

travehicular activity; and baseline studies for medical and visibility experiments.

These activities and others coupled with the continued discussions between crew and experimenters were considered essential to the successful completion of the experiment.

Mr. FULTON. The ion wake measurement, is that just the turbulence of the ions or is that an ion engine starter?

Dr. MUELLER. That is the wake that is associated with the re-entry maneuver and has to do with the ionization of the air. Actually, there are two. One was an attempt to make measurements of the ionization in space and the other was to measure the ionization during re-entry so we actually have two such experiments.

Mr. FULTON. Glenn saw something going along with him. Have they ever identified what that was?

Dr. MUELLER. The presumption is that these were—the so-called snowflakes that he saw, is that what you are referring to, Mr. Fulton?

Mr. FULTON. Yes.

Dr. MUELLER. These were identified as recombination products of the exhaust of the little thrusters.

Mr. FULTON. Hydrogen peroxide?

Dr. MUELLER. I suppose in that case it was.

Mr. FULTON. On the dim sky orthicon, could you describe that?

Dr. MUELLER. Yes, that was a very sensitive orthicon designed to permit you to see very light and very dark objects—not black.

Mr. FULTON. You would see, hear, and taste an orthicon?

Dr. MUELLER. The orthicon is used in your television transmitter system. It will detect light of lower intensity than your eyes can detect. It provides a light amplification.

Mr. FULTON. What happens on your eggs?

Dr. MUELLER. The egg experiment conducted by Dr. Young was a very interesting experiment, I saw it when Dr. Young and I were on board the carrier.

Mr. FULTON. It sounds interesting, that is why I asked.

Dr. MUELLER. It allows frog eggs to develop in a zero gravity environment, and then fixing them to see whether in the course of their development there were any changes in the growth pattern because of the zero gravity environment. From that set of experiments we found there were no changes in the development. Dr. Young had expected to see some bifurcation of the embryo but that did not occur.

Mr. GURNEY. Dr. Mueller, I have two questions: I expect you have requests for many experiments on these Gemini flights. Who determines what experiments are to be performed and can you give us a specific example of how man's useful knowledge has been materially increased by any of these experiments?

Dr. MUELLER. In answer to your first question, there is a selection process involved in each of the classes of experiments. In the case of the science experiments, for example, the original screening is done by subcommittees of the NASA Planning Coordination Steering Committee. They, in turn, then pass the experiments to a second group that look into their feasibility and desirability and there they are