; Joe F. Edwards Jr.; James F. Reilly‡	
STS-90	17 Apr–3 May 1998	<i>Columbia</i>	Scott D. Altman, Kathryn P. Hire	
STS-91	2–12 Jun 1998	<i>Discovery</i>	Dominic L. Pudwill Gorie, Wendy B. Lawrence	
STS-95	29 Oct–7 Nov 98	<i>Discovery</i>	John H. Glenn Jr., USMC [§]	
STS-88	4–15 Dec 1998	<i>Endeavour</i>	Robert D. Cabana, USMC; Frederick W. Sturckow, USMC	
STS-96	27 May–6 Jun 1999	<i>Discovery</i>	Kent V. Rominger	
STS-93	23–27 Jul 1999	<i>Columbia</i>	Jeffrey S. Ashby	

Space Shuttle Missions				
Flight*	Date	Orbiter	Crew†	Notes
STS-103	19–27 Dec 1999	<i>Discovery</i>	Scott J. Kelly	
STS-99	11–22 Feb 2000	<i>Endeavour</i>	Dominic L. Pudwill Gorie	
STS-106	8–20 Sep 2000	<i>Atlantis</i>	Terrence W. Wilcutt, USMC; Scott D. Altman; Daniel C. Burbank, USCG	
STS-92	11–24 Oct 2000	<i>Discovery</i>	Michael Lopez-Alegria	
STS-97	30 Nov–11 Dec 2000	<i>Endeavour</i>	Brent W. Jett Jr.; Joseph Tanner; Carlos Noriega, USMC	
STS-98	7–20 Feb 2001	<i>Atlantis</i>	Kenneth Cockrell, Robert Curbeam Jr.	
STS-102	8–21 Mar 2001	<i>Discovery</i>	James Wetherbee	
STS-100	19 Apr–1 May 2001	<i>Endeavour</i>	Kent Rominger, Jeffrey Ashby, John L. Phillips	
STS-104	12–24 Jul 2001	<i>Atlantis</i>	Charles O. Hobaugh, USMC	
STS-105	10–22 Aug 2001	<i>Discovery</i>	Frederick W. Sturckow, USMC	
STS-108	5–17 Dec 2001	<i>Endeavour</i>	Dominic L. Gorie, Mark E. Kelly	
STS-109	1–12 Mar 2002	<i>Columbia</i>	Scott D. Altman	
STS-110	8–19 Apr 2002	<i>Atlantis</i>	Stephen N. Frick, Lee M. E. Morin‡	
STS-111	5–19 Jun 2002	<i>Endeavour</i>	Kenneth Cockrell	
STS-112	7–18 Oct 2002	<i>Atlantis</i>	Jeffrey Ashby	
STS-113	23 Nov–7 Dec 2002	<i>Endeavour</i>	Jim Wetherbee, Michael Lopez-Alegria, John Herrington	
STS-107	16 Jan–1 Feb 2003	<i>Columbia</i>	William C. McCool, David M. Brown, Laurel B. S. Clark‡	Shuttle destroyed, all on board killed
STS-114	26 Jul–9 Aug 2005	<i>Discovery</i>	Wendy Lawrence	
STS-121	4–17 Jul 2006	<i>Discovery</i>	Mark E. Kelly, Lisa M. Nowak	
STS-115	9–21 Sep 2006	<i>Atlantis</i>	Brent W. Jett Jr.; Christopher J. Ferguson; Daniel C. Burbank, USCG; Heidemarie M. Stefanyshyn-Piper‡; Joseph R. Tanner	
STS-116	9–22 Dec 2006	<i>Discovery</i>	William Oefelein, Robert Curbeam Jr., Sunita Williams	
STS-117	8–22 Jun 2007	<i>Atlantis</i>	Frederick W. Sturckow, USMC; James F. Reilly‡	
STS-118	8–21 Aug 2007	<i>Endeavour</i>	Scott J. Kelley; Charles O. Hobaugh, USMC	
STS-120	23 Oct–Nov 2007	<i>Discovery</i>	George D. Zamka, USMC	
STS-126	14–30 Nov 2008	<i>Endeavour</i>	Christopher J. Ferguson	
STS-119	15–28 Mar 2009	<i>Discovery</i>	John L. Phillips, Dominic A. Antonelli	
STS-125	11–24 May 2009	<i>Atlantis</i>	Scott D. Altman, Gregory C. Johnson	
STS-127	15–31 Jul 2009	<i>Endeavour</i>	Douglas G. Hurley, USMC	
STS-128	28 Aug–11 Sep 2009	<i>Discovery</i>	Frederick W. Sturckow, USMC	
STS-129	16–27 Nov 2009	<i>Atlantis</i>	Charles O. Hobaugh, USMC; Randolph J. Bresnik, USMC; Michael J. Foreman; Barry E. Wilmore	
STS-130	8–21 Feb 2010	<i>Endeavour</i>	George D. Zamka, USMC; Kathryn P. Hire	
STS-131	5–20 Apr 2010	<i>Discovery</i>	Alan G. Poindexter	
STS-132	14–26 May 2010	<i>Atlantis</i>	Ken Ham, Dominic A. Antonelli, Stephen G. Bowen	
STS-133	24 Feb–9 Mar 2011	<i>Discovery</i>	Stephen G. Bowen	
STS-134	16 May–1 June 2011	<i>Endeavour</i>	Mark E. Kelly, Roberto Vittori¶	
STS-135	8–21 July 2011	<i>Atlantis</i>	Christopher J. Ferguson, Douglas G. Hurley	

* Flight is by mission date, not mission number. Only flights with naval aviation personnel, active and former, on board are listed.

† Only naval aviation personnel on board the flight are listed.

‡ Navy but not connected with naval aviation.

§ Passenger.

¶ Italian Air Force, USN Test Pilot School graduate.

Naval Aviation Hall of Honor

The Naval Aviation Hall of Honor was established in 1980 to recognize those individuals who by their actions or achievements made outstanding contributions to naval aviation. A bronze plaque of the individual and their contributions is cast and placed in Naval Aviation Hall of Honor located in the National Museum of Naval Aviation at Pensacola, Fla. The first group to be inducted was in 1981. After 1984, enshrinement in the Naval Aviation Hall of Honor was placed on a two-year cycle with no more than a maximum of eight inductees. The selection committee, consisting of seven to 11 members appointed by the Chief of Naval Operations, Director Air Warfare, is responsible for making the final nominee recommendations. Final approval is done by the Chief of Naval Operations.

