Rocky Mountain Views

Rocky Mountain Association of Higher Education Facilities Officers

Winter 2000

President's Message

By Harvey Chace

Greetings from Albuquerque. As I put the final touches on the Physical Plant's input for next year's capital program, it occurred to me that many of us are doing the same thing right now. Each year we take stock of where we have been and where we go from here. At first glance little seems to have changed. State funding for facility renewal is still grossly inadequate. And our own administrators continue to struggle with the conflict between an aggressive, growth oriented, academic plan and the fiscal and facility resources to support it. But, a second look at our situation here in New Mexico shows that we have made some noteworthy progress in educating our legislature and our administrators on the need for timely capital renewal. Our 1998 statewide symposium on the higher education facility renewal dilemma led to the creation of a plant director task force. That group, working under the authority of the state's Commission on Higher Education, testified before CHE and legislative committees and helped secure the funds for a statewide facility audit. The task force wrote the audit RFP and selected the consulting firm. As a result, we will be taking a comprehensive facility audit report, a forecast of future facility condition index, and a deferred maintenance buy-out plan to the legislature in January 2001.

How did we accomplish all that in two years? It began with a group of concerned plant people who decided to try to organize a statewide effort to improve awareness about the worsening condition of higher ed facilities. Our objective is to increase overall state funding while maintaining each university and college's independence and autonomy over its own capital renewal and construction program. At every turn, from symposium sponsorship to the RFP award, APPA's network, influence and support were the catalysts that kept us moving toward a solution.

Is association with APPA worth the time and dues money? You bet it is! And that's the message we need to pass on to our Rocky Mountain cohorts who are not currently members of RMA.

At the Spring Meeting in Denver, the RMA board will be focusing on two important issues – increasing membership through direct contact at the state level, and sponsorship of more education opportunities inside our region. These initiatives are mutually supporting. Increased membership will be the catalyst for a more vibrant and diverse regional organization and may be the seedbed for the growth of stronger local chapters. Perhaps we need state chapters around which our membership can better organize a legislative initiative. Utah's RMA member group may be a model for other intra-regional organizations. If there is interest, RMA can support more benchmark mid-year education efforts in a number or regional venues. Could this be a vehicle for attracting new members?

The board will tackle these weighty issues in the Mile-High-City on March 24 & 25. I'll report back to you in the next RMA newsletter. Don't forget to make plans for the International APPA Conference in Fort Worth, Texas, July 16-18, 2000. And watch for the distribution of registration forms from Craig Bohn for our Regional Conference in St. George, Utah, September 23-26,2000.

Hasta La Vista!

Announcing a new arrival

A Baby Girl!
Schyler Jeanne

Congratulations from RMA
to Medea and Husband

STATE/PROVINCE REPORT

MONTANA REPORT

Bob Lashaway

Here at MSU-Bozeman, Y2K turned out to be the biggest non-event of the millennium. After a year and a half of reviewing our computer operated systems with appropriate vendors and performing upgrades where necessary, we believed that our greatest remaining exposure was the ability of the local utility to continue to deliver power if a crisis occurred following the millennium change. Therefore, with the minor exception of adding a second boiler operator to the late shift, we required no other millennium staffing changes. No on-call personnel, no standby personnel, no cell phone or radio distribution, etc. The second boiler operator would have made a hectic boiler re-start sequence more sane, if required. We also used the time to perform our monthly exercise of the backup propane and emergency plant generator systems. We continue to suffer more headaches from our Microsoft systems than from anything the millennium triggered.

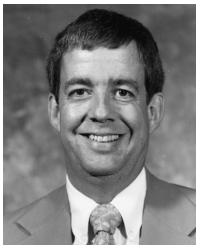
Several units of the Montana University System, including UM-Missoula and MSU-Bozeman are undergoing Facilities Performance Audits by the Legislative Auditor at the direction of the 1999 Legislature. The Legislature, in their haste to show the U-System that the U-System was not properly funding Facilities Operations, recommended that a "minimum of 13% of the total current unrestricted operating funds" for each unit be spent on operations and maintenance in the Facilities budget. Of course, the 13% was neither researched nor analyzed, and has no basis in reality among such a diverse collection of facilities, climates and curricula as are represented by the Montana institutions. Unfortunately (depending upon one's perspective), the audit will undoubtedly expose the fact that Facilities operations (as well as Institutional budgets in general) in Montana have sustained severe budget cuts through the 1990's, which served to exacerbate the budget cuts sustained in the 1980's, which some would argue were the result of legislative under-funding to begin with. The entire situation is unfortunate from at least two angles. First, if the Legislature expands its interest in Facilities budgets to encompass line item review and funding, our on-site operational flexibility will suffer greatly. Second, by virtue of the Legislature taking a direct and time consuming interest in the Facilities budget situation, to the exclusion of other mission critical elements of the institutional budget (such as instruction and research), we run the risk of being perceived as advocating our own Facilities needs as the primary needs to be met in a limited resource environment. In other words, Facilities operations are put in a position of working directly with the Legislature to get a bigger piece of the available limited pie, rather than working as part of a team approach within the U-System to advocate for an expanded pie through which other critical functions could also benefit. In my view, the potential for back firing could be significant.

