ABSTRACT

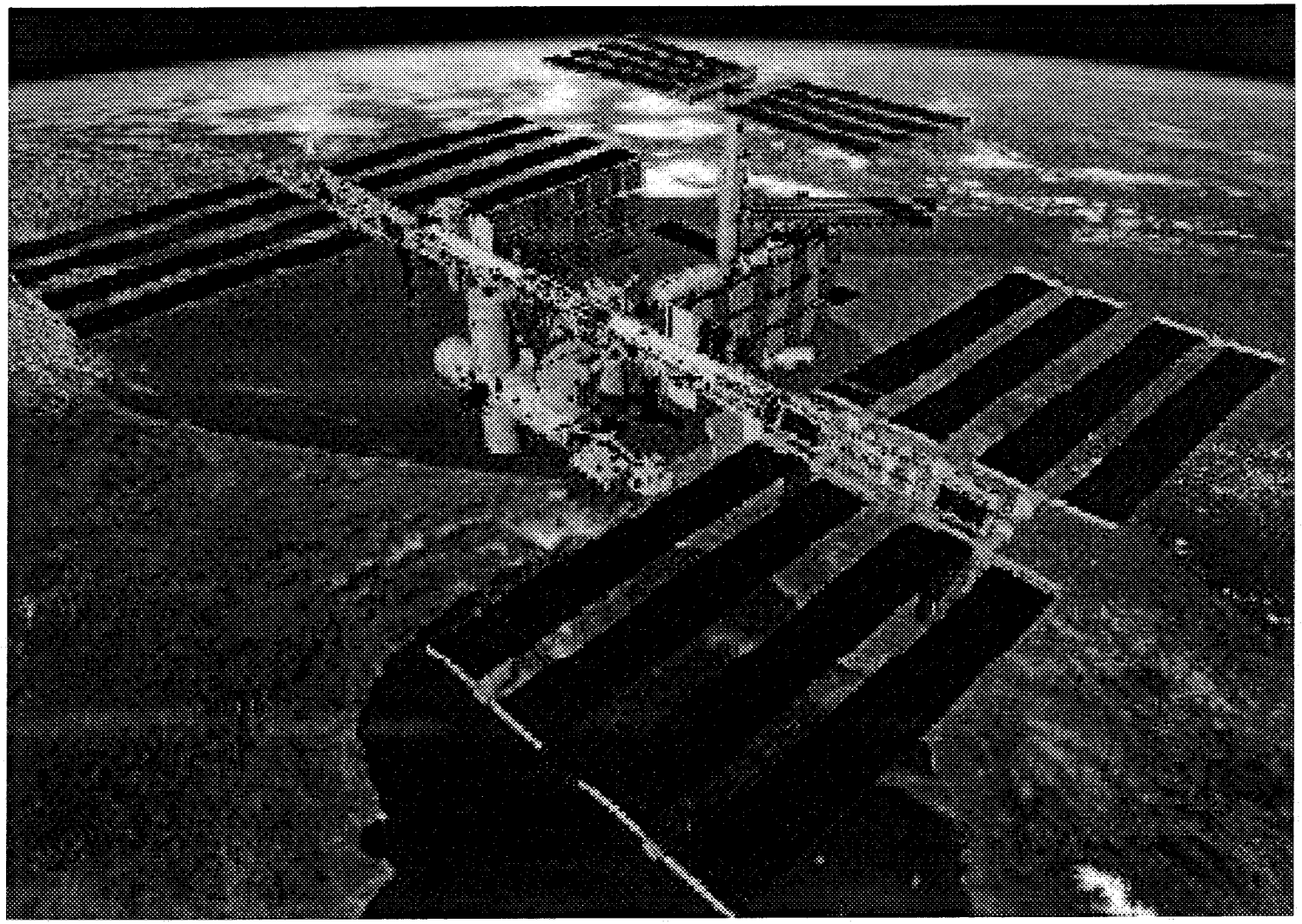
Presentation given at the opening ceremony of the Centre of Vocational Excellence in Birmingham, England on October 7, 2004. Presentation highlights examples of work performed by Electrical Engineers at the NASA Glenn Research Center and highlights the demographics of the NASA workforce. Presentation is intended to be inspirational in nature.

The Electrical Engineering Profession at NASA

Dawn Emerson

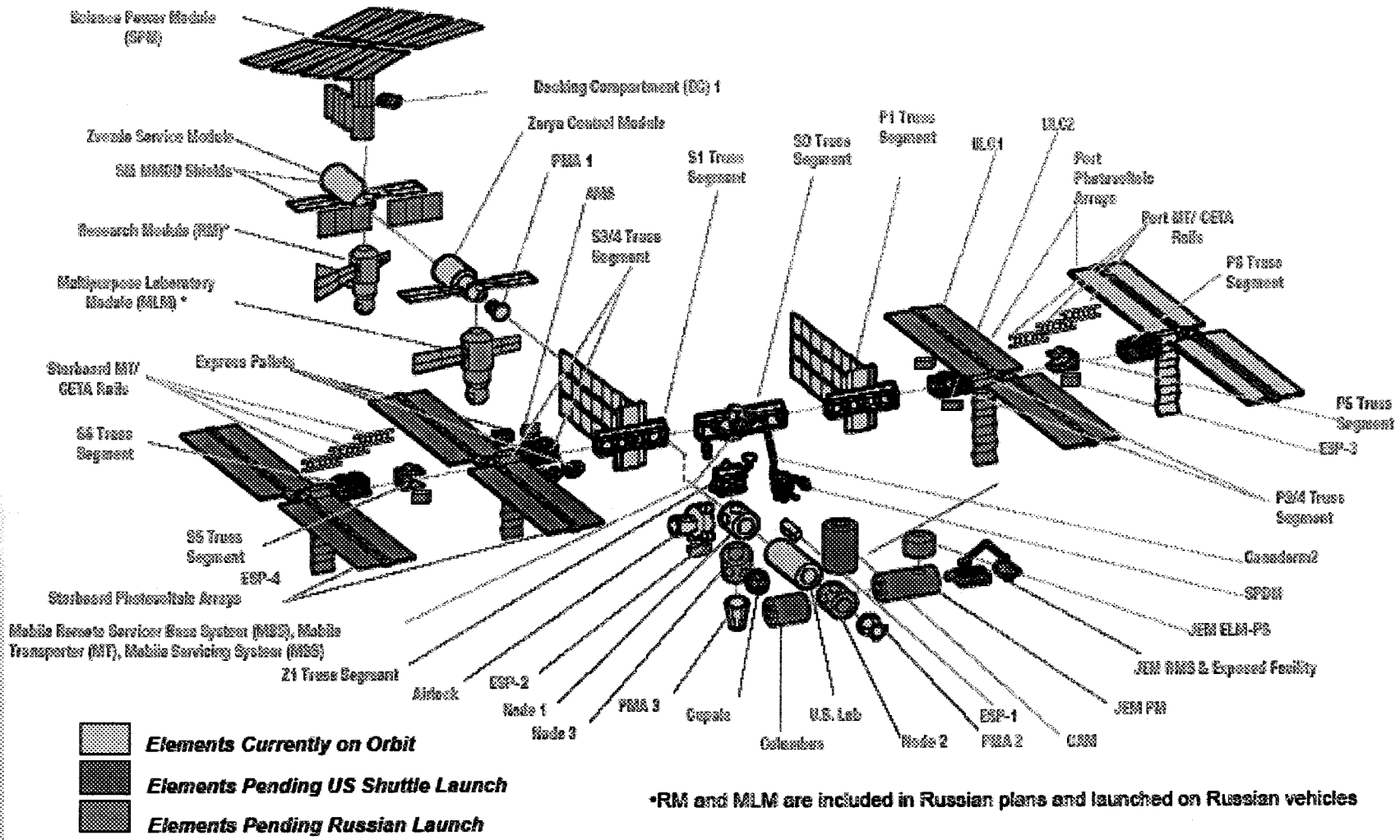
Chief; Avionics, Power and Communication Branch
NASA Glenn Research Center