Personnel eligible for nomination to the Naval Aviation Hall of Honor include civilian or uniformed individuals no longer employed by the federal government or on active duty. Criteria for nomination include:

- Sustained superior performance in or for naval aviation.
- Superior contributions in the technical or tactical development of naval aviation.
- Unique and superior flight achievement in combat or non-combat flight operations.

The following are enshrined in the Naval Aviation Hall of Honor:

Enshrinee	Year
Vice Adm. Patrick N. L. Bellinger, USN	1981
CWO Floyd Bennett, USN	1981
Rear Adm. Richard E. Byrd Jr., USN	1981
Lt. Cmdr. Godfrey de C. Chevalier, USN	1981
Lt. Col. Alfred A. Cunningham, USMC	1981
Mr. Glenn H. Curtiss, Civilian	1981
Cmdr. Theodore G. Ellyson, USN	1981
Mr. Eugene Ely, Civilian	1981
Rear Adm. William A. Moffett, USN	1981
Rear Adm. Albert C. Read, USN	1981
Capt. Holden C. Richardson, USN	1981
Adm. John H. Towers, USN	1981
Gen. Roy S. Geiger, USMC	1983
Mr. Glenn Martin, Civilian	1983
Adm. Marc A. Mitscher, USN	1983
Adm. Arthur W. Radford, USN	1983
Vice Adm. Charles E. Rosendahl, USN	1983
Cmdr. Elmer F. Stone, USCG	1983
Vice Adm. James H. Flatley Jr., USN	1984
Mr. Leroy R. Grumman, Civilian	1984
Adm. John S. Thach, USN	1984
Capt. Kenneth Whiting, USN	1984
Maj. Gen. Marion E. Carl, USMC	1986
Fleet Adm. William F. Halsey, USN	1986
Mr. Edward H. Heinemann, Civilian	1986

Enshrinee	Year
Rear Adm. David S. Ingalls, USNR	1986
Capt. Donald Bantram MacDiarmid, USCG (Ret)	1986
Vice Adm. Robert B. Pirie, USN (Ret)	1986
Gy. Sgt. Robert G. Robinson, USMCR	1986
Vice Adm. Frederick M. Trapnell, USN (Ret)	1986
Capt. Washington I. Chambers, USN	1988
Dr. Jerome C. Hunsaker, Civilian	1988
Capt. David McCampbell, USN (Ret)	1988
Gen. Keith B. McCutcheon, USMC (Ret)	1988
Adm. Thomas H. Moorer, USN (Ret)	1988
Adm. Alfred M. Pride, USN	1988
Capt. Frank A. Erickson, USCG	1990
Capt. Henry C. Mustin, USN	1990
Adm. James S. Russell, USN (Ret)	1990
Rear Adm. Alan B. Shepard Jr., USN (Ret)	1990
Mr. Igor I. Sikorsky, Civilian	1990
Mr. George A. Spangenberg, Civilian	1990
Vice Adm. Gerald F. Bogan, USN	1992
Adm. Austin Kelvin Doyle, USN (Ret)	1992
Lt. Edward H. O'Hare, USN	1992
Vice Adm. William A. Schoech, USN (Ret)	1992
Mr. Lawrence Sperry, Civilian	1992
Col. Gregory Boyington, USMC	1994
Brig. Gen. Joseph Jacob Foss, ANG (Ret)	1994
Capt. Ashton Graybiel, Medical Corp, USN (Ret)	1994
Adm. Frederick H. Michaelis, USN	1994
Vice Adm. Apollo Soucek, USN (Ret)	1994
Rear Adm. Joseph C. Clifton, USN	1996
Mr. Charles H. Kaman, Civilian	1996
Gen. Christian F. Schilt, USMC	1996
Adm. Forrest P. Sherman, USN	1996
Vice Adm. James B. Stockdale, USN (Ret)	1996
Adm. Maurice F. Weisner, USN (Ret)	1996
Adm. Arleigh A. Burke, USN	1998
Sen. John H. Glenn Jr.	1998
Vice Adm. Thomas F. Connolly, USN	1998
Vice Adm. John T. Hayward, USN	1998
Vice Adm. Thomas G. W. Settle, USN	1998
Mr. Rex Beisel, Civilian	2000
Gen. William O. Brice, USMC	2000
Vice Adm. William I. Martin, USN	2000
Capt. Walter M. Schirra Jr., USN	2000
Fleet Adm. Ernest J. King, USN	2002

Enshrinee	Year
Adm. Joseph M. Reeves, USN	2002
Capt. Roy M. Voris, USN	2002
Lt. Col. Kenneth A. Walsh, USMC	2002
Adm. James L. Holloway, USN	2004
Brig. Gen. Robert E. Galer, USMC	2004
Capt. James A. Lovell, USN	2004
Cmdr. Stewart R. Graham, USCG	2004
Capt. Eugene A. Cernan, USN	2006
Capt. Arthur Ray Hawkins, USN	2006
Capt. Robert E. Mitchell, MC, USN	2006
Vice Adm. Donald D. Engen, USN	2006
Adm. Stanley R. Arthur, USN	2008
Lt. Col. Harold W. Bauer, USMC	2008
Rear Adm. Clarence Wade McClusky Jr., USN	2008
Rear Adm. James D. Ramage, USN	2008
Capt. Robert L. Rasmussen, USN	2008
Mr. Neal A. Armstrong, Civilian	2010
Lt. Gen. Thomas H. Miller, USMC	2010
Vice Adm. William P. Lawrence, USN	2010
Capt. Richard P. Bordone, USN	2010

Gray Eagle Award

The Gray Eagle trophy made its first appearance in 1961 during the celebration of the Fiftieth Anniversary of Naval Aviation.

In 1959, while serving as Commander in Chief, Allied Forces, Southern Europe, Adm. Charles R. Brown, wrote to the Deputy Chief of Naval Operations (Air), Vice Adm. Robert B. Pirie, telling of certain discussions he had with Vice Adm. George W. Anderson, then serving as Commander, Sixth Fleet. “We suggest that it be determined from official records who, at all times, is the senior aviator in point of service in flying; that a baton or similar token be awarded him, and that, with due ceremony, this symbol be handed on down to the next man with the passing years.”