On the brighter side of life, MSU-Bozeman's Facilities Condition Inventory (FCI) inspection has documented its first zero dollar, deferred maintenance building on campus. The building with $0 deferred maintenance is our Animal (Housing) Resource Center. Several unique factors combined to produce this benchmark occurrence. First, in addition to our periodic FCI inspections, the building also undergoes periodic and demanding certification/accreditation inspections. Second, all deficiencies from the certification/accreditation inspections are given high priority as are maintenance deficiencies noted through the FCI. Third, the first two factors have required that we spend significantly more maintenance dollars on this facility and particularly its mechanical systems, on an annual basis, than the campus average. The result is that, in the six years since our first FCI inspection, all deferred maintenance items noted have been remedied.

In late December, MSU suffered the untimely loss of President Michael Malone to a heart attack. Malone had been president at MSU-Bozeman for ten years and had presided over its three other affiliated campuses since the 1995 consolidation. Unfortunately, our second in command provost position is being filled on an interim basis, so MSU now has interim folks in the top two positions at the institution. Since it would be important for any new president to be involved in the final selection of the provost, the provost search was immediately terminated, and an aggressive presidential search initiated. It is hoped that MSU can find a new president before the beginning of the 2001 Legislative session next January.

On the lighter side, we received a "60 Day - Repair or Vacate" order from the City building department, for the first time ever at MSU - and the order was directed at our own Facilities Services office building. Past modifications to structural trusses that ignored and openly defied all structural and seismic codes, made our facility the single most notorious life safety problem on campus. And once the City became aware of the situation, which had been concealed in the open for over thirty years, they had no other course available but to issue the order. So as I write, we are in the middle of one of those noisy, disruptive, dirty, projects that we are so used to performing on the environments of others. Some on campus would declare that there is indeed justice after all!! RMV

WYOMING REPORT



Frank Fox

Our Y2K planning worked wonderfully as it turned into a real "no event".

Washakie Center the main dining facility for the residence halls is to receive a $10 million dollar renovation. A 30-year-old facility will be updated to better serve the dining needs and preferences of today's students.

Thirty years ago, the food service program was in an institutional style. Today the dining preferences of students and parents have changed significantly.

The facility will be upgraded, expanded and reorganized. The way food is prepared and delivered will be changed, and different types of dining environments will be provided.

If you go into a facility today you do not see food prepared behind a wall and out of sight.

Today a lot of restaurants have open kitchens and food can be customer prepared.

When UW is given the authority to proceed a planning team and an architect will be appointed to plan and design the project. It will be advertised for bidding, and then construction can begin. This will be approximately within a two and a half year time line.

Northwest College; Powell, Wyoming

Northwest College is a two-year, residential college offering transfer programs based upon the traditional arts and sciences, and occupational programs which include strong general education requirements. Northwest enrolls about 2,000 students (approximately 1,300 full-time on-campus) with a full-time equivalency (FTE of about 1,940). The college serves students drawn from throughout the Rocky Mountain Region. Northwest College is accredited by the North Central Association of Colleges and Schools

Northwest's 124-acre campus is one of the most attractive college campuses in Wyoming. Its 57 buildings include modern instructional facilities residence halls and apartment complexes. A student center, a child care center and a library with electronic access to others. Very nearby are the observatory and Equine Center, and an agriculture pavilion.

Northwest College is located in Powell, Wyoming about 70 miles from the entrance to world famous Yellowstone National Park; 90 miles south of Billings, Montana; 510 miles from Denver, Colorado; and 25 miles from Cody, Wyoming, and the nearest airport offering commercial flights.

Powell is a community of about 5,700, the economy of which is based on farming, ranching, oil and education. Powell lies in the valley of the Shoshone River between the Big Horn Mountains on the east and the Absaroka Range of the Rocky Mountains and Yellowstone to the west. Powell was founded in 1909 upon the opening of the irrigation from the Buffalo Bill Dam near Cody. The valley was homesteaded by settlers who transformed a sagebrush flat into a lush, agricultural valley. In June 1994, Powell was one of 10 U.S. cities named an All-America City by the National Civic League.

Weather in Powell is dry and most days are sunny. The average January temperature is 18 degrees Fahrenheit, and in July it's 74 degrees. Usually, there are several cold periods each winter. Surrounding mountains can receive lots of snow, but little accumulates in Powell. The average annual precipitation is 6.56 inches, and growing season is 155 days.

