

MINUTES

MONTANA HOUSE OF REPRESENTATIVES
53rd LEGISLATURE - REGULAR SESSION

JOINT SUBCOMMITTEE ON EDUCATION & CULTURAL RESOURCES

Call to Order: By Chairman Royal Johnson, on February 10, 1993,
at 8:00 a.m.

ROLL CALL

Members Present:

Rep. Royal Johnson, Chair (R)
Sen. Don Bianchi, Vice Chair (D)
Rep. Mike Kadas (D)
Sen. Dennis Nathe (R)
Rep. Ray Peck (D)
Sen. Chuck Swysgood (R)

Members Excused: none

Members Absent: none

Staff Present: Taryn Purdy, Legislative Fiscal Analyst
Skip Culver, Legislative Fiscal Analyst
Doug Schmitz, Office of Budget & Program Planning
Amy Carlson, Office of Budget & Program Planning
Curt Nichols, Office of Budget & Program Planning
Jacqueline Brehe, Committee Secretary

Please Note: These are summary minutes. Testimony and
discussion are paraphrased and condensed.

Committee Business Summary:

Hearing: HOUSE BILL 392; HOUSE BILL 11; AND
AGRICULTURAL EXPERIMENT STATION

Executive Action: AGRICULTURAL EXPERIMENT STATION,
COOPERATIVE EXTENSION SERVICE, FOREST
CONSERVATION EXPERIMENT STATION, FIRE
SERVICES TRAINING SCHOOL, AND BUREAU OF
MINES

HEARING ON HOUSE BILL 392

Tape No. 1:A:000

Opening Statement by Sponsor:

REP. BOB GERVAIS, House District 9, Browning, presented House
Bill 392. EXHIBIT 1 He explained that the bill provided money
for non-Indian students who attended tribally controlled
community colleges.

Proponents' Testimony:

Mr. Bob Thody, Dean of Students, Salish Kootenai Community College, spoke on behalf of Joseph McDonald, President of the college. He explained that there were seven tribal colleges, one on each reservation. The colleges serve 4,000 Indian students and nearly 1,000 non-Indian or non-beneficiary students. These are educated at no cost to the state. The cost was borne by federal funding, student tuition and tribal support. This legislation would provide state support for the non-beneficiary students. He said the non-beneficiary students attended the tribal colleges because they could not move due to responsibilities of families and jobs. Others required the small classes and close attention and support provided by the tribal colleges. Without state support, the colleges would be forced to turn away non-beneficiary students or to raise their tuition to unaffordable levels. He added that in June, 107 would graduate from Salish Kootenai Community College. Of the 107, 51 were Indian and 56 were non-beneficiary students.

Carl Dodson, student at Salish Kootenai Community College, said that he was a Marine Corp veteran and attended the tribal college because he and his wife could not find housing in Missoula where he first tried to attend UofM. He felt the education he was getting at the community college was beneficial and most appropriate since he had been out of high school for so long. He felt the support he received there would help him make the transition to a university. He added he was like many non-traditional students, married and not employed, whose financial resources were limited.

Klarissa Jensen, student at Salish Kootenai Community College, said that after receiving her associate's degree, she would be attending the UofM where she would pursue a degree in mathematics. She said she was a single mother who appreciated the atmosphere of the college which provided support to students who had been out of school for a time and thus helped prepare them for work at the university level.

Sara McClure, student at Salish Kootenai Community College, said she was a traditional student who will be transferring to the university as an environmental biology major. She spoke to the good preparation she received to help her deal with the more competitive atmosphere of the university.

Frank Findley, student at Salish Kootenai Community College, said he was a tribal student majoring in pre-nursing. He noted that the non-tribal students added much to the education experience at the college and wanted them to be able to continue.

John Hutchinson, Commissioner of Higher Education, stated that the OCHE supported the bill and noted that tribal colleges had an important impact on the higher education system. They had joined in the development of the core curriculum and of the transfer

February 10, 1993

Page 3 of 15

guide. He stressed that the tribal colleges were functioning in many ways as public community colleges and therefore state support did seem appropriate.

Questions From Subcommittee Members and Responses:

REP. MIKE KADAS asked about current tuition. **Mr. Dodson** answered that there was a three tier tuition which had been instituted. Tribal members pay \$25/credit hour, non-beneficiary students who live on the reservation pay \$35/credit hour, non-beneficiary students who live off the reservation pay \$110/credit hour. He added that the differential between tribal members and non-tribal members had been in place since the beginning of the college, but the three tier system had just started this year. **REP. KADAS** asked for further information on the new system. **Mr. Dodson** explained that before the new system, the tuition differential was based on whether one was a reservation resident or not. It did not distinguish between a tribal or a non-tribal member. He noted the figures which he had given were for quarter credit hours.

REP. KADAS asked if off reservation students who were not tribal members were being charged \$4,950/year for tuition. **Mr. Dodson** agreed and added that with fees, the annual cost would be \$5600. He mentioned that 23% of the reservation population was non-Indian. The college had to retain 51% Indian students in order to continue to receive funding from the federal Department of Education under the Tribally Controlled College Act. **REP. KADAS** asked what the federal revenue per tribal student was. **Mr. Dodson** answered that the U.S. government compiles the tribal enrollment in all the tribal colleges. It divides this number into the lump sum funding it received for this purpose and then distributes the money accordingly. Last year it amounted to \$3100/ISC (Indian Student Cost).

Closing by Sponsor:

REP. GERVAIS mentioned that the sponsors of the bill would compromise on the amount of funding. The \$500,000 request could be reduced. He also noted that Indians had to prove they were of Indian heritage whereas other minorities did not have to prove their heritage. This made it difficult for Indian colleges to compete with other minority colleges for funding.

CHAIRMAN ROYAL JOHNSON thanked **REP. GERVAIS** and closed the hearing.

HEARING ON HOUSE BILL 11

Tape No. 1:A:527

Opening Statement by Sponsor:

CHAIRMAN JOHNSON, House District 88, Billings, presented the bill

February 10, 1993

Page 4 of 15

to provide funding for the Montana Educational Telecommunications Network (METNET). **EXHIBIT 2** He stated that the value of the bill has been well demonstrated; at issue was how it was to be financed. METNET was a means to link all of Montana in an effective and productive manner. He said although there was a financial crisis, it was important to keep this system going. He referred to the materials describing the METNET system. **EXHIBITS 3 to 10**

Proponents' Testimony:

Nancy Keenan, State Superintendent of Schools, said that HB 11 represented the second phase of telecommunications in Montana. METNET currently has four areas of activity: a computer bulletin board, satellite communications, compressed two-way video, and in service training. Distance Learning Centers and Regional Training Centers were also part of the development plan for METNET.

Ms. Keenan focused on the Bulletin Board System which currently has 2,000 users and which works with any computer and is open to anyone with an interest in education. **EXHIBIT 4** listed the number of users of the system by community. She explained that the system provided conference areas, legislative information, a computer file exchange area, and a means for rural Montana schools to share information.

Ms. Keenan noted that 15 regional networks were developed in the last year and installed in 15 regional training centers for the purpose of allowing teachers and administrators to develop expertise in this technology. She added that there were 300 downlinks across the state which were receiving information from the satellite system. Presently the system was relying on out of state educators to provide courses in instruction.

Ms. Keenan said that METNET has sponsored 50 workshops in its first year. Regional training for the SIMMS program and the Dwight D. Eisenhower program has also been provided.

Ms. Keenan emphasized that the bill was critical because now that the infrastructure has been completed, the development of what will be on the system is now underway. Schools still need help in the organization of satellite instruction. They need to be trained in order to access information and classes. The bill provides the money for the training.

John Hutchinson, Commissioner of Higher Education, stated the strong support of the higher education community for the bill. He said that distance learning, such as in METNET, can catch on like an epidemic and referred to his experience with it in another state. He mentioned that the compressed video component was now present in Missoula, Helena, Billings and Bozeman and that work was being done to extend it to other areas of the state. He mentioned that the higher education system in Montana

HOUSE EDUCATION & CULTURAL RESOURCES SUBCOMMITTEE

February 10, 1993

Page 5 of 15

might be undergoing massive structural changes because of the financial condition of the state. If so, it would come to depend heavily on distance learning.

Mr. Hutchinson mentioned the intense cooperation between the OCHE, the OPI, and the DofA in the METNET project. He noted that he had one concern about the bill. Presently there was a five-fold increase in the charge per FTE. It used to be \$1 and was now \$5. He explained that he interpreted it as a permissive increase; that is, they could charge up to \$5 per FTE. He said it was not their intention to do so.

Lois Menzies, Director of the Department of Administration, said on behalf of Governor Racicot, she was joining the Office of Public Instruction and the OCHE as a strong proponent of the bill. She said the success of METNET was directly related to the cooperative partnership of the three agencies: OPI, OCHE and DofA. She noted the system's ability to give rural Montanans access to educational and governmental resources. She emphasized its potential for helping state agencies become more efficient.

Scott Buswell, Assistant Superintendent for Educational Technology in OPI, spoke to the difference in the present METNET bill compared to the bill that started METNET. The basic appropriation request has increased from \$300,000 to \$500,000 to allow expansion of the program including supplying basic equipment to schools.

Mr. Buswell spoke to the increase of the \$1 fee to \$2 for K-12 education. He explained that up to now the \$1 fee has allowed the installation and maintenance of equipment and also the support of the 15 regional training centers. Requests are now rapidly increasing for using the system. As an example, he stated that 44 high schools in 25 counties with 101 classes are now doing distance learning. The \$1 fee allowed METNET to continue to provide toll free line access for schools in rural areas. The toll free lines cost the system \$0.18 per minute and run a total of \$5,000 to \$6,000 per month. He stated that the next phase includes helping schools learn how to use the system effectively.

Tony Herbert, Department of Administration, Information Services Division, said that he would cover the status of the compressed video system and the status of the budgets which have been requested. He referred to the last two pages of **EXHIBIT 3** which contained two maps. The map of FY93 showed the present cities within the compressed video system. The transportation piece between the cities was the state's digital network so that duplication has been avoided. The second map showed the proposed plan for expansion if HB 11 passes. Eight additional interactive sites would be added that would reach 14 communities.

Mr. Herbert referred to **EXHIBIT 5** to present the amount of activity in the compressed video system since its installation.

February 10, 1993

Page 6 of 15

He then referred to **EXHIBIT 6** to show where the appropriated funds were expended in FY91, FY92 and FY93. It also listed where funds were expected to be spent in this biennium.

Tape No 1:B:000

Barbara Ranf, U.S. West, said that communication technologies could be used to enhance the delivery of education. She urged its continued development in Montana.

John McCarthy, Associated Students of the University of Montana, said that students supported the bill but would not like to see general fund support of the bill later become tuition support or student fees.

Todd Mitchell, Eastern Montana College, said the students at his institution also favored the bill and were excited about its potential to reach outlying areas of the state. He said he also was concerned that the system remain a general fund appropriation and not become part of the fee structure or tuition within the university system.

Fred Freedman, Associated Students of MSU, said the students of MSU concurred with the statements of the two previous student lobbyists.

Questions From Subcommittee Members and Responses:

REP. KADAS asked **Dr. Hutchinson** what the appropriate discretionary funds were that were mentioned on page 1, line 18 of the bill. **Dr. Hutchinson** said that the discretionary funds could come from a variety of sources including funds that are passed on to the individual institutions or funds collected from private sources. **REP. KADAS** asked if they could be student fees. **Dr. Hutchinson** said they could be. Presently each campus is assessed \$1 per FTE, but at this time it is not being passed onto the students. **REP. KADAS** asked if the OCHE was considering raising the fee. **Dr. Hutchinson** said there are no plans now to raise the fee. The intent of the passage in the bill was to provide authority to raise the fee if it was required in the future.

REP. KADAS asked **Mr. Buswell** if the \$1 increase in K-12 was for the purpose of covering the line costs. **Mr. Buswell** explained that it primarily covers toll free line costs; because of increased use, the fee needs to be raised. In addition it would cover the increased use of the system to buy uplink time to satellites and the increased use of the compressed video system. It would also pay for a coordinator to work with people who wish to use the system. **REP. KADAS** suggested using the toll free line but charging the schools for using it and taking the difference out of the foundation fund payment. **Mr. Buswell** said if they bill the school system it would entail more accounting. He said there has been no problem to date about people getting on the

HOUSE EDUCATION & CULTURAL RESOURCES SUBCOMMITTEE

February 10, 1993

Page 7 of 15

system for a non-educational reason. Currently schools are limited to 20 minutes per day.

SEN. DENNIS NATHE asked if the state leased lines from U.S. West for the state digital system. **Mr. Herbert** said yes. **SEN. NATHE** asked if the FCC has given a ruling on reduced rates for lines used for educational purposes. **Mr. Herbert** explained that when that has been done in the past it was on a state-by-state basis. It has never been attempted in Montana. **SEN. NATHE** noted that the fiber optic lines were present in northeastern Montana but what kept the system from being fully utilized was the cost which the cooperatives are mandated to charge by the FCC. He asked why the state hasn't introduced legislation asking for a reduced rate on the lines rather than appropriating money and paying the higher rate. **Mr. Herbert** explained that the lines used for the interactive video system were the same lines as those used by the state. He said the notion of educational discounts was worthwhile, but the capability of co-ops to give discounts to their educational customers was different from U.S. West or AT&T.

SEN. CHUCK SWYSGOOD asked if the \$500,000 appropriated to OCHE on page 2 of the bill had as its source the \$1 fees. He also asked what was meant by the other sources designated in line 17. **Dr. Hutchinson** explained that not all of the \$500,000 came from the fees. Additional funding was anticipated from federal grants and some private sources. The \$500,000 was an upper limit for spending authority.

Mr. Herbert said that in the DofA portion of the bill, there was an appropriation for \$500,000 from the general fund each year and \$500,000 in other match. It was anticipated that federal grants and private grants would be pursued. As regards the \$500,000 for the OCHE, it was felt that the OCHE could attract grant money which the DofA could not. The extra money in the university system budget was to provide some flexibility so that if outside funding could be obtained it would be used on the campuses for studios and additional equipment. He added that the Rural Electrification Association has some new grant monies available which would be examined.

REP. RAY PECK asked for clarification on the wording on page 2, line 22 of the bill. He asked if it authorized the DofA to set fees and collect additional revenues. **Mr. Herbert** explained that as METNET evolved the DofA would have the charge to implement the technology for distance learning and to coordinate that with other telecommunications network activity within their proprietary program. Expenses have been incurred within that proprietary program due to METNET. This language gives the DofA the ability to increase appropriations through budget changes that the budget office can authorize as expenses occur.

REP. PECK asked if the funds could be budget amended if the language were removed from the bill. **Mr. Herbert** agreed it could be done, but only if changes being proposed in the budgeting

HOUSE EDUCATION & CULTURAL RESOURCES SUBCOMMITTEE

February 10, 1993

Page 8 of 15

process were not passed. **REP. KADAS** referred to subsection 4 on page 2 and asked if it only applied to the university system. **Mr. Herbert** said it also applied to K-12. **REP. KADAS** asked if the DofA consulted with the university system when large expenses were incurred that they would be charged for. **Mr. Herbert** said that the DofA worked closely with the university system so that they knew well in advance of expenses necessary to link them to the system. **REP. KADAS** asked what would happen if the university did not want some piece of technology which they were going to be charged for. The language of the bill gave DofA the authority to go ahead regardless. **Mr. Herbert** said this direction would not have been taken unless the university system was committed to using the system. **REP. KADAS** asked if the fees were based on use and not just on having the facilities in place. **Mr. Herbert** answered affirmatively. **REP. KADAS** asked Mr. Herbert if the DofA could build a facility and charge a unit for the structure because the language in the bill did not restrict the possibility. **Mr. Herbert** said he believed the university system would not be compelled to pay for a structure if it was built without its assent.

SEN. SWYSGOOD referred to page 1, line 22 of the bill which had a section struck out and asked if a date needed to be inserted. **Mr. Herbert** answered that the Legislative Council would be responsible for the "housekeeping" details of bills and that the July 1 date in the bill was indicative of the intentions of the sponsors.

SEN. NATHE asked if the amount actually appropriated was about \$2.6 million. **REP. PECK** agreed and said fees could be added above that amount. **SEN. DON BIANCHI** asked for clarification on the issue. **Mr. Herbert** explained that the DofA was appropriated over the biennium \$1 million from the general fund and \$1 million in other match money. The OPI would receive over \$600,000 over the biennium from the school equalization fund through its increase to a \$2 fee. The OCHE would receive \$1 million through other match monies over the biennium. He said the appropriation totalled \$3.6 million with \$1 million from the general fund. He added he would supply the budget figures to the committee in a one page format to replace the work sheets which he had distributed.