Adm. Pirie took the matter from there. For a time the title “Bull Naval Aviator” was a leading contender for the choice of names for the senior aviator’s title. Various cups, statuettes, plaques, and medals were proposed. Finally, a competition was conducted among aircraft companies desiring to sponsor the award. The Chance Vought Aircraft Company’s (later LTV Corporation, Ling Temco Vought) design was selected and the Gray Eagle Award became a reality.

On 5 January 1961, at naval aviation’s Fiftieth Anniversary Ball, Sheraton Park Hotel, Washington, D.C., Adm. Charles R. Brown received the Gray Eagle trophy from Adm. James S. Russell, then serving as Vice Chief of Naval Operations.

While Adm. Brown was the first “active” aviator to receive the trophy, replicas of the award were presented to all previous holders of the distinction, or their representative, during the ceremony. The recipients included Mrs. T. G. Ellyson, widow of Naval Aviator Number One, Cmdr. Theodore G. Ellyson. Cmdr. Ellyson would have held the Gray Eagle title from 1911 to 1928, if the award had been in existence.

The trophy, donated by Chance Vought Aircraft (now Ling Temco Vought) depicts a silver eagle landing into the arresting gear of the Navy’s first aircraft carrier, *Langley* (CV 1). The inscription reads: “The Venerable Order of the Gray Eagle. The Most Ancient Naval Aviator on Active Duty. In recognition of a clear eye, a stout heart, a steady hand, and a daring defiance of gravity and the law of averages.” Names of those who have held the title, either actively or prior to the 1961 ceremony, are inscribed on the trophy’s plaque.

Eligibility for the Gray Eagle Award is determined by the official active duty precedence list for naval aviators, on continuous service, not recalled, who has held that designation for the longest period of time. The date of designation as a Naval Aviator is the governing factor for determining who will receive the award from the list of active duty officers. In the event that two or more aviators on active duty have been designated on the same date, the senior one qualified as the Gray Eagle. The award is passed down from the previous holder of the award on his or her retirement, or in case of death. A miniature replica is presented to each incumbent as a personal memento. The Gray Eagle trophy may be kept in possession of and displayed by the command to which the Gray Eagle is assigned. Otherwise, it may be placed in the custody of the National Museum of Naval Aviation on a temporary basis until required for presentation to the successor. It should be noted that the ceremony date for the presentation of the Gray Eagle Award and the retirement date are not always the same.

Gray Eagle Award Recipients				
Name	Rank Upon Retirement or Death	Naval Aviator Number	Date Designated Naval Aviator [†]	Dates as Gray Eagle
Theodore G. Ellyson	Cmdr.	1	2 Jun 1911 [†]	2 Jun 1911–27 Feb 1928
John H. Towers	Adm.	3	14 Sep 1911 [†]	27 Feb 1928–1 Dec 1947
George D. Murray	Vice Adm.	22	20 Sep 1915	1 Dec 1947–1 Aug 1951
William W. Townsley	Capt.	320	13 Feb 1918	1 Aug 1951–1 Jul 1955
Alvin O. Preil	Capt.	538	11 Mar 1918	1 Jul 1955–1 Jan 1959
Irving M. McQuiston	Rear Adm.	905	12 Jun 1918	1 Jan 1959–1 Jul 1959
Alfred M. Pride	Vice Adm.	1119	17 Sep 1918	1 Jul 1959–1 Oct 1959
Thomas S. Combs	Vice Adm.	3064	21 Dec 1922	1 Oct 1959–1 Apr 1960
<i>[The above list of naval aviators was designated retroactively following the establishment of the award in 1961.]</i>				
Charles R. Brown	Adm.	3159	15 Aug 1924	1 Apr 1960–2 Jan 1962

Gray Eagle Award Recipients				
Name	Rank Upon Retirement or Death	Naval Aviator Number	Date Designated Naval Aviator†	Dates as Gray Eagle
Frank Akers	Rear Adm.	3228	11 Sep 1925	2 Jan 1962–1 Apr 1963
Wallace M. Beakley	Rear Adm.	3312	24 Nov 1926	1 Apr 1963–31 Dec 1963
Robert Goldthwaite	Rear Adm.	3364	20 May 1927	31 Dec 1963–1 Oct 1965
Richard C. Mangrum	Lt. Gen. (USMC)	4447	20 May 1929	1 Oct 1965–30 Jun 1967
Fitzhugh Lee	Vice Adm.	3512	16 Sep 1929	30 Jun 1967–31 July 1967
Charles D. Griffin	Adm.	3647	6 Jun 1930	31 Jul 1967–1 Feb 1968
Alexander S. Heyward Jr.	Vice Adm.	3867	23 Nov 1931	1 Feb 1968–1 Aug 1968
Robert J. Stroh	Rear Adm.	3888	25 Jan 1932	1 Aug 1968–28 Nov 1969
George P. Koch	Rear Adm.	4085	2 Jan 1935	28 Nov 1969–31 Jul 1971
Alfred R. Matter	Rear Adm.	4164	30 Oct 1935	31 Jul 1971–29 Feb 1972
Francis D. Foley	Rear Adm.	4178	1 Feb 1936	29 Feb 1972–29 Jun 1972
Thomas H. Moorer	Adm.	4255	12 Jun 1936	29 Jun 1972–30 Jun 1974
Leroy V. Swanson	Rear Adm.	5921	9 Dec 1938	30 Jun 1974–29 Aug 1975
Noel A. M. Gayler	Adm.	6879	14 Nov 1940	29 Aug 1975–31 Aug 1976
Martin D. Carmody	Rear Adm.	10911	22 Jan 1942	31 Aug 1976–27 May 1977
George L. Cassel	Rear Adm.	11262	3 Feb 1942	27 May 1977–31 Aug 1977
Henry Wildfang	CWO4 (USMC)	12766	16 Apr 1942	31 Aug 1977–31 May 1978
Frank C. Lang	Maj. Gen. (USMC)		12 Mar 1943	31 May 1978–30 Jun 1978
Thomas H. Miller Jr.	Lt. Gen. (USMC)		24 Apr 1943	30 Jun 1978–28 Jun 1979
Maurice F. Weisner	Adm.		May 1943	28 Jun 1979–31 Oct 1979
Andrew W. O'Donnell	Lt. Gen. (USMC)		8 Jul 1944	31 Oct 1979–26 Jun 1981
Robert F. Schoultz	Vice Adm.			26 Jun 1981–17 Feb 1987
Cecil J. Kempf	Vice Adm.			25 Feb 1987–6 June 1987
James E. Service	Vice Adm.			6 Jun 1987–21 Aug 1987
Frank E. Peterson Jr.	Lt. Gen. (USMC)			21 Aug 1987–15 Jun 1988
Ronald J. Hays	Adm.			15 Jun 1988–15 Sep 1988
Robert F. Dunn	Vice Adm.			15 Sep 1988–25 May 1989
Huntington Hardisty	Adm.			25 May 1989–1 Mar 1991
Jerome L. Johnson	Adm.			1 Mar 1991–26 Jul 1992
Edwin R. Kohn	Vice Adm.		Jun 1956	26 Jul 1992–1 Jul 1993
Jerry O. Tuttle	Vice Adm.			1 Jul 1993–19 Nov 1993
Stanley R. Arthur	Adm.			19 Nov 1993–21 Mar 1995
David R. Morris	Rear Adm.			21 Mar 1995–28 Feb 1996
Walter Davis	Vice Adm.			28 Feb 1996–1 Jan 1997
Luther Schriefer	Rear Adm.			1 Jan 1997–1 Feb 1997
Andrew Granuzzo	Rear Adm.			1 Feb 1997–24 Mar 2000
James I. Maslowski	Rear Adm.			24 Mar 2000–20 Dec 2000
Arthur K. Cebrowski	Vice Adm.		1 Dec 1965	20 Dec 2000–16 Aug 2001
Robert M. Nutwell	Rear Adm.			16 Aug 2001–26 Sep 2001
Michael D. Haskins	Vice Adm.			26 Sep 2001–21 Nov 2002
Charles W. Moore Jr.	Vice Adm.			21 Nov 2002–1 Oct 2004
Gregory G. Johnson	Adm.			1 Oct 2004–29 Nov 2004
Robert Magnus	Lt. Gen. (USMC)			29 Nov 2004–17 Jul 2008
James F. Amos	Gen. (USMC)		1971	17 Jul 2008–

