

to contract completion. Figure 49 illustrates a cross section of the experiences we have had and listed is only a few of the measurements which we have made with regard to current performance, as opposed to what was happening before incentive contract conversion. It should be remembered that when I say we incentivized costs, schedules, and performance, there are literally hundreds of minor elements of cost, scheduling, and performance which required incentivization.

As an example of our incentive contracting experience, in post-manufacturing checkout the contractors were told that at a certain point you have the incentive in delivering a complete, checked-out stage. Prior to this incentive feature, and for example, Up-rated Saturn I AS-202 second stage was delivered by Douglas from manufacturing with some 180 shortages which would not be incorporated until the stage was delivered to Sacramento. Here these shortages would catch up and be installed prior to testing. Since incentivization, the shortages have been reduced by a factor of 18 on the AS-209 second stage.

With regard to delivery of the AS-202 second stage prior to incentivizing, the contractor was running some 8 to 10 weeks potentially behind schedule. After incentivization, the contractor delivered the AS-207 stage 21½ months ahead of the required delivery schedule contained in the contract.

One of the things we do not want to do is send open work down to Kennedy Space Center. It is our responsibility to deliver as complete a stage as possible. Up-rated Saturn I AS-202 second stage was shipped to Kennedy Space Center with over 1,000 man-hours

PROJECT STATUS — INCENTIVE CONTRACTING

SATURN V THIRD STAGE - DOUGLAS AIRCRAFT CO

ASPECT	STATUS PRIOR TO CONVERSION	SINCE INCENTIVE CONVERSION
Parts Shortages	AS-202 Entered Checkout With 180 Shortages	AS-209 Entered Checkout With 10 Minor Shortages
Stage Deliveries	PERT Data Showed 8.8 Week Potential Delay AS-202	AS-207 Delivered 75 Days Early
Open Work To KSC	AS-202 Shipped With 1056 Open Hours	AS-206 Shipped With 331 Open Hours
Costs	Potential 50M - 70M Overrun at Program Completion	- FY67 Cost \$3M Under Estimate of June 1966 - Manpower Under Previous Forecast
Contract Administration	- Effort Expected to Increase - Technical Communication Expected to Become More Difficult	- Effort Not Materially Affected - Technical Communications Have Remained Open

FIGURE 49