International Space Station



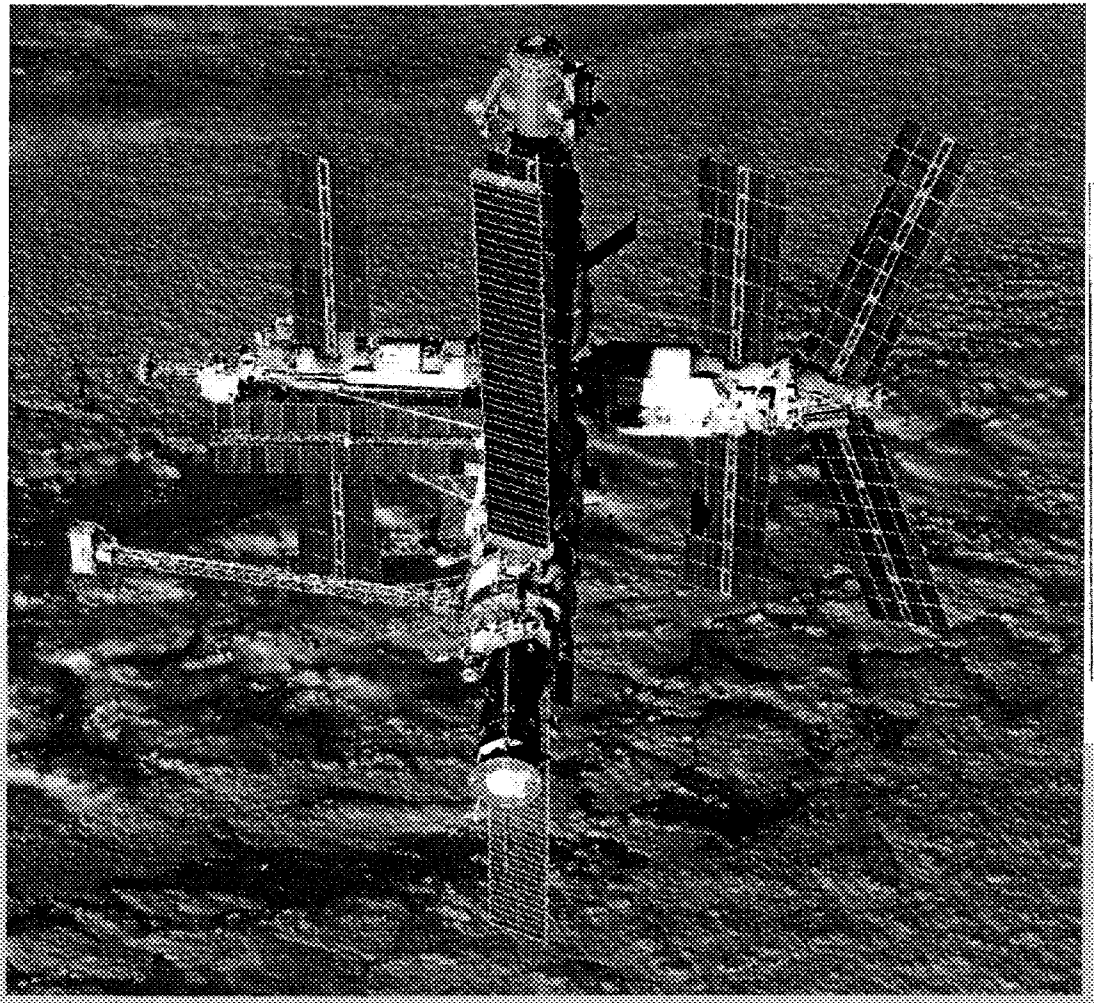
ISS Technical Configuration

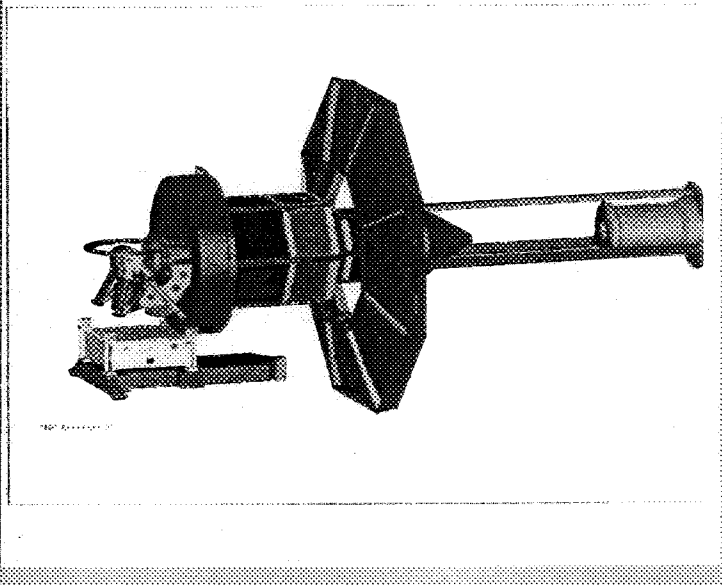
Endorsed by ISS Heads of Agency on July 23, 2004



