

DAILY LOG

February 18, 1957

Mr. Fiske, the AMP representative called and gave me a portion of the AMP proposal for the D-100A pulse package. The proposed specification and prices were far better than had been hoped for; however the delivery time of 8 weeks was almost impossible to accept. We will contact them further, in an attempt to reduce this time. Presently it appears that they will also be able to do the high voltage power supply.

Work was started on a low voltage power supply for the D-100A. In the event that Modern Industries will be unable to meet the requirements as it now appears, it is necessary to fabricate a suitable load and modulator for this unit. This was designed and work started. Some half dozen regulator circuits were designed for this supply and breadboard work on these regulators also started. Work will have to be at least temporarily halted on the Radar Range for lack of time and/or adequate personnel to continue this. Maximum effort was placed on obtaining components for an altitude of similitude facility.

A small bell jar, cannon plugs and mechanical vacuum pump were procured and delivered today. Work was turned over to the shop to fabricate dollies and accessory equipment for this unit. There were supposed to be a number of usable sections from bell jars from another project. These were all cracked and unusable. This unit should be completed no later than 2 days hence. Preliminary computations indicate that a simple potentiometer follow up signal will suffice for the D-200 servoed optics. This will result in a much simplified servo system. Work must be started on this as soon as possible. This will probably also be done in the lab.

Par Products called saying that an optic system for the D-100B was ready. This will be picked up tomorrow. The possibility of reducing and/or simplifying the optical trains for the D-100A Scorer. McRoos will study this problem and give



tentative answers tomorrow. According to him, the D-200B Optics are quite near completion. From cursory examination of propulsion development labs, it appears that they have complete facilities for qualification environmental testing and their nearby location in El Segundo makes this an attractive possibility.

The Modern Industries Prototype Power Supply was checked for performance today. In addition to its being an extremely crude unit, it could hardly be considered of professional quality. It failed most of the electrical specifications. Ripple was excessive on all ranges with regulation below specs as regards to input voltage fluctuations, and in some cases load fluctuations. Filament voltages are below specifications even without full load on all input voltages.

It appears that as an organization, Modern Industries will be unable to do a satisfactory job for this unit. I shall go over to see their engineer tomorrow, to see if anything can be done. The testing of these supplies pointed out the acute need for lab standards. A good decade box and a quality potentiometer will probably suffice for the moment.

A good bit of time was spent today investigating ways to reduce the external dimensions of the D-100A. It now appears possible to house the whole unit in a 9in. diameter pod; however the lens system will protrude prominently and require a good deal of faring. The appearance will not be helped by this configuration. It is almost mandatory that the strike lens train be reduced for this configuration to be at all practical. It now appears that the 100A's housing consists of a removable nose and tail cone, stressed internal framework carrying the camera and electronic package which may be reached by removable hinge doors. There's a great deal of wailing and gnashing of teeth over the mechanical aspects of this. Mr. Ellis King of the Dept. of Electrical Eng. was contacted today in an effort to turn up potential technicians for the lab. He requested we send in a resume of our requirements which we will attempt to do.