



State of the Campus 2008

From Strategic Planning To Strategic Action

C. D. Mote, Jr., President
University of Maryland

Welcome Back

Vice Chair-Elect Elise Miller-Hooks, Senators, faculty, staff, students and guests, and my best friend Patsy, it is my pleasure, as always, to address you at the start this new academic year. Each year and each new class brings renewed energy and great anticipation of the surprises that lie ahead. And that's just in the president's office!

I personally thank the Senate for our remarkable partnership and its enthusiasm for working together with the administration to advance our university. Our partnership over the decade of my presidency has been unusual among universities in its collegiality and achievements.

Our blossoming university offers so much for me to speak about today that I must apologize in advance to all who have done so much for it but will not be mentioned. Respect for the time and stamina of the Senators compels me to offer only a few campus highlights and not necessarily the brightest ones. I do wish to speak about our strategic plan and how it will guide our university to the next level. A companion piece on the web will cover other topics, and I recommend it to you on the web [HERE](#). But first let me touch on a few highlights starting with student organizations.

Student Highlights

This past year student teams won several national championships. The **University's Quiz Team** won the 2008 National Academic Quiz Tournament championship over more than two dozen competitors in a fast-paced test of academic and general knowledge. The University **Mock Trial team** won the American Mock Trial Association's national championship for an unprecedented fifth time. Our team competed in mock criminal trials before a panel of state and federal judges. A team of University students ranked first

place among U.S. universities, and captured second place worldwide, in the **Department of Energy's Solar Decathlon**, an international competition to design, build and operate a fully solar powered house. Engineering students won first place in the **Society of Automotive Engineers** competition to design, build and race a formula-style racing car. The Maryland car defeated 80 other formula car teams. After winning first place for ten years and then missing the podium for the last two years, our engineering students have regained the top spot in the **American Helicopter Design** competition. This past August our students won the **International Autonomous Underwater Vehicle** competition held in San Diego. Our robotic submarine competed against teams from India, Canada, Japan, as well as the United States. In the final competition the robots had to find their way through a starting gate, follow a pipeline, dock with a buoy, and track and hover over an acoustic pinger before grabbing and carrying an object to a floating ring.

In the sports world our **competitive cheer team** won its third consecutive national title and **wrestling** won its first ACC championship since 1973. Six alumni, three former soccer team members and three former field hockey players, were named to the **U.S. Olympic squad** that competed in Beijing. A former basketball player competed for Lithuania.

Last fall students launched the **Veteran Student Organization** to enhance services available to veteran students. A recognition event sponsored by Student Affairs and the student leadership was held during a home football game that included video messages from our students serving in Iraq and Afghanistan. The first VSO initiatives were to establish a Maryland Military Veterans Scholarship Fund and a Veterans Memorial Fund, and to educate the campus about the challenges facing veteran students.

hearty happy birthday goes to **The Mighty Sound of Maryland** marching band that turns 100 this year. Over the past century the band has always represented the University with pride and distinction.

My perusal of the national **Engineers Without Borders** web site shows that our chapter leads the nation in the number of projects it has undertaken for people in rural areas around the world. Its projects design, build and install water, sanitation and energy systems. This past summer the chapter took on three projects, two sites in Burkina Faso and one in Peru. About 100 EWB student members from across the campus are led by chapter president Phil Hannam. These EWB projects are a life changing experience for many involved as a note from Phil to advisor Deborah Goodings this past summer clarifies. Let me read part of it to you.

"The communities of Dakole and Nakar outside of Dissin, Burkina Faso have a solar powered water pumping mechanism and a storage tank outfitted with four tap stands for easy access to the water. Some community gardens had already been placed prior to our arrival, and even more were being created in anticipation of us finishing our system. On

the final day of the project, the communities gathered,,,to thank us and exchange gifts; Dakole gave the students a ram, two chickens, and two pigeons. Nakar was too poor to give us any gifts, but the women in the community created a song and dance in Dagara: [translation] "For a long time, we were thirsty. Then people came, and they dug a well. But we were still thirsty. And then you came and gave us the water we needed, and knowledge to keep it."

Associate Provost **Donna Hamilton** passed along that the admission rate of our students to law schools this past year has reached 75% up from 63% three years ago. Over this period acceptances to top 25 law schools more than doubled and to the top 10 schools increased by a factor of seven.

Teaching Milestones

Our campus continues its universal teaching focus. I'd like to mention a couple that may have slipped your attention. Following its review of elementary education programs, the **National Council on Teacher Quality** placed the University among the top 10 nationally for the quality of our teacher-preparation in mathematics.

