

B OVERVIEW - WESTERN REGIONAL APPLICATIONS PROGRAM (WRAP) STATUS

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On behalf of the staff of the Regional Applications Program and the Technology Transfer Program at Ames, I would like to welcome you to our conference. We very much appreciate your attendance, which indicates both your interest in the program and your support. This is our second conference and, as I will explain later, your support can potentially play a very important role in whether or not there is a third regional conference.

This morning, I will take a few minutes and give you my view in three areas. First, I will comment on the status of our program and the progress made during the past few years. Second, denote what we had planned to do in the coming fiscal year, which will begin in October. For the third topic, present a brief status report of our budget for FY 82 and how this budget may impact our plans for our work in FY 82.

From a NASA perspective, the Regional Applications Program was started during 1978. The charter provided for interfacing with state and local governments, in particular, to assist them in using NASA developed technology. The emphasis was placed on remote sensing technology. The most current platform for remote sensing is the Landsat satellite. Consequently, the program emphasized applications that utilized this satellite. During the past 3 years, we have had interaction with all of our 14 western states. We have been encouraged by the response received.

I want to present an overview of achievements and accomplishments for the past 3 years and emphasize this from a NASA perspective. You are aware of the program from your point of view and I thought it might prove helpful to tell you how we at Ames view the program.

Basically, we see the program as having two parts. The first is an outreach & training program. The second is specific activities with states and we call these demonstration projects or pilot tests. With respect to our outreach and training program, one aspect that we are pleased with has been the MATE (Mobile Analysis & Training Extension) Van. During the past 18 months, since its inaugural visit to Monterey at our first regional conference, we have had more than 2,000 visitors. The Van accommodates only 5 visitors at one time, so that represents quite a large number of individual demonstrations. If you have been inside the Van you can appreciate that it is difficult to accommodate more than five persons at one time. The MATE Van has visited ten states

in our region. Of course, it would be difficult to get it to Hawaii or Alaska, so we are pleased that of the 12 states in our region, we have had it to 10. In addition, six governors have toured the van and we have had several briefings for legislative staff as well as agency heads throughout our region. The van will be here for the conference's duration and our staff is available to give presentations. I encourage you to sign up if you have an opportunity because we do have new material.

In addition to the MATE Van, we have also had many training classes at Ames. In fiscal year 1980, we had 14 formal training classes and 35 workshops. If you add that up, that is either a workshop or a training session every other week, so we have quite busy at Ames. We consider this an important part of our activity. The most recent training session we held was a VICAR training class. Six different states were represented, including several of you attending the conference today.

In addition to the MATE Van and training, the University program is also a very important part of our outreach activity, although it has been minimal. There are other NASA activities which support the university programs, so our activity has been limited. Our University program has centered around the Remote Sensing Science Council which has a member from each state. The council has met about four times during the past two years. We also provided software assistance to universities which felt this would be helpful to them. In return, many of the universities in our region have helped us give training classes for state agencies. They have either provided instructors or facilities where the training could be conducted. This has been particularly valuable from our point of view, because we like to encourage the interaction between state agencies and universities.

Another major area of progress has been in our demonstration tests with state agencies. The state activities have been primarily concentrated upon completing these demonstrations and in helping those states which have elected to do so to obtain an operational analysis capability. We are pleased that a number of states have elected to implement Landsat analysis software. As a first step in achieving an operational capability, many of the states in our region have decided to adopt a NASA developed software. Because of the preponderance of IBM type systems, they have elected to install a VICAR system which is compatible with that series of computers. For example, in the past six months, the states of California, Nevada, Utah and Arizona have installed the VICAR software on their own computers as a step toward obtaining a more complete analysis capability. Others, such as Colorado, have had the funding to purchase a commercially available system. In addition, the states in the PNW have an operational capability and have recently augmented their basic capability with the interactive video display

systems. VICAR is currently operational in Idaho, Washington, Montana and more recently, Arizona, Nevada and Utah. We have also had requests for assistance with ELAS software, which is a NASA-developed software by a sister group at NSTL. It has been primarily universities, ABAG or regional government and also Colorado who requested assistance in this area. Hawaii and Colorado are also evaluating installation of Landsat software capability. In addition, several states have decided to integrate Landsat capability with geographic information systems. These are Utah, Colorado and California. Several others are considering this.

In addition to our state demonstrations, we have begun to look at needs for substate governments. Preliminary assessments of needs and applications have been made by the Upper Plains Innovation Group, PNW Innovation Group and also the Denver Urban Observatory. Later in the conference, Larry Shadbolt of the Pacific Northwest Innovation Group, will give you a summary of what we have accomplished in that area.

In regard to our state demonstrations, I'd like to give you a quick overview of what we have been doing. If you have read the latest issue of the "Plain Brown Wrapper," it gives you more detail of the activities in each state, but let me just briefly go through each state.