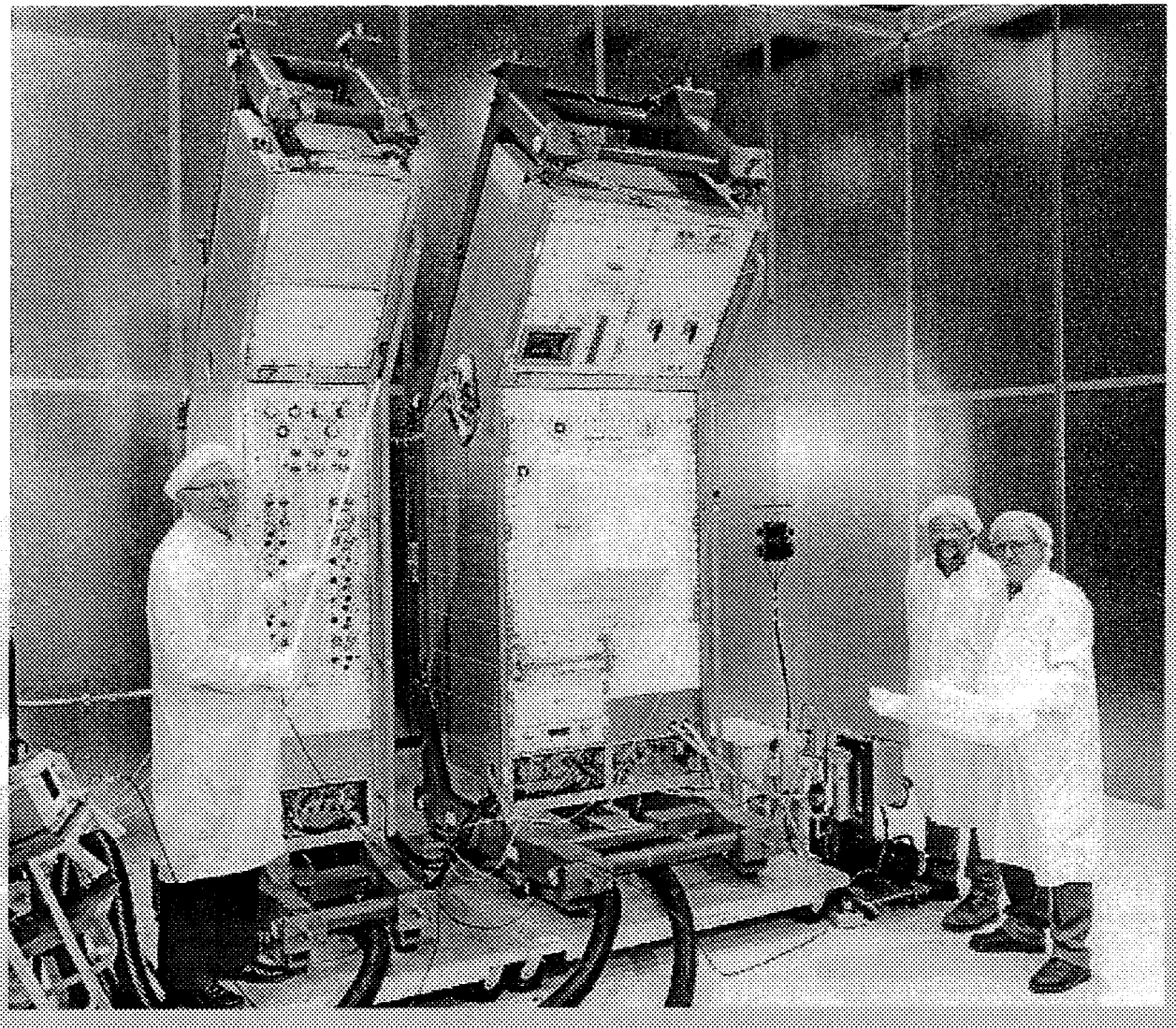
*RM and MLM are included in Russian plans and launched on Russian vehicles

