



Weekly Special Report



Produced by the Public Affairs Section

INSIDE

Growth Reported in U.S.-Africa Trade but More Growth Needed

Although there has been "marked growth" in the level of U.S.-Africa trade under the African Growth and Opportunity Act (AGOA), "much remains to be done" to realize the full value of the trade relationship.

reaffirmed that the private sector will play an integral part in Africa's

with two other similar forums, a government ministerial and a forum



That was the conclusion reached in the report of the Fourth Annual AGOA Private Sector Forum, which met in Dakar July 18-19. The delegates attending that forum also

future economic growth and development.

The AGOA Private Sector Forum was held in Dakar simultaneously

for representatives from civil society organizations. (See related article (<http://usinfo.state.gov/af/Archive/2005/Jul/19-87728.html>).

Private-sector plenary sessions and workshops at the forum focused on agriculture, investment, finance, export diversification, pub-

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Ambassador Brazeal Departs; Interim Chargé Huddleston Arrives

Addis Ababa (U.S. Embassy) – The coming new year according to Ethiopia's calendar also marks a time of transition at the U.S. Embassy in Addis Ababa. After a tour lasting nearly three years, Ambassador Aurelia E. Brazeal will complete her time in Ethiopia on Friday, September 2. Ambassador Brazeal will

return to Washington, where she will become a Diplomat in Residence at Howard University.

The Embassy will be led in the coming months by Ambassador Vicki Huddleston, who will serve as the Embassy's Chargé d'Affaires until a new permanent ambassador is named. She has previ-

ously served as U.S. Ambassador to Madagascar and Mali, and as Principal Officer at the United States Interests Section in Havana, Cuba. Other assignments have included time as Deputy Assistant Secretary for African Affairs, as well as service in Haiti and Sierra Leone. ♦

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Monument in Washington to Honor Martin Luther King Jr.

By Laura Potter
Washington File Staff
Writer

Washington -- A national monument honoring the legendary civil rights leader Martin Luther King Jr., the first monument on the National Mall honoring an African-American, is scheduled for groundbreaking in November 2006, after a lengthy push to raise the necessary funds.



Dr. Martin Luther King

American history. He spoke of an America where his children "will not be judged by the color of their skin but by the content of their character." His relentless efforts to encourage racial and economic equality brought about significant changes in America. Since his death in 1968, King's vision lives on through his speeches and the successes achieved by his mission.

Senator Robert Byrd, who supported the measure to fund the project.

The life and accomplishments of King will be represented through the use of water, stone and trees to symbolize the themes of justice, democracy and hope. Electronic versions of King's speeches will be on display. "The memorial will educate future generations about the movement Dr. King represented and serve as a beacon for the continued fight against sanctioned injustice and inequality wherever it occurs," said Harry Johnson, president of the King Foundation.

The memorial will be constructed on four acres near the Franklin Delano Roosevelt Monument, in direct sight of the Lincoln Memorial, where King delivered his famous "I Have a Dream" speech on August 28, 1963, at the March on Washington, which drew a record crowd of 250,000.

King's speech inspired millions of Americans to join the fight against racial injustice and support equality for all Americans.

The speech remains one of the most moving and influential in

On June 29 the U.S. Senate approved \$10 million to help fund the memorial. The money provided by the Senate will enhance fundraising efforts by the Martin Luther King Jr. National Memorial Project Foundation, which has already raised more than \$40 million of the \$100 million needed.

"The legacy of the Reverend Dr. Martin Luther King Jr. touches every American. It is only fitting that the United States Government pay tribute to Dr. King through this contribution to his memorial," said

Members of Dr. King's college fraternity, Alpha Phi Alpha, developed the idea for the memorial more than 20 years ago, and more than 900 proposals from 52 countries were submitted for the memorial's design.

(The Washington File is a product of the Bureau of International Information Programs, U.S. Department of State. Web site: <http://usinfo.state.gov>) ♦

Growth Reported in U.S.-Africa Trade . . .

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lic health and information and technology.

Key recommendations from the forum call for using regional incentives to attract capital and investment; enhancing business-to-business linkages; promoting export diversification; using successful marketing techniques to promote the sale of key African prod-

ucts in the United States; and using private-public partnerships to help address health challenges in Africa.

For more information on the AGOA forum and other aspects of U.S.-African relations, see African Growth and Opportunity Act (http://usinfo.state.gov/af/africa/trade_economic_development/agoa.html).

Additional information ([http://www.africancl.org/\(4qma4u5535vfjl45yxut4dyt\)/Default.aspx](http://www.africancl.org/(4qma4u5535vfjl45yxut4dyt)/Default.aspx)) about U.S.-Africa business ties can be found on the Web site of the Corporate Council on Africa. ♦

Rwanda: How Does Brother Kill Brother?

By Bruce Greenberg
Washington File Staff Writer

Washington -- How do neighbors become killers of their neighbors, friends -- even family members?

This was the central question raised by Africanist and doctoral candidate Lee Ann Fujii, who, during a recent stay in Rwanda, explored the societal ramifications of the 1994 genocide.

