

Cover story

FUTURE





By Kristi Evans

High-tech, high-touch, with President Obama

Northern was selected as the site for President Barack Obama to announce his Wireless Innovation and Infrastructure Initiative, which would give at least 98 percent of Americans access to high-speed wireless services. Speaking to a full house in Vandament Arena on Feb. 10, Obama held up Northern's WiMAX network as a leading example of broadband's capabilities. He also pointed to Marquette businesses such as Getz's Clothiers that have grown because high-speed Internet allows them to export products to new global markets.

White House staff members first contacted NMU for more information on its WiMAX network shortly before the president's State of the Union address. University administrators wondered if Obama might reference NMU in the speech after alluding to his national wireless initiative. When that didn't happen, it soon became obvious the White House had something else in mind: flying the president to Marquette to unveil details of the plan.

Obama told the NMU audience the government must invest in a technology infrastructure to move information and create new markets, much like it invested in the transcontinental railroad years ago to connect the country and spawn a nationwide economy. He said more than 90 percent of homes in South Korea subscribe to high-speed broadband, but in the United States—the nation that created the Internet—it's only 65 percent.





A warm welcome on a cold day



About 900 students and 400 NMU and community members attended

“For millions of Americans, the railway hasn’t showed up yet,” Obama said. “You know this here in northern Michigan. For a decade, this university has given a new laptop to every incoming student. Wi-Fi stretched across campus. But if you lived off campus, like most students here, you were largely out of luck. Broadband was often too expensive to afford. And if you lived a bit further out, you might have been completely out of luck because providers often won’t build networks where it’s not profitable.

“So this university tried something new. You partnered with various companies to build a high-speed, next-generation wireless network. And you managed to install it with six people in only four days without raising tuition. Good job. Good job! ... There’s a whole bunch of stuff in Washington I would like to see done in four days with six people.”

NMU is the only university in the country to operate its own WiMAX network. This fourth-generation (4G) technology is capable of transferring data, voice and video at distances far beyond what is available with traditional Wi-Fi. NMU celebrated the official rollout in August 2009. Now all NMU-issued laptops are WiMAX-enabled and the coverage area has expanded to roughly 40 square miles.

The university partnered with technology leaders Intel, Lenovo, Motorola and Cisco to launch the network. It also relies on the cooperation of area municipalities. In exchange for permission to install WiMAX equipment rent-free on structures such as water towers, NMU allows city governments non-commercial use of the network. Police officers can access crime databases from laptops in their vehicles. Firefighters can download blueprints on their way to burning buildings. Public works departments are able to remotely monitor pumps and equipment without having to build expensive, wired links to remote locations.

WiMAX gives NMU students equal access to course-related content, now often comprised of high-resolution streaming media, graphics and interactive features. Students and faculty conducting research or scholarly activities in the field can also benefit from remote connectivity to the network.

“President Obama’s visit was phenomenal recognition for the innovative work NMU has accomplished on so many fronts—first the laptop culture and now WiMAX,” said NMU President Les Wong. “His staff asked me, ‘What’s next?’ I’ll have to give that some thought. How fitting and appropriate that his wireless initiative should be announced from NMU’s campus. We

The NMU Jazz Combo entertained the crowd



An intimate setting in the PEIF’s Vandament Arena

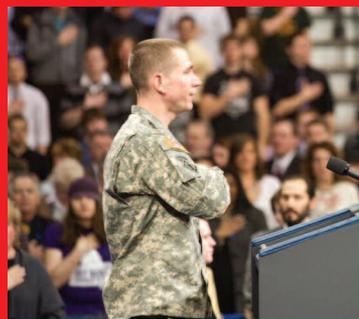




A thrill of a lifetime



Many student volunteers helped at the event



can be proud that President Obama hails us as the nation's example of tomorrow's wireless community."

NMU gained significant international media coverage, both related to President Obama's wireless initiative and his timely opening remarks about the revolution unfolding in Egypt before President Hosni Mubarek stepped down.

"We are witnessing history unfold," he said. "It's a moment of transformation that's taking place because the people of Egypt are calling for change. And they've turned out in extraordinary numbers representing all ages and all walks of life. But it's young people who've been at the forefront—a new generation, your generation, who want their voices to be heard. Going forward, we want

those young people and all Egyptians to know America will continue to do everything we can to support an orderly and genuine transition to democracy in Egypt."