Shuttle/Mir Missions- Solar Dynamic Concentrator

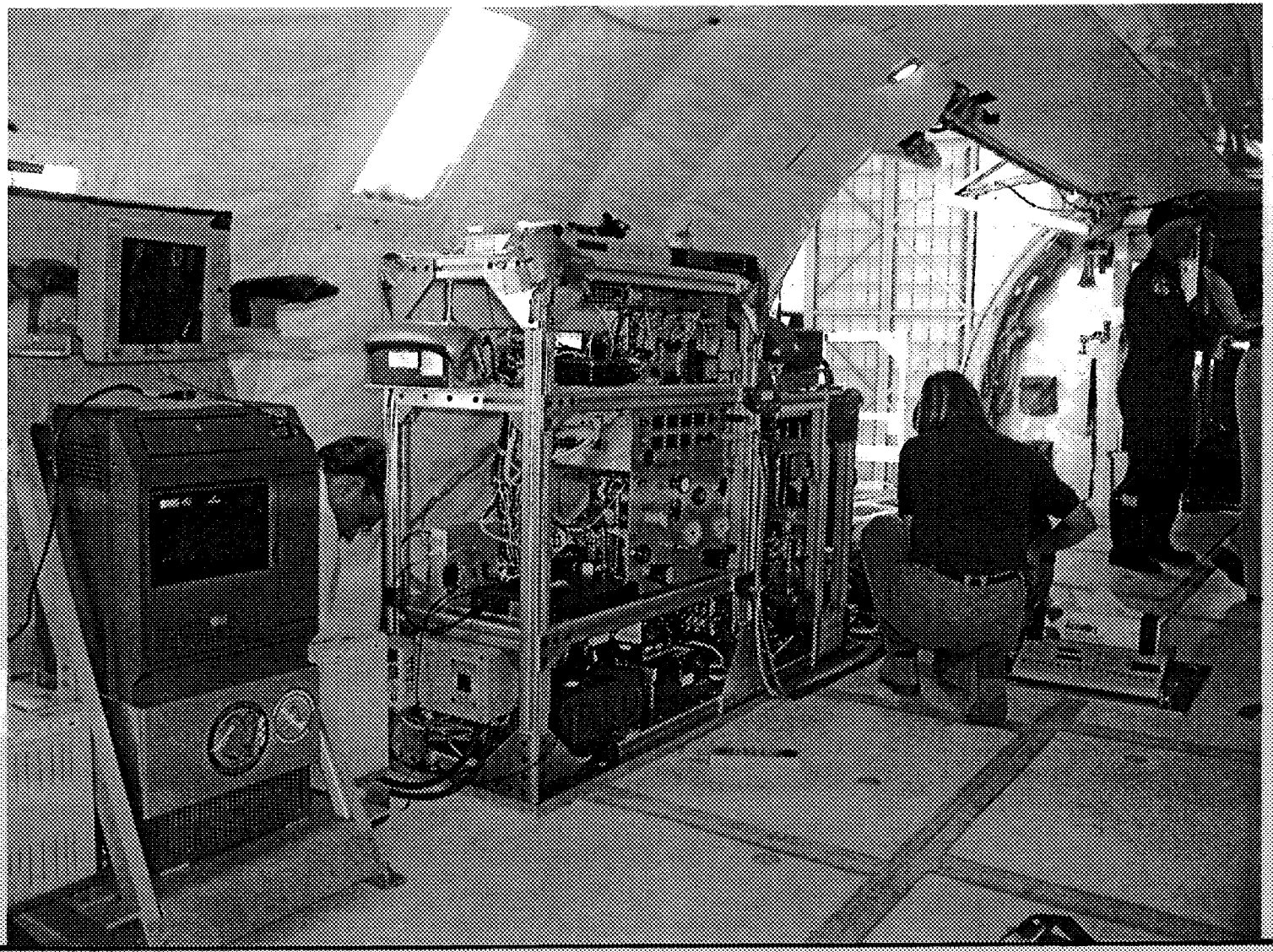




EMI LAB – CM 2 EXPERIMENT

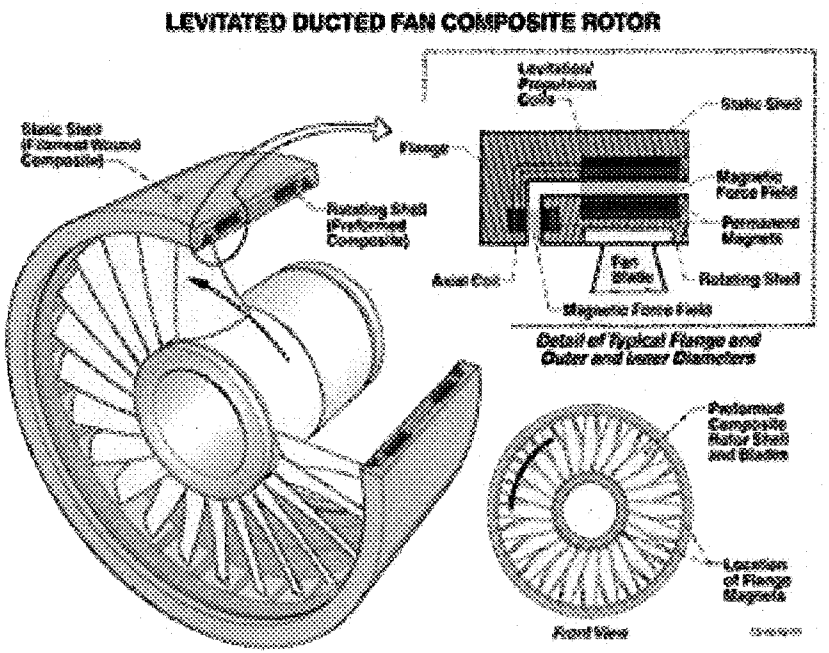


MOBI EXPERIMENT

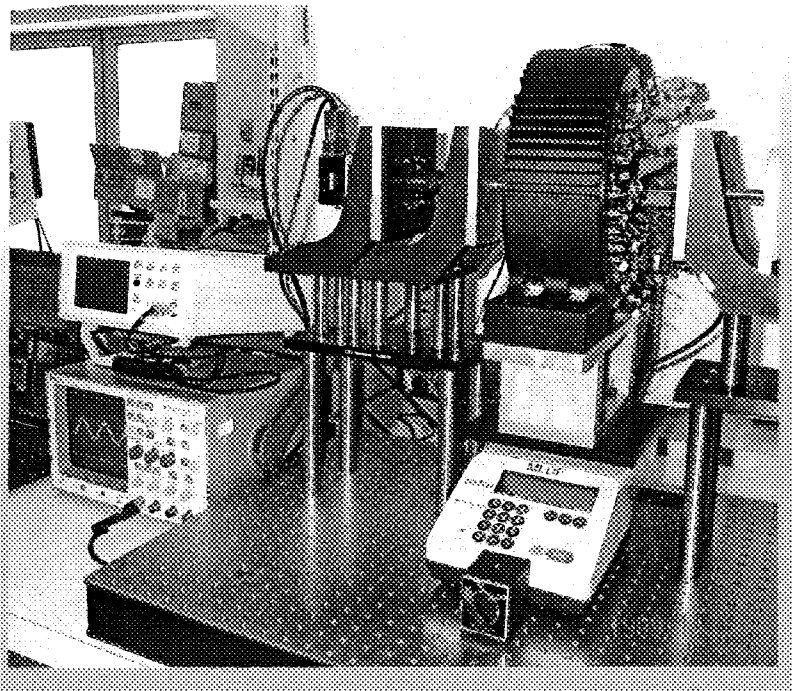


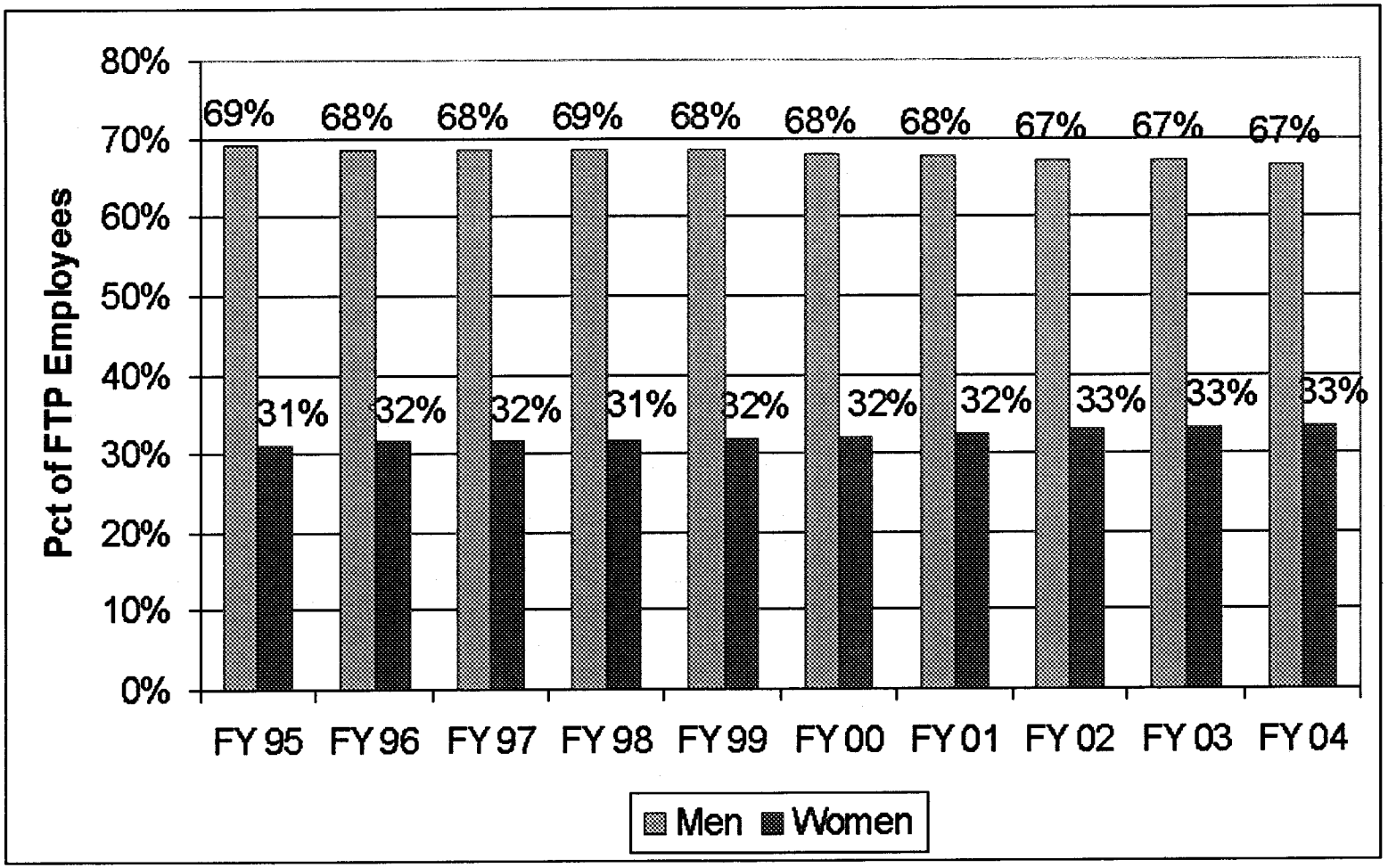
Electromagnetic Engine

Early conceptual idea



