on the various operations and did not include, for instance, a return to test flights on the Saturn IB should we not be able to make the

shift to the big rocket after this next flight.

So, I think it is a little bit too oversimplified to say Congress has consistently supported Apollo and that our present concern over the thinness of the funding is not related to the problem of congressional action as well as of Executive action.

Mr. Gehrig. But, there is no instance of when the Congress has not supported that program.

Mr. Webb. That is right. Mr. Gehrig. If you would have included these funds for further testing the Saturn IB the Congress would have had an opportunity

to consider this. As it was, it was not in there.

Mr. Webb. It has had to be considered in terms of the total problem related to a balanced program which met all the needs. We have never cut Apollo, nor has Congress, below an acceptable limit based on success; but we have always indicated that the funding was thin and it is getting thinner. And the problems we have had with POGO and other problems means that it is now thinner than it has been in any time in the last 3 years.

I think that Dr. Paine is close to what the record ought to show.

Dr. Paine. I think we have the specific numbers here, Mr. Gehrig, if you are interested. The sum total from 1969 back to 1961 of the President's budget messages have totaled some \$17,725.8 million. The allocation of the appropriations for this same period of time totaled some \$17,231.3 million. The net change is some \$494.5 million.

Mr. Webb. And in the process of going through those years, we have informed you that we were proceeding from a previous plan of stage testing to all-up testing which meant that the risks on an individual flight and the problem of organizing to conduct the flight were greater. So, we have not had the funds to proceed except in a manner that would permit us, within the total budget, to do this lunar landing within this decade and on an all-up systems test basis. So, the excruciatingly painful period of all-up testing on the Saturn V is yet ahead

## STATUS OF LUNAR MODULE

Mr. Gehrig. What today is the status of the lunar module and is it anticipated there will be any delay in the Apollo program due to the recently announced change in the injector for the lunar module ascent engine?

Dr. Paine. I think I could best answer this by asking Mr. Mathews

to give you a statement on that.

Mr. Mathews. Mr. Gehrig, the status of the lunar module is as follows: It was the last element to be developed in the chain of Apollo capability as we proceeded down the road to lunar missions. Just as for the other hardware elements, in the initial stages certain difficulties existed in bringing equipment aboard and getting the Lunar Module into flight configuration.

The first full system Lunar Module was delivered down to the Cape last June. It has gone through its altitude chamber tests with very good performance, actually over and above that which we had antici-

pated.