Obama was greeted upon Air Force One's arrival at Sawyer International Airport by Marquette Mayor John Kivela. He greeted observers before being whisked off by his motorcade to downtown Marquette. The president enjoyed a sandwich at Donckers, then traveled the lakeshore route to campus to participate in a WiMAX demonstration and deliver his speech. He was in town only a few hours, but the pride of NMU's shining moment in the national spotlight will linger much longer. As Wong enthusiastically told the crowd, it was a great day to be a Wildcat. ■



Drew VanBuren, a senior who has had three tours of duty, led the Pledge of Allegiance. Student Kelli Polkinghorne sang the National Anthem. NMU President Les Wong and U.S. Senator Carl Levin gave opening remarks.



Being able to see some of the "behind-the-scenes" activity and what all went into making this happen, was incredible. This unique opportunity allowed me to use my leadership skills in a way I never imaged possible while going to school here.

—Dan Freeborn, senior, graphic communications



I had the honor to volunteer under the White House with the ADA, or the Americans with Disability Act. I stood near the security entrance with the Secret Service waiting for those who needed assistance. From this experience I was able to gain a practical experience in community settings because I was representing not only NMU, but the White House and the President. I can't wait to someday share my experiences with my own classrooms.

—Renee Smith, senior, elementary education

What I remember the most is President Obama's comment, "Hustle harder, America."

—Scott Wanhala, senior, public relations/art and design



The day before the event I didn't think I was going to be able to go, since I didn't have an invite; I ended up volunteering, sitting front row, and shaking the hand of the first African American president! Obama has a presence like none other I have ever experienced. What he had to say about our WiMAX Internet network made me appreciate it so much more.

—Emily Goodman, sophomore, physical geography



Because NMU is a smaller school, I sometimes feel as though we go unnoticed on a national level. It was such a great feeling for everyone to know that we are at the cutting edge of technology and that we have been recognized for it by the leader of our nation.

—Mollie Anderson, junior, communication studies





Joe Lubig, Lauren Fusilier and Paul Trdan watch as the president converses with students in Big Bay and Negaunee, "beamed in" via WiMAX.

NMU's WiMAX: A model for the country

By Kristi Evans

President Barack Obama said he felt like a Star Trek character "being beamed across the Upper Peninsula" during a 12-minute WiMAX demonstration preceding his speech at NMU.

Obama stood before two monitors in the Wildcat Room of the Berry Events Center and interacted via videoconference with a high school chemistry class in Negaunee and 7th and 8th graders at Powell Township School in Big Bay. Before being transported to these locations, he was greeted briefly by NMU Education Professor **Joe Lubig '91 BS, '00 MAE** and students Lauren Fusilier and Paul Trdan.

"Originally we were going to show how we can remotely yet visually monitor student teachers in the field and break down their lessons," said Lubig. "The White House advance team thought that was cool, but they really wanted to see the president interacting to demonstrate how guest speakers might be connected through technology. They arranged the physical design of the room and everything. Because they were so well-prepared, politely forceful and attentive, none of us felt the level of stress we probably should have, given the circumstances. The president uses this kind of technology every day, but he took part in a playful, relaxed activity that allowed us to show him how we apply it in education."

Fusilier, a senior elementary and special education major from Stockbridge, said, "He asked our names, what we were studying and how we use technology. I told him

it's second nature to us because we have daily access to it at Northern. Technology is making the world more accessible. Kids who normally wouldn't get out of the U.P. can take virtual tours of farms throughout the state for a unit on agriculture or even travel to Colonial Williamsburg. Classrooms from different school districts can collaborate on similar experiments. There's a lot of potential."

Trdan, a post-baccalaureate secondary education major from Marquette, said WiMAX showcased an interactive means of reaching out to neighboring classroom communities "when discussing similar academic activities, social challenges such as bullying and global issues such as the civil unrest in Egypt. I feel President Obama was impressed with how our use of technology has helped shape the problem-solving process into more of a bottom-up movement instead of a top-down one. Ultimately, it has allowed students to take a more active role in their own education and future."

Powell Township's **Jill Bevins '95 MAE, '06 EDS** credited a supportive school board with making technology part of the curriculum from 1st grade on. She showed the president a student's video commercial endorsing paper over plastic. Negaunee High student teacher Ben Platt, who works with supervising teacher **Helen Grossman '91 MAE**, told Obama that WiMAX is used for research, to create and turn in projects electronically and for online student evaluations.