Experimental Test Rig




Pct of FTP Employees
80%
70%
60%
50%
40%
30%
20%
10%
0%
69%
68%
68%
69%
68%
68%
68%
67%
67%
67%
31%
32%
32%
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FY 95
FY 96
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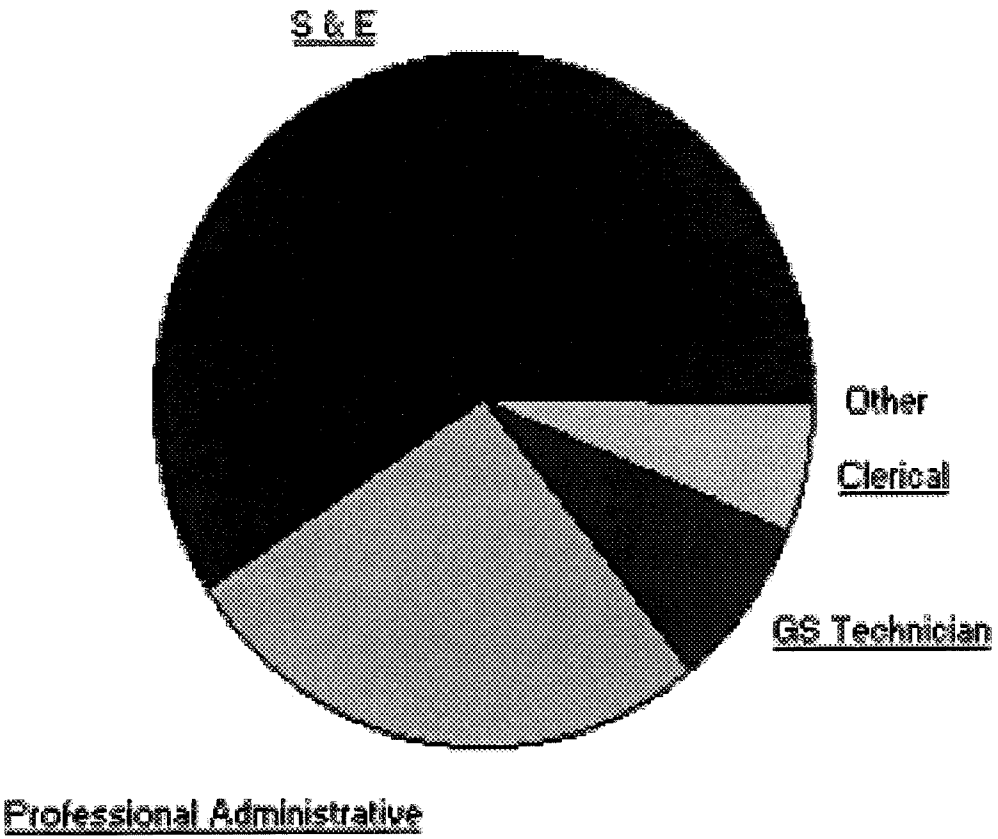
FY 00
FY 01
FY 02
FY 03
FY 04
Men
Women