* Dates qualified for Pilot Certificate under Aero Club of America; Navy Air Pilot numbers were first assigned in January 1915 and Naval Aviator numbers were assigned in January 1918.

† In many cases this date was not provided with the award announcement.

Honorary Naval Aviator Designations

The official Honorary Naval Aviator Program was initiated in 1949 to honor individuals for certain extraordinary contributions and/or outstanding performance for service to naval aviation. In recognition of their service, an Honorary Naval Aviator designation is bestowed on the individual with the right to wear the “Wings of Gold.”

The program is managed by the Chief of Naval Operations, Director Air Warfare (previously designated Deputy Chief of Naval Operations, Air Warfare and Assistant Chief of Naval Operations, Air Warfare). Final approval of the nomination is made by the Chief of Naval Operations.

The honor designating an individual an Honorary Naval Aviator has not been bestowed lightly. The following is a list of those individuals who have received the honor:

No	Name	Presented By	Date Received	Reason
1	Capt. Richard (Dick) Schram (Stunt Pilot)	Chief, Naval Air Reserve	Oct 1949	“Flying Professor.” Outstanding contribution to aviation since the early 1930s.
2	Sgt. Clifford Iknoknok (Alaskan National Guard)	James H. Smith Jr., Asst. Secy. Navy	21 Nov 1955	Rescued 11 Navy men shot down by Soviet MiGs over international waters, Bering Strait, Alaska.
3	Sgt. Willis Walunga (Alaskan National Guard)	James H. Smith Jr., Asst. Secy. Navy	21 Nov 1955	Rescued 11 Navy men shot down by Soviet MiGs over international waters, Bering Strait, Alaska.
4	Dr. Herman J. Schaefer	Vice Adm. Robert Goldwaite	Jun 1960	Received flight surgeon wings. As a scientist, made outstanding contributions to aerospace research while at the Naval School of Aviation Medicine.
5	Dr. Dietrich E. Beischer	Vice Adm. Robert Goldwaite	Jun 1960	Received flight surgeon wings. As a scientist, made outstanding contributions to aerospace research while at the Naval School of Aviation Medicine.
6	Mr. F. Trubee Davison (Asst. Secy. of War for Air)	Vice Adm. Paul H. Ramsey, DCNO (Air)	Jul 1966	Organized the 1st Yale Unit in 1916. Served as Asst. Secy. of War for Air for 6 years, from late 1920s to 1930s.
7	Mr. Jackie Cooper (Navy Reserve commander)	Vice Adm. Bernard M. Streat, Chief, Naval Air Training	10 Jul 1970	Active in Navy’s PAO program, recruiting and promoting since World War II.
8	Vice Adm. Hyman G. Rickover	Vice Adm. Thomas F. Connolly, DCNO (Air Warfare)	21 Jul 1970	Vigorously supported naval aviation and achieved great advancements in nuclear propulsion for aircraft carriers.
9	Lt. Col. Barry R. Butler, USAF	Vice Adm. Bernard M. Streat, Chief, Naval Air Training	19 Aug 1970	Made significant contributions as Advanced Training Officer, Naval Air Training Command. He flew several hundred hours in Navy aircraft and made six landings on board <i>Lexington</i> (CVT 16).
10	Mr. John Warner (Secretary of the Navy)	Vice Adm. William D. Houser, DCNO (Air Warfare)	14 Oct 1972	Vigorously supported naval aviation. Presented at establishment of VF-1 and VF-2 (first F-14 squadrons) at NAS Miramar.
11	Mr. Robert G. Smith	Vice Adm. William D. Houser, DCNO (Air Warfare)	8 May 1973	Artist, McDonnell Douglas Corp. National recognition as an outstanding aviation artist.
12	Mr. George Spangeberg (NAVAIRSYSCOM)	Vice Adm. William D. Houser, DCNO (Air Warfare)	Sep 1975	Recognized for his many years of service as a Navy aircraft designer.
13	Mr. Jay R. Beasley	Vice Adm. E. C. Waller III, Director of Weapons Sys. Eva. Grp. for Vice Adm. Houser	25 Jul 1977	Presented in recognition of 23 years of exceptionally dedicated and valuable service to naval aviation as production test pilot with Lockheed and P-2/P-3 instructor.
14	Mr. Robert Osborne	Vice Adm. Frederick C. Turner, DCNO (Air Warfare)	21 Jan 1977	Presented for contributions to naval aviation safety; created Dilbert, Spoiler, and Grampaw Pettibone illustrations.
15	Capt. Virgil J. Lemmon	Vice Adm. Wesley L. McDonald, DCNO (Air Warfare)	23 Feb 1981	“Mr. Naval Aviation Maintenance.” Awarded for 40 years of distinguished service to naval aviation and the naval aviation maintenance establishment.
16	Adm. Arleigh A. Burke	Vice Adm. Wesley L. McDonald, DCNO (Air Warfare)	13 Oct 1981	Outspoken supporter of naval aviation; made decisions that shaped the Navy’s air arm as it is known today.