The slaughter, which pitted two tribal groups, the Hutu majority and the Tutsi minority, against one another, resulted in the deaths of close to a million people. Most of those who perished were of the Tutsi minority, or were Hutus sympathetic to Tutsis. The mass murder wiped out nearly 30 percent of adult and teenage males, leaving a population that was nearly 70 percent female.

Fujii, who is studying political science at George Washington University in Washington, presented her findings August 25 at the Woodrow Wilson International Center for Scholars in that city.

The scholar said that without the participation of the larger population, the genocide would not have occurred. "Close clannish ties that exist in Rwanda, and in African villages in general, seem to mitigate against violence by fostering greater cooperation -- not less," she said. "It's difficult to kill intimately, especially to kill someone you know."

In her presentation, Fujii outlined the factors that allowed the killers to overcome that natural repugnance.

"Like most genocides, it was led by the elite few at the top, then mass-implemented -- and the killers: they were ordinary farmers, Hutu men between the ages of 30 and 40. They were often married with children, and most had Tutsi connections, either casual or familial."

Fujii said that many of the killers also knew their victims, killing them at close range with machetes, clubs, and hoes. They killed in very large groups, in broad daylight, and the killings took a ritualized form, with chanting and the donning of paramilitary costumes. She said that there was a whole series of commonly repeated practices like hunting the victims, encircling their homes, driving them out and killing them, and then performing mass burials.

FIRSTHAND ACCOUNTS

During her nine months in Rwanda, she garnered most of her data from fieldwork, focusing on interviews she conducted in two villages, one in the northern province of Ruhengeri, and the other in the southern province of Gitarama. She sampled some 85 respondents over the course of several hundred interviews, seeking a broad spectrum of participants, from what she called "the rescuers, at one end" to "the profiteers -- those leading or organizing the killings." In the middle were "the collaborators, those who denounced or informed on their victims," and "the joiners, the majority of participants -- these are the

people who went along with what others were doing."

As to the mechanisms for joining, she said they boiled down to "the pull of social ties -- people go along with what others are doing. There is the construct of power, of engaging in group acts." She added that some largely external forces allowed for disengagement from the killings, including the invasion of the coun-



try by the Tutsi-led Rwandan Patriotic Front rebel forces, and the presence of United Nations observers on the ground.

Fujii cited one respondent, whom she called "Stephan," who was an apolitical participant, "one who just ended up being there." "Eduard," another joiner, told her that he was compelled to participate because of the diatribes broadcast against the Tutsis on local and state radio, and the public speeches of so-called "authority figures." "He really did believe what he was hearing [about] what was going on," she said.

"Gustave," on the other hand, was a resister, according to Fujii. "He took a very clear stand in response to the same conditions. He said that he refused to

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Sudanese "Lost Boy" Builds New Life in America

By Jim Fisher-Thompson and Al Murphy
Washington File Staff Writers

Washington -- David Gak vividly remembers the attack on his village in southern Sudan -- the terror of being suddenly awakened in the middle of the night, and the screams punctuated by gunshots that forced the youth to run into the bush, where he became separated from his mother and father, whom he would never see again.

Gak relived the night he lost his family and home for Al Murphy, a program officer with the State Department. "Before the war we had peace, cattle, school and food," he said. But after the attack on his village, he continued, "we had no parents, no house, no water, no food, no blankets, no shoes."

Following a nightmare of many "bad nights and long walks," Gak said, he finally managed to make it to a refugee camp in neighboring Ethiopia and later to a new life in America.

Thousands of other less fortunate youths fell prey to starvation, thirst, and attack by lions, hyenas and leopards before they reached safety, Gak told Murphy during an August 19 interview at the State Department in Washington.

Gak and his friends were victims of a civil war between the mainly Arab/Muslim North and the predominantly Black/Christian South that began in 1983. The United Nations estimates that as many as two million Sudanese died in the conflict, many from raids by militias who, backed by helicopter gunships, would swoop down on



David Gak, is studying health care at Pennsylvania State University

villages, killing or driving off the inhabitants.

At a refugee camp near Pinyudo, Ethiopia, Gak met other young men like himself; the youths came to be called "Lost Boys" because they no longer had mothers, fathers or village elders to look after them, a true disaster on a continent where orphans were largely unknown until conflict and HIV/AIDS wiped out adults on a massive scale.

Gak and some of the other Lost Boys later returned to Sudan but again were forced out -- this time to northern Kenya, where they were settled at a large refugee camp at Kakuma.

America came to their aid when Gak and about 3,600 other Sudanese youths in a similar situation

were allowed to immigrate in 2001 to begin new lives in cities throughout the United States -- places like Omaha, Nebraska; Houston, Texas; and Boulder, Colorado. Many were sponsored by local community organizations and are now college students, a destiny that would have been beyond their reach in war-torn Sudan.

Now in his late 20s and a student studying health care at Pennsylvania State University, Gak spoke about his adopted country and his hopes for the future. "Life in the U.S. is better, but complicated," he said. "It is difficult to pay for education, and health insurance is unavailable to many of us, but the hardships are behind us."