Closing by Sponsor:

CHAIRMAN JOHNSON referred to **EXHIBIT 7** which listed the phone numbers for the regional training sites. He noted that since these were local calls until actual network link up occurred, it produced some savings. He emphasized that METNET presented a real opportunity to the state to save money because meetings could be held using the telecommunication technology rather than traveling by plane or car.

SEN. BIANCHI closed the hearing.

February 10, 1993

Page 9 of 15

HEARING ON AGRICULTURAL EXPERIMENT STATION

Tape No. 1:B:985

Barry Jacobsen, AES, explained that as the agency had reviewed the committee's decision on its budget, it was discovered that because of the way the agency handled its 1993 reduction using the RERS system, the station had significantly been hurt in its personal services budget.

Gerri Sutton, Budget Officer at AES, explained that the July special session cut the agency budget by \$315,000 and that most of it was taken in FTE. These were positions which were cut back to 25% on the budget for 1993. Therefore 75% of those salaries had been removed from the RERS report for 1993 which was to agree with the operating plan approved by the Regents. She said that in looking at the positions which were reduced to 25% for the year, the 75% accounts for \$244,000 in salaries and with benefits equals \$319,000.

Ms. Sutton stated that in preparing the budget document, they understood they were to use the 1992 base, RERS FTE with the adjustment for the latter half of the year increase. In actuality, the RERS run which was used utilized 1993 data with the positions removed in the amount of a 75% cut. If the agency had used the 1992 figures as given in the current level program, it would amount to 242 FTE. The personnel services line of the agency budget appropriated last week was short this amount.

REP. PECK asked if her contention was the agency had too many FTE for the budget. **Ms. Sutton** replied that in order to implement the special session cut, the agency reduced its FTE in 1993 from the 1992 base from which it prepared the executive budget. This was the dollar difference that resulted from using the 1993 RERS program. She said the agency was requesting reconsideration for funding the full 242 FTEs in its budget.

SEN. BIANCHI asked what happened to FTEs from 1992 to 1993. **Ms. Sutton** said that some of the personnel were laid off October 1 in order to meet the cut. **Jim Isch, Vice President for Administration at MSU**, stated that the issue here was one of fairness. The LFA current level used operations and capital from 1992, and a RERS run from December 1992 which was in FY93. Basically two fiscal years were used to create the base. When the AES took its revision in 1993, the agency took it in personal services which meant that not only had their budget been reduced by the revision, but since they had taken the reduction out of personal services and were using the December RERS run the problem was compounded because the RERS run was using the lower figure.

REP. KADAS noted in 1992 the agency had lower operational expenditures and higher personal services expenditures. In 1993, the agency decided the mix was incorrect and changed it by reducing personal services and increasing the operating budget in

HOUSE EDUCATION & CULTURAL RESOURCES SUBCOMMITTEE

February 10, 1993

Page 10 of 15

1993. Because of the way the LFA current level was developed, the agency got the low expenditure for operations and the low expenditure for personnel.

Tape No 2:A:000

REP. KADAS asked **Ms. Purdy** if there were many other agencies with the same situation as AES. **Taryn Purdy, LFA**, replied that the only other one she had heard of was the plant program at MSU. **REP. KADAS** asked for the difference between the 1992 and 1993 operating budget at AES. He added that it seemed the agency had made a major policy decision in 1993 to shift personal expenditures to operating expenses. Since the operating expenses were not counted in the budget, he wanted to know how much got shifted. **Mr. Jacobsen** explained that the operating budget in FY92 was \$1,504,952 and in FY93 was \$1,525,456. The capital budget in FY92 was \$245,420 and in FY93 was \$232,633.

Ms. Sutton said it was incorrect to say that money was taken out of personal services and placed in operations. To abide by the \$315,000 special services cut, people were laid off.

Mr. Isch clarified the issue by saying that what **REP. KADAS** had been describing applied to the incremental budget for the MSU plant program. At the AES, they took their cuts in personnel. Then when the RERS run was made, the people were not in place to count so that it compounded the cut.

Ms. Purdy restated **REP. KADAS** question: In 1992, how was the revision reflected in the LFA current level for operating expenses? If the operating expenses were reduced, then there was a double reduction in operating and in personal services. She said she was not clear as to whether the 1992 revision was taken in operating expenses. **Ms. Sutton** noted that the \$117,000 January 1992 special session cut was taken entirely from FTE.

Ms. Purdy then explained that the 1992 LFA current level operating expenses did not reflect the initial revision because it was taken entirely in personal services. The first RERS run was done based upon FY92 figures and therefore any reduction made in 1992 would be reflected in it. Because there was an additional revision made in 1993, an additional reduction was made in that year which was now reflected. There was not a double accounting in operating expenses and in personal services as **REP. KADAS** first thought, but a full biennium's worth of revision in personal services being reflected in the LFA current level.

REP. KADAS noted that when the agency reduced FTE in 1993, the reduction was picked up in the RERS run. **Mr. Isch** emphasized again that this was an issue of fairness. A management decision had been made in the best interest of the state and now the agency was being penalized for it. **SEN. SWYSGOOD** asked if the agency was requesting a restoration to the 1992 levels before the special session revision occurred. **Dr. Jacobsen** said yes and explained that when he previously testified he had said that when

February 10, 1993

Page 11 of 15

he was faced with the July recision, he had made the determination that the operating budget was already too low to run the AES, so he chose to take the recision in FTE. Had he made the reduction in the operating expenses or had the RERS data not been used, then this problem would not have arisen. But at the time, the best management decision for the state was to take the cut in FTE.

REP. KADAS noted that if all the cuts had been made in operating expenses in FY93, then under the manner the LFA current level was developed, the agency would still be given the 1992 operating expenditure level and the higher personal services level. What the agency had done was to make a management decision to cut personal services because they felt the operating budget was already too low. The consequence was that they now have the operating budget from 1992, but have a lower personal services level. He mentioned that all the agency budgets were going to be reexamined for further cuts so spending time on this issue may not matter.

SEN. SWYSGOOD asked if the problem would be alleviated if the agency were given greater flexilbility as to how they handled their budgets. **Mr. Isch** said that flexibility was certainly an important issue, but in this particular case an even more significant issue was the methodology used in establishing the base. To eliminate this problem from occurring in the next biennium, it was important to use a new mechanism for generating the base. Good managerial decisions should not result in an agency being penalized. **Mr. Jacobsen** added if the agency were given a lump sum and flexibility, good management practices would help alleviate the impact of the reductions being imposed.

CHAIRMAN JOHNSON asked for more information concerning how the July recision was taken. **Mr. Jacobsen** explained the recision in July was \$314,380. Approximately \$130,000 came out of the experiment station at Huntley. Approximately \$100,000 was taken out of the animal feeding program.

CHAIRMAN JOHNSON asked **Ms. Sutton** what they thought they had as a bottom line for their budget as a result of the committee's previous actions. **Ms. Sutton** answered that it was \$9.8 million for 1994 and \$9.838 million for 1995. **CHAIRMAN JOHNSON** noted that the 1992 expenditures for the agency was \$9.782 million so that the present budget was still higher than what they had been receiving. **Ms. Sutton** agreed.

DISCUSSION ON FUTURE COMMITTEE ACTION

Ms. Purdy distributed **EXHIBIT 11** that updated the committee as to the results of its actions. She noted that at this point the committee had taken action that reduced the LFA current level general fund amount by \$16 million. The initial target for AES had been \$700,000. As a result of previous committee action, the agency has been reduced an additional \$126,000.

HOUSE EDUCATION & CULTURAL RESOURCES SUBCOMMITTEE

February 10, 1993

Page 12 of 15

SEN. SWYSGOOD noted that approximately \$21.6 million was cut from the six university units and from the WICHE and WAMI programs. He asked for clarification on how Ms. Purdy obtained a figure of \$16 million. **Ms. Purdy** explained that when the committee took action to accept budgets in some agencies that were higher than the LFA current level or when the original targets were not attained, it counterbalanced any cuts which were taken later in the university units or in the WICHE and WAMI programs. She used **EXHIBIT 11** to show which agencies were over or under the target.

REP. KADAS suggested that it might be more useful to ignore the initial target since the subsequent target was so much larger. It would be better to start with the 1995 biennial figure of \$347 million and reduce that by \$24 million. He said thus far the committee has a net reduction of \$21.2 million and needed to reduce the remaining budgets by an additional \$2.8 million to hit the assigned target.

Ms. Purdy said that the committee was approximately \$4 million off the \$24 million target. **EXHIBIT 11** She added that the initial target was useful for examining the individual agency budgets.

CHAIRMAN JOHNSON asked the committee where it would like to proceed next. **REP. KADAS** remarked that the budgets of OPI, the affiliated stations and the vo-tech centers would all be likely candidates for additional cuts. **REP. PECK** remarked that OPI was scheduled to appear before the committee tomorrow and that probably half of the remaining target would be taken from that budget. **SEN. NATHE** asked if the funding of the "dog and cat" bills affected the target. **Ms. Purdy** said that it would not change the \$24 target, but would impact the bottom line for state finances.

SEN. BIANCHI asked for clarification on the status of the SIMMS project which was funded last year but was not in the base. **Ms. Purdy** said that the funding for SIMMS was in the form of a modified budget in OCHE and if it were funded, it would affect the committee target. The hearing on SIMMS was presently scheduled for February 16.

CHAIRMAN JOHNSON noted that since the representatives of the affiliated agencies were present, perhaps it would be logical to reexamine their budgets since they would be present to answer questions. He suggested starting with the AES. He noted that the agency has been cut the most compared to the other affiliated agencies in regards to the initial target.

REP. KADAS reminded the committee that when the committee had initially reviewed the agency budgets, he had inquired of them what they would do with a 10% across-the-board cut. The replies in general did not involve programmatic reductions. He suggested an across-the-board reduction and then giving them the flexibility to deal with it.

February 10, 1993

Page 13 of 15

Tape No 2:B:000

REP. KADAS suggested an across-the-board cut of five percent that would include the OCHE and OPI. **SEN. BIANCHI** suggested dealing with only the affiliated stations at this time. **SEN. SWYSGOOD** asked **REP. KADAS** where the starting point for this additional five percent cut would be. **REP. KADAS** replied that it would start at where the committee left the budgets for the agencies. He asked the agencies present to respond with how they believed the additional cut would impact them.

Dr. Jacobsen noted that this additional five percent cut would mean an additional reduction of approximately \$752,000 over the biennium. He said this would involve programmatic cuts and would first affect unfunded liabilities in terms of maintenance. Some of the cuts would come in the state research system including the MSU campus station.

Andrea Pagenkopf, Cooperative Extension Service (CES), noted that a five percent cut meant a \$293,000 additional cut over the biennium for CES. In the short term they would try to keep positions open and generate vacancy savings. A program review committee presently in place would help make suggestions as to how to handle the reduction in funding, keeping long term plans in mind.

George Dennison, President of UofM, said they would handle the revision at the Forest Conservation Experiment Station (FCES) the same way they handled the previous revision. Since the station was an integral component of the school of forestry, the budgets would be integrated and treated together. Rather than affecting programs, it would be treated as a reduction across the entire school.

Marvin Miller, Bureau of Mines, said they would probably cut personnel.

Butch Weedon, Fire Services Training School (FSTS), said that he would need to talk to his advisory board, but that an additional five percent cut would probably result in scaling back the resource library and a reduction in the full-time staff.

EXECUTIVE ACTION ON AGRICULTURAL EXPERIMENT STATION, COOPERATIVE EXTENSION SERVICE, FOREST CONSERVATION EXPERIMENT STATION, FIRE SERVICES TRAINING SCHOOL, AND BUREAU OF MINES

Tape No. 2:B:282

Motion: **REP. KADAS** moved that an additional five percent of general fund be removed from the budgets of AES, CES, FCES, FSTS, and the Bureau of Mines.

Discussion: **Ms. Purdy** informed the committee of the impact of the motion on the agency budgets:

HOUSE EDUCATION & CULTURAL RESOURCES SUBCOMMITTEE

February 10, 1993

Page 14 of 15

The final general fund appropriation for AES would be \$14.29 million which would be \$878,000 lower than the 92-93 level and \$1.78 million less than the LFA current level.

The final general fund figure for CES would be \$5.575 million which would be a reduction of \$272,000 from the 92-93 level and an increase of \$19,889 over the LFA current level.

The general fund final figure for FCES would be \$1.4 million which would be a reduction of \$11,000 from the 92-93 level and an increase of \$6,700 over the LFA current level.

The final general fund figure for the Bureau of Mines would be \$2.6 million, which would be \$18,700 less than the 92-93 level and \$110,000 less than the LFA current level.

The final general fund appropriation for the FSTS would be \$448,000 which would be \$4,500 more than the 92-93 level and \$12,000 less than the LFA current level.

She noted that the reason why the budgets of the CES and the FCES would be over LFA current level even with the additional cut was that the RERs data used to calculate the original LFA current levels for these two agencies was in error.

REP. KADAS said it was appropriate to take the cuts from the base created by the subcommittee action up to this point. **SEN. NATHE** asked if there was a way to make these cuts with more equity since some of the agencies would be taking a bigger proportional cut than others. **REP. KADAS** replied that using the figures obtained from subcommittee action was much fairer than using the LFA current level since there were errors in the current level. He said he did realize it hit AES very hard. He added that the agencies may return later and provide additional information to the committee and ask that budgets be reconsidered. **SEN. SWYSGOOD** echoed **SEN. NATHE's** concern for AES.

Substitute Motion: **SEN. SWYSGOOD** moved that the committee vote on the budgets of these agencies individually.

Discussion: **CHAIRMAN JOHNSON** reminded **SEN. SWYSGOOD** that the committee would probably revisit the budgets again. **SEN. SWYSGOOD** remarked that he was aware of that, but he preferred to vote on this issue one agency at a time.

Vote: The substitute motion FAILED 1 to 4 with **SEN. SWYSGOOD** voting for the motion and **SEN. BIANCHI** absent.

Vote: The motion made by **REP. KADAS** CARRIED 5 to 1 with **SEN. SWYSGOOD** opposed.

HOUSE EDUCATION & CULTURAL RESOURCES SUBCOMMITTEE
February 10, 1993
Page 15 of 15

ADJOURNMENT

Adjournment: 11:05 a.m.



REP. ROYAL JOHNSON, Chair



JACQUELINE BREHE, Secretary

jb/

HOUSE OF REPRESENTATIVES

EDUCATION

SUB-COMMITTEE

ROLL CALL

DATE

2-10-93

NAME	PRESENT	ABSENT	EXCUSED
REP. ROYAL JOHNSON, CHAIRMAN	✓		
SEN. DON BIANCHI, VICE CHAIRMAN	✓		
REP. MIKE KADAS	✓		
SEN. DENNIS NATHE	✓		
REP. RAY PECK	✓		
SEN. CHUCK SWYSGOOD	✓		

House Bill No. 392
General Fund Bill

1 WHEREAS, without support, tribal community colleges will
2 not be able to serve nonbeneficiary students without
3 increasing student fees, which may result in students
4 dropping out of college.

5 THE BOARD OF REGENTS TO PROVIDE FINANCIAL ASSISTANCE TO
6 NONBENEFICIARY STUDENTS ATTENDING TRIBALLY CONTROLLED
7 COMMUNITY COLLEGES IN MONTANA; PROVIDING REQUIREMENTS FOR
8 RECEIPT OF MONEY; PROVIDING FOR A REVERSION OF UNSPENT FUNDS
9 TO THE GENERAL FUND; AND PROVIDING AN IMMEDIATE EFFECTIVE
10 DATE."

11 WHEREAS, seven tribally controlled community colleges
12 exist in the State of Montana; and
13 WHEREAS, the tribal community colleges provide a
14 quality, low-cost, and accessible college program to Indian
15 and non-Indian students each year; and
16 WHEREAS, approximately 400 of these students are
17 nonbeneficiary students who do not qualify for financial
18 support through the Bureau of Indian Affairs or under the
19 Tribally Controlled Community College Assistance Act of
20 1978; and
21 WHEREAS, the tribal community colleges currently
22 subsidize the costs of providing services to nonbeneficiary
23 students, allowing them to continue their educations at a
24 lower cost to the state; and
25

1 WHEREAS, without support, tribal community colleges will
2 not be able to serve nonbeneficiary students without
3 increasing student fees, which may result in students
4 dropping out of college.

5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

6 NEW SECTION. **Section 1. Appropriation.** (1) There is
7 appropriated from the general fund to the board of regents
8 \$500,000 for the biennium ending June 30, 1995, to provide
9 financial assistance to tribally controlled community
10 colleges for enrolled nonbeneficiary students.

11 (2) Each tribal community college shall apply to the
12 board of regents, and the money in subsection (1) must be
13 distributed on a prorated basis according to each tribal
14 community college's previous year's nonbeneficiary student
15 enrollment.

