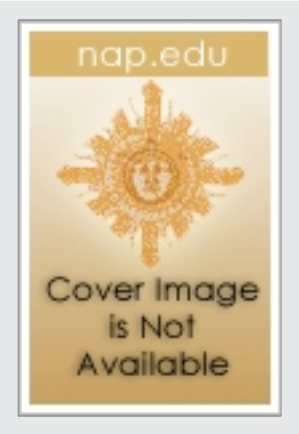

On Mixed Launch Fleet Strategy and Policy Option: Letter Report

DETAILS

2 pages | 8.5 x 11 | null
ISBN null | DOI 10.17226/12338

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February 11, 1987

Dr. James Fletcher,
Administrator
National Aeronautics and Space Administration
Washington, D.C. 20546

Dear Jim:

At its meeting of 4-6 February, 1987, the Space Science Board was informed of the results of the studies by NASA of mixed launch fleet strategy and policy options. The board was very pleased to learn that NASA recognizes the need to acquire expendable launch vehicles to assure its missions access to space by the early years of the next decade. The Board is dedicated to encouraging and assisting you in reaching this goal and urges you to implement such a plan. However, we still have a concern about the robustness of the launch capability in the near term -- 1987-1991 -- and we identify a number of problems that appear to need immediate attention.

Decisions regarding how and when to launch space science spacecraft that already exist or will soon be completed will largely determine the vitality and momentum of the space sciences for many years. Hence, it is very important that the launch strategy for these missions be flexible and reliable. Provision of back up modes of launching these missions and identification of alternative launch windows in case of delays in the shuttle schedule should be undertaken to give the program margins of assurance that is vital to its success. Most of the schedule difficulties in this near term period would be alleviated if a few carefully selected expendable launch vehicles (ELVs) should be acquired at this time. Specifically we recommend:

- ELVs be acquired to launch ROSAT in 1989, Mars Observer in 1990, EUVE in 1991 and Wind, Geotail and Polar in 1992.

- At least one back up Titan IV, with conversion hardware, be acquired to guard against failure to launch one of the three major "planetary" missions, Galileo, Magellan and Ulysses, during the 1989-1990 opportunities. We urge that an effort be made to launch both Galileo and Ulysses in 1989.

- The back up ELVs be used for later missions, such as CR/AF, if they are not required for one of these missions.

We note that this is still a plan with minimal margins and would prefer a more sturdy one if resources should be available. It would, however, go a long way toward reducing uncertainties and difficulties related to shuttle delays, significantly reduce pressure on the shuttle launch schedule, and protect against single point failures. Such a plan, involving insurance for ROSAT and Ulysses launches would also be appealing to our international partners.

The earlier decision by NASA to reconfigure COBE for a Delta launch in 1989 was a promising step toward developing a balanced launch strategy. Action at this time to continue this process for a few critical missions will go a long way toward reestablishing the vitality of the space science program, and will demonstrate to the world that we are regaining preeminence in our entire space program.

Sincerely,

Thomas M. Donahue,
Chairman