



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

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COMMUNITY AND ECONOMIC
DEVELOPMENT DIVISION

JAN 24 1979

Mr. Ray V. Fitzgerald
Administrator, Agricultural
Stabilization and Conservation
Service
Department of Agriculture



Dear Mr. Fitzgerald:

During our current review of the Agricultural Stabilization and Conservation Service's (ASCS) work measurement and workload forecasting systems, we looked at ASCS' efforts to improve productivity through large-scale purchase and use of expensive electronic programmable calculators. State and county ASCS offices have purchased or ordered almost 1,400 such calculators--over 1,100 since June 30, 1978. Current plans are for ASCS to buy 600 more.

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In spite of ASCS' own concerns about using programable calculators, and before attempting to analyze the need for such equipment, ASCS gave State and county officials authority to buy programable calculators costing as much as \$1,500 each.

We believe deficiencies exist in ASCS' procurement management which need your immediate attention. Specifically:

- ASCS procurement policies delegated purchase authority for the calculators to State and county office employees. In general, these employees did not have the expertise required to evaluate the calculators' capabilities and to buy the least costly calculator which could still meet their needs.
- ASCS did not do a timely, accurate analysis to justify calculator purchases.
- The criteria used by ASCS to allocate funds for buying calculators were not based on actual needs.
- Since cost of competing brands was not adequately considered in calculator purchases, ASCS may have spent \$1.2 million more than necessary.
- ASCS headquarters did not give enough guidance to State and county personnel who would purchase programable calculators even though headquarters' personnel recognized the difficulty for the layman to evaluate various programable calculators' capabilities.

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To ensure that future State and county office procurements of programable calculators are made in an efficient and cost-effective way, we believe you should:

- Stop purchases of programable calculators until qualified ASCS staff have evaluated capabilities and benefits of competing models.
- Find out which programable calculator is the most economical in terms of benefits-to-cost.
- Have the Procurement and Contracting Branch and the Technical Services Staff coordinate future purchases of the most beneficial model.

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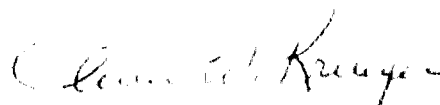
Further, to ensure that similar situations, also having ASCS-wide impact, do not recur, we believe that you should:

- Establish procedures to centrally coordinate and control purchases that have this ASCS-wide impact.
- Set up procedures to ensure that ASCS distributes funds for such purchases equitably to its system of offices only after proper analysis.

These matters are discussed in detail in a separate enclosure to this letter.

Because we would like to include a discussion of these issues and the actions taken or planned on them in our upcoming report to the Congress on the ASCS work measurement and workload forecasting systems, we would appreciate being informed of actions planned or taken regarding these matters within 30 days.

Sincerely yours,



Oliver W. Krueger
Assistant Director

Enclosure

cc: Inspector General, Department of Agriculture

SUMMARY OF FINDINGS ABOUT PURCHASES
OF PROGRAMABLE CALCULATORS IN THE
AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

Programable electronic calculators, like computers, enable people to write programs to solve their own unique mathematical problems. Used properly, these machines may be able to increase the accuracy of computations and save staff time. However, the current buying practices used in ASCS for programable calculators show a lack of planning and evaluation.

BACKGROUND

Since June 30, 1978, the Agricultural Stabilization and Conservation Service (ASCS) has bought or ordered over 1,100 programable calculators--most costing about \$1,300 each.

A November 1978 inventory listing showed almost 1,400 calculators in ASCS. Also, evidence indicates that the Service may buy 600 more. Under current authority, State and county offices may spend up to \$1,500 per calculator without the ASCS Management Services Division approval. Therefore, total additional costs for the group of 600 programable calculators could be as much as \$900,000.

EARLY USE AND HEADQUARTERS'
INTEREST IN PROGRAMABLE CALCULATORS

In late 1976, the ASCS State office in Texas bought 12 Monroe model 325 programable calculators, at \$1,295 each, to try to reduce the staff time needed to compute rice loans and cotton disaster payments. In early 1978, ASCS headquarters' officials became interested in the potential effects of programable calculators on ASCS productivity and program accuracy.

In response to the headquarters' interest in the calculators, ASCS' Technical Services Staff (TSS) personnel traveled to Texas to observe the calculators' use. Their February 22, 1978, memo to ASCS' Deputy Administrator for Management (DAM) noted, among other points, that:

- Overall, coordinated use or programing of the calculators did not occur.
- County office personnel lacked the expertise required to use the calculators fully.
- The number of programing steps available in Monroe 325 calculators could limit their additional use in ASCS operations.

NO ANALYSIS BEFORE PURCHASING

At this point, TSS should have begun an analysis of State and county office needs for the calculators. Such analysis would have been based on ASCS State and county office procurement provisions (Handbook 23-AS). These require that purchases be justified according to the need for the product and its cost and reliability. The analysis could have determined whether the programable calculators were needed and which brand was the most cost-beneficial.