A new, ambitious Ph.D. program initiative in the **Robert H. Smith School of Business** increases doctoral stipends by 45 percent and provides research and travel support for selected students. **Robert H. Smith** contributed \$6 million toward the program, which will be matched by funds from the School and University. Mr. Smith also pledged \$6 million to elevate academic and performance achievements in our departments of theater, dance and music, and another \$800,000 to endow fellowships in the history of art. Mr. Smith's contributions will be matched by funds from the department of **Art History**, the **College of Arts and Humanities**, and the campus.

This past summer we invited nearly 1,700 gifted high school students of color to the **University Honors Portz Summer Program**, up from 1,000 invitees in 2007. The program introduces students to the campus and its resources.

The American Mathematical Society honored our **Summer Program In Research and Learning** program as a "*Math Program that Makes a Difference.*" SPIRAL was created five years ago by our mathematics department and eight partner schools to inspire underrepresented minorities to study mathematics. Thus far 86 students have participated in the six-week summer program for rising sophomores and juniors. Sixty-nine of these students are African American or of African heritage. At this time fifteen have graduated or are enrolled in graduate programs in mathematical sciences.

African American students earned 40 Ph.D. degrees here this year, the largest number in our history. The University ranks first among AAU members and 8th nationally for doctorates earned by African Americans, according to *Diverse: Issues in Higher Education*. The degrees were awarded in units spread across the campus. Over all, the University ranked 15th

nationally in minority student doctorates. Our graduate school and all units deserve enthusiastic pats on the back for the personal attention they have given to expanding the pool of minority doctoral graduates. There is no replacing personal attention. Well done, indeed.

You may also be interested to know that over the past three years 46% of faculty appointments have been to females lifting the campus percentage of female faculty to 24%. 34% of new hires over this period have been minority faculty appointments, raising the campus percentage of 19%.

Research

Recognition of our research leadership across a range of fields continues as the faculty raised more than \$400 million in external research support for the second year. **The National Consortium for the Study of Terrorism and Responses to Terrorism (START)** under **Gary LaFree** in Criminology and Criminal Justice anticipates receiving \$12 million through 2011 from the U.S. Department of Homeland Security. It is developing the most comprehensive database of worldwide terror incidents that have occurred since 1970. START awarded scholarships to undergraduate and doctoral students who agree to work in homeland security for a year after completing their degrees.

Studies on the avian flu virus in the **National Avian Flu Research Project** led by Daniel Perez in veterinary medicine received a second \$5 million grant from the U.S. Department of Agriculture to support understanding the molecular basis of avian influenza and its risk to birds and humans.

R&D Magazine recognized two University creations among its "100 most technologically significant products introduced into the marketplace" over the past year. One, a new optical method for detecting individual neutrons, was developed by **Michael Coplan** of the Institute for Physical Science and Technology (IPST) together with his colleagues at NIST. The other is a software tool to manage and track wildfires that was developed by **Robert Sohlberg** of Geography together with his colleagues at NASA Goddard Space Flight Center and NASA Ames Research Center.

Another UM-NIST partnership, the **Joint Quantum Institute**, has been awarded a most remarkable **Physics Frontier Center** by the National Science Foundation. The Principal Investigators are **Bill Phillips, Luis Orozco and Chris Monroe**. Chosen following a competition of more than 300 university applicants, the center was awarded \$14.5 million over five years to investigate quantum coherence and its importance to quantum information. A newly created **UM Center for Applied Electromagnetics** was funded at \$20 million by the Office of Naval Research under the leadership of Patrick O'Shea, Executive Director, and Victor Granatstein, Research Director, both in electric and computer engineering.

Maryland's Institute for Technology in the Humanities (MITH) along with international partners, is creating a digital archive of William Shakespeare's pre-1641 quartos. The Folger Shakespeare Library, which

holds the largest collection of Shakespeare's quartos, is administering the supporting NEH grant. Another \$1 million grant to MITH and Rice University from the Institute of Museum and Libraries Services supports development of interactive scholarly resources around the Americas.

Our university and six others are joined in a Google-IBM partnership called "*cloud computing*." Led by the **College of Information Studies** and located in the University of Maryland Institute for Advanced Computer Studies, cloud computing fosters parallel applications using remote data centers in contrast to the local one-server, one-application designs that we are accustomed to using.

The **Department of Aerospace Engineering** was selected by the Army Research Laboratory to lead a **Micro Autonomous Science and Technology Center on "Microsystems Mechanics."** Together with five other universities the department will develop autonomously operating, networked micro-vehicles that can crawl and fly in urban and complex terrains. The students' autonomous submarine that won the underwater prize this year seems to be the swimmer, while these micro-vehicles seem to be the flyers and crawlers.

