



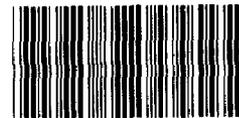
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Report to the Chairman, Subcommittee on
Defense Industry and Technology,
Committee on Armed Services, U.S.
Senate

November 1988

PERSONNEL

Civilian/Military Personnel Mix at the Air Force Weapons Laboratory



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National Security and
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November 16, 1988

The Honorable Jeff Bingaman
Chairman, Subcommittee on Defense
Industry and Technology
Committee on Armed Services
United States Senate

Dear Mr. Chairman:

In response to your letter of January 19, 1988, and a subsequent meeting with your Office, we reviewed the civilian/military personnel mix at the Air Force Weapons Laboratory (AFWL), located at Kirtland Air Force Base, Albuquerque, New Mexico. You were concerned about AFWL's lower proportion of civilian to military personnel and the corresponding limitation on career opportunities for civilian engineers and scientists. As agreed with your Office, we addressed the following questions.

- Did the Air Force follow its regulations in making position decisions?
- Why is the present civilian/military personnel mix at AFWL the way it is (currently 49 percent civilian and 51 percent military)?
- What is the civilian/military personnel mix at other Air Force laboratories?
- What were the results of previous Air Force plans to convert more positions from military to civilian?
- How will AFWL's civilian/military mix be affected by the recent congressional direction to reduce officer positions in the Department of Defense (DOD)?

With regard to the specific issues you raised, we found the following.

- Although required by its regulations, the Air Force Systems Command did not ensure that AFWL annually reviewed each of its military positions to ensure that the justification was current and consistent with the military essentiality criteria. Few of the AFWL officer positions we reviewed met the military essentiality criterion under which they were categorized. Of the 293 officer positions we reviewed that were coded E, meaning they require current military experience, only 47 (16 percent) actually required current military experience, according to AFWL division and branch chiefs. The duties of the remaining 246 positions, according to these officials, could be performed by civilians.

- The civilian/military mix at AFWL is the way it is today because of the Air Force philosophy that has prevailed since the laboratory was established in 1963. This philosophy stresses military staffing for various reasons such as maintaining rapport with operational commands and AFWL serving as a training ground for Air Force officer scientists and engineers.
- The 13 other Air Force laboratories had about 72 percent civilians overall in fiscal year 1986 (according to the latest data readily available).
- In response to congressional inquiries into AFWL's civilian/military personnel mix, AFWL has increased the number of its civilian positions. Changes in the overall mix, however, have been gradual. In 1972 about 35 percent of AFWL's personnel were civilians; by 1988 the percentage had increased to 49.
- The recent congressionally directed reductions in DOD officer positions will result in a reduction of 44 officer positions at AFWL. AFWL plans to accomplish the reduction by converting 25 officer positions to civilian positions and by eliminating another 19 officer positions.

Because so many of the military positions we reviewed did not meet the military essentiality criterion under which they were categorized, we are recommending that the Secretary of the Air Force direct the Commander, Air Force Systems Command, to (1) review each AFWL position to identify those that are military essential, based on established Air Force criteria, (2) ensure that each position is appropriately coded, (3) maintain supporting rationale for the positions coded, and (4) convert non-military-essential positions to civilian positions.

As requested, we did not obtain official agency comments on this report. However, the views of responsible agency officials were sought during the course of our work and are incorporated where appropriate. Air Force officials at Kirtland Air Force Base agreed with our findings and have initiated action to review each AFWL position for military essentiality.

Appendix I contains the detailed results of our review. Appendix II describes our objectives, scope, and methodology.

We are sending copies of this report to the Chairmen, House Committee on Government Operations, Senate Committee on Governmental Affairs, House and Senate Committees on Appropriations, and House and Senate Committees on Armed Services. We are also sending copies to the Secretaries of Defense and the Air Force; the Commander, Air Force Systems

Command; and the Director, Office of Management and Budget. We will make copies available to other interested parties upon request.