Wyoming and Northwest College offer a quality of life that more and more people in our country seek. A community small enough to care, a clean environment, general safety and beauty. Northwest is near wilderness areas, wild rivers and world-renowned geological formations and archaeological sites. NEW is committed to excellence. Providing high quality education is the fundamental goal of the faculty, staff, administration and Board of Trustees. The college strives to build on the qualities that have made Northwest a great place to work and to be a student. RMV

UTAH REPORT

By Ned Carnahan
Dixie College
St. George, Utah

Dixie College inspection revealed several older Electronics Building Control Systems were not Y2K compatible. Energy Management System replacement chips were required in each building.

The Physical Plant prepared modestly by servicing all emergency generators and small portable generators. An additional plan was drawn up to aid critical ground water pumping sites in case of power failure.

Other than that the employees required to stand by had a great dutch oven potato and steak dinner and watched the St. George Fireworks display.

We didn't fix it because it didn't break.

By Michael G. Perez
Weber State University

Man.... is it cold up here. This poor 'ol Texas boy ain't quite use to the climate found in the great state of Utah -- lower temperatures, white stuff, high winds and tornados? What's next.... a hurricane!! I, along with my wonderful wife and son, Dana and Michael, recently relocated to Ogden, Utah and Weber State University. Dorm life may have been OK when I was a college student many years ago, but it's not at all becoming for me, a middle aged married man, waiting for my family to follow as soon as the house sold and Michael's school year ended. They arrived in July and all is well again.

I spent the last 14 enjoyable years at Southern Methodist University located in Dallas, Texas, but was intrigued with the possibility of a life of high adventure in the Wasatch mountain range and the apparent opportunity for expanded professional challenges at WSU.

Good news...life is full of adventure and the challenges are more than plentiful. Coming from North Central Texas ya'll

might understand it when I say the Wasatch and Uintah Mountain ranges are a little different from "those" found in the Texas Hill Country. Dana, Michael and I are enjoying hiking as well as the spectacular views of the northern tundra from our house. We expect to attempt our hand at skiing and/or snowboarding this season even though it looks and sounds as if it might be as dangerous as bull riding. But, hey, we're game.

Weber State is great. The folks are fantastic.... especially in Facilities Management.

Allow me to share with you what we've been doing at WSU.... The administration decided to combine three formally independent departments - (1) Physical Plant (2) Architectural & Engineering Services and (3) Electronic Systems and Repair into one.... Facilities Management. I'm happy to report our transformation from a traditional hierarchical organization to a more progressive work force is happening quite nicely.

After three months of attempting to understand how things work, where to park, how to get into my office and identifying the important folks who'd know how to keep me out of trouble, we got down to work.

This past autumn a team of players met over a series of months to identify our Vision, Mission, and Strategic objectives that will allow for our anticipated successes.

Our Vision is to be the best Facilities Management department in the country. Our Mission is to support the mission of Weber State through effective management of facilities. The five Strategic objectives we have agreed to focus on include:

1) We will be more efficient by using technology to our advantage.
2) We will be a well-managed department with common goals.
3) We will have a happy, healthy and efficient workforce who are thoroughly trained, empowered to make decisions and recognized for quality work.
4) We will have satisfied customers.
5) We will utilize finances to better the department and the University.

Initial steps we have taken as a result of these five objectives....

As a component to objective #2, we have agreed to combine into work teams that will avail ourselves of similar synergies amongst the craft disciplines. This thought might allow for an electrician and a controls technician to be dispatched together to assess a hot/cold problem, as an example:

- The electrical, automation, refrigeration, plumbing and heat plant shops are a combined team called the "systems" group.
- Secondly, we created the "services" group by combining the custodial, landscape, carpentry, vehicle repair, and paint shops.
- The electronic systems & repair (ES&R) shop was left alone for now but the managers of this group work closely with the "systems" managers. ES&R works on all types of electronic devices, including, but not limited to, computers, alarms, typewriters, printers, any office device, telephones, etc. The specific work is different enough, we think, to allow them to focus on their core competencies.
- Lastly, the architectural & engineering services group was left alone but has changed its name to project management and works more closely with the other teams.

Regarding objective #2, it is our belief that the most important physical assets on our campus are not buildings, but our people. As important as it is to reinvest in our facilities it is equally, if not more so, to do likewise for our employees, all of them. Within the past six months, we've implemented training to provide core skills in all Facilities Management personnel. Some of the more important training opportunities, in my opinion, have been 1) Customer Service training, 2) Supervisor Training for those who are at this level or aspire to be, and 3) a training session called "Improving Your Spirit of Ownership" (focusing on personal accountability within the work place).

These training opportunities are consistent with the aforementioned objectives; and, we plan to continue building on the concept of investing in our employees.

Many concurrent and similar initiatives are underway regarding the other three objectives – development of front end, customer friendly, Web Site pages; a new Computer Maintenance Management System; a review of the chargeable versus non-chargeable services provided to our customers; review of our shop rate charges for services rendered; systems to allow measurement of our activities; and on and on. A modest start but one we are extremely happy with so far.