I'll start with Arizona. Primarily we have been working with the Arizona people and the Dept of Water Resources to map irrigated land by water district. We have also worked with the Dept of Game & Fish and the US Forest Service for mapping wildlife habitat on the Kaibab Plateau, north of the Grand Canyon. The Dept of Natural Resources has recently received authorization by the state legislature to begin developing a geographic information system and we hope this will incorporate Landsat analysis capability.

In Nevada, we recently completed a forestry project. We are currently working with the state and several federal agencies to develop plans for a cooperative statewide effort.

Hawaii has had a multidisciplinary project involving agriculture land use and urban issues. The final report from that project will be published shortly.

In Colorado - It has also been a multi-disciplinary effort, involving agriculture, forestry, wildlife and planning as well as a Pueblo Area Council of Governments. Montana already has a basic operational Landsat

analysis capability and we have been assisting them with a substate project in the Flathead region. Tom Dundas will tell you more about that in a later session.

In California and Alaska, as well as the PNW, we have had more extensive projects. There will be a full session on the PNW story, so I think that should also be very interesting. Both the California projects and the Alaska projects have been multi-disciplinary involving many agencies.

In California, it has been primarily agricultural and forestry aspects as well as some work with the counties. For example, the San Bernardino County. The California Dept of Forestry has elected to begin to install the VICAR software and the Dept of Water Resources currently has plans to purchase some equipment.

In the state of Alaska - our projects have been primarily in the south central region and also in the Tanana River Basin. We also have a research project in Alaska regarding wetlands.

In the State of South Dakota, they have an operational Landsat capability. We have provided technical assistance in helping them upgrade their software.

In North Dakota, we recently had the MATE Van there. Unfortunately, we are always in the Northern part of the region in January and we were in Phoenix in the summertime with the MATE Van, so we can't quite get our schedule coordinated with the weather. In North Dakota we were able to give several legislators and agency personnel a briefing on the current capabilities in the field.

In Wyoming, our involvement has been primarily working with them in a planning stage and also providing some U2 imagery.

With that as a basic overview of our past activities, I would like to turn now to our second topic, which is to tell you what we had planned to do in FY 82, which will begin in October, 1981.

I am sure you are aware we had planned to continue to work with states that we have not had an opportunity to conduct demonstration in. We also planned to work with those states which had requested technical assistance. We primarily will provide technical assistance in the area of VICAR support and ELAS for those states that are currently using those systems.

We also planned to assist states such as Arizona and Nevada who are going through their first time application on their own system. We had planned a substate effort with regional government or county, and we have done some preliminary user needs work, so it was our plan to initiate some selected demonstrations throughout our region.

With that as an overview, I would like to turn now to my last topic which involves the status today of our program, and the impact that the current budget will most certainly have on our plans.

I am sure most of you are aware that the administration budget for FY 82 which has been submitted to congress and is currently under review. The current NASA line item for technology transfer is zero. For those of you who are not aware, it is my understanding that the administration and the OMB made a decision that federal technology transfer programs were not effective, so all of these activities were cut across the board. The NASA program was included in this cut although we at NASA Ames in particular, have had some strong indications from some of you that you consider the NASA technology transfer program effective and are willing to support it.

I would like to be very clear on the impact of this budget cut. We at Ames are funded under two separate programs. The first one is a Technology Transfer Program and this includes the ASVT's that we have in Alaska and in California, and the regional applications program. As I indicated, this program has a zero budget beginning in October of this year. The second program is a research and development funding from the Resource Observation Division at NASA Headquarters. This is a separate budget and this funding was not affected by the zero budget for technology transfer. The implications to us at Ames of course, if this should stand as it is currently written, means that our activity in technology transfer which is primarily with those of you in state governments, would be very limited after October 1981 if there is any activity at all. For the ASVT states, specifically California, the CIRSS effort and Alaska, we hope to be able to phase down these efforts during the next year by using some modest carryover funds. Any further work would depend on the suitability for an R&D type project. What this means specifically to your project depend almost entirely on the results of the congressional budget hearings which are occurring within the next few weeks and months. At this time, I am unable to give you any specifics on your particular project.

Later speakers this morning will give you more information on what is happening in Washington, but I did want to let you know that our staff at Ames is committed to Technology Transfer. We feel that our work

with you during the past three years has given us at Ames an excellent understanding of what the issues are in the West and where remote sensing can be successfully applied. We feel that remote sensing has made a contribution to resource management issues in the West, and we are looking forward to continuing, at least at a minimum, the applications development part of our program. If however, Congress should reverse the budget decision, we would support a continuation of the technology transfer program.

If you have questions over the next few days, I urge you to meet with any of our staff and we would be happy to answer any questions that we can at this time.