"It was remarkable to see the possibilities for these

young people who are able to, let's say, do a chemistry experiment and then compare the results with kids in Boston," said Obama afterward. "Or if there's some learning tool or material they don't have immediately accessible in their school, they can connect to the university and tap into it."

According to Lubig, NMU's School of Education uses wireless technology to conduct mock interviews and connect students with potential employers. He said schools are looking for teachers who have a firm grasp of technology and innovative ideas for marrying that with the curriculum.

"With Northern's technology program, our students are on the cutting edge. There's no limitation anymore. Students in our methods course help 3rd graders create digital storybooks for family and friends. One of our student teachers in Petoskey built a Facebook page to go along with a lesson on Africa. She extended through social media a conversation about their learning to find out how long they would talk about it beyond the classroom if they were doing it through a channel they're comfortable with. And how long would it take someone from Africa to connect and become involved in the discussion?"

Much of the credit for the technically flawless demo goes to NMU's audio-visual and information technology crew, which included Eric Smith, director of broadcast and A/V services.

"There was a moment in President Obama's interaction with students where the technology seemed to melt away and he was having a substantive discussion with them about foreign policy and technology in the workforce," Smith said. "As he was about to walk away, a high school student said this type of interactive technology allows us to connect with other parts of the world and we're likely to find our differences are not as great as our similarities. The president ended up referencing that in his speech. There were some spontaneous 'ah-ha' moments that people didn't expect, which made this much more than a simple demo." ■

"It was remarkable to see the possibilities for these young people who are able to, let's say, do a chemistry experiment and then compare the results with kids in Boston," said Obama.



Connecting Big Bay

With an assist from the Granite Island Light Station on Lake Superior, Northern is able to deliver high-speed Internet to the remote Powell Township School in Big Bay. But the rugged and hilly U.P. terrain presented an obstacle in connecting the tiny community north of Marquette.

"We tried different wireless shots out of Marquette and another tower option fell through so we couldn't do it over land as we had hoped," said Dave Maki, the university's chief technology officer. "But we knew Granite Island had a link so we got permission to put equipment there and re-route the signal."

It helped that the island, located about 10 miles offshore, is owned by **Scott Holman '65 BS**. The light station is powered by solar panels, wind generators and a backup propane-fueled generator.

"Propane backs up solar and with less sunshine in the winter, the supply was starting to run a little low," Holman said. "So we needed to make a propane delivery to make sure there would be backup power during the president's visit and through the winter. We launched a boat from Upper Harbor and broke through 2-3 inches of ice for about 200 yards and negotiated ice flows out to the island."

A WiMAX antenna on the Big Bay water tower distributes the signal to the school, which enrolls 55 PreK-8 students and buses local highschoolers to Negaunee, which isn't always possible in bad weather.

When I learned that President Barack Obama was coming to Marquette, I knew it was huge for my department and thought how happy my resume was going to be. As an intern with the NMU Communications and Marketing Office, I made sure to arrive to work extra early to steal any Obama opportunities that were on the table. Cindy [Paavola], my boss, gave me the task of recruiting volunteers. She handed me a phone number and told me to schedule a meeting with Michael, a member of the White House Advance Team. Making that call was extremely intimidating, but I was simultaneously updating my Facebook status to “be right back, calling The White House, no big deal.” Cindy had also recruited fellow intern Maggie Iverson, and former intern Kyle Lynch, now a graduate student, to serve as point people for all things related to volunteers and crowd control.

I updated my Facebook status to “be right back, calling The White House.”

The three of us didn’t know what to expect from Michael of the White House team at that first meeting. Images of various members of “The West Wing” TV show came to mind. He ended up being a super friendly, well-dressed, upbeat but professional individual who, surprisingly, was interested in getting to know us. It was kind of a shock that he was only a few years older than us despite commanding such a high position.

I started thinking about what students and student groups would be hungry for the volunteer opportunities Michael described. I first targeted Public Relations Student Society of America members so they



Making it happen

Working with the White House Advance Team

By Dylan Ebbers

NMU student volunteer team captains, from left, Kyle Lynch '10 BS, Dylan Ebbers and Maggie Iverson on duty at Vandament Arena.

could get event management experience. I then moved on to any other group I thought would represent both NMU and the President of the United States in the most professional manner. Despite having the volunteer quota raised from 40 to 60 in the first 24 hours, we had our crew and an extensive waiting list of volunteers by Tuesday.

That evening we held a training session for our “team captains” who were in charge of the different areas of the event, such as parking, ushers, and VIP seating. Each would hold their own training session Wednesday night for their area’s volunteers.