Well, I knew as I came to WSU last year that Texas, CAPPA and TAPPA would be hard to replace but have found in just short time that Utah, UAPPA and RMAPPA are just as remarkable. Why? Because of many outstanding professionals.

I look forward meeting as many of you, these dedicated professionals, this September to continue the expansion of my rewarding experiences. See you in St. George!

At Brigham Young University we had an opportunity to bring in the new millennium with very little disruption due to the Y2K Bug. The reason was the preparation. Those who new the most about the bug were the ones who determined the extent of the problem. The committee to oversee the concern was chaired by a vice-president and regular reporting of systems, funding needs, target dates for completion of fixes, and status were common. Everyone felt they knew what the status of the situation was. This effort helped to build the confidence needed to deal with the opportunity. The benefits were numerous. Since Information Technology has grown in university use and reliance, the exercise helped everyone understand how this utility has become a very important part of university life. Technology has moved so fast with upgrading and changes, it was a great opportunity to get the stakeholders that stand on the sides to get involved. Discovering how long we were making old technology last at the bottom parts of the organizations structure was a learning point. Because the need to communicate impacts almost all of the employees that serve customers and users, we learned that technology will never wear out but becomes obsolete. How useful the technology tool is given the current standard of use will be a huge factor for the future. Some estimates suggest that because of the short useful life cycles of technology equipment that the cash flow of

funds annually could be equal to that of replacements for buildings and infrastructure. Useful Life is measured in obsolesence not in wearing out. Planning for this need is just as important as planning for the on-going replacement needs in a building.

As our eyes were opened to the possibility of failures due to the Y2K bug, we should be just as mindful of the impact institutions are going to have in keeping up with the every escalating resources needed to keep ahead of obsolesence in information technology. Like wearing out a new building, if we could only be satisfied with the time it would take to wear out technology rather than just replace it. RMV

Colorado Report

By John Bruning

How many of you have thought about what would have happened if we hadn't done anything about Y2K? As it turned out, Y2K was the biggest non-event of all time, but at least an interesting sociological study! Throughout the process of Y2K training, inventory, mitigation, testing, contingency planning and countdown, there was just enough insecurity that Y2K was going to have a big effect on something important that we all did due diligence, just in case. But I've wondered why didn't something big happen somewhere? The percentages alone suggested something big/bad was out there waiting for the clock to strike midnight.

Since I haven't heard that anything went bad in any Colorado institution of higher education, I'll tell you the tale of Y2K at the University of Colorado at Boulder. Our first real exposure to the Y2K thing was at the 1998 Big XII Facilities Technical Conference held at the University of Texas, Austin. Texas institutions got off to a much quicker start than most of us under a highly structured process that was imposed by their commission of higher education. By the spring of 1998, UT-A already had a complete inventory of their Y2K non-compliant systems and was well on their way with mitigation. By the end of 1998, they had everything compliant and tested. Boy did we feel behind! There was a strong feeling that we might not get it all done in time.

Shortly after we returned from Texas, the State of Colorado set up a Y2K funding request process that required a prioritized inventory, mitigation plan, vendor documents and timelines that each State agency was supposed to follow, if they expected to get any Y2K money. We jumped into the inventory, formulated our plan, got our estimates and submitted them to the state. The University of Colorado system's request exceeded $1.8 million, of which the Boulder campus portion was $1.5 million. Interestingly, when all of the requests were submitted to the state, Colorado State University had asked for nothing and the University of Northern Colorado asked for less than $50,000. It didn't take the legislature too long to say, You're all on your own, each agency will have to fund their own Y2K expenses. All that work just to find the well was dry! But, we had a plan! Just in case.

We engaged in mitigation and testing throughout 1999 using campus funds allocated by the Chancellor for Mission Critical systems only. Initial cost assumptions proved high, as Facilities Management spent approximately $400,000 and the campus total was less than $700,000 to make the systems compliant. By early fall, most everything had been tested and we began focusing on our contingency plan. At the heart of our contingency plan was the Power House, our co-generation facility. We knew that keeping the plant operating had to be the centerpiece of our contingency plan, with the integrity of our Andover building automation system coming in second in priority. It was at this point that things started to get interesting!

Our Power House has duel fuel capability, natural gas and fuel oil. A cornerstone of our contingency plan was to have one of our turbines running on fuel oil and the other on natural gas, just in case we lost natural gas service. We also decided to run isochronous (isolated from the electric grid) in case the public electrical utility went down, which has caused our turbines to trip off in the past. We were assured that there would be no problem with our domestic water supply, so that left us thinking, What if both of our turbines and the electrical utility all go down together? It takes a megawatt of electricity to black-start one of our generators, so we rented a huge standby generator, just in case. . and we pulled one of our standby portable generators over to the plant to power our air compressors and the auxiliary boilers, just in case.