Occupational Distribution Across NASA - Both Genders



S & E - 59.21%

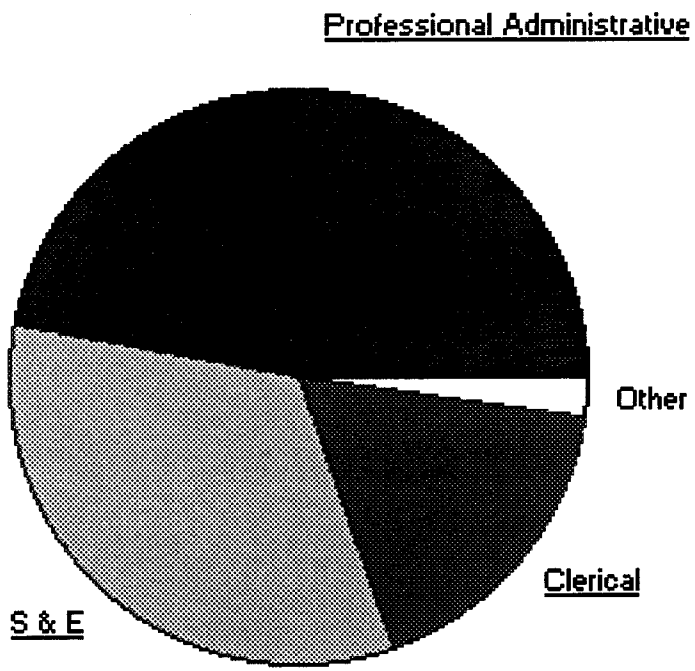
GS Technician - 7.95%

Wage -0.22%

Professional Administrative - 26.59%

Clerical - 6.03%

Occupational Distribution Across NASA - Females



Professional Administrative - 47.04%

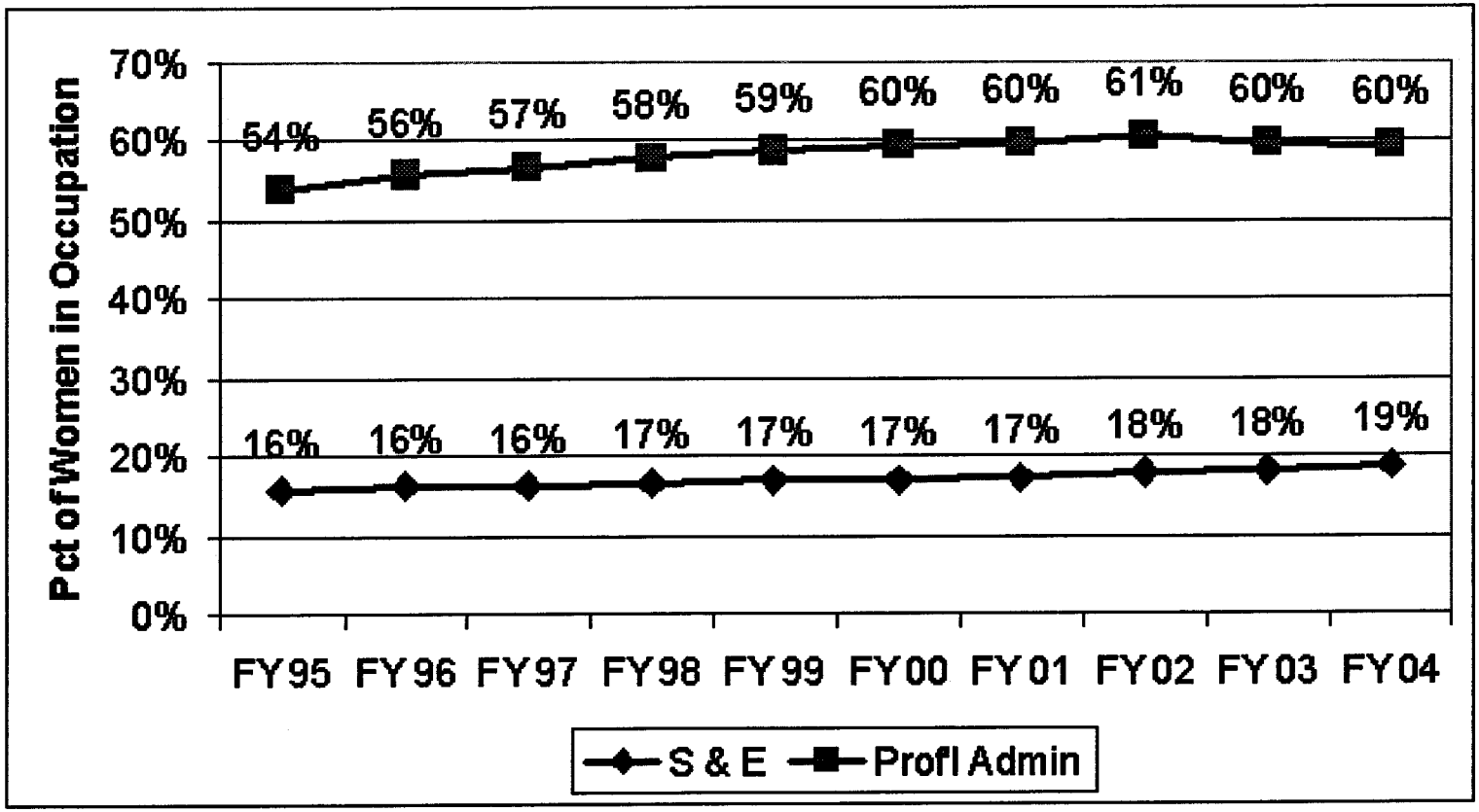