16 (3) An expenditure from this appropriation is
17 contingent upon the tribal community college:
18 (a) being accredited or being a candidate for
19 accreditation by the northwest association of schools and
20 colleges;

21 (b) entering into a contract or a state-tribal
22 cooperative agreement, pursuant to Title 18, chapter 11,
23 with the board of regents to provide the board with
24 information relating to eligibility of nonbeneficiary

1 students and documentation on the curriculum to ensure that
2 the content and quality of courses offered by the tribal
3 community college are consistent with the standards adopted
4 by the Montana university system; and

5 (c) filing with the board of regents evidence that the
6 college's enrollment of Indian students is at least 51% as
7 required by the Tribally Controlled Community College
8 Assistance Act of 1978, 25 U.S.C. 1804.

9 (4) It is the intent of the legislature that the
10 appropriation in subsection (1) be considered an amount in
11 addition to the Montana university system budget
12 appropriation for the biennium ending June 30, 1995.

13 (5) All funds appropriated under subsection (1) that
14 are unspent revert to the general fund.

15 NEW SECTION. Section 2. Effective date. [This act] is
16 effective on passage and approval.

-End-

EXHIBIT 2
DATE 2-10-93
SB _____

1 HOUSE BILL NO. 11

2 INTRODUCED BY R. JOHNSON

3 BY REQUEST OF THE OFFICE OF BUDGET AND PROGRAM PLANNING,

4 DEPARTMENT OF ADMINISTRATION, SUPERINTENDENT OF PUBLIC

5 INSTRUCTION, AND MONTANA UNIVERSITY SYSTEM

6

7 A BILL FOR AN ACT ENTITLED: "AN ACT APPROPRIATING MONEY FOR
8 THE MONTANA EDUCATIONAL TELECOMMUNICATIONS NETWORK; AMENDING
9 SECTION 20-32-103, MCA; AND PROVIDING AN IMMEDIATE EFFECTIVE
10 DATE."

11

12 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

13 **Section 1.** Section 20-32-103, MCA, is amended to read:

14 "20-32-103. Fee collection and disposition for
15 operational costs. As a condition of participation in the
16 network, the Montana university system, vocational-technical
17 centers, and community colleges shall collect from
18 appropriate discretionary funds in a manner approved by the
19 board of regents an amount not to exceed \$1 \$5 for each
20 full-time equivalent student enrolled in the units, centers,
21 or colleges. The funds collected must be deposited with the
22 commissioner of higher education by July 1 ~~of--the--fiscal~~
23 ~~year,--beginning--with--fiscal--year--1992~~ for the purposes of
24 20-32-102(4). The commissioner of higher education shall pay
25 the department of administration the commissioner's share of

AM

HB 11

INTRODUCED BILL

1 the network costs, as provided in 20-32-104."

2 **NEW SECTION. Section 2. Appropriations.** (1) There is
3 appropriated \$500,000 from the general fund and \$500,000
4 from federal or other sources to the department of
5 administration for each year of the biennium ending June 30,
6 1995, to be used for continued development and expansion of
7 the Montana educational telecommunications network (METNET).

8 (2) There is appropriated for each fiscal year of the
9 biennium ending June 30, 1995, from the state equalization
10 aid account in 20-9-343 to the superintendent of public
11 instruction an amount equal to \$2 for each average number
12 belonging calculated for the state for the previous school
13 fiscal year for the purposes of 20-32-102(2).

14 (3) There is appropriated \$500,000 to the office of the
15 commissioner of higher education for each fiscal year of the
16 biennium ending June 30, 1995, to be used for METNET from
17 fees collected in accordance with 20-32-103 and from other
18 sources.

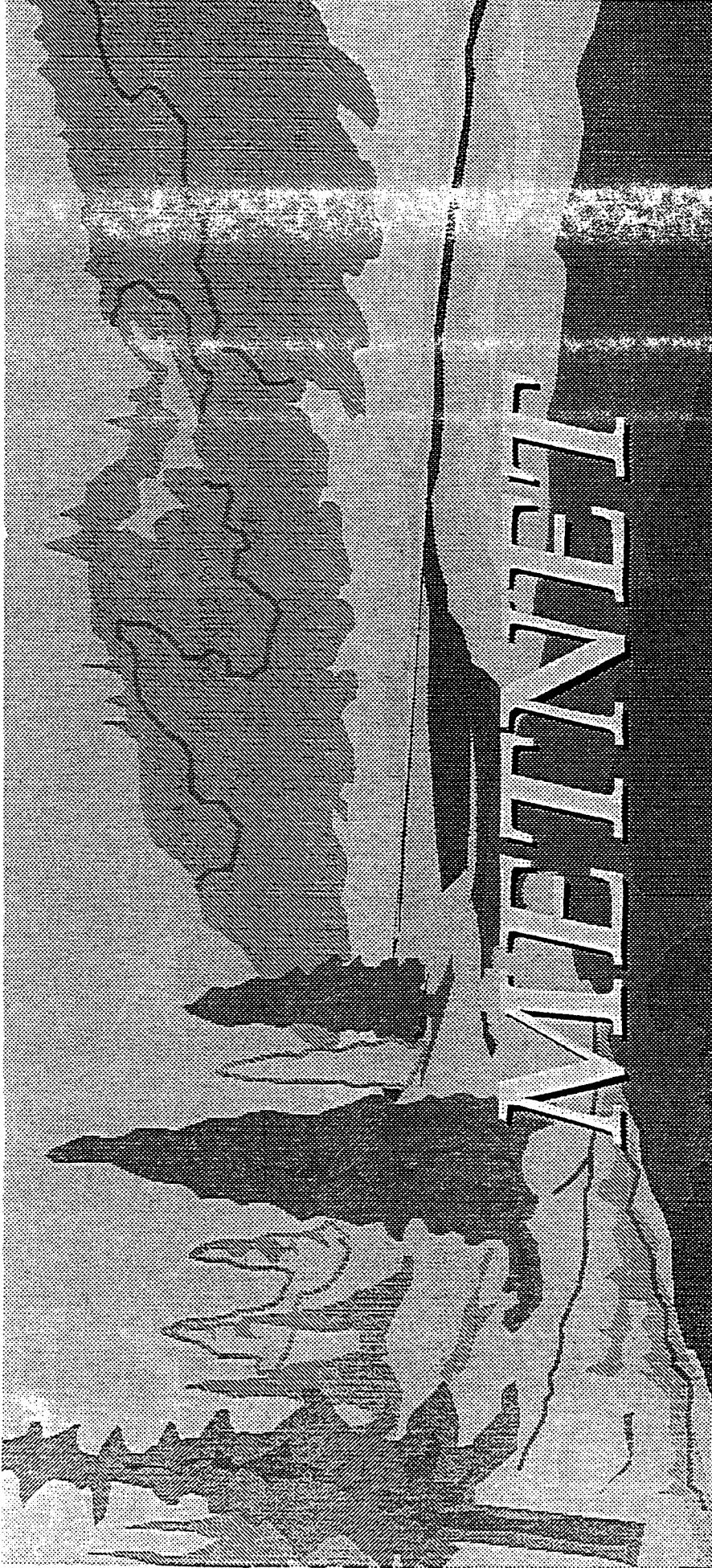
19 (4) There is appropriated each year of the biennium
20 ending June 30, 1995, to the department of administration
21 from the money collected under the provisions of 20-32-103
22 and from any other fees collected for the use of METNET the
23 amount equal to any costs incurred by the department of
24 administration for the purposes of 20-32-102(3).

25 **NEW SECTION. Section 3. Effective date.** [This act] is

EXHIBIT 2
DATE 2-10-93
SD

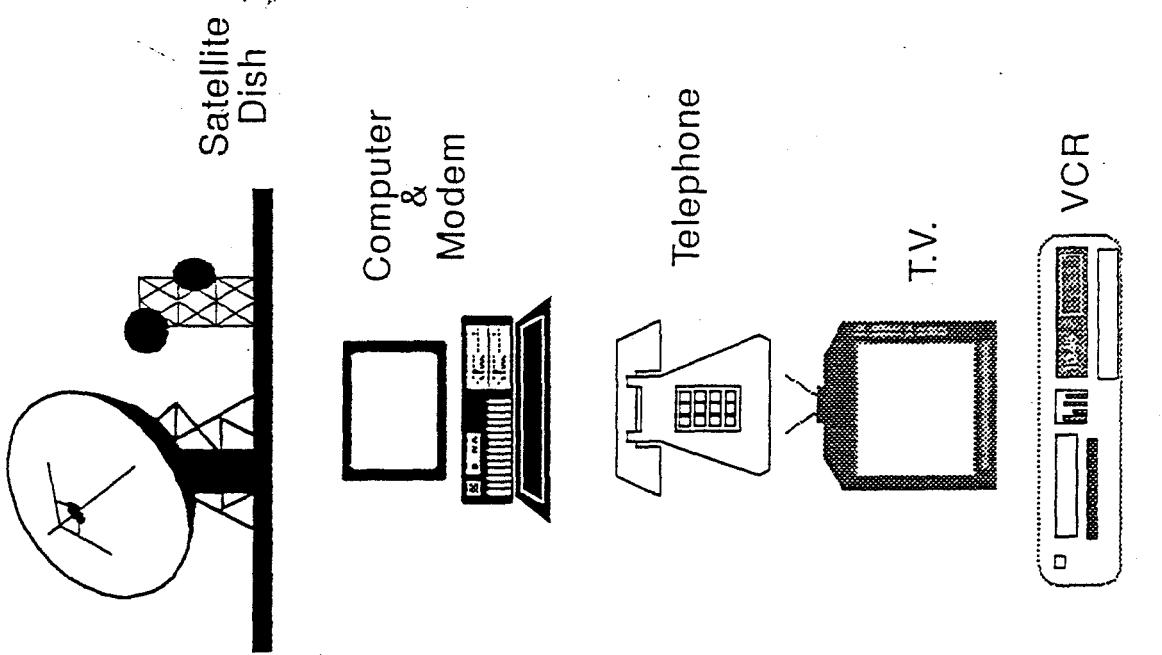
1 effective on passage and approval.

-End-

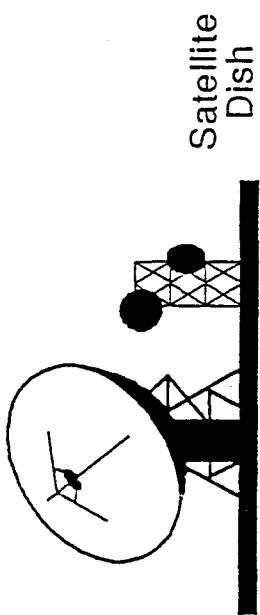


Montana Educational
Telecommunications Network

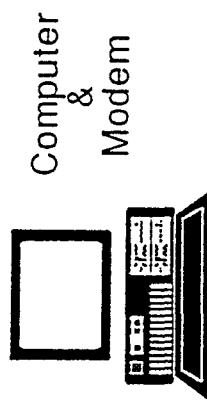
Typical Distance Learning Center Configuration



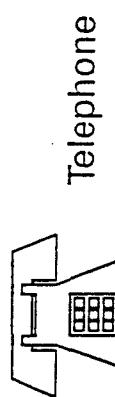
Typical Regional Training Center



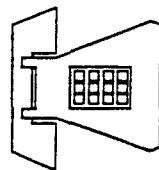
Satellite Dish



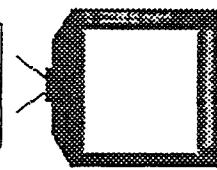
Computer & Modem



Telephone

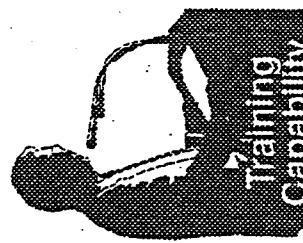


T.V.



Compressed Video

File Server And Bulletin Board Node (BBS)



REGIONAL TRAINING CENTERS

METNET

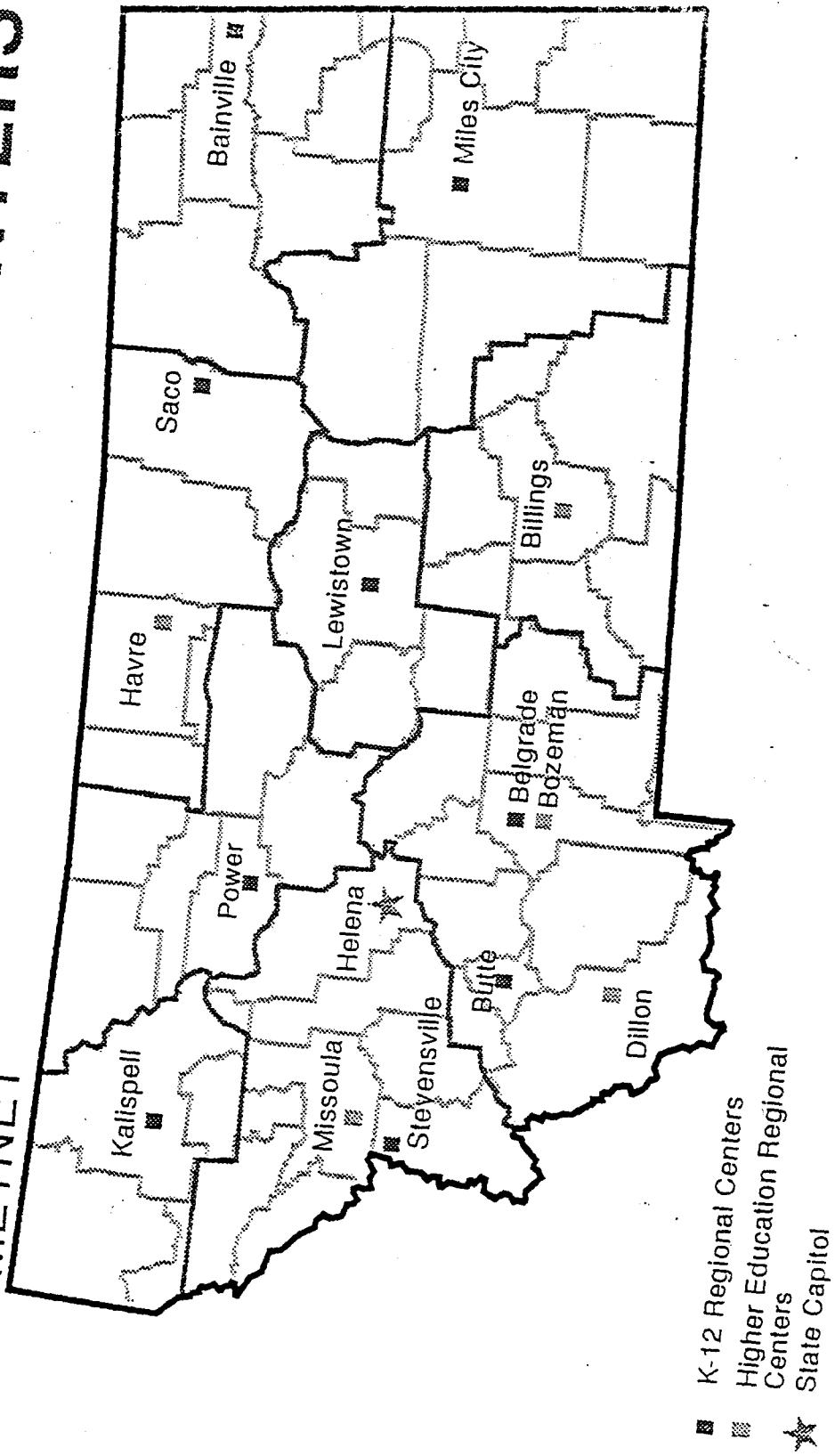
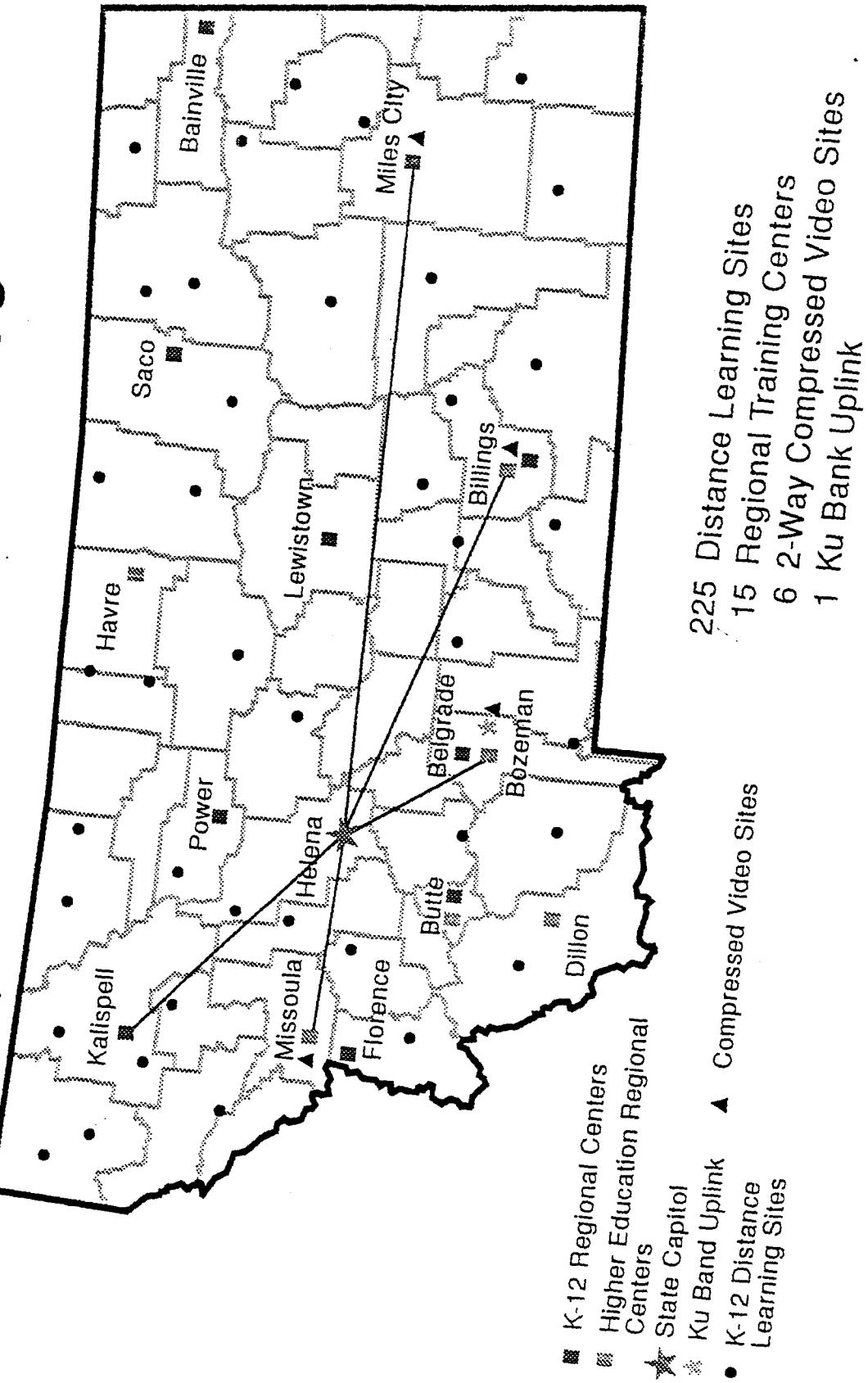