To add flavor to our Y2K contingency plan, we had a project underway to replace our underground fuel oil tanks that hold the fuel oil reserve for the Power House. By December, it was apparent that the fuel oil tank project and associated piping to the auxiliary boilers would not be completed in time. This meant that we would only have a limited amount of fuel oil for the turbines and heat recovery steam generators and we would be relegated to natural gas for the auxiliary boilers. This was a setback to our plans, but we pushed on, just in case.

Now we were deep into the countdown. When we tested the black-start generator on one of our turbines, it didn't work. We had to completely reconfigure the generator controls to handle the startup load of the turbine. We had to re-circuit the auxiliary boilers and air compressors to operate off of our portable standby generator. We had effectively made everything much more complicated and unstable in the process, just in case.

The day before New Year's Eve, we engaged the Y2K configuration at the plant. By mid-day, we had leaked 200 gallons of fuel oil into one of the turbine enclosures and the portable emergency generator tripped out, leaving the auxiliary boilers and air compressors off-line. Was this an omen of things to come? Everything got patched up and cleaned up, but we had lost a great deal of confidence in our plan.

New Year's Eve day was a clear and unseasonably warm day. I brought in a modest Y2K on-site team at 8:00 PM and we watched Y2K turn over across the globe. Nothing happened anywhere! No third world economies crashed, utility systems stayed on, the phones worked! Slowly the time turned over across the nation it was finally our turn in the Mountain Standard Time Zone tick, tick, tick had we done all that we needed to do? Had we done more than we should? Had we made things more complicated than they should have been made?

Happy New Year! Nothing happened, but we were ready, just in case. RMV

New Mexico Report

Mary Vosevich

Greetings everyone! It was good seeing everyone here in Albuquerque last October, and I think the conference was a great success. We experienced it all – cool weather for the golf tournament, incredible ballooning, delicious New Mexican food, great sight seeing, and wonderful entertainment from University of New Mexico students. We are now looking forward to Utah 2000!

As we here at the University of New Mexico enter this new century we are saying goodbye to our friend and colleague, Don Mackel. Don retired at the end of October after a 33 year career at the University of New Mexico. Don started his career at UNM as a student worker in the Physical Plant and then was hired full-time as a draftsman. Don eventually moved to the position of assistant director, and in 1992, Floyd Williams retired as director and handed the reigns over to Don.

As Director of the Physical Plant, Don championed the mission of facilities management and was instrumental in bringing the capital renewal and deferred maintenance situation facing all higher education facilities in New Mexico to the New Mexico State Legislature. Everyone throughout the state, and certainly here at UNM, began to know Don as the "rusty pipe man." His leadership in regards to these efforts brought increased funding to UNM this fiscal year. (Note: See APPA's publication, *Charting a New Course for Campus Renewal*). Through the strategic planning efforts that Don initiated, the Physical Plant has made significant improvements and contributions to the UNM community.

At the same time that Don was taking over the role of Director of the Physical Plant, he was also beginning his term as the President of APPA. Don has always been active in APPA. He at one time held the position of Vice President of Membership, and most recently served as the RMA Awards and Recognition representative.

In his retirement, Don intends to spend more time with the Boy Scouts, attend classes at UNM, play golf, and spend a lot of time "fixing up the house." (He just can't seem to get away from facilities maintenance!) We also can't forget the ever-important role of grandpa! So far, Don seems to be adapting well to these roles, and just kind of chuckles as we discuss the latest challenges facing the Physical Plant.

Ralph Waldo Emerson said about success: "To laugh often and much; to win the respect of intelligent people and the affection of children; to earn the appreciation of honest critics and endure the betrayal of false friends. To appreciate beauty; to find the best in others; to leave the world a bit better whether by a healthy child, a garden patch, or a redeemed social condition; to know even one life has breathed easier because you have lived; This is to have succeeded".

Congratulation, Don, on your many successes. May your retirement be everything you desire.

After many months of negotiation with the State Attorney General and legislative hearings, our Commission on Higher Education finally passed all the legal coordination's required to put our statewide Higher Education Facility Audit on the street. The CHE Plant Directors task force interviewed 5 finalists and selected 3D International to perform the audit. (3D Int. was on the initial RFP mailing list along with all facility audit consultants who rented booth space at the APPA International Meeting in Cincinnati.) In total, 27 institutions of higher education or special learning will receive an audit of their I&G facilities. The survey will be complete by September. The results will be presented to the Commission in time for the January 2001 legislative session. The written report and the accompanying narrated video will portray the true extent and impact of deferred maintenance on the state's education facilities. We are hopeful that this effort will give the Commission the ammunition it needs to argue for an increase in state support for capital renewal.