No	Name	Presented By	Date Received	Reason
17	Gen. James H. Doolittle	Adm. Thomas B. Hayward, CNO	11 Dec 1981	In recognition of many years of support of military aviation.
18	Mr. Paul E. Garber	Vice Adm. Edward H. Martin, DCNO (Air Warfare)	26 Mar 1985	Made significant contributions to naval aviation spanning the age of manned powered flight. Including service in World Wars I and II and impressive contributions in maintaining the history of naval aviation as the Ramsey Fellow and Historian Emeritus of the National Air and Space Museum.
19	Mr. Bob Hope	Vice Adm. Edward H. Martin, DCNO (Air Warfare) and the Secretary of the Navy, Mr. John Lehman	8 May 1986	Presented in recognition of 45 years of selfless dedication to the well-being of those serving their nation in the Navy, Marine Corps, and Coast Guard and for making remarkable contributions to the morale of those in naval aviation.
20	Mr. Edward H. Heinemann	Vice Adm. Edward H. Martin, DCNO (Air Warfare)	18 Oct 1986	Contributed to major achievements in the technical development of naval aircraft and as one of aviation's most highly regarded aircraft designers. The majority of the aircraft he designed served in naval aviation and he has become known as "Mr. Attack Aviation." A man whose professional life has been dedicated largely to designing a superb series of carrier-based aircraft.
21	Capt. Robert E. Mitchell, MC, USN	Rear Adm. E. D. Conner, Deputy, CNET	25 Jun 1990	Recognized for 43 years of contributions in the field of aerospace medicine. Conducted extensive research in the Thousand Aviator Program; worked with the Navy and Marine Corps Vietnam Prisoners of War (Repatriated); wrote and published numerous medical papers; and his operational work as a naval flight surgeon has helped shape the course of naval aviation.
22	Mr. Harold (Hal) Andrews	Vice Adm. Richard M. Dunleavy, ACNO (Air Warfare)	29 Apr 1991	Outstanding contributions to naval aviation as a civilian engineer with 30 years of service to the Navy; provided technical advice and support for the 50th and 75th naval aviation anniversary celebrations; volunteered support to <i>Naval Aviation News</i> magazine as technical advisor since the 1950s and his vast knowledge of naval aviation events, both technical and operational, have contributed to the advancement of naval aviation since his association with it beginning in World War II.
23	Mr. Corwin H. (Corky) Meyer	Adm. Jay L. Johnson, CNO	9 May 1997	A legendary test pilot with a career at Grumman's "Iron Works" that spanned 55 years. His contributions as a project pilot for Navy aircraft from Hellcats to Super Tigers helped provide the Navy with excellent aircraft. He was also the first civilian pilot to carrier qualify and be inducted into the Carrier Aviation Test Pilot Hall of Honor. Throughout his career as a test pilot and administrator, Corky Meyer's dedication contributed to the continued success of naval aviation.
24	Mr. Harry Gann	Adm. Jay L. Johnson, CNO	24 May 1997	A photographer, historian, writer, and engineer, Mr. Gann was a fixture in the world of naval aviation for more than 40 years. His photographs of the Blue Angels are classics and have been shown around the world. His work in naval aviation, especially his photography, was important in disseminating information about naval aviation to the American public. In 1987 he was recognized for his photography skills by being presented the annual award for Continuing Excellence in Aviation/Space Photography by the Aerofax Publishing Company.
25	Gen. James L. Jones, USMC	Adm. William J. Fallon, USN VCNO	10 Jan 2003	General Jones's extraordinary contributions to Navy and Marine Corps aviation included his efforts ensuring the success of Navy and Marine tactical air integration, supporting the Osprey, Joint Strike Fighter, and KC-130J, and upgrading legacy aircraft to bridge the gap between today's and tomorrow's aviation fleet.
26	Adm. Vern Clark, USN	Vice Adm. Mike Malone, CNAF	12 Jun 2004	For his support of naval aviation during his tenure as CNO.
27	Mr. Henry (Hank) Caruso	Vice Adm. Wally Massenburg, USN COMNAVAIR	9 Sep 2006	In recognition of his years of service as an engineer in support of various naval aviation programs and, even more significantly, for his unique aerocatures artwork. His artistic efforts have been far reaching and have conveyed a positive image of naval aviation.

Navy and Marine Corps Air Stations and Fields Named for Aviators

Including Temporary Advanced Air Bases and Fields

Admiral A. W. Radford Field

At NAS Cubi Point, Philippines. Dedicated 21 December 1972, in honor of former Chairman of the Joint Chiefs of Staff, Adm. Arthur W. Radford. (Field inactive)

Alvin Callender Field

At NAS JRB New Orleans, La. Dedicated 26 Apr 1958, in honor of Capt. Alvin A. Callender, RFC, native of New Orleans, killed in aerial combat during WWI while flying with the Royal Flying Corps of Canada. He was not a U.S. naval aviator. (Active)

Archibald Field

At Managua, Nicaragua. A Marine Corps field named in late 1928 or early 1929 for Capt. Robert J. Archibald, USMC, who directed the location of airfield sites in Nicaragua and was killed in line of duty in November 1928. (Inactive)

Armitage Field

At China Lake, Calif. Name apparently assigned locally; dedicated 30 May 1945, in honor of Lt. John M. Armitage, USNR, killed 21 August 1944, while conducting air firing tests of a Tiny Tim rocket. (Active)

Ault Field

At NAS Whidbey Island, Wash. Named in honor of Commo. William B. Ault, who lost his life in the Battle of Coral Sea. Designated by the Secretary of the Navy on 25 February 1943. (Active)