EXHIBIT 3
DATE 2-10-93

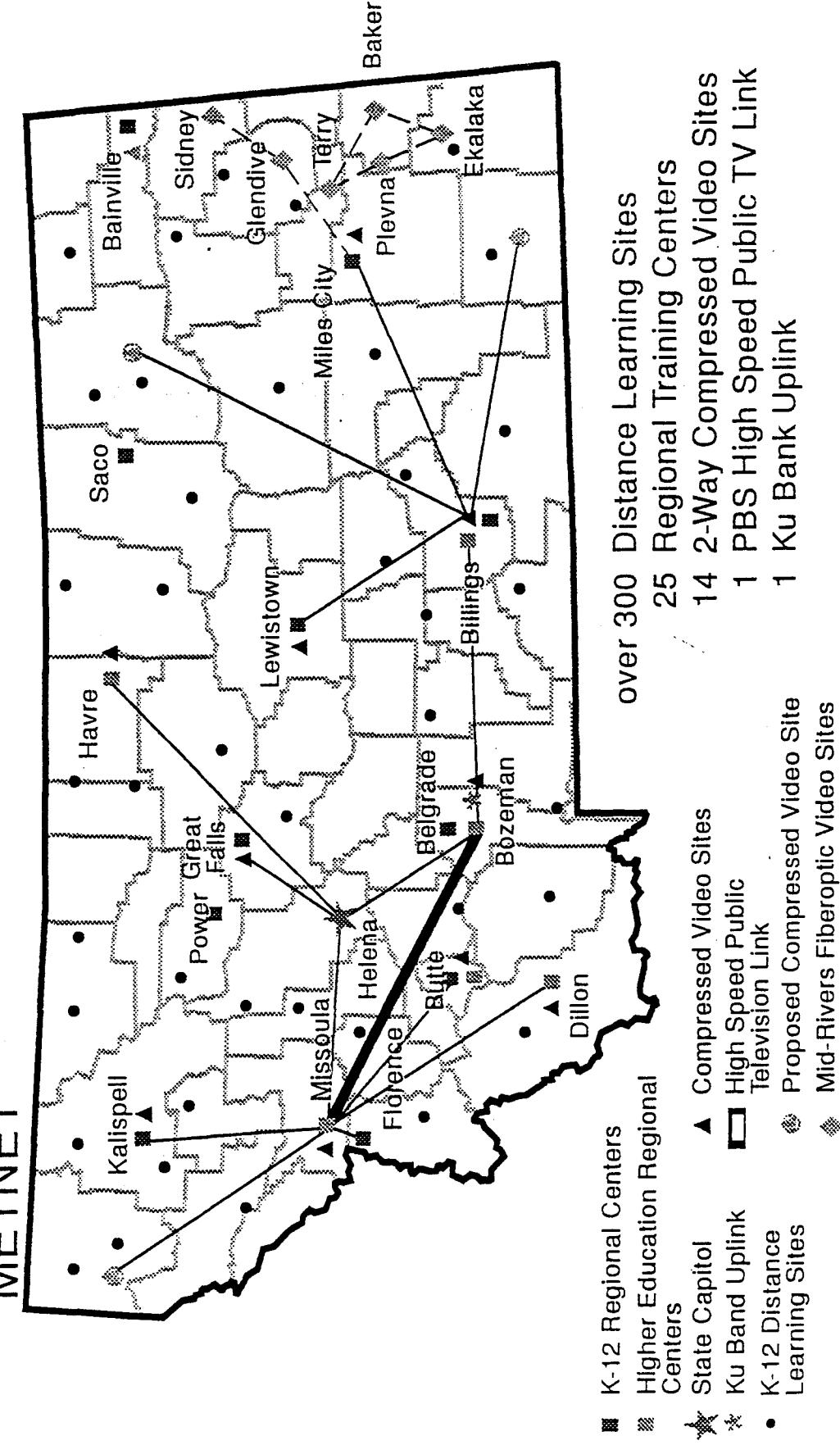
FISCAL YEAR 1993

METNET



FISCAL YEAR 1994 - 1995

METNET



cord#	Location	No. of Calls	No. of MSGS	No. of Uploads	KB uploaded	No. downloaded	kb downloaded
1	No Location specified	41	49	0	0	0	0
2	209-368-6040	1	0	0	0	2	78
3	Absarokee	57	19	2	85	40	2371
4	Alberton	3	0	0	0	0	0
5	Anaconda	79	24	0	0	6	104
6	Anaheim, CA	2	0	0	0	0	0
7	Arlee	588	690	0	0	1	2
8	Augusta	6	1	0	0	1	15
9	BROWNING	2	1	0	0	0	0
10	Babb	3	0	0	0	0	0
11	Baker	12	8	0	0	0	0
12	Belfry	217	159	0	0	0	0
13	Belgrade	111	54	1	0	0	0
14	Belt	3	0	1	43	4636	0
15	Big Sandy	557	395	0	0	0	0
16	Big Sky	28	15	3	62	15	2415
17	Big Timber	133	65	0	0	51	635
18	Bigfork	5	1	0	0	6	4665
19	Billings	1064	539	32	136	5447	0
20	Boston	2	1	0	0	0	0
21	Boulder	33	30	0	0	0	0
22	Box Elder	218	67	0	0	0	0
23	Bozeman	1207	1075	5	8	229	0
24	Brady	16	4	0	0	0	0
25	Broadus	98	141	0	0	0	0
26	Broadview	22	5	0	0	6	490
27	Browning	721	509	5	18	569	0
28	Busby, Mt	1	0	0	42	66	2039
29	Butte	1115	1491	7	908	93	8315
30	Canas, WA	1	0	0	0	0	0
31	Canyon Ferry	80	88	1	0	0	0
32	Cascade	99	86	0	0	1	0
33	Charlo	13	1	0	0	10	121
34	Chester	4	4	4	0	0	0
35	Chicago	7	3	0	0	0	0
36	Chinook	513	946	7	71	4417	0
37	Choteau	27	13	5	5	47	0
38	Circle	28	12	0	0	0	0
39	Clancy	23	7	0	0	0	0
40	Clinton	56	22	0	0	0	0
41	Colorado	2	1	1	0	0	0
42	Colstrip	165	168	0	0	0	0
43	Columbia Falls	28	9	0	0	38	0
44	Columbus	3	0	0	0	0	0
45	Condon	11	20	0	0	3	11
46	Conrad	116	50	0	0	0	0
47	Cooke City	30	26	0	0	0	0
48	Corvallis	809	525	4	495	180	16662
49	Culbertson	44	19	0	0	0	0
50	Custer	134	43	0	0	0	0
51	Cut Bank	46	29	3	1	6	288
52	Darby	179	102	6	7	24	1558
53	Denton	351	200	0	0	34	765
54	Diamond Bar, CA	1	7	0	0	0	0
55	Dillon	1205	1163	6	780	52	3851
56	Drummond	1	0	0	0	0	0
57	EAR, WINDY	7	3	0	0	0	0
58	East Glacier	349	151	0	0	50	463
59	East Glacier Park	408	237	8	821	127	10243
60	East Helena	11	3	0	0	0	0
61	Edwardsville, IL	1	1	0	0	0	0

EXHIBIT 4
DATE 27/09/23

EXHIBIT 4
 DATE 2-20-43
SB

12	5324	27	0
119	1	0	0
10	2220	0	0
32	5371	0	0
162	0	0	0
161	497	0	0
25	764	1	12
Missouri	Monforton	12	12
130	Monroe, LA	1940	892
131	Montana	3	1
132	Montana City	16	20
133	Montana	2	1
134	Montana City	179	257
135	Moore	2	0
136	Moville, IA	2	0
137	Nashua	2	0
138	Nebraska	2	0
139	Noxon	215	283
140	OK,OK	1	0
141	OPI	546	179
142	Olympia, WA	2	0
143	Omaha	1	0
144	Omaha, NE	6	3
145	Opheim	2	0
146	Outlook	9	7
147	Ovando	17	8
148	Palmyra, NY	1	1
149	Park City	170	170
150	Parker, CO	2	0
151	Peer Less	4	0
152	Philipsburg	37	50
153	Plains	6	4
154	Plentywood	1	1
155	Plevna	9	1
156	Polson	182	179
157	Ponca, NE	5	0
158	Poplar	427	330
159	Potomac	538	196
160	Pretty Eagle	66	13
161	Rainbow, WV	4	7
162	Rapelle	189	131
163	Rapid City, SD	1	0
164	Red Lodge	2	0
165	Reed Point	36	11
166	Richland	10	1
167	Roberts	1	0
168	Ronan	27	32
169	Roundup	13	9
170	Roy	104	49
171	Rudyard	138	84
172	Ryegate	135	214
173	Sacramento	13	0
174	Seattle	91	58
175	Seeley Lake	33	6
176	Shelby	116	90
177	Shepherd	2	0
178	Sidney	26	12
179	Simms	4	0
180	Sioux City	6	1
181	Sioux City, IA	23	4
182	Somers	25	9
183	St. Ignatius	40	0
184	St. Xavier	18	23
185	Stanford	18	3
186	Stevensville	37	9
187	Sultan, WA	4	1
188	Sun River	7	0
189	Sunburst	82	61
190	Superior	17	1
191	Tacoma, WA	7	11
192	Tekamah, NE	5	0
193	Thompson Falls	21	13
194	Three Forks	30	2
195	Townsend	496	640

METNET Compressed Video Usage Summary
February 9, 1993

The following information reflects usage of the METNET Compressed Video System during the September through December, 1992, period and the currently scheduled usage up through May, 1993.

September:

MBA Class, UOM to EMC, 5 sessions, 11 hours (Full T1)

Commissioner of Higher Ed Conference (HLNA-UOM-MSU), 1 hour (Full T1)

CLI End User Training Class, 4 sessions, 12 hours (1/4 to full T1)

Total 10 Conference/Class Setups, 24 hours usage

October:

MBA Class, UOM to EMC, 5 sessions, 15 hours (Full T1)

Telecomm-ANIXTER Wiring Conference; HLNA-UOM, HLNA-EMC, 2 sessions, 4 hours, (1/4 T1)

OPI (Lukenbill) Russia Visit Conference; MSU-HLNA-UOM-EMC, 1 hour, (1/2 T1)

Open House, All Sites; 2 sessions, 4 hours, (1/4 to full T1)

LFA Conference, HLNA-MSU, 1 hour, (3/4 T1)

End User Training, HLNA (to MSU), 3 hours, (1/4 to full T1)

Bruwelheide Educational Conference, MSU-HLNA, 2 hours, (1/4 T1)

Total 13 Conference/Class Setups, 30 hours usage

November:

MBA Class, UOM to EMC, 3 sessions, 7 hours (Full T1)

DPAC Conference, HLNA-MSU, 1 hour, (1/2 T1)

Policy & Budget Conference, All sites, 1 hour, (1/2 T1)

Applications Conference - OCHE, All sites, 2 hours, (1/2 T1)

End User Training Classes, 3 sessions, 9 hours, (1/4 to Full T1)

Total 9 Conference/Class Setups, 20 hours usage

1992 Compressed Video Usage - Continued

December:

MBA Class, UOM to EMC, 2 sessions, 5 hours, (Full T1)

SIMS Conference, MSU-UOM, 1 hour, (1/2 T1)

Joint Committee Conference, 1.5 hours, HLNA-EMC, (1/2 T1)

Telecom Conference, All sites, 1.25 hours, (1/2 T1)

Total 5 Conference/Class Setups, 8.75 hours

1992 Compressed Video Events and Usage

- * 37 sessions, 82.75 hours
- * of this, 14 sessions, 20.75 hours were conference,
- * and 23 sessions, 62.00 hours were education and/or classes.

Note: The above summary excludes a few special demonstrations of the system as well as several hours testing, which occurred during this period.

METNET Compressed Video Requests for 1993

(Shown based on beginning date)

Jan. 8, 11:00 am to 1:30 pm, Sites: HLNA to MSU
"MONTANA PROFILES: 1993 Session" link to KUSM
(PBS Uplink)

Jan. 20, 4:00 to 6:00 pm, Sites: HLNA, EMC, MSU, UOM
METNET Compressed Video Presentation/Demonstration for
Members of Montana Legislature

Jan. 21, 4:00 to 6:00 pm, Sites: HLNA, EMC, MSU, UOM
METNET Compressed Video Presentation/Demonstration for
Members of Montana Legislature

Jan. 26, 1:30 to 5:00 pm, Sites: Kalispell FVCC to HLNA
New METNET Compressed Video Site Training
Presented by WilTel Communications Systems

1993 Schedule for compressed video - continued

Jan. 29, 11:00 am to 1:30 pm, Sites: HLNA to MSU
"MONTANA PROFILES: 1993 Session" link to KUSM
(PBS Uplink)

Feb. 1, 4:00 to 5:00 pm, Sites: MSU to EMC, HLNA, and FVCC
Ed Ci 500 - "TECHNOLOGY SEMINAR",
Every week thru 5/10/93; Instructor: Janis Bruwelheide

Feb. 1, 5:00 to 7:00 pm, Sites: MSU to EMC (and perhaps HLNA)
Ed Ci 580 - "ISSUES and TRENDS for MEDIA SPECIALISTS",
Every week thru 5/10/93; Instructor: Janis Bruwelheide

Feb. 2, 6:00 to 8:00 pm, Sites: UOM to HLNA and FVCC; Educational
C&I 550 - Foundations of Curriculum and Instruction
Every week thru 4/7/93; Instructor: Dr. John Lundt

Feb. 3, 8:00 to 10:00 pm, Sites: HLNA to UOM
Educational Resources Subcommittee Budget Review:
University of Montana (Royal Johnson, UOM-Pres. Dennison)

Feb. 3, 1:00 to 2:00 pm, Sites: HLNA, UOM, EMC, MSU
METNET Compressed Video Overview/Demonstration
Tony Herbert, Lt. Gov. Rehberg, Director Barbara Menzies

Feb. 4, 8:00 to 10:00 pm, Sites: HLNA to MSU
Educational Resources Subcommittee Budget Review:
Montana State University (Royal Johnson, MSU-Pres. Malone)

Feb. 4, 7:00 to 9:00 pm, Sites: MSU to HLNA, FVCC, UOM
P&S 580: Water Quality Concepts
Taught by Jim Bauder

Feb. 9, 2:30 to 5:00 pm, Sites: MSU to HLNA
METNET Seminar - OCHE & OPI in MSU

Feb. 10, 5:00 to 6:00 pm, Sites: HLNA to EMC
Yellowstone Delegation Legislative Review
Ken Heikes, Dr. Arthur Eichlin

Feb. 12, 12:00 to 1:30 pm, Sites: HLNA to MSU
"MONTANA PROFILES: 1993 Session" link to KUSM
(PBS Uplink)

Feb. 17, 2:00 to 4:00 pm, Sites: MSU to HLNA
METNET Compressed Video Demonstration for MSU

Feb. 19, 1:00 to 2:00 Sites: MSU to HLNA, EMC
Extension Agents Seminar - Kim Obbink

1993 Schedule for compressed video - continued

Feb. 24 & 25, 1:00 to 3:00 pm, Sites: FVCC to HLNA
Distance Learning Seminar at Flathead Valley Community College

Mar. 5, 3:00 to 5:00 pm, Sites: HLNA, EMC, UOM, MSU, FVCC
Women Infants and Children (WIC) Seminar (In Service)
"BUILDING A HEALTHY MONTANA"

Apr. 3, 12:30 to 2:00 pm, Sites: EMC to HLNA
Gifted and Talented Seminar - Dr. Arthur Eichlin

Apr. 30, 5:00 to 9:00 pm, Sites: UOM to HLNA; Educational
PSC 503 - POLICY ANALYSIS, taught by Professor Pat Edgar
scheduled weekly through 6/26/93 (video not required 'till
5/6/93)

May 11, 3:30 to 5:00 pm, Sites: MSU to UOM (plus MSU Uplink)
SIMS Seminar - Kim Obbink

In addition to the three weekly multipoint college classes, we are seeing the system used to help get legislative budget reviews done for the university system; allow the Montana constituent to participate in the legislative process; expand the reach of Extension Agent programs; increase accessibility of WIC programs and Special Education offerings; and increase the overall viability and innovative use of Distance Learning in Montana.