Sincerely yours,



Frank C. Conahan
Assistant Comptroller General

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Abbreviations

| | |
|-------|-------------------------------------|
| AFWL | Air Force Weapons Laboratory |
| DOD | Department of Defense |
| GAO | General Accounting Office |
| GS/GM | General Schedule/General Management |

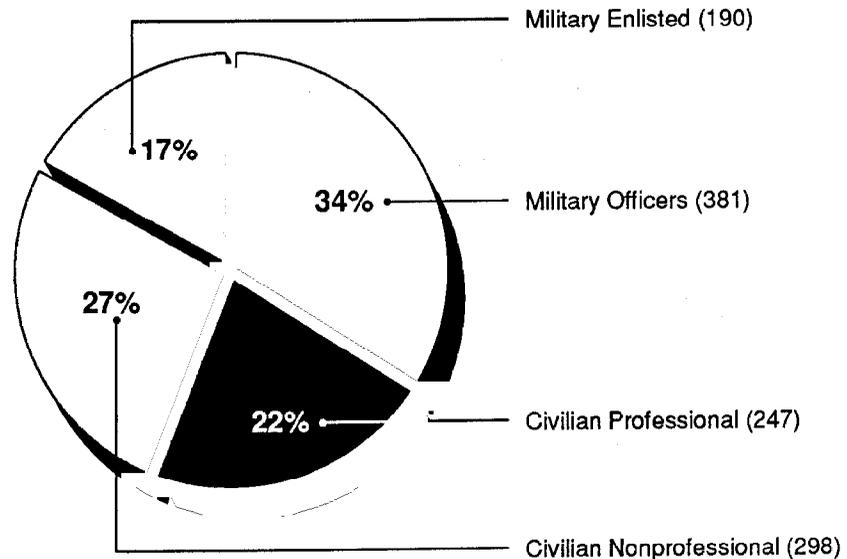
Review of the Civilian/Military Personnel Mix at the Air Force Weapons Laboratory

The Air Force Weapons Laboratory (AFWL), located at Kirtland Air Force Base, Albuquerque, New Mexico, was established in 1963 to research several aspects of nuclear weapons and weapons effects. Now part of the Air Force Space Technology Center, Air Force Systems Command, AFWL's research subjects include nuclear weapons survivability and vulnerability, nuclear weapons safety, and directed energy weapons technology.

Profile of AFWL's Current Civilian/Military Personnel Mix

For fiscal year 1988, AFWL was authorized 1,116 personnel: 545 civilian (49 percent) and 571 military (51 percent). Of the authorized civilian positions, 247 are professional positions (i.e., scientific and engineering positions) ranging from General Schedule/General Management (GS/GM) grades 7 to Senior Executive Service. Of the authorized military positions, 381 are officer positions, ranging from lieutenants to colonels. Figure I.1 shows AFWL's personnel mix.

Figure I.1: AFWL's Authorized Positions
(Fiscal Year 1988)



Over the past 5 years, as shown in table I.1, AFWL's authorized officer positions have gradually decreased in number, whereas its civilian professional positions have gradually increased.

**Appendix I
Review of the Civilian/Military Personnel
Mix at the Air Force Weapons Laboratory**

Table I.1: AFWL's Authorized Military and Civilian Positions (Fiscal Years 1984 Through 1988)

| Fiscal year | Military positions | | Civilian positions | |
|-------------|--------------------|----------|--------------------|-----------------|
| | Officer | Enlisted | Professional | Nonprofessional |
| 1984 | 406 | 223 | 218 | 308 |
| 1985 | 398 | 211 | 226 | 296 |
| 1986 | 391 | 214 | 225 | 283 |
| 1987 | 391 | 189 | 229 | 308 |
| 1988 | 381 | 190 | 247 | 298 |

AFWL's military officer positions currently outnumber civilian professional positions 381 to 247. The military officer positions and civilian professional positions are distributed as shown in table I.2.

Table I.2: AFWL's Civilian Professional and Military Officer Positions (Fiscal Year 1988)

| Civilian professional positions | | Military officer positions | |
|---------------------------------|-----|----------------------------|-----|
| Grade | No. | Rank | No. |
| SES/ST ^a | 2 | Colonel | 11 |
| GS/GM-15 | 24 | Lt. Colonel | 25 |
| GS/GM-14 | 40 | Major | 51 |
| GS/GM-13 | 71 | Captain | 166 |
| GS-12 | 72 | Lieutenant | 128 |
| GS-11 | 25 | | |
| GS-9 | 9 | | |
| GS-7 | 4 | | |

^aSenior Executive Service/Scientific Technical.

Air Force Systems Command Did Not Ensure That AFWL Justified Positions Categorized as Military Essential

The Air Force Systems Command did not ensure that AFWL annually reviewed the justification for each military position to determine if the coding was current and consistent with the military essentiality criteria of Air Force regulations. Of the 293 officer positions we reviewed, only 47 (16 percent) met the criteria.