However, in spite of the observed shortcomings in the TSS memo, and without making the required analysis of county office needs, TSS' recommended that DAM (1) encourage continued purchasing of programable calculators and (2) increase procurement authority dollar limits for the calculators. DAM concurred with these recommendations by amending the 23-AS provisions and increased State and county purchasing authority for the calculators from \$800 to \$1,500.

Finally, in July 1978, an ASCS task force composed of three headquarters and four State and county office representatives, met to develop agency policies and procedures for buying and using the calculators. The task force recommendations at its July 11 meeting included:

- ASCS should continue buying programable calculators (thus reinforcing the TSS recommendation).
- ASCS should remove all dollar limitations applying to programable calculators from the 23-AS provisions (that is, even including the \$1,500 limit set by DAM).
- County office personnel should decide which calculator (for example, brand, model, memory capacity, number of programable steps) to buy.

As with the earlier TSS recommendations, the task force recommendations were not based on an analysis of county office needs or of costs versus benefits. Also, the task force did not recommend that such analyses be done.

CRITERIA FOR DETERMINING NUMBERS OF
CALCULATORS DID NOT ACCURATELY REFLECT NEED

In spite of continued lack of objective analysis, on July 31, 1978, ASCS' Financial Management Division (FMD), provided State offices over \$1.5 million specifically to buy programable calculators. In fact, officials told us that the criteria used to allocate these funds had no basis either in cost benefit or need analysis, but on the presence of personnel at grades GS-11 and above who were working at county offices.

Finally, in mid-August 1978, ASCS did do a study to determine the potential time savings which could accrue if county offices used the programable calculators for selected ASCS program computations instead of standard electronic calculators. Based on an assumed \$1,280 cost per unit (calculator) and a 4-year amortization rate, the 2-week study concluded that all counties which could show at least a \$320 projected annual savings qualified immediately for buying programable calculators.

Based on the results of this study, 1,530 counties qualified. Therefore, ASCS could purchase 1,310 more calculators than the 220 bought as of June 30, 1978.

The study was complete in that it generated estimated savings data for every ASCS county. However, we have the following reservations about the way the study was done and its eventual use:

- The time savings estimates were based, in part, on data from only 12 of ASCS' over 2,700 county offices. Furthermore, officials stated that these estimates were based mainly on judgment instead of objective, documentable data from the counties.
- Time savings estimates were developed from calculations of only 10 of ASCS' 113 regular measured work items.
- ASCS headquarters did not provide guidance to States or counties on how to apply the \$320 projected savings criteria. That is, was a county eligible to buy one calculator for each \$320 projected savings or was only one calculator purchase authorized regardless of the amount of projected dollar savings exceeding \$320?

INADEQUATE PROCUREMENT GUIDANCE

As noted, ASCS allocated over \$1.5 million to State offices to buy calculators and also set up a \$320 annual savings criteria for purchases. However, ASCS headquarters' officials left the choice of calculator brand with the county offices. Headquarters' offices did not distribute information on available makes of programable calculators, the capabilities of different brands, and cost differences.

We received comments from both headquarters' and field personnel about headquarters procurement guidance. These included:

1. From headquarters' officials:

- We did not want to tell counties what to buy.
- We did not tell counties about differences in programing capabilities, even though for the layman such differences are very difficult to evaluate and compare.

--We did not give counties data on differences in competing models' costs.

--The only guidance we supplied was that the units should cost \$1,500 or less and they should be keyboard programable at the county office.

2. From field personnel:

--We did not know what different brands were available.

--No instructions were received for applying the \$320 criteria.

(Thus, some counties got more than one calculator, while others got only part-time use of calculators which were rotated among offices.)

One result of this procurement policy is that county offices bought three different brands of calculators (Monroe 325, Texas Instruments TI-59, and Sharp 4520), each having different capabilities. One TSS official recognized that the purchase of these different machines will probably lead to extra headquarters' time to coordinate and check programs written at county offices. In fact, the Sharp model 4520s are not programable in the county office but must be returned to the factory for reprogramming. Further, 98 percent of the calculators ASCS has bought or ordered are Monroe 325s. We believe this happened because of ASCS' lack of procurement guidance to field offices coupled with the following:

--Monroe 325s were the first calculators used.

--Field offices heard about Monroe 325s from other field office personnel.

--ASCS' time savings analysis established a purchase criteria based on a 4-year amortization of the Monroe 325's cost.

COSTS OF COMPETING BRANDS NOT ADEQUATELY CONSIDERED

Finally, as noted earlier, ASCS did not inform its field offices about the costs of competing programable calculator brands. The following comparative analysis shows that ASCS could have saved almost \$1.2 million by coordinating the purchase of a less costly but, according to TSS officials, otherwise comparable programable calculator:

<u>Quantity</u>	<u>Description</u>	<u>Cost</u>
1,358	Monroe 325 calculators bought or ordered as of 11/16/78 at about \$1,280 each	\$1,738,240
1,358	TI-59 calculators with printer at about \$408 each	554,064
	Approximate savings	<u>\$1,184,176</u>