On the weather front, New Mexico has enjoyed one of its mildest, and unfortunately driest, winters in decades. Fruit trees and flowering shrubs in campus arboretums are in full blossom. Challenges ahead include surviving a possible late frost and coping with the insects and parasites that survived the "tropical" winter. Our Integrated Pest Management program people are also dealing with a larger than normal mouse population. Special efforts are underway to seal exterior doors with new door sweeps and astrigals. The incidence of Hanta Virus in New Mexico makes rodent control a front-burner issue.

"Lobo Energy," a corporate subsidiary of UNM, formed to deal with the University's crumbling central plant and distribution system, is scheduled to issue its long-awaited business plan in April. Lobo Energy is a unique business approach to the problem of university utility renewal. Instead of hiring a consultant/business partner to design a solution and finance the replacement of plant and pipe, UNM created Lobo Energy. Lobo will be the University's business partner, purchasing multiyear gas and electrical contracts, retrofitting buildings and replacing the central plant. Improvements will be funded primarily by energy savings. The University will provide its own financing and Lobo Energy, unlike a commercial consultant, will not earn a profit. Traditional APPA supporters, GLHN Consultants, and Sebesta Blomberg have assisted Lobo Energy in planning and design. RMV

Arizona Report

Arizona State University

Facilities Management initiated activities in 1998 to ensure that facilities and their mechanical and electrical support systems at Arizona State University would be Y2K compliant. During the fall 1998 semester as Val Peterson, Director met with various vice presidents, deans and other heads of major campus units, each was advised and sensitized as to the potential problems associated with electronic office and laboratory equipment operated and maintained by their college or department.

A Y2K Preparedness Team was formed within Facilities Management in September 1998, which was co-chaired by Fred

Giles, Assistant Director/Crafts and Joe Metzger, Manager/Computing Services. The team included representatives from all areas within the department as well as Risk Management and Purchasing. The team identified potential problem areas, particularly those vulnerable to time and/or date sensitive embedded microchips. Tests were conducted on a wide variety of equipment located in buildings throughout the campus and in Central Plant to determine Y2K compliance.

Specific systems addressed include the following:

- Utility systems from outside providers
- Emergency electrical generator systems
- Campus electrical metering and distribution systems
- HVAC system temperature controls
- Motor variable frequency drives
- Campus energy management/automation systems
- Building fire alarm and intrusion systems
- Water chiller control systems
- Steam-boiler control systems
- Campus pumping and utility distribution systems
- Elevator equipment
- Air compressors
- Chlorine leak detection systems as swimming pools
- Environmental chambers
- Bulk fuel storage
- Electronic diagnostic equipment

Considerable time was spent by team members to identify and analyze potential problems and their resolution as well as time spent in the field conducting inspections and making necessary adjustments and change-outs. A cost estimate and budget request for remediation of non-compliant systems software and equipment was submitted to the ASU administration. An allocation of $230,000 was made of which $128,000 has been expensed to update Cental Plant software and hardware that operates plant equipment and HVAC equipment throughout the campus. In addition, upgrades were made to digital electrical power meters with internal microprocessors to ensure Y2K compliance. By mid-1999 campus facilities related systems and equipment had been tested, checked-out and upgraded as deemed necessary to be Y2K compliant.

Because of widespread concern in all segments of society about Y2K readiness, particularly as related to unidentified embedded microchips, the Director of Facilities Management formed a Y2K Response Team and scheduled team members to be on campus as the year 2000 arrived. While no specific problems were anticipated, it was deemed prudent to be immediately available to address problems if they arose.

Prior to midnight on December 31, all emergency equipment and electrical generators were prepared and made operational. In order to mitigate problems resulting from an area-wide electrical power outage, electrical loads on campus were reduced to minimal levels and the entire campus, including KAET's broadcasting station and critical research equipment in various laboratories, was transferred to the campus emergency power system which is powered by diesel-fueled electrical generators located at the Central Plant. Once it was determined that no problems were present in the utility power grid, campus electricity was transferred back to normal APS service around 1:30 a.m. on January 1.

During the Y2K readiness assessment exercise which stated shortly after the stroke of midnight, the campus was divided into eight zones with teams of two individuals assigned to physically inspect buildings and operating systems within each zone to search out and identify any off-normal conditions. Assigned staff at Central Plant monitored in-plant equipment operations and central off-normal alarms. Communications between the teams and the FM Command Center was accommodated by two-way radios and any identified irregularities were reported and logged. The Command Center was in regular contact with ASU DPS dispatch by telephone. The exercise proved uneventful and no Y2K problems were found by the team. Those irregularities that were identified were of the type that might typically be found on any given weekend, i.e. unlocked or unlatched doors and routine equipment malfunctions.

