

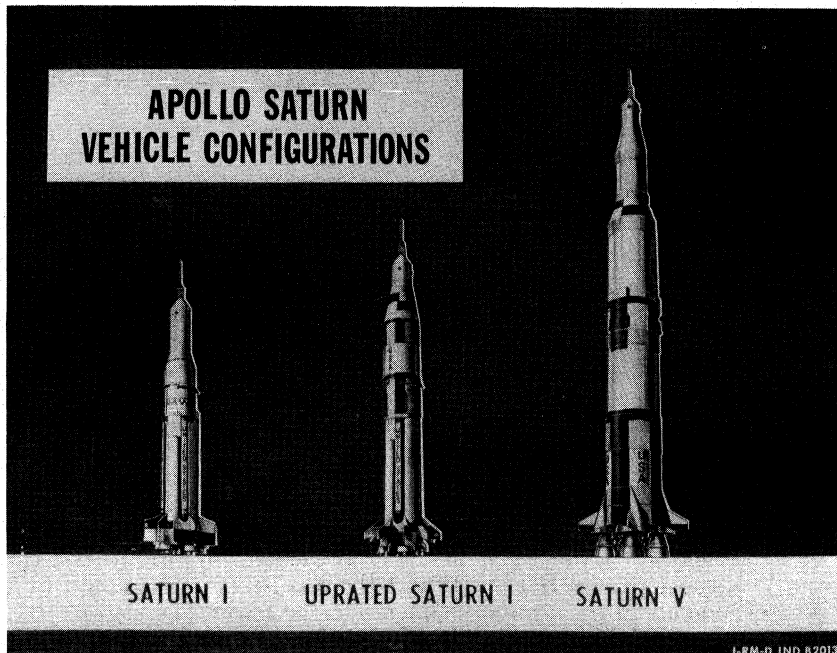


FIGURE 6

On the Saturn I program there were 10 flights programed, scheduled and flown successfully. There were no losses or failures. The program, completed in 1965, went a long way in preparing us and serving us as flight prototype hardware for both the Uprated Saturn I and the Saturn V.

For example, in the Saturn I program we proved that clustering of the engines was a satisfactory and workable method toward accomplishing the objectives being laid out for later Saturn programs. The art of kerosene and liquid oxygen propulsion was developed with the first stage of the Saturn I. The art of liquid hydrogen and liquid oxygen was first successfully applied in large quantities to the Saturn I second stage which was manufactured by Douglas. Later this basic technology was improved upon in development of the second stage of the Uprated Saturn I and the third stage of the Saturn V. In addition, Saturn launch-vehicle basic design and structure were proven and that knowledge was carried across into the remainder of the family. The early prototype Apollo hardware—the escape tower and the command module—was flown on Saturn I vehicles. And the last three Saturns, VIII, IX, and X, flew the Pegasus micrometeoroid detection payloads; put them out into earth orbit where they are still functioning, and registering micrometeoroid data.

On figure 7 is a comparison of the Uprated Saturn I and Saturn V vehicles. Starting from the top of the launch-escape system and going down through the Uprated Saturn I second stage and the Saturn V third stage, we have essentially the same hardware now being flown on the Uprated Saturn I that will be used for the Saturn V lunar mission.