DOD Directives 1100-4 and 1400-5 and Air Force Regulation 26-1 state that civilian personnel are to be employed unless military personnel are required by law or for other reasons such as combat readiness, training, or security. Air Force Regulation 26-1 states that military essentiality is to be the "driving force" in determining the civilian/military personnel mix, and work that does not require military personnel should be performed by civilians. The regulation provides guidance to assist officials

in determining which positions should be staffed with military personnel and which of the various military essentiality codes should be assigned to those positions.

The regulation requires that each military position be reviewed annually to ensure that its coding is current and consistent with the military essentiality criteria. The regulation also requires that major commands maintain supporting rationale for positions coded as military essential.

We found no indication that the Deputy Director for Manpower and Organization, Air Force Systems Command Headquarters, Andrews Air Force Base, Maryland, required AFWL to annually review and justify the individual positions coded as military essential. The only document the Systems Command manpower office at Kirtland Air Force Base had was a June 1988 memo from AFWL that contained a general justification for each group of the military essentiality codes used. For example, the memo provided the following justification for the positions with the military essentiality code "E," the code to be used for positions that require current military experience.

"AFWL has positions requiring highly educated and experienced scientists and engineers that have military background ensuring military requirements and applications are fulfilled. These positions are coded E."

The memo did not specify which individual positions were included, nor did it explain why current military experience was required for performance of the position duties. No backup material existed to show how the military essentiality determinations were made. In addition to its generality, it did not justify the military essentiality of each AFWL military position, as required by Air Force regulations. According to AFWL officials, a review of each position to determine military essentiality has not been done at AFWL.

Because adequate supporting documentation was not available to justify AFWL's military-essential positions, we discussed with AFWL officials the military essentiality of selected officer positions. We selected positions coded E, meaning that current military experience is required. The E positions were selected because they made up the vast majority of AFWL's military-essential positions. Of the 381 officer positions authorized for AFWL in fiscal year 1988, all were categorized as military essential. Of these positions, 344 were coded E, and we selected 293 (85 percent) for discussion with the chiefs of the divisions and branches in

which the positions were located.¹ We primarily selected units in which five or more E positions were located.

To be coded E, according to Air Force regulations, a position must meet the following military essentiality criterion:

“A position where current military experience is required for successful performance of the prescribed duties. [The E code] is used when required duties must relate to duties that are distinctly military in nature as distinguished from those which are or could be accomplished by civilian employees.”

In our discussions with the cognizant division and branch chiefs, we reviewed each position coded E and asked whether the position actually required current military experience or whether its duties could be performed by a civilian.

According to the division and branch chiefs, 246 (84 percent) of the 293 E positions we discussed with them did not require current military experience and could be performed by civilians. We also noted that 104 of the 246 positions were filled by lieutenants serving their first military assignment. These lieutenants had only minimal military experience before joining AFWL, generally limited to experience associated with what they had received through Reserve Officers Training Corps, Officers Training School, or the Air Force Academy.

Although AFWL division and branch chiefs told us that 246 of the E positions did not require current military experience and could be staffed with civilians, they did not believe that the overall civilian/military staffing mix should be changed. According to the chiefs, there were several advantages of having military personnel. Among the advantages cited by many of the chiefs were that (1) military personnel had the ability to establish and maintain rapport with operational commands and (2) military personnel received valuable research and development training at AFWL. However, according to Air Force regulations, these reasons do not justify use of the military essentiality code E. Therefore, there is a need for military positions to be reviewed to determine whether the positions are justified under the E code or other established military essentiality codes or should be converted to civilian positions.

¹The officer positions we reviewed represented about 77 percent of the 381 officer positions authorized for AFWL in fiscal year 1988.

Recommendations to the Secretary of the Air Force

Because so many of the AFWL positions we reviewed did not meet the military essentiality criterion under which they were categorized, we recommend that the Secretary of the Air Force direct the Commander, Air Force Systems Command, to

- review each AFWL position to identify those that are military essential, based on established Air Force criteria;
- ensure that each position is appropriately coded;
- maintain adequate supporting rationale for the positions coded; and
- convert non-military-essential positions to civilian positions.