Come “Game Day,” as Michael called it, I was so excited that I ended up being suited up and ready by 7 a.m., so I went over notes I had written, like “everyone needs to be in the room once POTUS takes the stage.”

Maggie was in charge of managing outside of the magnetometers, Kyle was in charge of managing inside the event and I was given special clearance to go back and forth through security to constantly make sure the event went as smoothly as possible. It was important for attendees to know security procedures prior to the security desk so that the

line continued to move quickly.

There were a couple people still trickling in during the national anthem and NMU President Wong’s remarks, which was stressful because it caused us to cut it close to have everyone seated before the president took the stage.

I vaguely remember some of what the President said during the half hour that he was in the Vandament Arena. I probably would have remembered more had I not been on an all-out whirlwind for the four days leading up to the moment he entered the venue. In what seemed like a minute-long speech, President Obama was off the stage, shaking hands and out of the building. I couldn’t believe how well everything went!

And then, just like that, it was over. The four fastest days of my life ended with me helping Michael and his staff take down and fold the “Winning the Future” banner that scaled the curtain behind the president during his speech.

Just a couple days working with Michael made me realize that my future may not be headed for sports public relations, but maybe I’ll check out the political side of the PR field. I guess I’ll see it all more clearly when I win my own future. ■

Racing for the White House

By Cindy Paavola '84 BS

It was just like a scene in a movie: black federal SUVs and vans racing away from Air Force One, tearing down a highway, tightly packed together.

Except it was real for **Joe Bicigo '85 Cert., '92 AS**—driving in the presidential motorcade that brought President Barack Obama, members of his staff, Senator Carl Levin, White House correspondents and Secret Service members from Sawyer International Airport to NMU and back again—all at high rates of speed.

A few days before the presidential visit, Bicigo received a mid-day call from his wife, **Helen '92 AB**, wanting to know if he'd like to volunteer to drive in the motorcade. "My first thought was, 'Is this for real?'"

Now, weeks later, there are still moments when Bicigo has to remind himself he wasn't dreaming.

The White House requested 12 volunteer drivers for the motorcade. The drivers had to be 21 or older and have a good driving record. Driving would mean missing the president's speech, as drivers would need to stay with their vehicles at all times. Their day would start at 7:30 a.m. picking up their rented vans, and they would need to be at the airport and through

security by 9 a.m.

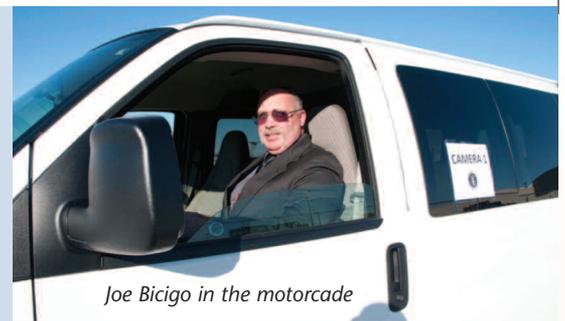
"Tim Sneed, the White House person we were working for, stressed we could take directions from only three people: him and two Secret Service guys—not the local police, not other Secret Service. We were also told that everything would be hurry up and wait, which it was. But when the president arrived—bam, he was there and everything just flew into action."

The motorcade participants were told what the dress code would be the night before based on what the president planned to wear for the occasion. "Everyone in the motorcade has to dress in the same manner as the president. So, if he's dressed casual, such as when he goes to Camp David, then all motorcade members are dressed casual. That helps to make it harder for someone to pick out the president within the group as it's racing by," says Bicigo. That day, the president was wearing a dark suit and tie.

Bicigo said it was fascinating to watch the behind-the-scenes work preparing the vehicles and airport security prior to the president's arrival, and that made the hours zip by.

"The vehicles had to be parked perfectly spaced. They were actually out measuring the spacing. Walking around were Secret Service with assault weapons and some with combat holsters on their thighs for easy access to their weapons," says Bicigo.

Bicigo drove the support van identified as "Camera 1," which car-



Joe Bicigo in the motorcade

ried several national television news crews and two Secret Service officers.

Once the president finished meeting the crowd at the airport and climbed into his SUV, the race was on. Bicigo said the goal was to drive fast, keeping the vehicles close together, "with no more than about one and a half car lengths in between.

"I didn't really glance down at the speedometer when we were on M-553 because I was so busy watching the bumper in front of me, but when we got to Lakeshore Boulevard I saw we were doing over 60 miles per hour and we had been going a lot faster than that on the highway, probably between 80 to 85 miles per hour."