Barin Field

At Foley, Ala. Name assigned 2 July 1942, prior to establishing as a NAAS, in honor of Lt. Louis T. Barin (Naval Aviator No. 56), test pilot extraordinaire and co-pilot of NC-1 on the 1919 transatlantic attempt. The former NAAS now an ALF to NAS Saufley Field. (Inactive)

Bauer Field

On Vila, New Hebrides Islands. Named in June 1943, for Lt. Col. Harold W. Bauer, commanding officer of VMF-212, who was awarded the Medal of Honor posthumously for action in South Pacific, 28 September–3 October 1942. (Inactive)

Bordelon Field

At NAS Hilo, Hawaii. Named for Sgt. William J. Bordelon, USMC, killed in the invasion of Tarawa. A Medal of Honor recipient, he was not an aviator. (Inactive)

Bourne Field

At MCAS St. Thomas, U.S.V.I. Named in late 1930s for Maj. Louis T. Bourne, first to fly nonstop from the United States to Nicaragua. (Inactive)

Brewer Field

At NAS Agana, Guam, in honor of Cmdr. Charles W. Brewer Jr. Dedicated 15 February 1973. (Inactive)

Bristol Field

At NAS Argentia, Newfoundland. Named 1 June 1943 for Rear Adm. Arthur L. Bristol, who as Commander Support Force, Atlantic, contributed much toward planning and building the station. (Inactive)

Bronson Field

A NAAS at Pensacola, Fla. Name assigned 2 July 1942, prior to establishing of the station, in honor of Lt. j.g. Clarence K. Bronson (Naval Aviator No. 15) killed by premature explosion of a bomb during early bomb dropping tests, 8 November 1916. (Inactive)

Brown Field

A NAAS at Chula Vista, Calif. Named in honor of Cmdr. Melville S. Brown killed in an airplane crash in 1936. Assigned 1 June 1943, to the field at NAAS Otay Mesa and became the station name 11 Jun 1943. (Inactive)

Brown Field

At MCAF Quantico, Va. Name assigned in 1922 in honor of 2d Lt. Walter V. Brown, killed at Quantico in an operational crash. (Inactive)

Byrd Field

A Marine Corps field at Puerto Pabezao, Nicaragua, named in the late 1920s for Capt. William C. Byrd, USMC, killed in airplane crash. (Inactive)

Cabaniss Field

At NAS Corpus Christi, Tex. Dedicated 9 July 1941, in honor of Cmdr. Robert W. Cabaniss (Naval Aviator No. 36) killed in a plane crash in 1927. The former NAAS now an OLF to NAS Corpus Christi. (Active)

Carney Field

On Guadalcanal. Named in the fall of 1942 for Capt. James V. Carney, killed early in World War II. (Inactive)

Cecil Field

A NAS near Jacksonville, Fla. Station established 20 February 1943; named in honor of Cmdr. Henry B. Cecil (Naval Aviator No. 42) lost in the crash of the rigid dirigible *Akron* (ZRS 4) 4 April 1933. (Inactive)

Chambers Field

At NAS Norfolk, Va. Named 1 June 1938, in honor of Capt. Washington I. Chambers, first officer-in-charge of aviation and director of early efforts to find a place for aviation in the fleet although he was not an aviator. (NAS Norfolk no longer active but field still active and under control of NAS Oceana).

Chase Field

A NAS at Beeville, Tex. Named 27 April 1943, in honor of Lt. Cmdr. Nathan B. Chase (Naval Aviator No. 37) killed in 1925 in an air collision while exercising his squadron in fighter tactics. (Inactive)

Chevalier Field

At NAS Pensacola, Fla. Name assigned 30 December 1936, to old Station Field, in honor of Lt. Cmdr. Godfrey de C. Chevalier (Naval Aviator No. 7). (Inactive)

Corry Field

A NAAS at Pensacola, Fla. Name initially assigned 1 November 1922, to a temporary field and reassigned to the new station 8 December 1934, in honor of Lt. Cmdr. William M. Corry (Naval Aviator No. 23) who was awarded the Medal of Honor posthumously. (Inactive)

Cuddihy Field

A NAAS at Corpus Christi, Tex. Station established 3 Sep 1941; named in honor of Lt. George T. Cuddihy, test pilot and speed record holder, killed in a 1929 crash. (Inactive)

Cunningham Field

At MCAS Cherry Point, N.C. Dedicated 4 Sep 1941, in honor of Lt. Col. Alfred A. Cunningham, (Naval Aviator No. 5), the first Marine Corps aviator. (Active)

Dowdell Field

A Marine Corps field at Apali, Nicaragua, named in the late 1920s for Sgt. Frank E. Dowdell, USMC, a non-aviator missing in action after a forced landing with Lt. Earl A. Thomas on Sapotilla Ridge, Nicaragua. (Inactive)

Dyess Field

On Roi Island, Kwajalein Atoll. Named 16 April 1944, for Lt. Col. Aquilla J. Dyess, USMCR, killed leading the assault on Roi-Namur. A non-aviator, Dyess was awarded the Medal of Honor posthumously. (Inactive)

Ellyson Field

A NAS at Pensacola, Fla. Station established 20 January 1943; named in honor of Cmdr. Theodore G. Ellyson, the first naval aviator. (Inactive)

Finucane Field

On Efate, New Hebrides. Named for 2d Lt. Arthur E. Finucane, a pilot with VMF-212 who was killed in a 1942 training accident off New Caledonia. (Inactive)

Flatley Field

At NAS Olathe, Kans. Dedicated 20 May 1962, in honor of Vice Adm. James H. Flatley, fighter pilot, carrier commander, Director of Air Warfare Division, and former commanding officer of the station. (Inactive)

Fleming Field

An auxiliary field to NAS Minneapolis, Minn. Named 20 July 1943, in honor of Capt. Richard E. Fleming, USMC, killed leading an attack on an enemy cruiser in the Battle of Midway; Medal of Honor awarded posthumously. (Inactive)

Floyd Bennett Field

At NAS New York, N.Y. Originally assigned to New York Municipal Airport, dedicated 23 May 1931, and retained as station name upon its establishing 2 June 1941. For Floyd Bennett (Naval Aviation Pilot No. 9) who with Rear Adm. Richard E. Byrd was first to fly over the North Pole. (Inactive Navy field.)