While no Y2K facilities problems were experienced on campus, the exercise was deemed worthwhile in that valuable team experience was gained in gearing up to address a potential campus crisis and the real-time test of the campus emergency electrical power system under simulated emergency conditions. The University may be assured that there is a much greater confidence in the reliability of facilities-related equipment and operating systems as well as a much better understanding of the computer-based facilities-related issues on campus. Due to the preparations made for this Y2K exercise these campus systems are operating at the highest levels of reliability possible for each type of equipment. It would be recognized, however, that much of the equipment is at or near its expected useful life and failures may occur from wear out and old age that are not associated withY2K bugs.

Yavapai College
by Jeff Rose

Yavapai College has a new Director of Facilities Management. Ben Kinder has accepted the, position. Ben comes to us from University of Oklahoma. Ben's 18 years of experience in Oklahoma and prior Air Force facilities will be valuable to Yavapai College. Welcome aboard Ben and welcome to the Rocky Mountain Region of APPA.

The Y2K phenomenon proves that generally the media can create total chaos out of anything. Not to make light of the issue, correcting the problem cost millions perhaps billions of dollars to correct, but it was money well spent. The brunt of the hard work in our district was upgrading software and changing all CPU's to a four-digit date format. The Facilities department at Yavapai College remained out of the limelight through most of the process. Our Y2K strategies had more

concerns with our utility suppliers, would they fail to supply us with natural gas for heat or just forget to bill us. These concerns were eliminated early in the process by the amount of work and money the utility companies were spending, and their completion dates.

The process began around 1996 with discussions. The next step was identifying potential problem areas then thinking about it for a year or two.

The Yavapai College District encompasses over 8,000 square miles of county. Our multiple campuses vary from Prescott with 110 acres and 390,000 square feet of buildings, to the Verde with 120 acres and 47,000 square feet of buildings. Prescott Valley and Chino Valley, campuses are on five acres each, with around 8,000 square feet under roof. We established areas of concern such as control systems and verified well in advance that those operating and control systems would transition to the new millennium. Many proprietary suppliers were reluctant to give us something in writing stating that their software was compliant. Generally, this was a simple telephone call away for assurances. I for one held my breath as the clocks rolled over, but we had at least three critical time/date tests before the big one. All performed without a glitch. My hat goes off to all the Info-Tech crews that put in the special hours upgrading software and running tests.

Saturday morning, January 1, 2000 proved the effort put forth was time and money well spent. Somewhat blurry-eyed technicians ran systems tests and verified all A-O-K for classes on Monday morning. Always a pleasure when a plan comes together.

The State Community College Board approved the Yavapai College Master Plan presentation at their January meeting. To get to this point has been intensive and sometimes-exhausting process that most of you have experienced. Five years ago, the Director of Facilities (Charles Andersen) was the driving force behind a deferred maintenance study. The year-long study revealed the need for major capital renewal. Not surprised, the President and District Governing Board instructed Facilities to develop a Master Plan to meet out needs for the future. The consultants studied the demographics, recommendations were made and then we went to work putting the plan together. The cumulative result of our efforts was a product that the State Board commented on as a "Model Plan."

Now our work is cut out for us. Our biggest challenge will be convincing the voters in Yavapai County to agree to our proposal. Yavapai County as many know is well known for being ultra-conservative and is very negative to tax increases. Then again, we all are unless convinced of the need.

The Yavapai College District Governing Board will wait to declare the Bond Election until June. After such time as a Bond Election is declared, the employees of the College cannot sell the proposal. We are using the next few months to polish the plan and present it to the community. The College President and Board are forming citizen support groups to promote the plan and help sell it in the county. If we are successful in November, we will have plenty to keep us busy.

RMV

Editor's Corner

By Paul Smith

The "winter" in Tucson has come and gone. Since September 1999 we have had only about 1.75 inches of rain – truly a desert. The temperatures have been great and my utility budget is in great shape. RMA is still looking for a few good men or women to help in the organization; if you want to help contact your institutional representative or Harvey Chace, University of New Mexico. I have a particular need for a newsletter correspondent from Canada. The institutions north of the border have always played a significant role in RMA and the articles were very much appreciated.

This newsletter is later than usual for a variety of reasons but the primary one is that people in the facility business have been very busy. There is a lot coming up and I look forward to seeing you at the International APPA Conference in July or the regional conference in September.

St. George 2000
48th Annual RMA Conference

Dixie Center
St. George, Utah
September 23-26, 2000

APPA Calendar of Events

April -14, 2000
The APPA Leadership Academy: Organization Skills. Stanford University, CA

July 16-18, 2000
APPA 2000: Spurring Change. Educational Conference & 87th Annual Meeting. Fort Worth, TX.

July 22-24, 2001
APPA 2001 Educational Conference & 88th Annual Meeting. Montreal, Canada

PROVERBIAL PREDICAMENTS

H. Val Peterson

Recently while dining with my wife at a local eatery, I couldn't help but overhear a conversation taking place at the table next to ours. Two men and two women in their 20s or 30s (I'm not good at guessing the ages of folks so much younger than me) were having a rather open and frank discussion about a relationship issue.