Bicigo was behind one of the federal vehicles, which are required to make frequent lane changes for security purposes. "They were flying and changing lanes back and forth and I was following the best I could. It was exciting, but very intense. One of the Secret Service guys complimented me on how well I did."

Bicigo listened to the president's speech on his van's radio. As it was ending, Sneed surprised the drivers, calling them to quickly come into the hallway of the arena where the president shook each one's hand and then gathered them for a quick group photo before they were hustled back to their vehicles. Moments later, the race began back to the airport.

Bicigo got a word of advice from one of the Secret Service officers as he deposited him back at the airport. "He kiddingly told me to remember not to drive that fast on the way back home. I think I did drive probably faster than normal going back; I was still on such an adrenaline rush!" ■

AP Photo/Carolyn Kaster



LUNCH

with the President

Faculty members from the Physics Department at Northern always go out to lunch on Thursdays. They pick a different restaurant to go to each week and had decided on Donckers, certainly not expecting to order off the same menu as the president of the United States. “We heard a rumor he was going to the Vierling,” says Dave Lucas, department head.

As he, fellow professors Dave Donovan and Neil Russell, and **Barb Munson '01 AA**, who was on her last day of filling in as the department secretary, were driving downtown, Washington Street was jammed with traffic, so they skirted around it to the parking lot behind Donckers, near the Delft Theatre. They noticed a policeman at the back door of the historic restaurant, which is known for its candy, but it still didn't sink in what was going on. “He told us to go around front, so we went up the stairwell and through the hallways to Washington Street and then saw the

It was surreal. I couldn't believe they were letting us in.

motorcade parked there. It was eerie, because we were the only people there other than police, who were everywhere. Neil told a policeman we had reservations, and asked if we could still get in.”

The Secret Service gave them the OK, they were “wanded” and told to stay downstairs at the restaurant, mostly because it was crowded upstairs where the president was eating. “It was surreal,” says Munson. “I couldn't believe they were letting us in. I was certainly in

the right place at the right time.”

They sat in the back, where they usually do, near one other table with a few students at it.

“Before long,” Lucas recalls, “He

came down the stairs, carrying a huge bag of takeout, and saw us in the back. He came over and shook our hands and said hello. One of the students at the other table asked Obama if he knew his dad and told him his name. We were thinking, ‘Right. What's up with this kid?’ Then Obama says, ‘Yes, he was my campaign manager in Washington.’”

As Obama chatted with other diners, signed books and accepted a box of candy, the physics group took some photos with their cell phones and couldn't believe how lucky they were. “I'm a Packers fan,” Lucas says. “So what a week that was!” ■



by Rebecca Tavernini

The Mining Journal/Danielle Pemble



Courtesy of Dave Lucas



Official White House photo by Samantha Appleton



Preparing for the president's arrival started about a week before he touched down in Air Force One at Sawyer International Airport, but the excitement really picked up when two C-17 cargo planes landed in advance. The planes carried four, shiny black Suburbans sporting the presidential seal, the Marine One helicopter and several support vehicles. Another commercial airliner brought dozens of media people.

Working with the White House Advance Team, "We tried to provide them the ability to make this a safe arrival for the president," says **Scott Erbsich '93 MPA**, airport director. "I was just one little piece of a big component, out of many people that made everything happen."

When Air Force One finally radioed in to land, and the president and Senator Carl Levin stepped off the plane, Erbsich was still busy inside the airport continuing to help make things happen. He got to see the president at a distance and watched as he jogged over to shake hands with the small, and surprised, welcoming party bundled up on the tarmac in zero degree weather.

Erbsich didn't miss out on all of the action, however, as shortly after the motorcade left for Marquette, he was asked if he would like a tour of the president's plane. "I said it would be a real pleasure and an honor." He and a few others were led onboard through an entrance near the belly of the plane. They were given the option of putting

on booties or going shoeless. As Erbsich was dressed for U.P. conditions in large boots, the booties didn't fit, so he, and others, went in stocking feet. They walked up to the main level (level 2) and saw the president's suite, conference room, and how the aft of the aircraft is divided by various seating arrangements—for the secretary of state and senior staff, guests, the press, security crew and others. While it's very comfortable looking, Erbsich says it's not overly luxurious. "It is quite business-oriented."