For the second year in a row, the University of Maryland has led the nation by taking the lead on three, highly competitive, **Multidisciplinary University Research Initiative** program awards. These awards support research on: the effect of culture on collaboration and negotiation under **Michele Gelfand** of psychology; remote multi-modal biometrics under **Rama Chellappa** of electrical and computer engineering; and rotorcraft brownout under **J. Gordon Leishman** of aerospace engineering. In addition to these six MURI lead-institution awards over two years, the University also participates in five other MURIs.

The new **NOAA National Center for Weather and Climate Prediction** is under construction in the **M Square** Research Park. Expected to open in 2009 the Center will make the greater University community one of the largest clusters of climate researchers in the world. Our **Earth System Science Interdisciplinary Center** has already moved next door to the NOAA Center at 5825 University Research Court. Another new partner to join the park in a third new building is the newly created **U.S. Intelligence Advanced Research Projects Activity (IARPA)**. IARPA is charged with providing the intelligence community with the most advanced intelligence capabilities through high risk/high payoff research that is conducted mostly in the public domain. Construction is to begin in 2009.

Rankings

Our reputation reflects how others view us, and rankings influence reputation. Accordingly, with all their biases rankings cannot be ignored. Fortunately, we continue to win high praise in international rankings. The most comprehensive research university ranking is the *Academic Ranking of*

World Universities by **Shanghai Jiao Tong University**. For 2008 it ranks the University at # 37 worldwide and #12 among U.S. publics. The most recent *Times of London's Higher Education Supplement's* list of the World's Top 200 Universities ranks us #79 and #11 among all U.S. public universities. The new **Ranking Web of World Universities**, which ranks 16,000 universities by web activity and visibility, ranks the University #20 worldwide and nationally. At the top 0.1% it's fairly airy up here.

Sustainability

The issues of sustainability and climate change have captured the campus with their reach extending from operations, to facilities, to teaching, to student organizations, to research, to service for the State, nation and world.

We have signed onto the **American College & University Presidents Climate Commitment**. It leads to a commitment to reduce carbon emissions. Our recent green house gas inventory concludes that the vast majority of campus emissions result from purchased electricity, on-campus steam and electricity generation, and transportation including commuting and air travel. Campus emissions in equivalent metric kilotons of carbon dioxide dropped from approximately 377 in 2003 to 352 in 2007 because our combined heat and power facility came on line and housing increased on and near the campus. The inventory will serve as a baseline for our **Climate Action Plan**. A draft of the Plan will be completed this fall and the final plan will be submitted to the national organization next September.

The campus is now officially designated as an arboretum with about 6,600 trees and more than 50 species. In front of the **Robert H. School of Business** the new **William E. and Kathy Mayer Mall** is a beautiful green space covered with trees and gardens that was formerly a parking lot. **Robert H. Smith** was the first donor to contribute substantially to the grounds of the campus and continues to do so. The **Philip Merrill College of Journalism** broke ground on the first LEED¹ Silver building on campus, the new **Knight Hall**. Our designation as an arboretum will aid expanding private support for our campus grounds and physical environment.

The recently completed **Washington Quad** renovation by residential facilities recovered a run-down area of campus by creating a new green space with soil produced from composted food. A storm water cistern, capturing rain water from residence hall roofs, will irrigate the plantings in front of five buildings. The three thousand tons of construction debris was recycled for use on other construction projects.

¹ Leadership in Energy and Environmental Design

From Strategic Plan to Strategic Action

As I move to speak about our strategic plan, I am reminded of a question I asked the late Phil Merrill at a moment of frustration. "Who's in charge?" I asked. He advised me that no one is in charge. He said that leaders simply take charge and create the future; they are not given the charge. The same can be said of the University. To lead, it must simply take charge and create its future.

Our strategic plan is our best strategy for creating our future. It lays out ten-year University goals, spanning the whole institution and focusing on our values and mission. It sets deliverable objectives, fixes timetables and assigns the responsibility for them. There are few undelegated responsibilities. It is an action plan and not a stream of fuzzy platitudes. It lays out assertive actions and the support needed to realize its goals. Support, first and foremost, comes through campus actions followed by additional commitments from our alumni and friends and the State. We expect to be accountable for our support from all sources, to reach objective milestones, and to be impatient with our progress.

