

have the same kind of production base and the same kind of ability to learn by breaking equipment.

In every case—that includes our experience on Mercury and Gemini, it includes our experience on the launch vehicles, the Gemini launch vehicles as well as the stage contractors on the Saturn V—there has been a period in the development cycle where we had difficulties, both with the management of the program, the organization of the contractor, and in many cases our own organizational setup and in the technical details of how to carry out the program.

We have adopted a system of working with the contractor trying to transfer from contractor to contractor knowledge, from the NASA people to the contractor the knowledge that we have.

In the course of doing this, we have adopted various techniques, we have created, if you will, for the McDonnell Co. a new method of managing their subcontractors or subsystem development and that works successfully in McDonnell and we apply it to other companies in the organization.

So I think that you will find that there is a cycle and there is a period of time when everybody is discouraged because that first article is having problems and you have to learn how to do it, you have to transfer enough knowledge and enough energy and cause people to learn how to do this thing both themselves and with help from outside.

I would say that North American has had more problems than other contractors but on the other hand it is, in fact, our largest contractor, but in proportion to the size of the task they have, I would say that they have fewer problems and certainly at the present time they are comparable to any of our other contractors.

Mr. FUQUA. Getting back to my original question, was consideration ever given in NASA to changing their contractors if they had so many problems that they appeared insurmountable, so you did give consideration to changing contractors?

Dr. MUELLER. I don't know of any case where we really looked at changing contractors in the present programs.

Mr. FUQUA. Then that report then is false?

Dr. MUELLER. To my knowledge, yes.

Mr. TEAGUE. Mr. Gurney?

Mr. GURNEY. Let us talk a little about your checking-up system.

I know the contractors have quality control people and safety people whose job it is specifically to look after those areas and make sure that the contractors do their job.

What kind of a system do you have to sort of check up on the checkers? I mean by that most systems have sort of a surprise inspection to make sure that people who are charged with the job are doing the job; do you have that kind of a system?

Dr. MUELLER. Yes.

Mr. GURNEY. Let us be a little more specific about it. Take down at the Cape, for example, as a flight is being readied and there are certain safety procedures to be adhered to, the contractor is supposed to be doing his job here and so is NASA, but these people work together and it is a human thing, for example, for your Government man, I suppose, to be considered as — unpopular — that is his job. He has