Clerical - 17.24%

GS Technician - 2.36%

S & E - 33.32%

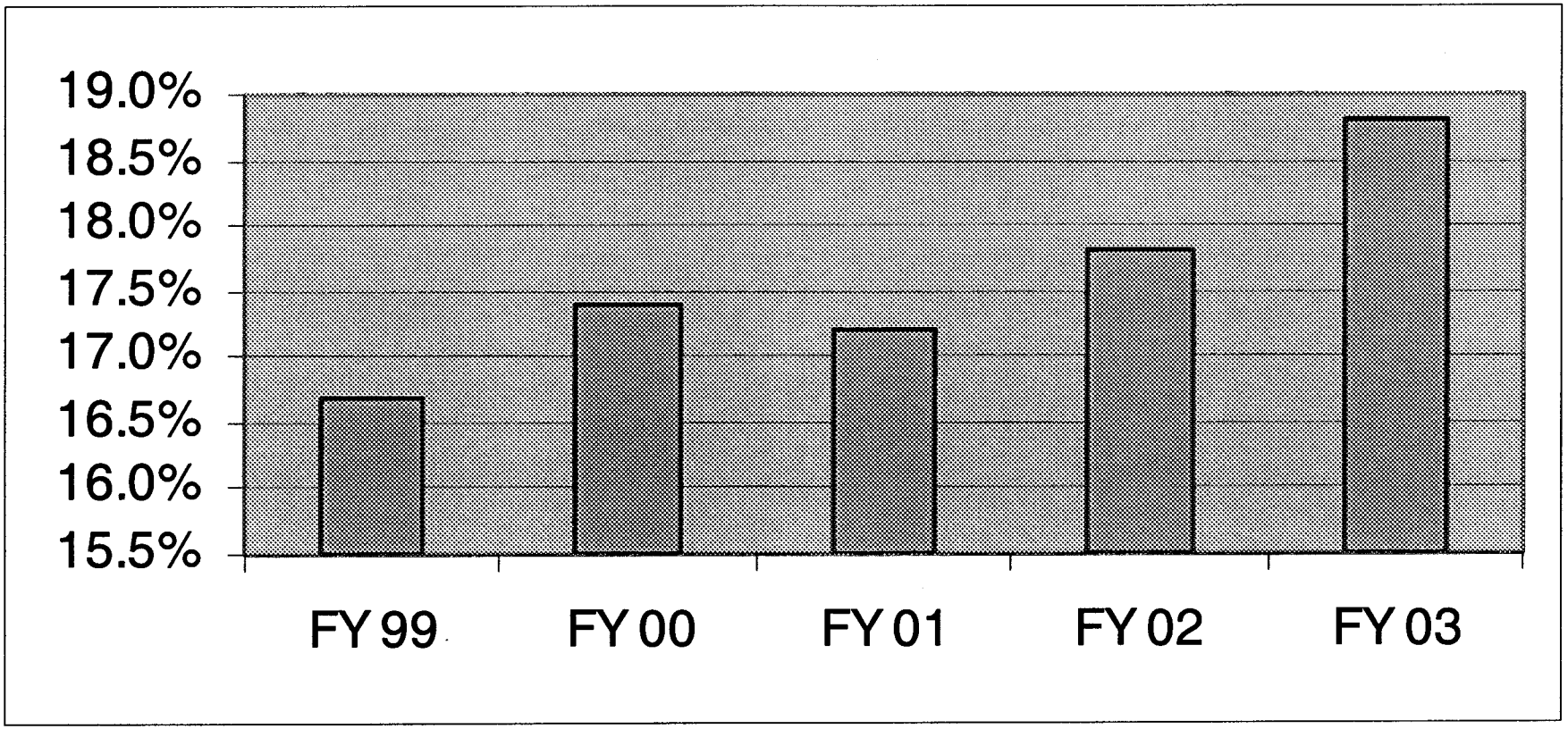
Wage - 0.03%

Percentage of Women Among Scientists & Engineers and Administrative Professionals

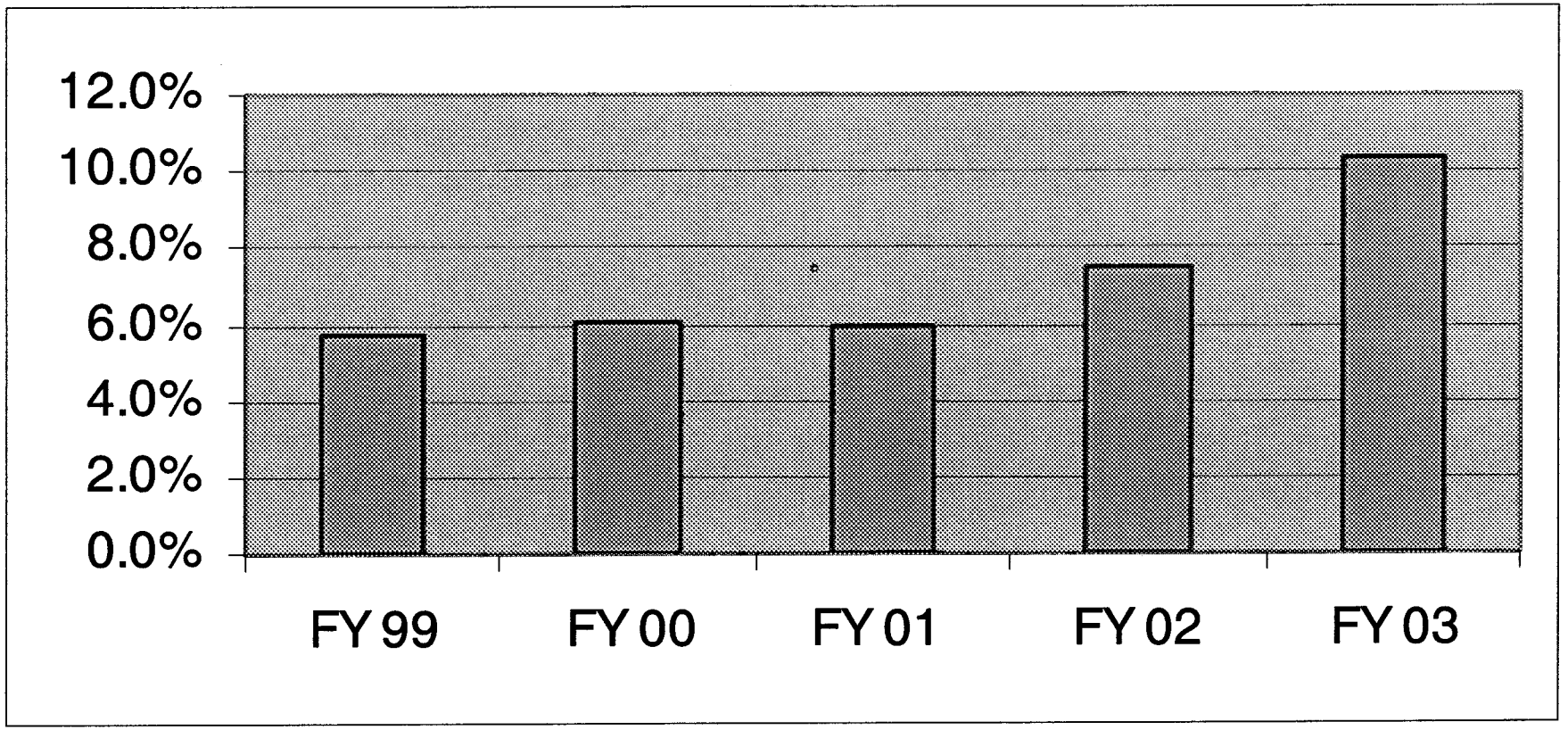


The proportion of women in professional positions has slowly increased over the past 10 years at NASA