METNET STUDY

F/Y '90

Contracted Consultant: Lambda Communications, Inc.

Completed Lambda Report: July, 1990

Educational Needs Assessment;

Inventory of state telecommunications facilities;

Design educational network improvements;

Five year implementation plan.

Budget: \$200,000

Spent: 184,840

Revert: \$ 15,160

METNET FUNDING (in \$1,000)

	F/Y '91	F/Y '92	F/Y '93
General Fund	\$300	\$300	\$300
Match	<u>150</u>	<u>150</u>	<u>150</u>
Total	\$450	\$450	\$450

METNET BUDGET

Curriculum Dev.	---	18	75
Classroom Training	25	25	75
Interactive Video	---	185	155
BBS	160	100	15
Classroom Equipment	265	122	105
U of M/MSU Link	<u>--</u>	<u>--</u>	<u>25</u>
Total	450	450	450

EXHIBIT 6
DATE 2-10-93
SB _____

METNET FUNDING (in \$1,000)

	<u>With Match Funds</u>		<u>General Fund Only</u>	
	F/Y '94	F/Y '95	F/Y '94	F/Y '95
General Fund	\$500	\$500	\$500	\$500
Match	<u>500</u>	<u>500</u>	<u>---</u>	<u>---</u>
Total	1,000	1,000	500	500

METNET BUDGET

Curriculum Dev.	233	233	75	117
Classroom Training	67	67	33	33
Interactive Video	300	333	167	167
BBS	100	100	50	50
Classroom Equipment	225	267	100	133
U of M/MSU Link	<u>75</u>	<u>--</u>	<u>75</u>	<u>--</u>
Total	1,000	1,000	500	500

A

CURRENT METNET REGIONAL TRAINING SITES AND SYSOP'S:

SITE:	DATA PHONE:	SYSOP:	SYSOP Voice #:
OPI	444-2067	Betsy Nordell Mary Graff	444-1626 444-2765
Kalispell (FVCC)	756-3988	Richard Hardesty	756-3819
Power	463-2335	Rick Miller	463-2251
Bainville	769-2210	Frank Loehding	769-3291
Saco	527-3564	Carl Knudsen	527-3531
Lockwood	245-2224	Leah McCracken	663-2215
Belgrade	388-4217	Gary Milam	388-4633
Bozeman (MSU)	994-1788	Larry Baker	994-4936
Havre (NMC)	265-4145	Robert Christeck	265-3757
Dillon (WMC)	683-7672	Frank Odasz	683-7338
Missoula (U of M)	243-2650	Bill Patton	243-4217
Billings (EMC)	657-2239	Sheryl Anderson	657-2203
Miles City	232-7101	Scott Andrews	232-4920
Florence	273-0095 777-5902	Debbie Cameron	273-6301

If you are outside the local calling area of any regional site, but in the state of Montana, you can access the Montana Educational Telecommunications Network Bulletin Board System (METNET BBS) by calling 800-346-8654.

Message Areas:

1 Local	23 K12 ELEM CHAT
2 Netmail Messages	24 K12 TEACHER CHAT
5 Technical Help Messages	25 K12 BUSINESS ED
7 METNET Sysop Tech Help	26 K12 HEALTH & PE
10 Library	27 K12 ARTS & EDUCATION
13 OPI/Gold	28 K12 Life Skills
14 Hobson <--> OPI	29 K12 LANGUAGE ARTS
19 K12 Sysop	30 K12 MUSIC ED
20 K12 NEWS	31 K12 MATH ED
21 K12 JR CHAT	32 K12 SCIENCE ED
22 K12 SR CHAT	33 K12 SOCIAL STUDIES

Message Areas:

34	K12 TEACHER ED	132	Math 9-12
35	K12 COMP LIT	133	Math Postsecondary
36	K12 GERMAN - ENGLISH	134	Montana Math/Impact
37	K12 SPANISH - ENGLISH	135	SIMM/STEM
38	K12 FRANCAIS	136	Nursing Administration
39	K12 RUSSIAN	137	Student Nursing Chat
40	K12 SPECIAL ED	138	Community College Chat
41	K12 TAG	140	METNET Satellite
42	K12 PROJECTS	141	METNET Instructional
43	K12 CH0	142	METNET Compressed Video
44	K12 CH1	143	METNET BBS
45	K12 CH2	144	METNET Info
46	K12 CH3	145	MT Council for Computer Ed
47	K12 CH4	148	Migrant Education
48	K12 CH5	149	NDN
49	K12 CH6	150	Post Secondary Ed.
50	Administration	151	Pre-college Curriculum
51	Adult Education/Homeless	152	Physical Ed./Recreation
52	Bi-Lingual	153	School Food
53	Communication Arts, Foreign	154	Pre-School
54	Communication Arts, Lang.	155	Science Opportunities
55	Communication Arts, Reading	156	Science Newsletter
56	Accreditation	157	Science Technology
61	Chapter I	158	Science National +
63	Chapter II	159	Science PSInet National
64	Computer Coordinators	160	Science K-9
65	Consortiums	161	Science 9-12
66	EDGE	162	Science Curriculum
68	Fine Arts	163	Science Higher Ed.
70	Elementary Education	164	Science MSTA Business
71	GAAP	165	Sci/Math/Technology Wkshop
72	GED	167	SIMM Students
73	Gender Equity	168	School Administrators of MT
74	General Information	169	Northern Lights Telegeography
75	Gifted & Talented	170	Social Studies
78	Global Education	171	South Central Curr. Cons.
80	Guidance	172	Special Ed.
85	KUSM	174	Star Schools
87	Education Legislation	175	Technology Education
90	Audiology	176	Traffic Ed.
91	CSPD	178	Tremor Troops
92	Deaf/Blind	180	Veterans Ed.
93	Federal	185	Vocational/Practical Arts
94	Monitoring	190	VoEd Ind Tech Ed
95	Preschool	191	VoEd JTPA/Marketing
96	Special Education Policy	192	VoEd Business Ed.
97	Transition	193	VoEd Agri
101	Montana Data	194	VoEd Home Economics
102	National Data	195	Reference Point
105	Misc Education (internet)	197	Reisti (Rural Ed Sci & Tech Inst)
110	Health Enhancement	198	MEPYS (Mineral Ed for Youth)
115	Homeless	200	Vo Tech
120	American Indian Education		
122	Macintosh Computers		
124	Montana 6-8 Grade Chat		
125	Library Media		
126	Montana General Chat		
127	Montana H.S. Chat		
128	Montana K-5 Chat		
129	Montana Teacher Chat		
130	Math National/International		
131	Math K-8		

B

Message Areas:	Total # of Msg's:	Total # of Users:
Administration	100	40
Adult Education/Homeless	11	5
Bi-Lingual	7	7
Communication Arts, Foreign	25	20
Communication Arts, Language	47	25
Communication Arts, Reading	36	15
Accreditation	1	1
Chapter 1	19	10
Chapter 2	0	0
Computer Coordinators	100	45
Consortiums	13	8
EDGE	100	20
Fine Arts	63	20
Elementary Education		
GAAP	1	1
GED	14	8
Gender Equity	1	1
General Information		
Gifted & Talented	101	10
Global Education	16	6
Guidance	13	7
KUSM	15	8
Education Legislation	80	30
Audiology	0	0
CSPD	13	2
Deaf/Blind	16	5
Federal	0	0
Monitoring	2	2
Preschool	0	0
Special Education Policy	25	5
Transition	12	4
Health Enhancement	11	6
Homeless	10	3
American Indian Education	4	3
Macintosh Computers	15	9
Montana 6-8 Grade Chat	101	48
Montana HS Chat	203	57
Montana K-5 Chat	150	66
Montana General Chat	152	63
Montana Teacher Chat	152	53
Library/Media	100	30
Math National/International	1	1
Math K-8	53	17
Math 9-12	33	18
Math Postsecondary	0	0
Montana Math/Impact	58	20
SIMM/Stem	150	43
Nursing Administration	5	2
Student Nursing Chat	1	1
Community College Chat	200	33
METNET Satellite	78	20
METNET Instructional	100	54
METNET Compressed Video	11	7

Message Areas:	Total # of Msg's:	Total # of Users:
METNET BBS	101	53
METNET Information	100	41
MT Council for Computer Ed	15	9
Migrant Education	7	6
NDN	1	1
Consortiums Conference	15	8
SCCC	1	1
Post secondary Education	4	4
Pre-College Curriculum	3	2
Physical Education/Recreation	6	5
School Food	62	14
Pre-school	0	0
Science Opportunities	4	3
Science Newsletter	6	4
Science Technology		
Science National +	3	2
Science PSInet National	3	3
Science K-9	100	21
Science 9-12	100	28
Science Curriculum	36	20
Science Higher Education	41	14
Science MSTA Business	101	18
Science/Math/Tech Workshop	34	13
SIMM Students	12	7
School Administrators of Montana	12	8
Northern Lights Telegeography	41	11
Social Studies	100	26
Star Schools	100	18
Traffic Education	100	17
Tremor Troops	6	6
Veterans Education	1	1
Vocational/Practical Arts	3	3
VoEd Industrial Tech Education	62	20
VoEd JTPA/Marketing	0	0
VoEd Business Education	100	35
VoEd Agriculture	100	13
VoEd Home Economics	102	25
Reference Point	37	10
Reisti (Rural Ed Sci & Tech Inst)	8	4
MEPYS (Mineral Ed for Youth)	100	15
VoTech	4	3

There were 4,050 messages posted
and 1,351 users.

EXHIBIT 9
DATE 2-10-93
SB

C

FUNDED METNET SITES:

Absarokee School Dist. #52-C
Absarokee, MT 59001

Anaconda HS Dist. #10
Anaconda, MT 59711

Anderson School Dist #41
Bozeman, MT 59715

Arlee High School #jt&8
Arlee, MT 59821

Ashland Elem. Dist. #32J
Ashland, MT 59003

Augusta HS Dist. #45
Augusta, MT 59410

Bainville HS Dist. #64
Bainville, MT 59212

Baker HS Dist. #12
Baker, MT 59313

Belgrade Middle School #44
Belgrade, MT 59714

Belgrade School Dist. #44
Belgrade, MT 59714

Big Sandy High School #2
Big Sandy, MT 59520

Billings School Dist. #2
Billings, MT 59101

Birney School #3
Birney, MT 59012

Boyd School #28
Boyd, MT 59013

Bissell School #58
Whitefish, MT 59937

Box Elder Elem. Dist. #13
Box Elder, MT 59521

Brady HS Dist. #19
Brady, MT 59416

Broadus HS Dist. #79J
Powder River, MT 59317

Broadwater co High School
Townsend, MT 59644

Browning High School #9
Browning, MT 59417

Carter County HS
Ekalaka, MT 59324

Cascade HS Dist. #B
Cascade, MT 59421

Cayuse Prairie Elem. Dist. #10
Kalispell, MT 59901

Chester Elem. Dist. 333
Chester, MT 59522

Choteau School Dist. #1
Choteau, MT 59422

Clancy School #1
Clancy, MT 59634

Conrad High School #10
Conrad, MT 59425

Columbia Falls HS Dist. #6
Columbia Falls, MT 59912

Cooke City Elem. Dist. #9
Cooke City, MT 59020

Corvallis HS Dist. #1
Corvallis, MT 59828

Cottonwood School #38
Ismay, MT 59336

Culbertson High School #17c/r
Culbertson, MT 59218

Custer Elementary #15
Custer, MT 59024

Custer Co. HS Dist. #1
Miles City, MT 59301

EXHIBIT 9
DATE 2-10-93
SB

EXHIBIT 9
DATE 2-10-93
SB

Daly School #3
Hamilton, MT 59840

Darby HS Dist. #9
Darby, MT 59829

Dawson Co High School
Glendive, MT 59330

Denton High School #84
Denton, MT 59430

Dutton HS Dist. #28
Dutton, MT 59433

East Helena Elem. Dist. #9
East Helena, MT 59635

Edgar Elementary #33
Edgar, MT 59026

Edna Thomas School #1
Corvallis, MT 59828

Eureka Elem. Dist. #13
Eureka, MT 59917

Evergreen Elem. Dist. #50
Kalispell, MT 59901

Fair-Mont-Egan Elem. Dist. #3
Kalispell, MT 59901

Fairfield Elementary Dist. #21
Fairfield, MT 59436

Fairview Elementary #13
Fairview, MT 59221

Fishtail Elementary #13
Fishtail, MT 59028

Flaxville High School #3
Flaxville, MT 59222

Froid High School #65
Froid, MT 59226

Florence-Carlton HS Dist. #15-6
Florence, MT 59833

Fort Benton HS Dist. #1
Fort Benton, MT 59442

Fromberg High School #6
Fromberg, MT 59029

Frontier Elem. School Dist. #3
Wolf Point, MT 59201

Garfield Co HS Dist. #1
Jordan, MT 59337

Garfield co High School
Jordan, MT 59337

Grass Range High School #27
Grass Range, MT 59032

Hamilton Elem Dist. #3
Hamilton, MT 59840

Harlem HS Dist. #12
Harlem, MT 59526

Harlowton High School #16
Harlowton, MT 59036

Harrison HS Dist. #23
Harrison, MT 59735

Havre HS Dist. A
Havre, MT 59501

Helena HS Dist. #1
Helena, MT 59604

Helena Flats Elementary #15
Kalispell, MT 59901

Hellgate Elem Dist. #4
Missoula, MT 59801

Hinsdale High School #7c
Hinsdale, MT 59241

Hobson High School #25
Hobson, MT 59452

Huntley Project HS Dist. #24
Worden, MT 59088

Hysham High School #1
Hysham, MT 59038

Hysham Elementary #7
Hysham, MT 59038

J-I HS Dist. #J
Joplin, MT 59531

Jackson Elementary #9
Red Lodge, MT 59068

Judith Gap HS Dist. #21J
Judith Gap, MT 59453

Kalispell HS Dist. #5
Kalispell, MT 59901

Kessler Elementary #2
Helena, MT 59601

KG HS Dist. H
Gildford, MT 59525

Kila Elem Dist. #20
Kila, MT 59920

Knowlton School #38
Ismay, MT 59336

Lavina High School #2
Lavina, MT 59046

Lewistown School Dist. #1
Lewistown, MT 59457

Lima School Dist. #12
Lima, MT 59739

Lincoln-McKinley School #16
Havre, MT 59501

Lockwood Elem. Dist. #26
Billings, MT 59101

Lodge Grass Elementary #27
Lodge Grass, MT 59050

Lolo Elementary #7
Lolo, MT 59847

Lone Rock Elementary #13
Stevensville, MT 59870

Luther Elementary #10
Luther, MT 59051

Malta HS Dist. A
Malta, MT 59538

Manhattan High School #3
Manhattan, MT 59741

Marion Elementary #54
Marion, MT 59925

Medicine Lake High School #7
Medicine Lake, MT 59247

Melstone High School 64-h
Melstone, MT 59054

Miles City Elem. Dist. #1
Miles City, MT 59301

Monforton Elementary #27
Bozeman, MT 59715

Montana City School Dist. #27
Clancy, MT 59634

Nashua High School #13e
Nashua, MT 59248

North Harlem School #6
Harlem, MT 5526

Olney School #58
Whitefish, MT 59937

Opheim Elementary #9
Opheim, MT 59250

Ophir Elem. Dist. #72
Gallatin Gateway, MT 59730

Outlook HS Dist. #29
Outlook, MT 59252

Park High School #1
Livingston, MT 59047

Park City High School #5
Park City, MT 59063

Peerless Elementary #2
Peerless, MT 59253

Peerless HS Dist. #2
Peerless, MT 59253

Plains High School #1
Plains, MT 59859

Pleasant Valley Elementary #27 Marion, MT 59925	Sand Coulee HS Dist. C Sand Coulee, MT 59472
Plentywood High School #2 Plentywood, MT 59254	Scobey HS Dist. #1 Scobey, MT 59263
Plevna HS Dist. #55 Plevna, MT 59344	Shepherd High School #37 Shepherd, MT 59079
Polson High School #23 Polson, MT 59860	Shields Valley Elem. #J-12 Wilsall, MT 59086
Potomac Elementary #11 Potomac, MT 59823	Sidney High School #1 Sidney, MT 59270
Power HS Dist. #30 Power, MT 59468	Simms High School #f Simms, MT 59477
Power High School #30 Power, MT 59468	Smith Valley Elem. Dist. #89 Kalispell, MT 59901
Pryor School Dist. #3 Pryor, MT 59066	Smith valley Elementary #89 Kalispell, MT 59901
Rapelje HS Dist. #32 Rapelje, MT 59067	Somers Elem. Dist. #29 Somers, MT 59932
Reeedpoint HS Dist. #9-9 Reedpoint, MT 59069	St Ignatius Elementary #28 St Ignatius, MT 59865
Richey High School #2 Richey, MT 59259	St Regis Elem Dist #6 St Regis, MT 59866
Rock springs Elementary #2 Angela, MT 59312	Sun River Valley Mdl School #55 Simms, MT 59477
Ronan Elem. Dist. #30 Ronan, MT 59855	Sunburst HS Dist. #2 Sunburst, MT 59482
Ronan High School #30 Ronan, MT 59864	Sunset Elementary #30 Greenough, MT 59836
Rosebud High School #12 Rosebud, MT 59347	Swan River Elementary #4 Bigfork, MT 59911
Russell Elementary #5 Kalispell, MT 59901	Thompson Falls High School #2 Thompson Falls, MT 59873
Ryegate High School #1 Ryegate, MT 59074	Terry HS Dist. #5 Terry, MT 59349
Saco HS Dist. #12A Saco, MT 59261	Three Forks Elem Dist. #24-24 Three Forks, MT 59752

Townsend Elem. Dist. #7
Townsend, MT 59644

Zortman Elementary #14
Malta, MT 59538

Troy Elem. Dist. #1
Troy, MT 59935

Turner HS Dist. #43
Turner, MT 59542

Twin Bridges High School #7
Twin Bridges, MT 59754

Webster/Garfield Elementary #1
Butte, MT 59701

Valier HS Dist. #18
Valier, MT 59486

W. Yellowstone Elem. Dist. #69
W. Yellowstone, MT 59758

West Valley Elem. Dist. #1
Kalispell, MT 59901

West Glacier Elementary #8
West Glacier, MT 59936

White Sulphur Springs Elem
Dist. #8
White Sulphur Springs, MT 59645

Whitefish Elem. Dist. #44
Whitefish, MT 59937

Whitefish HS Dist. #44
Whitefish, MT 59937

Whitewater HS Dist. D
Whitewater, MT 59544

Wibaux Elementary #6
Wibaux, MT 59353

Willson School #7
Bozeman, MT 59715

Winifred High School #115
Winifred, MT 59489

Winnett High School #1
Winnett, MT 59087

Woodman Elementary #18
Lolo, MT 59847

THE Northwest Regional Educational Laboratory

TECHNOLOGY PROGRAM

DISTANCE EDUCATION RESOURCE DIRECTORY FOR NORTHWEST SCHOOLS

Donald C. Holznagel

April 1, 1992

EXHIBIT 10
DATE 2-10-93
SB

Northwest Regional Educational Laboratory
101 S.W. Main, Suite 500
Portland, Oregon 97204

Sponsored by



Office of Educational
Research and Improvement
U.S. Department of Education

DATE

SB

TABLE OF CONTENTS

	Page
Introduction.....	1
  Satellite Television, Two-way Audio	2
ASTS	2
ESP	3
IREDS SatNet	3
LiveNet.....	4
Pacific Northwest Partnership.....	5
SERC.....	5
STEP	6
TI-IN	7
Triad Project.....	8
NASA Satellite Videoconference.....	8
  Satellite Television Only.....	9
Channel One.....	9
CNN Newsroom.....	9
NASA Select.....	9
SCOLA.....	10
NOAA.....	10
  Broadcast and Cable Television.....	11
IREDS.....	11
PBS.....	11
Cable in the Classroom.....	12
  Computers, Telecommunications	14
Complete Courses.....	14
CCS.....	14
EDUNET.....	15
Supplementary Instruction	16
AT&T Learning Network.....	16
NASA Telelectures.....	16
NGS Kids Network	16
WorldClassRoom	17
Databases, Bulletin Boards, and Networks	17
Big Sky Telegraph	17
Computer PALS Across the World	17
FrEdMail	18
K12 Net	18
LabNet.....	19
Learning Link.....	19

	Page
NASA SpaceLink	19
NOAA	20
Ostendorf On-Line	20
PSInet	20
X*PRESS/X*Change	21
 Other Distance Education Assistance	 22
ESN	22
State Telecommunications Networks	22
State Technology Coordinators	23
Private Companies	23
 Information Resources	 25
Programs and Production References	25
General Information References	26
Meetings and Conference	26
 Curricular Cross-reference	 29

INTRODUCTION

Through the periodic regional needs assessments by the Northwest Regional Educational Laboratory (NWREL), many small rural school districts expressed interest in using technology to assist in solving the problems typical in small schools of lack of subject offerings in critical areas such as foreign languages and advanced math and science, and needs for staff development offerings in a convenient location. The Distance Education and Telecommunications Advisory Committee of the NWREL has recommended the development of this Directory as a means of addressing the problems of lack of information and planning assistance which can be a barrier to small schools in planning for the use of technology for curricular improvement.

The Directory has been designed to address two needs. First, there is a need to plan for technology in the curriculum. Many districts are developing long-range plans to ensure that options are examined in the light of curricular needs and that the costs are fully explored and projected. This requires not only identifying options but also their implications for staff, organization, and other factors.

A second need is for up-to-date information about the options. If a district is considering using distance education technologies, staff will need to identify the available systems, select the options appropriate to their needs, and contact representatives of the organizations providing the service.

The information in this Directory is current as of March 1, 1992. Because the field of telecommunications is constantly changing, and details of course offerings and cost from distance education producers changes at least yearly, a revision will be issued periodically. Information is included here which is most relevant to school districts in the Northwest states of Alaska, Idaho, Montana, Oregon, and Washington. Readers outside of the area will find options included which are not available to them, and might in turn have access to services not included here.

For information about services and options within a state, and about laws or regulations regarding staffing, usage, costs or other state-governed issues, please contact the appropriate state representative from the following list. They are all knowledgeable in distance education, telecommunications, computers, and other instructional technologies. For general questions, planning assistance, and other technical assistance, you may also call the author.

Alaska	Lois Stiegemeier	907/465-2644
Idaho	Ken Reed	208/334-2166
Montana	Ron Lukenbill	406/444-2080
Oregon	Kathryn Hansen	503/373-7698
Washington	Cheryl Lemke	206/586-2053
NWREL	Don Holznagel	503/275-9624

Satellite Television, Two-way Audio

This section describes organizations which produce complete courses or units of instruction in a variety of subjects and levels for students, and staff development courses or teleconferences for teachers. They all use live television delivered by satellite as a presentation medium supplemented by telephone for interaction between students and teachers, commonly called one-way video, two-way audio. Equipment can be acquired locally or through the delivering organization, and includes a satellite antenna, cabling to the classroom, receiving equipment, signal decoder, monitor, and phone line in the receiving classroom. Not all of the services are available in all states in the region. Subjects and topics may vary somewhat from year to year depending on demand, teacher availability, and the priorities of subscribers or governing boards.

Students must be enrolled in a course as they would in a school. Class sizes and process of student-teacher interaction vary, and class sessions are conducted on different patterns of three, four, or five days a week. A local school staff person, called a facilitator or monitor, is required. The person carries out tasks such as registration, attendance, discipline, test supervision, and liaison with the delivering organization. Some states require that the facilitator be a certified teacher, although not in the subject of the course being supervised, while in other states an instructional aide may be used. Schools are expected to have students participate in the live class sessions rather than by viewing videotape. In some cases, computer programs supplement classwork.

ASTS—Arts and Sciences Teleconferencing Service

Ms. Cathy Shuffield
Oklahoma State University
401 Life Sciences East
Stillwater, OK 74078-0276 Phone: 1-800/452-2787

Access: C-band, Galaxy VI, Ch. 19 and 23

Costs:

1-3 students \$725 each per course per year
4-9 students \$3,000 total for all
Computer software and instructional materials extra

Staff Development: \$150 per program live, \$200 videotape

Courses:

German I and II

AP Physics, AP Calculus

Basic English and Reading (Grades 7 and 8)

Getting Ready for the PSAT/NMSQT and SAT, Getting Ready for the ACT.

Schedule: Live-course sessions are conducted two or three days per week in the morning, with planned work in computer-based material, audio tapes, print material, or tests on the other days.

Instructors: Professors are selected from the staff of Oklahoma State University.

ESP-Educational Systems Programming

Educational Systems Programming

Northern Arizona University

P.O. Box 5751

Flagstaff, AZ 86011

Phone: 1-800/628-6266

Access: C-band satellite Galaxy 6, 99 deg. W., transponder 21, or schools may elect to use videotape. Interactive instructional software is provided, using Apple IIe, Macintosh, or IBM computers. Toll-free telephone call-in at scheduled times is used for student-teacher interaction. Enrichment Series units are on videotape and include interactive computer tutorials on Apple IIe, Macintosh, or IBM computers.

Cost: The Foreign Language Initiative is \$100.00 per school plus \$20.00 per student. The videotape option is available at \$400.00 per grade level per school. The Enrichment Series is \$250.00 per unit, or \$1,100.00 for all five.

Courses: The Foreign Languages Initiative for 1992-93 includes Spanish for grades 1 and 4. The programs will be delivered in live sessions of about 25 minutes each, twice a week. Expansion of the program to grades 1-6 is planned in future years. Conversational Spanish for teachers is offered by satellite once a week for 12 weeks beginning Fall 1992. The Enrichment Series is on videotape only, and includes five instructional units in Geology of the Grand Canyon, Native American Cultures, and Mathematics, designed to be integrated into the elementary curriculum. A preview videotape is available.

IREDS SatNet

Rich Mincer

Idaho State Department of Education

Len B. Jordan Office Building

Boise, ID 83720

Phone: 208/334-2166

Access: Any school in Idaho can have access. The system is a network of satellite downlinks at over 100 schools across Idaho and several cable companies. The Idaho Cable Television Association has assisted in the distribution over local access cable. Through TCI, programming is distributed on local access channels in six large population centers in the state. Programs are available on Telstar 302 (T2), channel 22. (There is a possibility of moving to satellite F1 next year.) Schools outside Idaho which can access the signal may use the programming, but the content is specific to Idaho needs and context.

Costs: There are no subscription or usage fees.

Courses: Programming is primarily inservice training for teachers and school administrators. A wide variety of topics is addressed, including the use of technology, specific systems such as Learning Link, curricular methods in reading and math, early childhood education, education legislation, and others. Offerings may expand next year.

LiveNet

Dr. Carl O. Ellis
Associate Dean
College of Community and Continuing Education
University of Alaska—Anchorage
Building K, Room 122
3211 Providence Drive
Anchorage, AK 99508

Phone: 907/786-1379

Access: Contact Dr. Ellis. The service is designed to present courses for CEU, Carnegie, or university credit. Broadcasts are by low-power satellite to South Central and Southeast Alaska, primarily to military bases. A special arrangement has been made for the North Slope Borough School District to use the system for its secondary instruction.

Costs: Contact Dr. Ellis. All applications on the system are self-supporting.

Courses: Several departments of UAA present degree programs. Staff development courses of the State Department of Education will be available, and courses leading to certain master's degrees in Education such as Special Education. The North Slope Borough School District is using the system to send high school math courses to ten sites in the district. Access must be negotiated with Dr. Ellis.

Pacific Northwest Educational Telecommunications Partnership

Central Office:

Dr. Don Egge
ESD 101/Star Schools
East 4022 Broadway
Spokane, WA 99202

Phone: 509/536-0141

State Governance Board and Coordinators:

AK: Lois Stiegemeier or Donna Ostrowski-Cooley	907/465-2644
ID: Ken Reed or Rich Mincer	208/334-2166
MT: Ron Lukenbill / Steve Meredith	406/444 2080 / 444-3563
OR: Wayne Neuberger or Kathryn Hansen	503/378-6405
WA: Cheryl Lemke -	206/586-2053

Access: C-band satellite, SatCom IR (F1), Ch. 22 and Ch. 18. Access also requires special computer equipment for data transmission. Contact your state representative for application information.

Costs: Major costs of development, training, and pilot sites are supported by a Star Schools grant during the period 1990-92. There are membership and student fees.

Courses: Courses include Applied Math, Career Paths, Principles of Technology, and Science and Technology. Courses are designed by the Partnership, and produced and transmitted by the STEP organization (see description below).

SERC—Satellite Educational Resources Consortium

Mr. Gary Vance
Executive Director
SERC
P.O.Box 50008
Columbia, SC 29250

Phone: 803/252-2782

Access: SERC courses are satellite-delivered television with telephone voice contact between teachers and students. The organization is a consortium, and members are large entities such as state education agencies and public television networks. No states or other agencies in the Northwest Region are members at this time; there are no local district users in the region.

Costs: Consortium membership minimum fee is \$10,000. A surcharge is added to the minimum for course enrollments less than 750, ranging up to \$80 per student if there are less than 150 enrollees. An enrollment fee of \$420 per student per course per year is charged, with an additional lab fee of \$70 in certain courses.

Courses: Courses are produced by several of the participating state networks such as Kentucky Educational Television (KET). They include Japanese, Russian, Latin, Physics, Probability and Statistics, Discrete Math, Precalculus, AP Economics, and World Geography.

STEP—Satellite Telecommunications Educational Programming

Dr. Ted Roscher
Telecommunications Division Administrator
STEP
East 4022 Broadway
Spokane, WA 99202

Phone: 509/536-0141

Access: C-band satellite, SatCom 1R (F1), Ch. 22 and Ch. 18. Courses are television with live telephone contact between teacher and students during class.

Costs:

Membership	\$3,000 with inservice, \$4,250 without inservice
Inservice	\$1,750 per year for 50 staff, up to \$5,750 over 200
1-7 Students	\$490 per student per course per year
8-12 Students	\$3,900 total
13-20 Students	\$4,850 total
Enrichment	\$1,000 total

Courses: Japanese, Spanish, Russian, Advanced Senior English. Inservice programs are provided on 18-22 topics in a school year. (See also Pacific Northwest Educational Telecommunications Partnership.) Enrichment programs are on a range of topics for elementary and secondary students.

Schedule: Live class sessions are conducted four days per week, with the fifth day reserved for testing and other local activities. Course schedules vary, and are set annually by a steering committee composed of members. Enrichment programs are four 50-minute sessions on consecutive Fridays. Staff development programs are one to four sessions conducted between 4:00 p.m. and 7:30 p.m., Pacific time.

Instructors: STEP employs teachers certified in Washington state, and who are approved in all states having participating schools.

TI-IN Network Inc.

Corporate Office:

TI-IN Network, Inc.
121 Interpark
Suite 300
San Antonio, TX 78216-1803

Phone: 512/490-3900

Representative for Montana, Idaho:

Greg Anderson
8757 West Cornell Avenue #7
Lakewood, CO 80227

Phone: 303/988-8654

Representative for Alaska, Oregon, Washington:

Dr. John Erickson
11301 N.E. Seventh Street, W-8
Vancouver, WA 98684

Phone: 206/253-2714

Access:

C-band satellite, Galaxy 3 (G3), Ch. 36
Ku-band satellite, Ch. 44
Cable—Jones Cable affiliates

Costs:

Annual Support and Service	\$3,500-\$5,950
Per Student per course per semester	\$240-\$290
Elementary courses	\$175
Elementary and secondary enrichment	No Charge
Staff development	Included in support and service fee, or as a \$1,000 option.

