Mr. Caveney. It must be noted the five memory units of the computer manufacturer equal only one unit of the independent, and both meeting the specifications assigned with the only difference being price. GAO, I am certain, can substantiate the prices stated in the illustration and the fact it takes five memory devices at a unit price of \$129,600 plus another \$12,000 for a controller, with these being manufactured by a computer manufacturer, whereas one independent firm's memory would equal these same five units, but at a price of \$184,000 and \$35,000 for the controller, with the savings being \$441,000, if the Government had purchased the memory equipments individually and had not purchased a total computer system from the computer manufacturer. These figures are just initial cost savings.

Further, if five memories take about 400 square feet of space and the one memory takes only about 64 square feet it can be readily seen another dollar savings in floorspace is achieved. I have been informed by

GSA officials this runs well over \$100 per square foot.

Further, you take the five equipments, and count individual parts, it is easily understandable that to support these five units with spare parts and maintenance personnel, the one unit requires about 75 percent less,

and again, a savings is accomplished.

Further, operating manpower increases with the five units and thus the overall cost savings for this example is well over half a million dollars and if you multiply this by just 100 such cases you are at a savings of \$50 million. These figures do not include downtime—that time equipments are down due to failure, and this cost runs extremely high at a rate per hour. A total breakdown of each peripheral, plus the other variables including, but not limited to, spare parts, maintenance, floorspace, and manpower involved in a total computer system, the savings would be astronomical just for one—repeat, one—total computer system.

The GAO can clearly substantiate the fact that the Government, in a considerable amount of procurements, procures peripheral equipment, manufactured by independents, unknowingly, but via a computermanufacturer with such peripheral equipment being purchased at a price higher than if the Government had purchased each of the equipments required of the total computer system directly from independent peripheral manufacturers and computer manufacturers, and

the Government plugging the system together.

Regarding the need of the technology put forth and available from independent peripheral manufacturers is exemplified by the article taken from the Electronic News, November 13, 1967, issue, under the title "Computer Trend, 1967," with the pertinent data quoted verbatim.

Marriage counseling will soon become big business in the computer industry." "But the computer industry 'marriage counselor' will not be called on to solve difficulties of estranged men and women. Instead he will work on the problems of wedding noncompatible peripheral equipment to the main frame system.

To capitalize on this potential business, Datametrics Corp., North Hollywood, Calif., is changing from a general customhouse to a specialist in marrying non-

compatible pieces of hardware for computer application.

Dr. Melvin P. Peisakoff, group director of computing systems, planning and operations at North American Rockwell Corp.'s Space & Systems group, observed, "I think this would be a good business to get into." He feels the emergence of the marriage counselor will increase competition and give the user a better cost performance from his peripheral equipment.