

placed and about 68% on the old machines which the other two new machines replaced. I am sure you will appreciate that such a drastic reduction in utilization has an even magnified effect on savings. Second, the production mix of high tensile strength steel parts to aluminum alloy parts changed during the 30-month interval between the two production periods. The production which remained involved a greatly increased percentage of high tensile strength steel parts. This change made the machining job much more difficult and slower, with resultant loss in anticipated savings. We also encountered problems much greater than anticipated in maintenance of equipment, grinding of cutting tools, tool replacement, etc., such that the savings in machining steel were even further reduced. Thus, the estimated realized savings were on a much different set of production conditions than those which prevailed at the time of the anticipated savings were prepared.

While the changes in size and character of the production program were the greatest contributors to added cost, there were a number of other items worthy of mention which contributed to the reduction of the estimated savings.

In hindsight, we feel that the machines were prematurely subjected to savings evaluation. This evaluation was initiated immediately following the completion and acceptance of cutting tests and prior to the allowance of a normal shake-down period for equipment debugging, operator training and familiarization, and supervisory recognition of the characteristics, capabilities and weaknesses of the equipment. As a result, learning was experienced during the introductory period of this equipment with additional decrease in savings.

Although we expected the complex, sophisticated new equipment would have greater maintenance costs than the old, those costs turned out to be much higher than expected. Actually they ran more than twice what we expected and more than ten times as much as for the old machines.

We also did not realize the savings in scrap and rework costs which we anticipated. Instead of an 80% reduction, the ratio realized was only about half as much. This was in part due to the fact that during this particular reporting period the Government Zero Defects Program was initiated with heavy emphasis placed on deviation-free performance. With these more rigid standards some increase in scrap was encountered. This had a secondary cost effect, in that efforts to eliminate defects resulted in a need for redesign of fixturing and other tooling for use with the equipment, resulting in further reduction of savings. There is some question whether we could have even attained any success on the Zero Defects Program if the old equipment had been retained.

We do want you and the Congress to know that we are not satisfied with the estimated savings realized during the post-analysis reporting period. We feel that some of the causes discussed above were temporary and have been overcome, whereas the majority are inherent in the change in the size and character of the production program. Based on our present knowledge of the equipment capability, we feel the original estimate of savings, although sincere, was optimistic; however, with the shake-down period behind us and an increasing workman familiarity with the equipment, greater savings are now being realized than those experienced in the initial year covered by the post-analysis report.

Reference is now made to the second comment applicable to our company beginning at the bottom of Page 39 and continuing on the top of Page 40 of your report. This comment relates to our willingness to privately finance the four machines under discussion and whether or not we were requested to do so. It is the recollection of our facilities people at our Energy Controls Division by whom the equipment involved was requested, that the question of private financing of this equipment was raised and discussed at length by the Air Force personnel responsible for facilities.

Recognizing that—

- (1) the military requirements for struts at this time were uncertain,
- (2) the pricing and competitive environment for struts did not indicate long-term stability of this business, and
- (3) the specialized equipment appeared of little use to Bendix except for military strut manufacture,

a decision was reached that we would be unable or unwilling to use private financing, above capital commitments then being made at this division, to acquire the four machines here involved. In fact, the division did experience a drastic reduction in sales and profits and operated at a loss for an extended period.