



ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY

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**SPECIAL MEETING OF THE
ARKANSAS SCIENCE & TECHNOLOGY AUTHORITY
BOARD OF DIRECTORS
JULY 22, 1994
CAPITAL HOTEL
LITTLE ROCK, AR**

CALL TO ORDER

The meeting was called to order at 11:35 p.m. by Mr. Jerry Webster, Chairman of the Board, in the Baxter Parlor of the Capital Hotel in Little Rock.

A quorum of Board members was present and included: Dr. Roberta Bustin, Mr. Danny Ford, Dr. James Hendren, Dr. Don Pederson, Dr. Phillip Rayford, and Mr. John Troutt.

Staff members present included: Dr. John Ahlen, Mr. Jim Benham, Mr. Chuck Myers, Ms. Melissa Adams, Ms. Courtney Johnson-Woods and Ms. Julie Welch.

Visitors included: Ms. Kelly Hunt, Assistant for Economic Development, Office of Governor and Jonathan Groves from the Arkansas Democrat-Gazette.

COMMUNICATIONS

Dr. Ahlen informed the Board that Mr. William Bridgforth and Dr. Joe Bates had resigned their positions on the Board. Mr. Bridgforth resigned so that he could accept a seat on the Arkansas Game and Fish Commission. Dr. Bates resigned due to his recent appointment as President of the American Lung Association.

Dr. Ahlen stated that due to Mr. Bridgforth's resignation, the Board was left without a Secretary. He suggested that a member be elected to serve as Secretary through ASTA's September Board meeting, when new officers will be elected.

Mr. Troutt made a motion to nominate Dr. Phillip Rayford to serve as Secretary until new officers are elected in

September. Dr. Pederson seconded the motion. The Board gave its unanimous approval.

Mr. Webster asked the staff to draft resolutions of commendation for Mr. Bridgforth and Dr. Bates.

INVESTMENT COMMITTEE

Mr. Troutt stated that the Investment Committee met via teleconference on July 19, 1994 and recommended for approval the following resolutions:

Draft Resolution 95-1 provides for a Technology Development investment in Vector, Inc. for a "Low Cost, Open Architecture Machine Tool Controller Prototype Development." The amount of the investment totals \$50,000.

Vector, Inc., which is located in the GENESIS incubator at UAF, will prototype an advanced machine tool controller for initial use in milling machines. President of the company is Calvin Goforth and the Vice President is Ron Goforth. Both have taught at the University of Arkansas, Fayetteville.

This product is a control system for a cutting tool, specifically for milling machines. The advantage to this system is that it uses an external microprocessor, which increases productivity and extensibility. Currently, the control system is a microprocessor embedded in the cutting tool. Vector proposes to use a PC-based hard drive which has a higher capacity and more computing power to perform the processing functions. This proposal received a positive technical evaluation from NIST.

Mr. Troutt stated that another advantage is that it can be used on existing equipment. It is a low cost, open architecture software system.

Ms. Welch stated that the company estimates \$10 million in sales within the next few years and a total of 30 employees by 1999. This figure is preliminary; a market analyst is performing surveys to validate the estimates.

Right now this product is being directed towards small machine shops. In the future, Vector would like to expand to mid-range shops.

Dr. Pederson noted for the record that the Vice President of this company is still a faculty member at UAF. He also noted that the President of the company has actually resigned a faculty position because he believes so strongly in this project. He stated that when someone is willing to

put their career on the line because they believe so strongly in a project, it must have good potential.

With no further discussion, Mr. Troutt made a motion for the approval of Draft Resolution 95-1. Dr. Rayford seconded the motion; the Board gave its unanimous approval.

Draft Resolution 95-2 would provide for a technology development project investment from energy-related monies for Hale Engineering in Pea Ridge, Arkansas in the amount of \$46,765.

Ms. Welch stated that Hale Engineering has developed an alternative internal combustion engine. The advantages of this engine are that it is lighter weight, has lower fuel consumption and requires less lubricants. The engine is designed for use in racing motorcycles and in light aircraft, such as ultralights, helicopters and home built aircraft.

The funds requested will be used to build two prototype engines that will be mounted on motorcycle frames. After Hale Engineering has validated the design and configuration, they will pursue the aircraft design. The negotiated royalty agreements will include sales to both market niches.

This project is energy related in that it is a lighter weight engine, which uses less fuel and has an increased horse power performance over competitors engines. It received one of the highest technical evaluations since this program began.

With no further discussion, Mr. Troutt made a motion to approve Draft Resolution 95-2. Dr. Rayford seconded the motion; the Board gave its unanimous approval.

Draft Resolution 95-3 provides for formal acceptance by the Board of the Technology Transfer Assistance Grant projects that have been funded to date.

Mr. Troutt made a motion for the approval of Draft Resolution 95-3. Mr. Ford seconded the motion. Dr. Pederson stated that several of the projects funded are with the institution of his affiliation. The Board gave its unanimous approval.

TECHNOLOGY TRANSFER ACTIVITIES

Jim Benham updated the Board on Technology Transfer activities in which ASTA is currently involved.

He stated that there was a federal mandate to share with industry the technical expertise found at over 600 federal lab across the United States.

In response to that mandate, NASA has developed six Regional Technology Transfer Centers (RTTCs) around the country. ASTA has become affiliated with the NASA Mid-Continent Technology Transfer Center (MCTTC), located in College Station, Texas. This affiliation gives ASTA direct access to over 600 labs, marketing assistance and access to database searches, all of which is free to companies being assisted.