Courses:

French, German, Spanish, Latin, Japanese
Physics, Astronomy, Marine Science, Anatomy and Physiology, Principles of Technology
Calculus
Psychology, Sociology
(Advanced Placement credit options for Physics and Calculus)
Staff development programs are offered in over 20 topics in a school year.

Schedule: Live sessions are conducted five days a week between 5:00 a.m. and 2:00 p.m., Pacific time, including secondary, elementary, and enrichment. Staff development is conducted mainly between 2:00 p.m. and 6:45 p.m., Pacific time. Enrichment programs are 25-minute sessions conducted once and targeted at a variety of grade levels. The 1992-93 school year is August 26, 1992 to May 28, 1993.

Instructors: TI-IN employs experienced teachers who are certified, usually in many states.

Triad Project

Ms. Ann McLean
Puget Sound ESD
12320 80th Avenue South
Seattle, WA 98178

Phone: 206/439-6913

Access: Access is available to all school districts in Washington state. Access for schools outside the state is not available now, but future access through the Pacific Northwest Educational Telecommunications Consortium is a possibility. Satellite access information is available from the above office.

Costs: Districts may become members of the Triad Project at a cost of \$600.00 for districts having less than 100 teachers, and \$900.00 for those having more than 100 teachers.

Courses: Programs are currently for staff development purposes, addressing a variety of topics, and are produced quarterly. Program topics for 1992-93 were not available at the time of this printing, and may be obtained from the above office. Three or four programs are produced per year through the cooperation of the Washington Office of the Superintendent of Public Instruction and the Puget Sound ESD.

NASA—National Aeronautics and Space Administration

Satellite Videoconferences

A series of educational programs for teachers in aeronautics and space science topics is provided each school year. The conferences include an interactive component for viewer questions and discussion.

Videoconference Coordinator
NASA Aerospace Education Services
Oklahoma State University
300 N. Cordell
Stillwater, OK 74078

Phone: 405/744-7015

10
E. (99-1117) 2-10-93
DATE
SB

Satellite Television Only

The following services provide one-way television programming by satellite, with no interaction between receiver and sender. They do not provide full instruction in courses, but offer a variety of material which can be used by teachers to supplement and enrich regular courses in several ways. The television equipment required in the school is the same as for the services in the previous section, but no phone line is needed.

Channel One

Whittle Communications, through its Whittle Educational Network, provides Channel One, a daily 12-minute television news program designed especially for schools and delivered by satellite. In order to receive the program, a school is given the required satellite dish and other video equipment free of charge. Each program contains four 30-second commercials. The Network also offers The Educators' Channel to provide staff development, and The Classroom Channel to provide instructional enrichment programming.

Customer Service
Whittle Educational Network
505 Market Street
Knoxville, TN 37902 Phone: 1-800/445-2619

CNN Newsroom

The CNN television network provides a daily 15-minute news program designed and packaged especially for schools, and delivered through local cable systems or by satellite at 3:45 AM (ET). The program is free to schools and may be taped and played on any schedule for educational purposes. Instructional support materials are prepared for each program and delivered by the X*PRESS/X*Change cable service or by electronic mail for a small subscription fee.

Turner Educational Services, Inc.
One CNN Center
Box 105366
Atlanta, GA 30348-5366 Phone: 1-800/344-6219

NASA Select

NASA Select is the NASA television service. In addition to live coverage of space missions, informational and educational programming on space and related topics is provided including historical documentaries and new scientific information from continuing projects. Programming will occur in four-hour blocks starting at 9:00 a.m. Pacific time, Monday through Friday, repeated at 1:00 p.m., 5:00 p.m., and 9:00

p.m. Transmission is on SatCom F2R, C-band, transponder 13, 72 deg. W., frequency 3954.5 MHz, Audio 6.8 MHz.

Director, NASA Select
c/o Deputy Associate Administrator for Public Affairs
Code P
NASA Headquarters
Washington, DC 20546

SCOLA

The SCOLA organization provides access by satellite to native language television news programs live or by tape delay. Programs are available from over 30 countries. English translation is also provided. Their OutWrite service provides instructional support materials. Inservice workshops are also offered about once a month.

SCOLA
2500 California Street
Omaha, NE 68178-0778 Phone: 402/280-2362

NOAA—National Oceanographic and Atmospheric Administration

A variety of informational publications regarding the use of data from various federal centers is available to teachers. A free computer bulletin board service is available which contains several categories of information about satellite data. The Direct Readout Service provides direct access to transmissions from weather satellites.

Broadcast and Cable Television

The services in this section require only standard television receiving systems in the school. No satellite antenna is needed, and in the case of PBS courses, no phone line is required. However, in the IREDS system, a phone line is needed because two-way voice contact between student and teacher is part of the design. An IREDS course is conducted in the same manner as those from STEP and others described in the first section, while PBS courses may be as easily viewed on videotape as by broadcast.

IREDS—Idaho Rural Education Delivery System

Access: The television portion is openly broadcast by all stations of the Idaho Public Broadcasting System. Participation by students requires enrollment by the district. The district is required to provide live telephone contact with the teacher during class. Access is not available outside Idaho.

Costs: Registration is \$100 per student per year. Text, instructional materials, and long distance phone costs are extra. A FAX machine for each site is provided by the state. There are plans to use a computer in each site in the future, the cost of which will be borne by the district.

Courses: Spanish I and II, Math Analysis (pre-Calculus). Courses are produced at the Simplot-Micron Center at Boise State University, and transmitted to the public television system.

Schedule: 11:00 a.m. to 3:00 p.m.

Instructors: Instructors are certified teachers who are employed in the Boise School District.

PBS—Public Broadcasting Service

General information:

Public Broadcasting Service
1320 Braddock Place
Alexandria, VA 22134

Phone: 703/739-5038

Videoconferences:

Francis Thompson or Tom Flavel Phone: 703/739-8495

Access: The PBS Elementary/Secondary Service provides instructional programming to PBS affiliate stations or state PBS affiliate organizations. Contact your local station or state public broadcasting agency for offerings and schedule. Oregon Public Broadcasting provides a video library arrangement in which all educational programs for classroom use are broadcast between 5:00 and 7:00 a.m. daily specifically for taping by Oregon schools. KCTS-Seattle provides programs to K-12 schools by daily broadcast and video library, teacher inservice, and the Learning Link service.

Costs: Varied, but sometimes free to schools if license fees are paid by the station or other sponsor. Videoconference costs are usually passed on to participants in the form of a registration fee.

Courses: Programming is of three types: full courses, instructional supplements, and staff development videoconferences. Full courses in foreign languages, math, and science are developed by the Annenberg/CPB project. Instructional supplements are individual programs or short series intended for classroom use. Staff development videoconferences are single sessions or series developed in conjunction with educational organizations such as ASCD and NCREL, which incorporate periods of live interaction between panelists and viewers.

Schedule: Varied. Contact your local station or state PBS agency. Statewide agencies are:

Idaho Educational Public Broadcasting System
Oregon Public Broadcasting

Jerry Garber 208/385-3727
Steve Johnson 503/293-1909

Cable in the Classroom

General information:

Cable in the Classroom
1900 North Beauregard Street
Suite 108
Alexandria, VA 22311

Phone: 703/845-1400

Access: Through your local cable company. Member channels include A&E, Bravo, CNN, C-Span, The Discovery Channel, The Learning Channel, The Monitor Channel, Mind Extension University, The Weather Channel, and others.

Cost: There is no programming charge by the providers, but connection or service charges may be levied by the local cable company depending on the franchise

DATE 2-10-63
SB

requirements. There are minimal costs for some instructional support materials from some channels. *Cable in the Classroom* magazine is free (see p. 25).

Courses: All programming is supplementary instructional material except for that from the Mind Extension University. Many of the member channels provide classroom kits and study guides to assist teachers in classroom use of the programming. (See *Cable in the Classroom* magazine for contact references.) The organization has arranged with its member channels for blocks of programming designed for education which are commercial-free, occur in regular weekly time periods, and have liberal copyright clearances.

Computers, Telecommunications

Services presented in this section rely on computers, modems, telecommunications software, phone lines, and electronic mail systems to provide a variety of services, including full-course individualized instruction, organized student group interaction, student-mentor communication, and special bulletin boards or databases. The school site is required to have a phone line in addition to the computer equipment, but no satellite antenna or other television equipment. Ongoing costs include telephone line charges and in some cases subscription fees.

The full course options require student registration and assume completion in a standard time period such as a semester. The organized supplementary instruction options also require registration and the activities are expected to take place within a specified period.

Complete Courses

CCS—Centralized Correspondence Study

Centralized Correspondence
Alaska Department of Education
3141 Channel Drive, No. 100
Juneau, AK 99801-7899

Phone: 907/465-2835

Access: Enrollment is by individual student, although a group of students in a school may take the same course at the same time. Enrollment is available only to Alaska residents. Course materials are sent by regular mail. Access is provided to the UACN electronic mail system for timely student-teacher contact. Courses are being rewritten to incorporate electronic mail as a standard tool. Periodic telephone conference calls are used during a course for group interaction involving all students whether at home or in school.

Costs: Charges are made for course materials and e-mail usage.

Courses: A full range of courses in the Alaska secondary and elementary curriculum is available, including sciences, mathematics, social studies, language arts, and others.

Schedule: Students are enrolled on a semester or school year basis and are expected to complete a course within a standard period of time.

Instructors: Certified teachers are employed in CCS to develop courses and act as the teachers of courses in progress, receiving student work and tests and providing guidance.

EDUNET

Mr. H. Lee Holmes
EDUNET
P.O. Box 9121
Helena, MT 59604

Phone: 406/442-0085
FAX: 406/449-4062

Access: The system is based on electronic mail and file transfer. The receiving site needs a microcomputer with printer, modem, and a telecommunications software package, and uses ordinary phone lines to reach the central computer. Computer access information is provided at registration, and general information is available to anyone without enrollment by logging on as "STRANGER". The phone number above is for both voice and computer contact, with a sensor to tell the difference. Modem speed can be 300, 1200 or 2400 baud.

Costs: \$250 per student per course per semester, staff development same rate. Cost of long distance calls not included.

Courses: Approximately 50 courses are available, representing a wide range of curricular areas including math, science, foreign languages, business, and others. Courses are designed as individualized instruction. Student instructions and course materials are stored in computer files which are downloaded to the school microcomputer when requested. Criterion-referenced, end-of-unit tests are presented in an on-line session of about ten minutes at the student's request, and are scored immediately. Student-teacher interaction is primarily by electronic mail, although telephone conversations can take place when teachers are available.

Schedule: Courses generally follow the school calendar. Courses are designed for individualized, self-paced instruction, although completion is expected to coincide with the end of the school semester. Course offerings in a given semester depend on the demand and available teachers.

Instructors: Teachers certified in the subject area of the course are allowed to design, develop, and teach a course. A course may be taught by a teacher who did not develop the course. Development consists of the design of lessons and development or selection of instructional materials. Teaching consists of guiding students through the completion of a course, checking and grading work, and responding to student questions and discussion.

Supplementary Instruction

AT&T Learning Network

Schools may subscribe to participate in instructional units involving classes in up to nine schools in different geographic areas, including foreign countries. A group of schools is called a Learning Circle. Students may study in one of five different topic areas, and use the network to share ideas, projects, observations, and other information with other classes in their circle. Fees range from \$195 to \$375 per session depending on length, and include instructional materials, software, and communications.

AT&T Learning Network

P.O. Box 4012

Bridgewater, NJ 08807-4012

Phone: 1-800/367-7225

NASA Telelectures

The NASA Langley Center supplies a live audio lecture and discussion by telephone supported by 35mm slides at the receiving site. After a reservation is made, a slide carousel cartridge is sent to the local sponsor (school or organization) to be shown in combination with the phone presentation from Langley. The only cost is for the return mailing of the carousel. Adherence to a precise schedule is important at the receiving site.

Telelecture Programs

NASA Langley Visitor Center

Mail Stop 480

Hampton, VA 23665-5225

Phone: 804/864-1593

NGS Kids Network

The National Geographic Society offers this program to provide elementary and middle school student research activities organized around topics in ecology and the environment. Four eight-week units are now available, conducted on a schedule set by the Society. Students engage in local research, then compare data, hypotheses, and conclusions with students in other parts of the country who are involved in the same investigation at the same time. Materials are \$325 to \$375 per unit, plus \$97.50 for tuition and telecommunications.

National Geographic Society

Educational Services

Department 5413

Washington, D.C. 20036

Phone: 1-800/368-2728

Also available through IBM marketing representatives and the *IBM Software for Education Catalog*. Call your local representative or 1-800/IBM-3327.

WorldClassroom

WorldClassroom is a subscription service of GTE Directories Corporation. It provides an on-line network connecting schools in a dozen countries in North and South America, Europe, and the Pacific. Student activities are provided in five areas: Welcome, Science, Social Studies, Language Arts, and Special Projects. There are special conference areas in addition to the core. Classes are organized around clusters of about eight geographically diverse schools, with a lead teacher coordinating lesson plans. Students are involved in data sharing, problem solving, and writing activities. Long distance costs are avoided by the provision of toll-free numbers. Subscriptions are monthly at \$99.00 per month including on-line cost, or school year at \$475.00 for curriculum plus \$18.00 per hour on-line.

GTE Directories

Attn: WorldClassroom

P.O. Box 165008

Irving, TX 75016-5008

Phone: 1-800/950-4483

Databases, Bulletin Boards, and Networks

Big Sky Telegraph

Big Sky Telegraph provides electronic mail and a wide range of bulletin board services to education and community agencies in several states. Rural schools and communities and the 116 one-teacher schools in Montana are major user groups of the network. Through the system, teachers have access to the information and software resources of the college, some college credit courses, and assistance from college faculty. National and international contacts are available. A subscription fee of \$50 per person per year is requested, but not required for access. New users may browse on a guest account. Transmission settings are 1200 Baud, 8-N-1.

Frank Odasz

Big Sky Telegraph

Western Montana College

Dillon, MT 59725

Phone: 406/683-7338

Computer: 406/683-7680

Computer PALS Across the World

The focus of this project is on the improvement of student writing and communication skills through the sharing of letters, reports, poetry, and other work between individuals or groups of students in different schools by electronic mail. Student groups can collaborate on work in several curriculum areas or discuss major

current events. Over 100 schools in the U.S. and several other countries currently participate. PALS uses the commercial Tymnet telecommunications system.

Emily Valdez, Associate Director
Computer Pals
P.O. Box 1206
Lake Oswego, OR 97035

Phone: 503/691-1689

FrEdMail

FrEdMail is a network composed of many local electronic mail and bulletin board systems which operate independently during the day and transfer files between sites at night. The major goal is to motivate writing and communication skills. Students may do their writing off-line, and the collected writings of a group may be shared with another group in another part of the country by transmitting batches at night. Participating through an existing local node is free. There is a cost of \$60 for the software to establish a local system to serve up to 100 users. The newsletter has an annual subscription fee of \$10, and handbooks and training materials are available at low cost.

FrEdMail Foundation
Box 243
Bonita, CA 91908-0243

Phone: 619/475-4852

K12 Net

Operators of bulletin board systems (BBS) in educational agencies in the U.S. and Canada formed this network in September, 1990, to promote student-student and teacher-teacher contacts on a national and international basis. The network is a loose organization of over 100 local BBS which use the FIDO BBS software system. Although each local system is autonomous, files of communications are exchanged between local systems. Echo forums are set up in the major curriculum areas so that all messages in a specific curriculum or topic area are shared with all those interested in the same area. Forums are also set up to accommodate short-term classroom projects involving student groups in any part of the network. The system is inexpensive to the user, with access to free international telecommunications. Connections may be made to Canada, Australia, and eight countries in Europe.

Jack Crawford
Wayne-Finger Lakes Teacher Resource Center
3501 County Road 20
Stanley, NY 14561

Phone: 716/526-6431

LabNet

The LabNet project is operated by the Technical Education Research Centers (TERC) with funding from the National Science Foundation. Its purpose is to stimulate the use of project approaches and hands-on activities in physics instruction through the use of computer-based activities. A nationwide electronic mail and bulletin board network has been formed for teachers involved in that approach to share ideas and teaching techniques, discuss issues, and consult with university physicists.

