

For signature by the Administrator

Mr. Philip M. Morrison  
regarding the  
recommendation to

cancel the S-II stage, or propose revised plans which  
would include the use of some alternative capability than the S-II  
and the configuration and the studies

19 January 1961

**RECOMMENDATION FOR THE ADMINISTRATOR**

A word of explication is desirable with respect to the attached file and the memorandum prepared by General Getreider relating to the initiation of the Saturn C-1 configuration. It will be remembered that the basic problem lies in the development of an S-II stage utilizing four of the J-2 engines to develop 300,000 pounds of thrust at vacuum. Included in the FY 1962 budget is an amount of three million dollars to initiate design studies on this stage and to undertake studies of modifications necessary to be made in other stages of the Saturn C-1 configuration to accommodate the S-II stage.

As may be seen, General Getreider seeks authorization to move forward with the C-1 configuration. In essence, this means the inclusion in the budget guidelines for 1963 of a determination to move forward and, consequently, the inclusion in the budget of a substantial sum of money to initiate contract work. I have hesitated to sign this document in the last days of my tenure believing that I should not bind the new Administrator to an expenditure which will run several hundred millions of dollars. This does not mean that I am not strongly in favor of proceeding with the C-1 configuration. In support of that statement, I quote below from a memorandum prepared by us for the guidance of the new Administrator:

"The Saturn program is left in mid-stream if the C-II stage is not developed and phased in as the second stage of the C-I launch vehicle. The C-1 configuration has been undertaken to provide, as the earliest possible date short of a crash program, a major increase in spacecraft carrying capacity. The S-IV and S-V stages are under development and the J-2, 2000 hydrogen-oxygen engine intended for use in the S-II stage is likewise under development. But the combination of these two upper stages (S-IV and S-V) make very inefficient use of the thrust of the C-1 booster stage. Thus spacecraft capability of the C-1 is only 10,000 pounds in a nominal 300-mile orbit. The C-1 has a significant but not outstanding capability of 5400 pounds for a lunar mission and about half of that amount for a Venus or Mars probe."

Original  
by Robert G. Morrison

RECORDED 10:10 AM 1962

S. V. Morrison  
Administrator

CONFIDENTIAL - SECURITY INFORMATION - DO NOT FORWARD

ESTATE: \$110,000.00

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M. Keith Glavin  
Original signed by

In this instrument for the 1960 budget, I acknowledge the signature of this person  
as being true to the best of my knowledge. I declare that this expenditure is to the  
discretion of the controller who is responsible to the Comptroller of the State  
of California under the direction of the Governor.

I declare that the amount of \$11,000.00 is the amount of the expenditure  
from the General Fund of the State of California for the year ending June 30,  
1961, for the purpose of the construction of the new building at the  
University of Southern California, Los Angeles, California.

This amount is to be used for the construction of the new building  
and is to be expended for the purpose of the construction of the new building  
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SATURN

Saturn 5-year plan - LV-S 0233 - with confidential attachments

returned to Ostrander 11/8/60