One of the men – I will call him Male No. 1 – was evidently scheduled to leave the country for six months. The debate seemed to center around whether or not the passion he shared with his beloved would survive this out-of-country experience.

The exchange went something like this:

Female No. 1 (probably the girlfriend of Male No. 1): "When you really love someone, being apart makes you care even more."

Male No 2 (looking lustfully at Female No. 1, even though he seemed to be in the company of Female No. 2): "That's right. The same thing happens when your parents die. You really start to miss and appreciate them." It must be a comforting thought for parents to realize that they must be dead and gone before they are missed and appreciated.

Female No. 1 (starting to look lovingly at Male No. 2): "Exactly. Everyone knows that absence makes the heart grow fonder."

Male No. 1 (the one headed out of the country): "Well, but I...but don't we also say, 'out of sight, out of mind?'"

This obvious contradiction of proverbial sayings seemed to have a negative effect on those surrounding the adjacent table and, no doubt, was not good for anyone's digestion either.

"Absence makes the heart grow fonder" and "out of sight, out of mind" are examples of folk wisdom. All cultures pass along wisdom of this sort – sometimes in the form of proverbs; sometimes through song (remember Paul Simon's *Fifty Ways to Leave Your Lover*?); rhymes (Mother Goose) or stories (Aesop's Fables); sometimes through laws or public-information campaigns ("Stay Alive – Don't Drink and Drive"); and through religion ("Do unto others as you would have them do unto you").

My experience with folk wisdom is that it's unreliable and inconsistent. For one thing, most proverbs coexist with their exact opposites, or at least with axioms that give somewhat different advice.

Do opposites attract, or do birds of a feather flock together? We all know that he who hesitates is lost, but doesn't haste make waste, and isn't patience a virtue, and don't fools rush in, and aren't you supposed to look before you leap? Quite confusing, isn't it?

And sure, money is power, but aren't the best things in life supposed to be free? And since time is money, money is power, and power corrupts, does that mean time is also corrupt? Well, maybe so. After all, the devil finds work for idle hands.

You get the idea. Proverbs that relay wisdom about how we're supposed to live do not necessarily supply highly useful or reliable results. Certainly not something you'd want to bet the farm on. In fact, these proverbs are typically used merely to justify what we already want to do or believe, rather than to guide our actions. What's more, we tend to switch proverbs to suit our current plan of action. Sort of like "switching horses in mid-stream." A young man may rationalize riotous behavior by pointing out that "you only live once," but later in life (if he's still around) he'll probably tell you "better safe than sorry."

So is the situation hopeless? Can we glean any truths at all from the wisdom of the ages? Keats once said, "a proverb is no proverb to you till your life has illustrated it." Alas, behavioral research does not necessarily validate folk psychology.

Here are three common proverbs that are still open to debate:

"Boys will be boys." I must admit, at times in my youth this old maxim served me well as I was excused from corporal punishment for actions that could well have been considered as "punishable offenses." Such things as tipping over an outhouse, assisting in pushing the neighbor's farm-to-market wagon over the hill and through the woods and "skinny dipping" in less-than-secluded spots might have created an uproar at another time and place. The widely held - though politically incorrect - belief that boys are different from girls is strongly supported by research. My own research for example (I paid good attention in my anatomy class) has confirmed this difference.

"Early to bed, early to rise makes a man healthy, wealthy and wise." This popular saying, often attributed to Ben Franklin, actually seems to have originated in the late 1400s and Franklin may have lifted it for his own use. Those in the know will tell you there are two types of people. "Larks" who researchers say exhibit what is called "morningness" (honest!) are people who are at their best early in the day. Larks awaken early and start the day strong. On the other hand "Owls" are those people inclined toward "eveningness" who peak later in the day. In both cases peaks are associated with better performance on memory tasks, quicker reaction times, heightened alertness and cheerful moods. Since I myself am a Lark, I am a firm believer in the old dictum "the early bird gets the worm."

"Spare the rod and spoil the child." My parents were firm believers in this proverb and it overruled the adage "boys will be boys." I recall an incident from my youth where I artistically (as "artsy" as a seven year old can be) created a series of bold green paint strokes on the rear of the barn-red free-standing family garage. If the "boys will be boys" thought went through my father's mind, it was replaced in nanoseconds by "spare the rod and spoil the child." He was so firmly committed to this philosophy, we even had our own grove of willows in the back yard.

Getting back to the original question: How valid is folk wisdom? Well, it may be flawed, but in some instances, it's all we have or ever will have. So don't put all your eggs in one basket.

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FUTURE MEETINGS

2000 Annual Meeting	St. George, Utah	University of Utah
2001 Annual Meeting	Tucson, AZ	Pima Community College
2002 Annual Meeting	To be Announced	