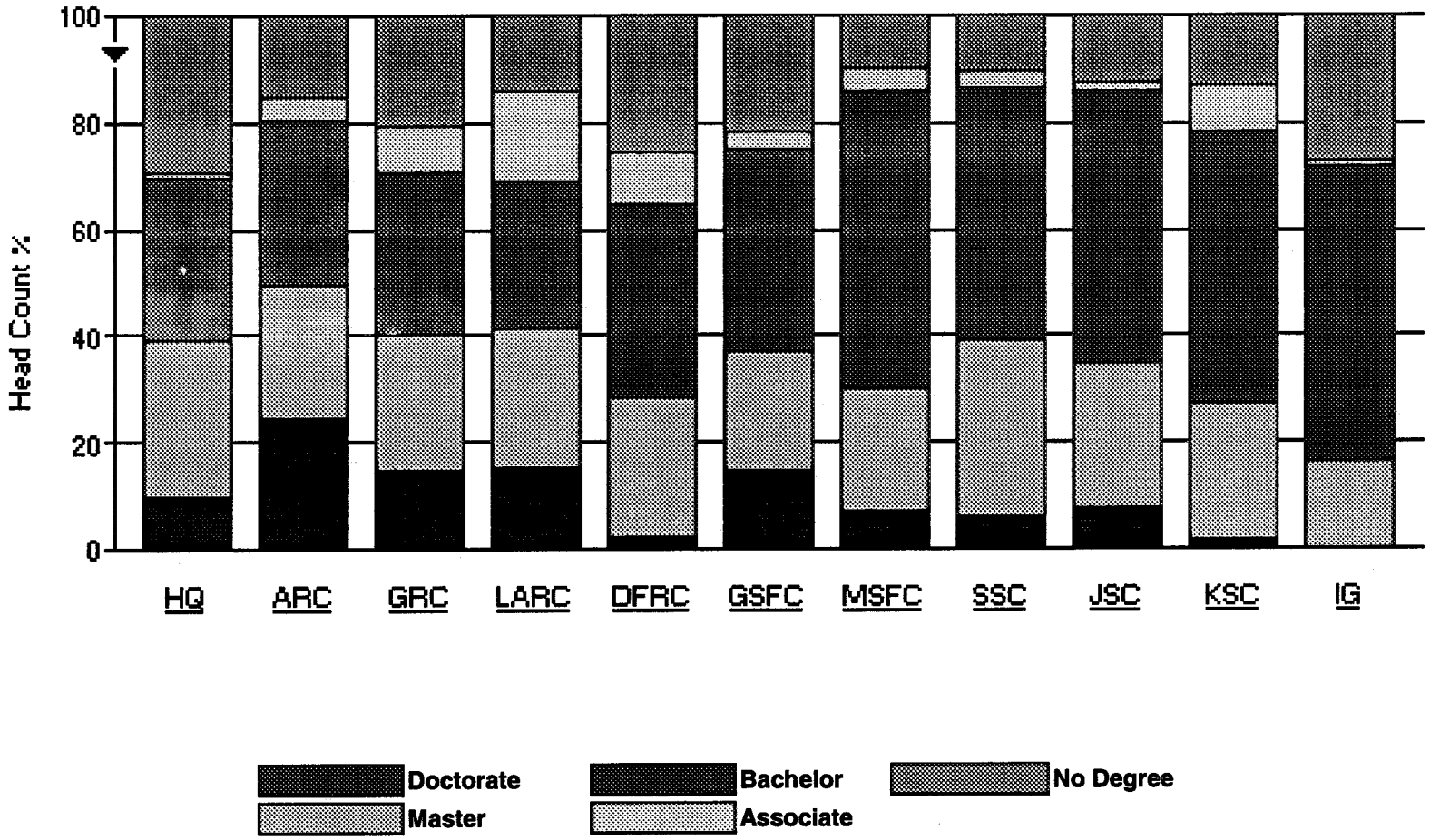
Women in Science and Engineering at the NASA Glenn Research Center



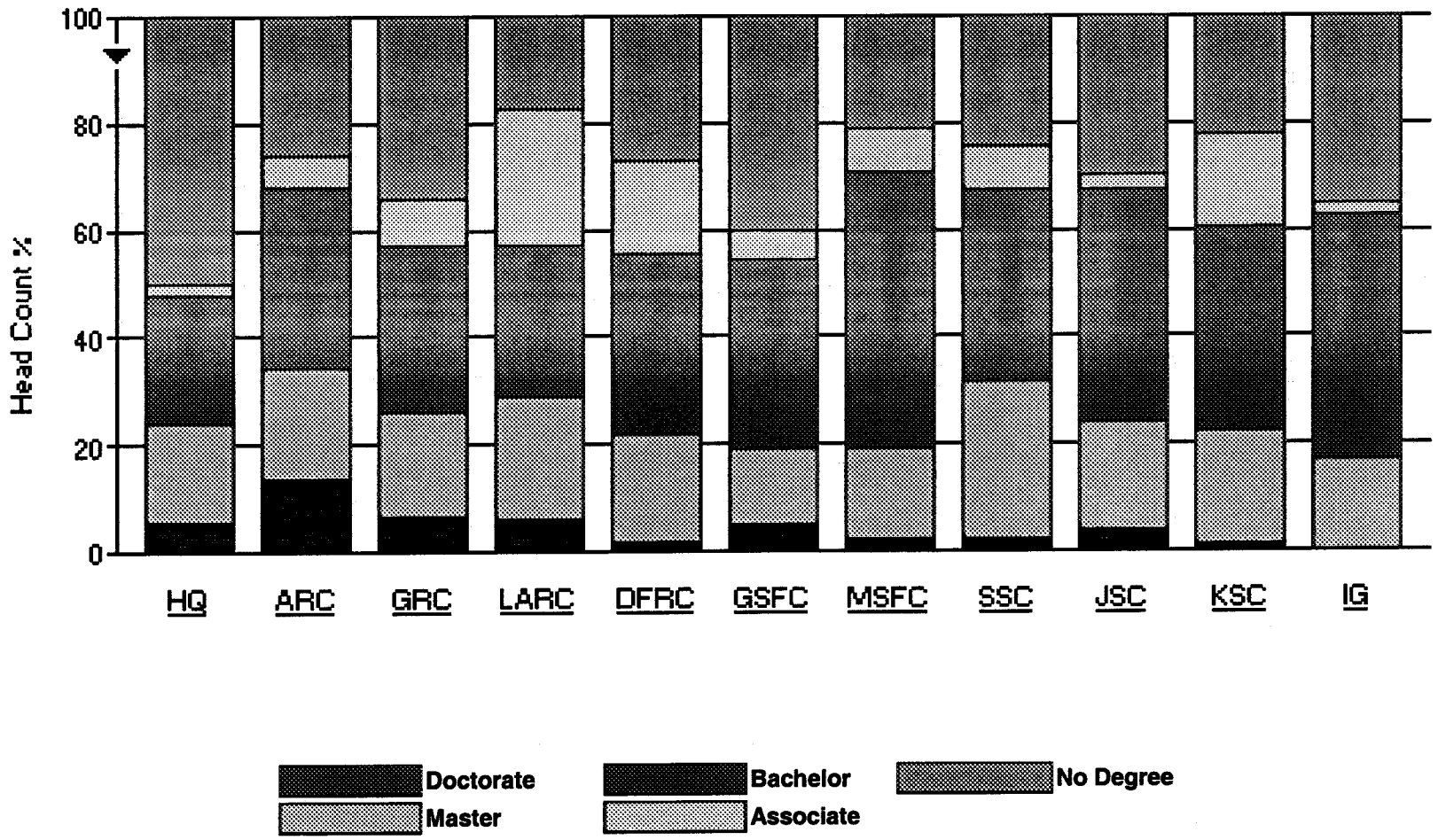
Women in Senior Level Management at the NASA Glenn Research Center



Education Level of All NASA Employees



Education Level of All Female NASA Employees



Diversity of All NASA Employees