Forrest Sherman Field

At NAS Pensacola, Fla., formerly Fort Barrancas Airfield. Dedicated 2 November 1951, in honor of Adm. Forrest P. Sherman, Chief of Naval Operations, 1949–1951. (Active)

Frederick C. Sherman Field

At San Clemente Island, Calif. Dedicated 11 January 1961, in honor of Vice Adm. Frederick C. Sherman, three-time recipient of the Navy Cross and renowned leader of carrier task groups during WWII. (The former NAAS now an active NALF).

Frederick M. Trapnell Field

At NAS Patuxent River, Md. Dedicated 1 April 1976 in honor of naval aviator Vice Adm. Frederick M. Trapnell. (Active)

Frankforter Field

A Marine Corps field at Esteli, Nicaragua. Named in late 1920s for Pvt. Rudolph A. Frankforter, USMC, a non-aviator killed with Capt. William C. Byrd, USMC, in an airplane crash. (Inactive)

Halsey Field

At NAS North Island, Calif. Dedicated 20 August 1961, in honor of Fleet Adm. William F. Halsey, Commander Third Fleet in the advance across the Pacific during World War II. Officially named Admiral Halsey Field. (Active)

Haring Field

On Efate, New Hebrides. Named for 2d Lt. Richard Z. Haring, USMCR. (Inactive)

Harvey Field

At NAF Inyokern, Calif. Name assigned to field formerly known as Inyokern Airfield, 10 May 1944, in honor of Lt. Cmdr. Warren W. Harvey, for his contributions to the development of aviation ordnance and fighter tactics. (Inactive)

Hawkins Field

On Betio Island, Tarawa. Named for Lt. William D. Hawkins, USMCR, killed while landing his platoon during assault on Tarawa; a non-aviator, he was awarded the Medal of Honor posthumously. (Inactive)

Henderson Field

At NS Midway Island. Named 19 August 1942, in honor of Maj. Lofton R. Henderson, lost in action during the Battle of Midway. (Active) Field on Guadalcanal, also named in honor of Maj. Henderson in August 1942. (Inactive)

Hensley Field

At NAS Dallas, Tex. Named for Col. William N. Hensley Jr., a non-aviator prominent in the reserve program during the 1920s. (NAS Dallas is inactive.)

Isley Field

A NAS on Saipan, Marianas Island. Named 30 June 1944, prior to its designation as NAS, for Cmdr. Robert H. Isely, who lost his life leading his squadron in an attack on the then enemy installation known as Aslito Airfield. The incorrect spelling of the station name became official through usage. (Inactive)

John Rodgers Field

At NAS Barbers Point, Hawaii. Dedicated on 10 September 1974 in honor of Cmdr. John Rodgers for his exploits in early naval aviation. (Inactive)

Lee Field

At NAS Green Cove Springs, Fla. Named in September 1940 in honor of Ens. Benjamin Lee, who lost his life in a crash at Killingholme, England, during WWI. Originally assigned as the station name, but reassigned to the landing field when station name changed to Green Cove Springs, 8 August 1943. (Inactive)

Maxfield Field

At NAS Lakehurst, N.J. Named 6 January 1944, in honor of Cmdr. Louis H. Maxfield (Naval Aviator No. 17) who lost his life in the crash of the dirigible R-38, 24 August 1921. (Inactive)

Max Kiel Airfield

At Little America, Antarctica. Named in early 1956 in honor of non-aviator Max Kiel, who lost his life while bridging a crevasse in Marie Byrd Land. (Inactive)

McCain Field

At NAS Meridian, Miss. Dedicated with the establishing of the station 14 July 1961, in honor of Adm. John S. McCain, carrier task force commander, Chief of BuAer, and Deputy Chief Naval Operations (Air). (Active)

McCalla Field

At NAS Guantanamo, Cuba. Named for Capt. Bowman H. McCalla, non-aviator skipper of *Marblehead* (Cruiser No. 11) participating in the capture of Guantanamo Bay, and commander of a base established there, during the Spanish-American War. (NAS Guantanamo disestablished but NS Guantanamo still active along with the airfield.)

McCutcheon Field

At MCAS New River, N.C. Named in honor of Gen. Keith B. McCutcheon, a pioneer in Marine Corps helicopter assault tactics. Dedicated 1972. (Active)

Merritt Field

At MCAS Beaufort, S.C., in honor of Maj. Gen. Lewis G. Merritt. Dedicated on 19 September 1975. (Active)

Mitchell Field

At NS Adak, Alaska. Named 2 February 1944, in honor of Ens. Albert E. Mitchell, who lost his life in the Aleutians earlier in the war. Officially named Albert Mitchell Field. (Inactive)

Mitscher Field

At NAS Miramar, Calif. Named 14 June 1955, in honor of Adm. Marc A. Mitscher (Naval Aviator No. 33), leader of fast carrier task forces in WWII and Deputy Chief of Naval Operations (Air). NAS Miramar redesignated MCAS Miramar on 1 October 1997. (Active)

Moffett Field

At NAS at Sunnyvale, Calif. Named in honor of Rear Adm. William A. Moffett, naval aviation observer, first Chief of BuAer and leader of naval aviation through the 1920s who lost his life in the crash of the rigid dirigible *Akron* (ZRS 4) 4 April 1933. Name first assigned 17 May 1933, to the landing field at NAS Sunnyvale, Calif., and remained in use after the station was transferred to the U.S. Army in 1935 and after station was returned to the Navy and established as a NAS, 16 April 1942; became station name 20 April 1942. (Inactive)

Moret Field

On Zamboanga, Philippines. Named for Lt. Col. Paul Moret, USMC, killed in a crash in 1943. (Inactive)

Mullinnix Field

On Buota Island, Tarawa. Named in December 1943 in honor of Rear Adm. Henry M. Mullinnix, carrier division commander, lost in sinking of *Liscome Bay* (CVE 56), during the Gilbert Islands campaign, 24 November 1943. (Inactive)

Munn Field

At MCAS Camp Pendleton, Calif. The airfield was designated Munn Field on 12 January 1987 in honor of Lt. Gen. John C. Munn. The general had been Assistant Commandant of the Marine Corps and the first Marine Aviator to command Camp Pendleton. (Active)

Mustin Field

A NAF at Philadelphia, Pa. Dedicated 17 September 1926, in honor of Capt. Henry C. Mustin (Naval Aviator No. 11), an early exponent of aviation as the striking arm of the fleet. (Inactive)