Why AFWL's Civilian/ Military Personnel Mix Is the Way It Is

With a staff that is 49 percent civilian, AFWL's current percentage of civilian personnel is higher than it was 25 years ago but lower than the overall percentage for Air Force laboratories and other services' in-house laboratories. In fiscal year 1986, according to the latest DOD report available on in-house laboratories' authorized positions, Navy laboratories had 92 percent civilians, Army laboratories had 90 percent, and Air Force laboratories (including AFWL) had 68 percent overall. In contrast, 46 percent of AFWL's authorized positions were civilian in fiscal year 1986.

The primary reason that AFWL's percentage of civilian personnel is lower than that of the other laboratories is that Air Force officials believe the nature of AFWL's mission dictates that AFWL should be staffed with a large percentage of military personnel. This belief stems from a staffing philosophy that was adopted in 1963, when the laboratory was established, and has been carried forward to today.

When AFWL was established, only about 35 percent of AFWL's personnel were civilians. A predominantly military staff was preferred for several reasons, according to AFWL documents and officials. Military personnel were available in the 1960s with the backgrounds necessary to perform AFWL's nuclear weapons research, whereas civilians with comparable backgrounds were generally not available.

The decision to have a laboratory staffed primarily with military personnel was also based on what Air Force officials then considered to be several advantages of employing military personnel. For example, officials believed that military officers would be better able than civilians to achieve and maintain a rapport with operational commands. The officials also envisioned AFWL as a training ground that would produce the qualified officer scientists and engineers needed by the Air Force.

AFWL was also expected to benefit from the "new blood," or innovative ideas, brought by military personnel transferring into the laboratory as the trained personnel transferred out. Another advantage expressed was the administrative flexibility of military personnel, that is, the ease with which they could be transferred to other programs or rotated overseas.

These same advantages of employing military personnel were cited by many AFWL officials we interviewed. Although AFWL officials did not advocate a specific civilian/military personnel mix, they do believe it is necessary to maintain a strong military staff component to effectively perform AFWL's mission. In other words, the philosophy of staffing AFWL with a high percentage of military personnel appears to remain today. On the other hand, AFWL officials said that civilians offer technical continuity to AFWL and, therefore, that a mix of military and civilian personnel is necessary for AFWL to be effective.

Most Other Air Force Laboratories Had Higher Percentages of Civilian Personnel Than AFWL

In fiscal year 1986 (the latest year for which data were readily available), the 13 other Air Force laboratories (excluding AFWL) had about 72 percent civilian employees overall, whereas AFWL had 46 percent civilians. The fiscal year 1986 civilian/military mix at these other Air Force laboratories ranged from 28 percent civilians at the Frank J. Seiler Research Laboratory (with a total of 32 employees) to 85 percent civilians at the Aero Propulsion Laboratory (with a total of 368 employees). Of the 13 laboratories, 10 had a higher percentage of civilian employees than AFWL.

AFWL Has Converted Military Positions to Civilian Positions in Response to Past Congressional Urgings

AFWL is now about 49 percent civilian, up from about 35 percent 25 years ago. This growth is due partly to congressional inquiries in 1972 and 1983 into the laboratory's civilian/military personnel mix.² The inquiries were prompted by civilian employees' allegations that the military predominance at AFWL curtailed civilian career opportunities.

²Although the 1972 inquiry pertained to aspects of the personnel mix at AFWL alone, the 1983 inquiry pertained to aspects of the mix at AFWL and at two other Air Force organizations at Kirtland Air Force Base.

AFWL's Percentage of Civilian Positions Increased Subsequent to the 1972 Inquiry

As a result of the 1972 inquiry into AFWL's civilian/military personnel mix, AFWL's percentage of authorized civilian positions increased from 35 in 1972 to 42 in 1975. In response to the inquiry, AFWL had planned to convert 125 military positions to civilian. However, although the number of military positions decreased by 132, the number of civilian positions increased by only 69. According to AFWL documents, the planned conversion was not fully accomplished because of (1) difficulties in obtaining funding for additional civilian positions and (2) Air Force-mandated cutbacks in civilian positions during the same period.

AFWL Converted 24 Positions From Military to Civilian in Response to the 1983 Inquiry

In response to the 1983 congressional inquiry, the Space Technology Center Commander agreed to convert 24 AFWL military positions to civilian positions. These conversions, as well as other personnel actions, raised the civilian percentage to 46 by 1986 (up from the 42 percent achieved as a result of the 1972 inquiry). As in 1972, the 1983 inquiry was prompted by civilian employees' concerns about the lack of career opportunities at AFWL.

