lunar exploration and following this shift, to continue to fly earth orbital missions with the Saturn I's. We have abandoned that and will not fly Saturn I's again until we have finished the flying of the Saturn V's on the lunar mission.

At that time, when we can resume Saturn I flights, we hope to use five of them for this cluster we call the Saturn I Workshop and the Apollo Telescope Mount. So there simply are not any payloads in the budget except for that.

INTERMEDIATE CLASS LAUNCH VEHICLE STUDY

Senator CANNON. What is the status of the intermediate class launch vehicle study which was discussed during the authorization hearings?

Mr. WEBB. It awaits the development of further data, more time to discuss at senior levels in the Department of Defense and NASA the requirements that are projected, some examination of what the 1970 budget can support, and with the basic requirements on the President for reducing expenditures in 1970 as well as 1969, I think we may well find that decision postponed beyond the 1970 budget, that is, as to whether or not we want to replace our intermediate booster with about a 100,000-pound booster capable of much lower costs per pound in orbit.

Senator CANNON. When do you expect the study and recommendations to be available?

Mr. WEBB. I would say that if we had any indication that the budget could support the building of some pay loads, it would not take us very long to decide what booster configuration is the best for the country.

Senator CANNON. Are you saying you are not going ahead with a study at the present time? You are just sort of in limbo?

Mr. WEBB. No, sir. We are pursuing the study and getting information on a common basis so we can compare the cost of using present boosters and the cost of developing and using an intermediate range booster, but it is not proceeding at full steam because there is no indication as yet that we have a green light for pay loads that would require it.

NERVA ENGINE DEVELOPMENT

Senator CANNON. Dr. Paine, getting back to the NERVA, when can we look forward to the early development of a flight weight engine?

Dr. PAINE. We intend to put, if possible, in the 1970 budget, funds which will enable us to proceed with the development of a 75,000-pound thrust NERVA I engine.

Senator CANNON. Now, do you have any information concerning whether this add-in of $7 million you propose here will result in a like added increment by the AEC, inasmuch as this is sort of a joint program with the cost being borne by both agencies?

Dr. PAINE. I think perhaps it would be best to have Mr. Milton Klein, who is the manager of our joint AEC-NASA activity, who is with us here today, to comment on this.

Mr. KLEIN. Senator Cannon, I believe the amount provided in the AEC program as it came out of Congress in fiscal year 1969, $53 million, would be consistent with the amount in the NASA budget of $39.5 million that Dr. Paine mentioned.