"We were told that the interior was designed with a lot of input from Nancy Reagan. The plane has been in service since 1990, and they expect it to be in operation for many years to come." Learning about the history of the plane from the crew member leading them on the tour was a highlight for Erbsich. "He pointed out where various historical moments had taken place, and I could recall seeing some particular photos, such as President Bush looking out the window after Hurricane Katrina."

Erbsich said that there was still a large crew on board during his tour, cooking in the galley and busy with maintenance. He also got to go up to level 1 and saw the communications area and cockpit. "It's quite a view from there, over three stories up."

A few hours later, at 3 p.m., as he watched Air Force One taxi and lift off, it was quite a view from the ground, too, and quite a day. ■



No ordinary day at the airport

Photos courtesy of: large Air Force One, Bob Aschbacher; and from left at top: C-17, Midwest Air Traffic Control Tower staff at Sawyer; handshake, Anne Giroux; jogging, Cheryl Cox. See more photos at www.sawyerairport.com

by Rebecca Tavernini

NMU's past with presidents

by Rebecca Tavernini

President Obama is the second sitting president to visit Northern Michigan University, after George W. Bush had a campaign rally for his second term at the Superior Dome on July 13, 2004. But the campus, and Marquette community, have hosted a number of other presidents before or after their terms in the White House.

On November 15, 1978, former President Gerald R. Ford delivered a university convocation address. In his two-day visit, he toured campus, taught three political science classes, met with high school students and had lunch with faculty and honors students. In the classroom, he told students, "don't be shy," in asking him questions. A newspaper article reported, "Students remarked that his

lectures were informative and easily understood, delivered in a relaxed manner that quickly established an ease of two-way communication. They came away surprised, impressed and somewhat subdued." His convocation lecture was a plea for more involvement in elections and govern-

ment. "Today, many Americans

seem to be losing the sense of challenge and opportunity that has so characterized the American experience," he lamented, but then added later: "One great source of optimism is this spirit of community cooperation I see in the smaller towns and villages, in places like this rugged Upper Peninsula, of this state I know so well."

George H.W. Bush, while chairman of the Republican National Committee, gave the commencement address at Northern on December 22, 1973, 16 years before becoming president. He reflected on his experience as ambassador to the United Nations, and also called for more involvement, touching on the after-effects of "one of the most traumatic years in our country's history," he said. "Because of Watergate and its wide range of ugly connotation, people have been compelled to examine our system much more closely. No question about it, your idealism has been sully [sic]. Just let me tell you something—so is mine... But having had those two unique

years at the United Nations, I feel strongly that now, above all, is the time for involvement." He also touched on the "powder-keg" of the Middle East and strains between Russia and the People's Republic of China.

While William Howard Taft didn't step foot on campus, he did spend two September days in

Marquette while running for re-election in 1911. His visit was marked by an automobile parade to Presque Isle, with the parade route lined by 12,000 cheering citizens; a public address where the president spoke about proposed arbitration treaties with England and France; and a downtown luncheon. The president said, "I have wanted to come to Marquette for 20 years, as I have often heard of its scenic beauty and the sterling character of its people... Marquette has more than lived up to my expectations."

Theodore Roosevelt made two trips to Marquette; the first in 1912 as presidential candidate for the Progressive Bull Moose Party, in hopes of regaining the White House from Taft. **Sarah Bottrell '24. Life Cert., '29 AS**, recalls, "My mother took me down to the train [in Ishpeming]. He was talking politics. At the time he was electioneering to become president again." She also remembers receiving an official "teddy" bear after his visit. His second visit was in 1912 for the court hearing of a lawsuit he filed against George A. Newett, publisher of the *Iron Ore* newspaper. In an editorial, Newett had written, "Roosevelt lies and curses in a most disgusting way, he gets drunk, too, and not infrequently...". Newett eventually admitted wrongdoing, and Roosevelt was vindicated and awarded six cents in damages.

Other local visits included Richard Nixon as vice president in 1955 and Al Gore when he was campaigning in 1992 and as vice president in 1994.

As NMU and Marquette continue to be in the spotlight for innovation and quality of life, many students and residents are hoping we'll see many more commander in chiefs on campus.

Special thanks to the NMU and Central Upper Peninsula Archives, The Mining Journal and a History 336 paper by Pamela S. Stanaway '81 BS.



Steve Mariucci '77 BS, '83 MAE welcomed President George W. Bush to the Superior Dome in 2004.

NMU Archives



President Gerald Ford with NMU football coach Bill Rademacher in 1978.