As a result of the 1983 inquiry, the Air Force Systems Command reviewed AFWL's civilian/military personnel mix. The resulting report concluded that the mix (then about 45 percent civilian) appeared to be effective. However, the report identified an opportunity to increase civilian positions at AFWL by converting 24 AFWL military positions, 6 each year for 4 fiscal years, to civilian positions. The conversions were to be accomplished by trading the AFWL military positions for civilian positions held by other Air Force units.

According to the AFWL Personnel Liaison Office, 24 AFWL positions were converted from military to civilian as a result of the trading process. Of the 24 converted positions, 19 were filled, as shown in table I.3.

Table I.3: Military Positions Converted to Civilian and Filled After the 1983 Inquiry

| Grade | Positions filled |
|----------|------------------|
| GS/GM-14 | 4 |
| GS/GM-13 | 3 |
| GS-12 | 5 |
| GS-7 | 1 |
| GS-5 | 6 |

AFWL Plans to Reduce Its Military Officer Positions in Response to Congressional Direction

AFWL's percentage of civilian employees, which currently is about 49, will likely increase as a result of the congressionally mandated reductions in military officer positions DOD-wide. The National Defense Authorization Act for Fiscal Year 1987 mandated a reduction in the number of commissioned officers on active duty. The reduction was to take place over a 3-year period, beginning in fiscal year 1987 and ending in fiscal year 1989. However, subsequent authorization acts allowed the Secretary of Defense to defer completion of the reduction until the end of fiscal year 1990.

As a result of the congressionally mandated reductions, AFWL's military positions are to be reduced by 44. AFWL plans to accomplish its reductions by converting 25 military positions to civilian positions and eliminating another 19 military positions. When accomplished, these reductions will increase AFWL's percentage of civilian positions to about 52.

Objectives, Scope, and Methodology

The Chairman, Subcommittee on Defense Industry and Technology, Senate Committee on Armed Services, requested that we undertake this review because of concern that the lower proportion of civilian to military personnel at AFWL, compared with Army and Navy laboratories and laboratories Air Force-wide, limited career opportunities for civilian engineers and scientists.

The objectives of our review were to determine (1) whether the Air Force followed its regulations in making position decisions, (2) why the present civilian/military mix at AFWL is the way it is, (3) the civilian/military personnel mix at other Air Force laboratories, (4) the results of previous Air Force plans to convert more positions from military to civilian, and (5) how AFWL's civilian/military mix will be affected by the recent congressional direction to reduce officer positions in the Department of Defense.

As agreed with the Chairman's Office, we did not compare AFWL's effectiveness and efficiency with that of other DOD laboratories, as requested, because attempts to compare different types of research facilities are inherently subjective and difficult.

To determine whether the Air Force followed its regulations in making position decisions, we reviewed Air Force regulations and interviewed Air Force officials. Of 571 military positions authorized for AFWL in fiscal year 1988, 381 were officer positions. Of the 381, 344 (about 90 percent) were assigned the military essentiality code E, meaning that current military experience is required to perform the duties of the positions. We selected for review 293 (or 85 percent) of the 344 officer positions coded E, primarily at units that had five or more officer positions coded E, and we interviewed the division or branch chief about military essentiality of the positions. We did not review enlisted positions.

To obtain information on the origins of AFWL and on the results of the 1972 congressional inquiry into AFWL's civilian/military personnel mix, we reviewed documents from AFWL's history office. We obtained personnel data and information on the 1983 congressional inquiry into AFWL's personnel mix from AFWL's History Office, Personnel Liaison Office, and Headquarters Operations Office, and the Air Force Systems Command's Management Engineering Detachment at Kirtland Air Force Base, Albuquerque, New Mexico.

To obtain information on the civilian/military mix at Army, Navy, and other Air Force laboratories, we reviewed the latest DOD report (October 1986) on in-house laboratories' activities.

To obtain documents and officials' views on AFWL's civilian/military personnel mix, we interviewed Air Force officials at AFWL; Air Force Headquarters, Washington, D.C.; Air Force Systems Command Headquarters, Andrews Air Force Base, Maryland; and the Air Force Space Technology Center, Kirtland Air Force Base, Albuquerque, New Mexico. We also discussed the civilian/military personnel mix at in-house Army and Navy laboratories with Army and Navy Headquarters officials in Washington, D.C.

We performed our review from April through September 1988 in accordance with generally accepted government auditing standards.



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