LabNet Project

TERC

2067 Massachusetts Ave.
Cambridge, MA 02140

Phone: 617/547-0430

Learning Link

This system is usually located at and managed by a local or state public television station, and offers electronic mail, bulletin board, and database facilities. The primary database contains scheduling and descriptive information on instructional television programs and related supporting print materials. (See Ostendorf On-Line on the next page). Other databases and bulletin boards can be established by the local manager. The system was designed to enable public television stations to improve their support of schools and to help teachers make better use of instructional television, with the flexibility to allow them to communicate for other reasons as well. Stations pay a fee to install and use the system. In the Northwest region, Learning Link is installed at Idaho Educational Public Broadcasting System and at KCTS/Channel 9, Seattle, Washington. For information, contact your local public television station or the address below. A companion service called IntroLink provides individual subscriptions to schools not served by a local system.

Learning Link National Consortium
Central Educational Network
1400 East Touhy, Suite 260
Des Plaines, IL 60018

Phone: 708/390-8700

NASA SpaceLink

A free computer bulletin board system for teachers which provides information in 10 menu items about NASA programs, instructional plans and activities, and some NASA publications which can be downloaded. Access is available at rates of 300 to 9600 Baud. Information on access through the Internet is available under menu item 2.

SpaceLink Administrator
Marshall Space Flight Center
Mail Code LA-20
Huntsville, AL 35807

Phone: 205/544-6527
Computer System: 205/895-0028

NOAA—National Oceanographic and Atmospheric Administration

A variety of informational publications regarding the use of data from various federal centers is available to teachers. A free computer bulletin board service is available which contains several categories of information about satellite data. The Direct Readout Service provides direct access to transmissions from weather satellites.

NOAA Educational Affairs Office
Suitland & Silver Hill Roads, Rm. 0158
Suitland, MD 20746

Phone: 301/763-4690
NOAA.SAT Bulletin Board:
1-800/546-1000

Ostendorf On-Line

This is a service of the publisher of *At A Distance* described in a later section. It is an on-line database of distance education program scheduling which is updated daily, and is designed to supplement the printed catalogs with highly current information. It is provided through the Learning Link and Intro Link systems described in this section. Special arrangements for access at reduced rates have been provided to schools in the Northwest states because of a joint development effort. Contact your state technology coordinator for details of access in your state.

PSInet

The People Sharing Information Network (PSInet) is the name of software designed for conducting conferences by telecommunications using IBM-compatible microcomputers. A network host system may be established by anyone. Participants at each station can do most of their work off-line, and files are sent to and received from the host system (also a microcomputer) in batches for speed and economy. In addition to messages between members, the system handles sessions and papers in a conference format. Messages and conferences may also be exchanged between PSInet networks. Standard telephone service is used for all connections. Major groups of users have been formed by the National Education Association and the Council of State Science Supervisors. Many science supervisors are forming teacher networks within their states. Software for either a host station or a user work station may be purchased from IBM Corporation.

For further information, contact the IBM Educational Representative for your area. Science teachers should also contact their state science supervisor.

EXHIBIT 16
DATE 2-10-93
SB _____

X*PRESS/X*Change

X*PRESS Information Services Ltd. provides information services through cable television lines to schools and homes through a service called X*Change. On-line access is provided to newswire services from several countries including the Soviet Union, Germany, and Japan, and to other services such as Standard and Poor's stock quotes. A conferencing service enables students and teachers to communicate with others across the country on topics of importance to them.

X*PRESS Information Services Ltd.
P.O. Box 4153
Englewood, CO 80155

Phone: 1-800/7PC-NEWS

OTHER DISTANCE EDUCATION ASSISTANCE

ESN—Education Satellite Network

ESN is a school district service developed and operated by the Missouri School Boards Association. It provides equipment, technical assistance, and programming in a package to assist school districts with access to distance education services from a variety of sources. Outside Missouri, services are provided through an agreement with state school boards associations. In the Northwest, the Idaho and Montana associations have such agreements. Districts in those states may use the following contacts to investigate the service:

Idaho: Vicki Weber, ISBA, 208/342-6411

Montana: Bob Anderson, MSBA, 406/442-2180

ESN charges a membership fee which supports its services, some of which are listed below. They are packaged in various combinations at different cost levels.

Hardware—antenna and related equipment, and in-school video and telephone equipment.

Monthly Program Guide—describes programming and schedules.

Enrichment Programs—ESN licenses viewing and taping rights for programming from a dozen vendors including SCOLA, Classroom Earth, and others.

Inservice—staff development programs and teleconferences are produced by ESN and other agencies.

Instructional Programming—ESN will assist districts in arranging contracts with major course producers such as Oklahoma State University, but does not pay the fees.

State Telecommunications Networks

The states of Montana and Oregon are developing statewide networks which will ultimately be capable of providing a wide range of services including television and data transmission. In both states, some services began in 1990-91 and are being developed over a period of three to five years. Elementary and secondary school services are being coordinated with the state education agencies. (The Oregon Department of Education will sponsor courses in Marine Science for high schools and middle schools on ED-NET.) Districts in those states may contact the following:

Montana: METNET, Ron Lukenbill 406/444-2080

Oregon: ED-NET, Christie Leonhardt 503/293-1998

State Technology Coordinators

Each of the state education departments in the Northwest has staff who are assigned responsibilities for aspects of distance education and telecommunications, including providing information and assistance to districts. They are the same state representatives listed in the introduction of this booklet.

Private Companies

Frequently, corporations are willing to provide assistance to school districts in areas of their expertise. School district personnel probably know of companies in their local area which have knowledge in telecommunications, such as the telephone, cable television, and broadcast television companies. Described in this section are organizations whose work covers a wide area of the region, and whose staff are available for planning services or other assistance, usually in relation to extending their business.

U. S. West Communications

This company provides telecommunications services in 14 western states, and has a central staff dedicated to planning and marketing distance education systems and services. They are particularly interested in two-way interactive video and audio systems, implemented in a locally controlled system serving one or more districts in an area. The company is working with schools in projects in Minnesota, Arizona, and other states and has supported the annual Montana Distance Learning Conference. The company maintains a foundation to fund research and development activities in the field. Education representatives are in four of the five states in the region:

Idaho: Phil Ruebel 208/385-8668
Montana: Michele Burchett 406/441-7603
Oregon: Tom Atkinson 503/484-7946
Washington: Ezra Robinson 206/345-3862

TCI Communications Inc.

The TCI organization provides cable television services in many areas of the Northwest region. Corporate policy is to serve schools, but the type of assistance may vary because each state organization is operated independently of the others in the corporation, and local networks are independently managed. The Oregon company, for example, has installed X-Press free in all schools in their service area which have requested it. All of the local companies distribute the *Cable in the Classroom* magazine to schools free of charge. The corporation is sponsoring a demonstration school in West Linn, Oregon, and has supported the Montana state network.

The regional office and contact person for education is:

Ms. Cindy Eichner
TCI West
1215 114th Avenue S.E.
Bellevue, WA 98004

Phone: 1-800/446-1882

State or local company contacts may be obtained from Ms. Eichner.

INFORMATION RESOURCES

Programs and Production References

The following subscription publications may be useful to educators in the process of selecting instructional opportunities for students and inservice opportunities for teachers through distance education systems. All three provide information on programs, courses, time schedules, and access. They differ in coverage and frequency of issue. The first one addresses several distance education systems including nontelevision options while the second and third deal only with satellite-delivered television options.

At A Distance

Virginia A. Ostendorf, Inc.
P. O. Box 2896
Littleton, CO 80161-2896
\$50 per issue, two issues per year.

Satellite Learning Program and Resource Guide

EnterACT Corporation
P. O. Box 409
League City, TX 77574-0409
\$120 per year, major issues Spring and Fall, updates Summer and Winter.

Satellite Scholar

Eagle Publishing
2347 South Avenue West
Missoula, MT 59801
\$69 per year, issued monthly with expanded quarterly issues.

The following publication is distributed free of cost to schools by many cable companies, although it can also be obtained by subscription if necessary from the address below. It is published monthly during the school year, and contains schedule information organized by subject for the full range of educational programming from the *Cable in the Classroom* member channels. The magazine also contains a taping calendar, articles, and instructional planning aids.

Cable in the Classroom Magazine

General Information References

The following publications offer information on the range of delivery options, school district plans and examples, issues, problems, and future developments.

A Depiction of Distance Education in the Northwest Region
Document Reproduction Service
NWREL
101 S.W. Main, Suite 500
Portland, OR 97204
\$4.45

Phone: 503/275-9518

Linking For Learning: A New Course for Education
U.S. Congress, Office of Technology Assessment
Order from:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402-9325
\$9.00, Stock No. 052-003-01170-1

Phone: 202/783-3238

Planning for Telecommunications: A School Leader's Primer
NSBA
P.O. Box 17316
Baltimore, MD 21203
1-4 Copies, \$12.00 each

Barker, Bruce O. *The Distance Education Handbook: An Administrators Guide for Rural and Remote Schools*
ERIC Clearinghouse on Rural Education and Small Schools
AEL
P.O. Box 1348
Charleston, WV 25325
\$14.00 each

Meetings and Conferences

A great deal of general and specific information including progress reports and school district experiences is available at conferences and association meetings. The following list is intended to indicate the opportunities in the Northwest region. Information on dates and costs may be obtained from the responsible organization or state technology representative.

AACED-Alaska Association for Computers in Education

Meets annually for two or three days in April in Anchorage. Sessions cover a wide range of topics on the instructional use of computers, telecommunications, and related technologies.

Lois Stiegemeier
Alaska Department of Education
P.O. Box F
Alaska Office Building
Juneau, AK 99811

Phone: 907/465-2644

ACPE-Association for Computer Professionals in Education

Meets semi-annually in November and April, in major cities between Eugene and Seattle. Meetings are one day and focus on a specific predetermined topic, usually with an emphasis on administrative applications in education. Telecommunications and networking are often on the agenda.

Chuck Hadduck
Data Processing Department
Portland Public Schools
P.O. Box 3107
Portland, OR 97208-3107

Phone: 503/249-2000

Montana Distance Learning Conference

Conducted annually for two days in March, at locations in Montana. The conference is sponsored by the EDUNET organization and the Montana Office of Public Instruction, with the additional support of other companies and agencies in the region. The sessions deal with various aspects of distance education and telecommunications in instruction.

EDUNET
P.O. Box 9121
Helena, MT 59604

Phone: 406/442-0085

NCCE-Northwest Council for Computers in Education

Conference conducted annually for three days in February, at various sites in Oregon and Washington. Sessions and workshops focus on instructional applications of computers and related devices, and on computer-based telecommunications.

NCCE
2501 S.W. Sunset Boulevard
Portland, OR 97201-1219

NorthWestNet

An annual meeting is conducted in the region in the Fall, which is open to nonmembers. The meeting has sessions relevant to K-12 schools as well as universities, and the content has a heavy emphasis on the use of the Internet for broadband telecommunications in instruction at several levels. NorthWestNet is a private, nonprofit organization formed for the purpose of coordinating access to the Internet and providing technical assistance to members.

NorthWestNet
Suite 202
15400 S.E. 30th Place
Bellevue, WA 98007

Phone: 206/562-3000

Curricular Cross-reference

For assistance in planning the role of distance education and telecommunications options in the curriculum, this list groups the various service options according to whether they purport to offer complete instruction as in a full course, or material and activities which are intended to be supplementary to the regular curriculum, enriching or extending the experiences of students. The icon will indicate the type of technology used and the section in which the description of the option is located.

Full Courses

-  ASTS
-  CCS
-  EDUNET
-  ESP
-  IREDS
-  IREDS SatNet
-  LiveNet
-  Mind Extension University (Cable in the Classroom)
-  PBS
-  Pacific Northwest Star Schools Partnership
-  SERC
-  STEP
-  TI-IN
-  Triad

Instructional Supplements

-  AT&T Learning Network
-  Big Sky Telegraph
-  Cable in the Classroom
-  Channel One (Whittle)
-  CNN Newsroom
-  Computer PALS Across the World
-  FrEdMail
-  K12 Net
-  LabNet
-  Learning Link
-  NASA Select
-  NASA Spacelink
-  NASA Telelectures
-  NASA Videoconferences
-  NGS Kids Network

TABLE A
Comparison of LFA Current Level to 1993 Biennium
Initial Reduction Target
General Fund, Only

Unit	1993 Biennium	LFA 1995 Biennium	Initial Target	Subcommittee		Remaining Initial Target	Additional Target	Remaining Total Target
				Action Through 10-Feb-93	Remaining Initial Target			
--- Six University Units ---								
MSU	71,320,228	70,905,179	(415,049)	62,382,755	(8,937,473)			
UM	56,350,453	59,089,286	2,738,833	51,330,535	(5,019,918)			
EMC	21,226,621	21,388,886	162,265	18,843,825	(2,382,796)			
NMC	12,199,521	11,871,831	(327,690)	10,510,734	(1,688,787)			
WMCUM	7,009,989	7,207,526	197,537	6,392,594	(617,395)			
MCMST	<u>14,686,488</u>	<u>16,182,912</u>	<u>1,496,424</u>	<u>14,446,229</u>	<u>(240,259)</u>			
Total Six Units	182,793,300	186,645,620	3,852,320	163,906,672	(18,886,628)			
--- Vocational Technical Centers ---								
Billings	2,476,634	2,300,841	(175,793)	2,562,686	86,052			
Butte	2,925,601	2,235,666	(689,935)	2,443,081	(482,520)			
Great Falls	3,213,251	2,871,311	(341,940)	3,178,602	(34,649)			
Helena	3,999,019	3,767,182	(231,837)	4,116,073	117,054			
Missoula	<u>4,085,416</u>	<u>3,964,016</u>	<u>(121,400)</u>	<u>4,341,625</u>	<u>256,209</u>			
Total Vo-Techs	16,699,921	15,139,016	(1,560,905)	16,642,068	(57,853)			
CHE								
Administration	2,236,839	2,094,816	(142,023)	1,957,385	(279,454)			
Student Assistance	9,529,736	10,365,618	835,882	10,122,909	593,173			
Community Colleges	7,565,076	8,802,910	1,237,834	8,434,154	869,078			
Carl Perkins Admin	167,333	154,025	(13,308)	164,293	(3,040)			
Board of Regents	64,469	67,545	3,076	67,545	3,076			
Bond Payments	1,404,408	1,260,843	(143,565)	1,260,868	(143,540)			
Vo-Tech Admin	196,622	208,869	12,247	200,780	4,158			
AES	15,170,666	15,869,754	699,088	15,044,344	(126,322)			
CES	5,847,494	5,555,127	(292,367)	5,868,438	20,944			
FCES	1,416,555	1,398,825	(17,730)	1,479,519	62,964			
MINES	2,613,671	2,705,110	91,439	2,731,478	117,807			
FSTS	<u>479,688</u>	<u>496,661</u>	<u>16,973</u>	<u>509,804</u>	<u>30,116</u>			
TOTAL HIGHER ED	246,185,778	250,764,739	4,578,961	228,390,257	(17,795,521)			
OPI	91,094,589	90,428,764	(665,825)	93,080,091	1,985,502			
Board of Pub Ed	209,980	229,268	19,288	222,199	12,219			
MSDB	<u>5,504,347</u>	<u>5,626,423</u>	<u>122,076</u>	<u>4,958,869</u>	<u>(545,478)</u>			
TOTAL EDUCATION	342,994,694	347,049,194	4,054,500	326,651,416	(16,343,278)	20,328,073		3,984,795

EXHIBIT 11
DATE 2-10-93
SB

HOUSE OF REPRESENTATIVES
VISITOR REGISTER

EDUCATION

SUBCOMMITTEE

DATE 2-10-93

DEPARTMENT (S)

DIVISION

PLEASE PRINT

PLEASE PRINT

NAME	REPRESENTING
Butch McCool	MSU-Fiske School
Robert Fouty	Salish Kootenai College
Caric Dodson	SKC
Nathalie Dodson	SKC
Klaraire Johnson	SKC
Carol McElwee	SKC
Frank C. Finley	SKC
Scott Buswell	OPI
Mike White	MSU
N. Keenan	OPI
Tony Huber	DOI/ISD/DOA
Jim White	DOI/ISD
Ron Fukenthal	OPI
Mike Trevor	DOI/ISD
Barbara Rant	U.S. WEST
LOIS MCNAUL	DOFA
John McCarthy	ASUM
Todd Mitchell	Coalition of Colleges

PLEASE LEAVE PREPARED TESTIMONY WITH SECRETARY. WITNESS STATEMENT
FORMS ARE AVAILABLE IF YOU CARE TO SUBMIT WRITTEN TESTIMONY.

**HOUSE OF REPRESENTATIVES
VISITOR REGISTER**

EDUCATION

SUBCOMMITTEE

DATE 2-10-97

DEPARTMENT (S)

DIVISION

PLEASE PRINT

PLEASE PRINT

PLEASE LEAVE PREPARED TESTIMONY WITH SECRETARY. WITNESS STATEMENT FORMS ARE AVAILABLE IF YOU CARE TO SUBMIT WRITTEN TESTIMONY.