As part of its affiliation with MCTTC, ASTA and ASU have received \$17,000 each to be used for technology assessment workshops. This funding will be used collaboratively to fund the assessment workshops.

In July in 1993, Governor Tucker signed a Memorandum of Understanding with the NASA Marshall Space Flight Center in Huntsville, Alabama. This provides ASTA with the mechanism to transfer NASA technology to companies.

A listing of technical inquiries from NASA's Marshall Space Flight Center show that materials and process assistance is most frequently requested.

Marshall will first try to look internally for solutions to problem statements. If that is not successful, they will go outside to other federal labs to find the solution.

So far, NASA and ASTA have visited nine counties and a total of 27 companies. As a result, over 40 problem statements were identified and submitted to NASA.

The Governor's Capitol for a Day program has been a good introduction into many of the communities. It is easier to follow up rather than make cold calls on local companies.

The local chambers of commerce are also used to get the word out. The chambers usually have monthly or bimonthly meetings. At these meetings, NASA and ASTA are the agenda.

MANUFACTURING EXTENSION NETWORK

Julie Welch briefed Board members on activities concerning the Arkansas Manufacturing Extension Network.

Since April, 1993 a Coordinating Council, which was established by the Governor, has been meeting monthly to develop and implement a Manufacturing Extension Network for Arkansas. Representatives on the Council include: two state agencies, ASTA and AIDC; one federal lab, NCTR; one non-profit organization, Winrock International; and eight colleges and universities from around the state.

To date, four proposals have been submitted:

The first proposal was submitted in July 1993 to the Advanced Research Projects Agency (ARPA), proposing a comprehensive Manufacturing Extension Network. The total cost of this project, as proposed was \$3.8 million: \$1.3 million coming from the federal government with the state match totaling \$2.5 million (which is the level of support the technology assistance service providers currently spend on tech transfer activities). In January 1994, the Coordinating Council was notified that the proposal would not be funded.

The second proposal was submitted to NIST's Manufacturing Extension Partnership Program. This proposal was for a limited funding amount of \$250,000, and proposed a much smaller network. ASTA was notified in July 1994 that this proposal was also unsuccessful.

The third proposal submitted was a legislative request for the 1995-97 biennium in the amount of \$332,630, which would be contained within ASTA's legislative budget package. The request would be used to hire a project director, 3 field engineers and an electronic network manager. All positions would be managed by ASTA. The director would be a vice president at ASTA. The electronic network manager would be housed at either ASTA or UALR. The field engineers would be located at Westark Community College, the University of Arkansas, and the University of Arkansas at Little Rock. They would be university employees and act as consultants to the network.

ASTA has also been working with AIDC to prepare a proposal for a Network Clearinghouse at an estimated cost of \$200,000. ASTA is looking at a variety of funding resources for this venture. ASTA intends to provide 1-800 telephone access to its customers, all manufacturers in state. The customers of the network are every manufacturer in the state.

Ms. Welch stated that the network partners have signed charters and have agreed to share resources that they currently have and will have in the future to any customers in Arkansas.

The last proposal was submitted to ARPA on June 30, 1994. This was a focused competition for Manufacturing Extension Centers, and includes the Manufacturing Extension Network. Cost to the federal government is \$1.3 million for the base year, with two optional years and a state match of \$1.9 million in the base year. The proposal calls for 10 field engineers, an information technology manager, which is very similar to the electronic network manager, a network project

director, an associate network project director, and an associated support staff. There is a need for more

marketing assistance for defense dependent firms, so a marketing representative is included in the request.

The location of the network field engineers would be as follows: One in Jonesboro; three in Fayetteville; one in Fort Smith; two in Camden; and three in Little Rock.

In critiques of the non-funded proposals, ASTA was told that the management structure needed to be strengthened. In the most recent submission, it was proposed that the ASTA Board of Directors would serve as the Manufacturing Extension Board of Directors. This is in addition to the Industry Quality Council and the Resource Coordinating Council, which are already in place. It also proposes to have the Industry Quality Council plus ASTA Board members who come from the private sector make recommendations for policy and practice to the network.

Dr. Pederson asked how the new proposed positions will fit in with current positions at universities and will they function parallel to each other.

Ms. Welch stated that they would be university employees, subcontracted to the network to provide network services. The fees generated would be network fees. Ms. Welch stated that the positions would be parallel and complimentary. The network does not want to duplicate services. Ms. Welch stated that the goal of the network is to increase the capacity to provide services statewide.

Ms. Welch stated that in this solicitation, 250 proposals were submitted, competing for a total of \$23 million. She also stated there would be another solicitation in December from the National Institute of Standards and Technology.

Dr. Pederson expressed his support for the network. He stated that agriculture has a proven extension program and that there is a real need for one in the manufacturing sector.

Mr. Troutt stated that manufacturing is changing so much that if Arkansas can't keep up with the changes, the state will be out of business.

ADJOURNMENT

With no further business to conduct, the meeting was adjourned at 1:00 p.m.

Respectfully submitted,



Phillip L. Rayford, Ph.D.
Secretary
Board of Directors

APPROVED by the Board of Directors
on this 16th day of September, 1994



Phillip L. Rayford, Ph.D.
Secretary
Board of Directors