Our community, including our alumni and friends, has said that we should commit now to creating the great university. This is a monumental conclusion. This commitment to work together to raise the whole institution has been the largest missing piece in our effort to lift this university to the next level. This collective conclusion has come about, I believe, for two reasons. First, we now have the confidence that we can do it. Second, we are convinced that we must do it if it is going to happen, just as Phil Merrill advised. Both of these truths were not widely apparent a decade ago.

We will strategize, prioritize, synthesize and systematize our efforts in this three-way partnership that bridges the campus, the State and our alumni and friends. Only this partnership can deliver the \$2 billion dollar price tag that is needed over ten years to implement the plan. The campus, along with alumni and friends, has committed to coming up with \$1.6 billion for this initiative. Our internal commitment to these investments, including reallocation of supports and targeting areas of need and opportunity, is remarkable. Our commitment is essential to raising the remaining \$400 million from the State. The State needs to see an opportunity that it cannot refuse.

Implementation of the plan has started. Following retreats for deans and the administration in August, first-year assignments have been given to the president, provost and vice presidents who will pass them to appropriate units and individuals for execution. A disproportionately large number of plan recommendations will be taken up this first year. Unfinished business, like the General Education plan, will be completed this year by a committee to be appointed by the Senate and administration. On September 10 we introduced the plan to leadership from the Governor's Office, the Maryland House of Delegates and the Maryland Senate, and to our strongest private supporters. They endorsed our aspirations for the State. Their enthusiasm for our plan

was inspiring. At a Board of Regents' retreat being held today and tomorrow, raising their support for this plan is my goal.

I predict that one day the Senate's initiative in setting this course for the University will be a banner heading on a prominent chapter in the University's history. No example of shared governance will stand out as more significant than the Senate's participation in and endorsement of this plan.

Now I expect many of you are likely asking, how can we start this effort now as the State moves into a financial downturn that will lead to budget constraints?

About the only good thing about growing older is the perspective you gain about the way things work. Over the ten years of this plan we will have two or three budgetary down turns.

We must be determined to not be stopped by them; we will adjust and press forward to the return of the good times that will also come two or three times over this period.

Look at it as our first test of will. If we have sufficient determination, we will succeed. It is not bad to be tested early.

A Closing Story

I want to close today by telling you a story. I want to speak about the allegory of the great, rushing mountain stream and its relationship to the course of the University. I love the mountains so I tend to see things in terms of mountains. Water is the substance of our rushing stream and its course is controlled by its interaction with the mountain terrain. In our allegory, if the water represents the University's substance, like knowledge delivered and created, then the mountain terrain represents control of the University's course. This great mountain stream flows down from its headwaters. The abundance at the headwaters varies from year to year depending on the natural conditions of accumulated snow fall. Fluctuation in the abundance of snow at the headwaters is a fact of life for the stream, so it adjusts, as we do with fluctuations in our State contribution to the University's substance. The inflows to our stream also come from a large number of tributaries that more and more dominate the headwaters flow. These tributaries represent contributions to the University substance like those we heard about today from faculty research initiatives, student service missions, student competitions, partnerships with government, private initiatives, endowments and the like. Flows from reservoirs also maintain adequate flows during dryer times as do reserves and endowments at the University.

When we look across the stream at any spot along its bed, the flow conditions are uneven and often very uneven. In some parts the stream moves faster than average, it moves smoothly and continues even under varying inflows. In other places the flow bumps up against rocks and

stagnates, or the flow is turbulent, dissipating energy and slowing, or in still other parts the flow just cycles in an eddy going essentially nowhere for extended periods. The abundance of flow changes these cross-stream conditions we observe, making them more similar across the stream at higher flow rates and more distinct at lower flows. The course of our University's substance follows similar behaviors to those seen across the stream.

Well, without taking our stream over a waterfall, let's see how our strategic plan fits into this allegory. The strategic plan calls for increasing the flow at the headwaters. It calls for creating new tributaries, as from faculty research, and for feeding existing ones like funding scholarships. The plan builds reservoirs to maintain flows during lean years and it works on the stream bed to move the flow more swiftly by redirecting flows and avoiding stagnation. It also suppresses eddies that deliver little substance and waste energy. Essentially, the actions of our strategic plan will increase the abundance of our stream as well as move its flow more swiftly, more uniformly, and more effectively.

This strategic plan distinguishes itself by addressing all aspects of our great mountain stream from its headwaters, to its tributaries, to its reserves and ultimately to its terrain. Hence, the substance of our great mountain stream, even with our necessary commitment to keep its natural beauty intact, will rise. There is no doubt about it.

Thank you for your considerate attention and indulgence.

C. D. Mote, Jr.
President