Nimitz Field

At NAS Alameda, Calif. Dedicated 26 January 1967, in honor of non-aviator Fleet Adm. Chester W. Nimitz, Commander-in-Chief of the Pacific during WWII and Chief of Naval Operations. (Inactive)

Ofstie Field

At NS Roosevelt Roads, P.R. Dedicated 21 May 1959, in honor of Vice Adm. Ralph A. Ofstie, test pilot, fleet commander and Deputy Chief of Naval Operations (Air). (Inactive)

O'Hare Field

On Abemama, Gilbert Islands. Named in December 1943 in honor of Lt. Cmdr. Edward H. O'Hare, air group commander, pioneer in night carrier operations, and Medal of Honor recipient, killed in action during the Gilberts Campaign, 26 November 1943. (Inactive)

Page Field

At MCAS Parris Island, S.C. Named 19 September 1938, prior to station establishing, in honor of Capt. Arthur H. Page Jr., USMC, pioneer in instrument flying and racing pilot, who crashed to his death while leading in the 1930 Thompson Trophy Race. (Inactive)

Ramey Field

At NAS Sanford, Fla. Dedicated 6 February 1959, in honor of Lt. Cmdr. Robert W. Ramey, who lost his life by electing to guide his crippled plane away from a residential area. (Inactive)

Ream Field

At NAS Imperial Beach, Calif. Named in 1943 for Maj. William R. Ream, MC, USA, who was a non-aviator medical officer at Rockwell Field on North Island in the WWI period. Initially the station name when the station was renamed Imperial Beach, 1 January 1968. (Inactive)

Reeves Field

At NAS Lemoore, Calif. Dedicated 20 November 1961, in honor of Rear Adm. Joseph M. Reeves, naval aviation observer and farseeing pioneer in the tactical employment of aircraft carriers. Officially, Joseph Mason Reeves Field. (Active) Field at NAB San Pedro (later NAS Terminal Island), Calif., also named in honor of Adm. Reeves in the 1930s. (Inactive)

Rodd Field

A NAAS at Corpus Christi, Tex. Station established 7 June 1941; named in honor of Lt. Herbert C. Rodd, radio officer in NC-4 on the 1919 transatlantic flight. (Inactive)

Sailer Field

On Guadalcanal. Named for Maj. Joseph Sailer, who lost his life leading his squadron in an attack on enemy destroyers. (Inactive)

Saufley Field

A NAS at Pensacola, Fla. Named prior to station establishing 22 August 1940, in honor of Lt. j.g. Richard C. Saufley (Naval Aviator No. 14), killed in a crash while on a record endurance flight. NAS Saufley Field no longer an active air station, however, the field may be used as an auxiliary landing field.

Shea Field

At NAS South Weymouth, Mass. In honor of Lt. Cmdr. John J. Shea, killed in action while serving on board *Wasp* (CV 7) in 1942. Name assigned first to the field at NAS Squantum, Mass., 15 March 1946, and upon closing of that station in 1954 was transferred to the field at South Weymouth. (Inactive)

Smartt Field

An outlying field to NAS St. Louis, Mo. Named in June 1943 in honor of Ens. Joseph G. Smartt, who lost his life 7 December 1941, while serving with VP-11 at Kaneohe, Hawaii. (Inactive)

Soucek Field

At NAS Oceana, Va. Dedicated 4 June 1957, in honor of Vice Adm. Apollo Soucek, world altitude record holder, test pilot, task force commander, and Chief of BuAer. Officially named Apollo Soucek Field. (Active)

Stickell Field

On Eniwetok, Marshall Islands. Named early in 1944 in honor of Lt. John H. Stickell, naval aviator and former RAF pilot, who died from wounds received in action during a low-level attack on Jaluit in the Marshalls. (Inactive)

Taylor Field

On Efate, New Hebrides. Named for Lt. Lawrence C. Taylor, USMCR, killed while intercepting an air attack on Guadalcanal. (Inactive)

Thomas Field

A Marine Corps field at Ocotal, Nicaragua. Named in the late 1920s for Lt. Earl A. Thomas, USMC, missing in action after a forced landing on Sapotilla Ridge, Nicaragua. (Inactive)

Titcomb Field

On Mindanao, Philippines. Named in February 1945 in honor of Capt. John A. Titcomb, USMCR, a non-aviator killed while directing a close air support mission in northern Luzon. (Inactive)

Towers Field

At NAS Jacksonville, Fla. Dedicated 14 October 1960, in honor of Adm. John H. Towers (Naval Aviator No. 3), an outstanding leader in naval aviation from 1911 to his retirement in 1947. Officially named John Towers Field. (Active)

Turner Field

At MCAF Quantico, Va. Named in honor of Col. Thomas C. Turner, USMC, naval aviator and Director of Marine Aviation. Name was first assigned 1 July 1936, to the field at Marine Barracks, Quantico. (Active)

Van Voorhis Field

At NAS Fallon, Nev. Dedicated 1 November 1959, in honor of Cmdr. Bruce A. Van Voorhis, a posthumous Medal of Honor recipient who lost his life on a low-level bombing attack on enemy positions during the Battle of the Solomon Islands. (Active)

Waldron Field

At NAS Corpus Christi, Tex. Named 5 March 1943, prior to establishing of station, in honor of Lt. Cmdr. John C. Waldron, killed in action leading the attack of Torpedo Squadron 8 in the Battle of Midway, 4 June 1942. The former NAAS is now an OLF to NAS Corpus Christi. (Active)

Webster Field

A flight test field at Priest Point, Md., auxiliary to NAS Patuxent River. Named 1 June 1943 for Capt. Walter W. Webster, one-time head of Naval Aircraft Factory and long associated with test and development work. (Active)

Whiting Field

NAS Whiting Field at Milton, Fla. Named 1 June 1943, prior to establishing of station, in honor of Capt. Kenneth Whiting (Naval Aviator No. 16), first to command naval aviation units overseas in WWI, first acting commander of the Navy's first carrier, and leader in the development of carriers. (Active)

Wigley Field

On Engebi Island, Eniwetok Atoll. Named in March 1944 for Lt. Col. Roy C. Wigley, USAAF, a pilot killed in an attack on Jaluit, Marshall Islands. (Inactive)

Williams Field

At McMurdo Sound, Antarctica. Named 16 February 1956, for non-aviator Richard Williams, killed when his vehicle broke through the bay ice. (Inactive)