While there are challenges in America, "there are also great opportunities," Gak said. And "as a survivor," he added, "I'm used to grasping at opportunities -- and America is the land of opportunities."

Many of Gak's hopes for his homeland are built around the Comprehensive Peace Agreement (CPA), an accord the government of Sudan signed with the Sudan People's Liberation Movement (SPLM) last January. On July 9 a government of national unity was sworn in, an event marred three weeks later by the untimely death of SPLM leader and First Vice President John Garang, who was killed in a helicopter crash.

Gak said he believes southern Sudan needs immediate help to offset years of neglect followed by ag-

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do anything related to politics."

"I was asked to do night patrols [often an activity that preceded killings], and I refused," Gustave told Fujii during an interview. He explained that his conscience would not allow him to do that.

Fujii said that the acts of killing provided a form of acceptance, of belonging. "So groups kill; individuals do not," she said. "In groups it was impossible to save someone." Alone, she said, the killers did not kill.

One respondent whom she called "Olivier" actually helped a Tutsi boy escape from the mob. He considered himself a part of the

killing group, she said, but when he was away from the group, he was no longer a killer, he had ties to the greater community.

Summarizing her findings, Fujii said that profiteers, joiners, collaborators, rescuers, and victims all came from the same family. "Joiners and victims were often friends," she said. "Ties could help a person survive, but often were a liability. The difference between the rescuer and accuser could often tip because of a grudge or unintended hurt."

Participation in the Rwandan genocide, Fujii concluded, occurred through a process of social interaction and not by calculation.



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Sudanese "Lost Boy" Builds New Life . . .

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gression from the Khartoum government. "Ninety-five thousand children under 5 died last year [2004] from preventable diseases," he said. In general, he added, "children in southern Sudan -- who form more than half the population of about 3.9 million people -- face multiple threats to their healthy development."

To help, Gak said, he and other Lost Boys are copying the American practice of citizens mobilizing in volunteer organizations to provide relief. "We Lost Boys in America have formed the Ayual Community Development Associa-

tion [ACDA]. What we had gone through always reminds us of our mothers, father, brothers and sisters suffering who have no support. We want to be more supportive of them, even as our hardship is behind us and our hope is prevailing."

So far, ACDA has raised money in America to establish a library at the refugee camp in Kakuma and to buy books for students there. The organization has also provided funds for a school in southern Sudan.

Since 1989, the U.S. government has provided more than \$1 billion

in humanitarian aid to Sudan, mainly through the U.S. Agency for International Development. In the past 12 months total U.S. humanitarian aid to Sudan amounted to \$461,199,888. The assistance has included providing emergency food and shelter in Darfur, as well as water sanitation and food security programs in northern Sudan and the upper Nile.

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Senior USAID Official Assesses Humanitarian Needs in Niger, Mali

Washington -- The United States Agency for International Development (USAID) announced August 24 that Assistant Administrator Michael Hess is currently touring Niger and Mali to review U.S.-funded efforts to combat food insecurity for people affected in 2005 by drought, locust infestations and market shocks.

"Our assessments indicate that the emergency in Niger results from multiple factors, both behavioral and structural, which under economic stress have caused unacceptable levels of malnutrition and death," Hess said in a USAID press release.

Underlying this emergency is widespread household poverty that is manifesting as a food crisis, said Hess, who is in charge of the USAID bureau that implements emergency and developmental food aid and foreign disaster assistance. Hess added that the international community's analytical and early warning systems were unable to predict all of the shocks to Niger's food delivery and market systems in 2005.

"To prevent future emergencies USAID is spearheading efforts to improve these vital warning systems," he said. A combination of factors including drought, locust damage to pastoral lands and crops, and a still fragile free-market system has created severe, localized pockets of food insecurity throughout Sahelian West Africa.

Children living in rural parts of Niger, the world's second poorest

nation, have suffered some of the worst effects, according to the USAID press release. In fiscal year 2005, the U.S. government, through USAID, has provided more than \$130 million for programs to improve lives in the Sahel and is working closely with the United Nations, the governments of the Sahel and other donor governments.

These funds represent direct assistance to the people of Burkina Faso, Mali, Mauritania, Niger and Senegal, including nearly \$14 million in assistance to help eradicate locusts throughout the entire region. Since 2000, USAID has provided more than food in times of need in Niger, funding roughly \$47 million in direct assistance to improve food security and livelihoods and help the people of Niger provide for their own future.

USAID supports a wide variety of programs that directly affect food security, including soil and water conservation, pasture improvement activities, field and nursery trials, informational trainings, and literacy projects.

The agency continues to fund improved famine early warning systems in Niger and the region. The U.S. government provided over \$3.2 billion in Official Development Assistance to sub-Saharan Africa in 2004, more than triple the amount provided in 2000. The U.S. government has also provided almost \$1.4 billion in humanitarian assistance to 32 African emergencies during fiscal year 2005. This includes assistance provided

through the United Nations and nongovernmental organizations.

In 2003, the U.S. provided over \$1.6 billion in humanitarian assistance to Africa, and in 2002, over \$725 million. In June, President Bush announced an additional estimated \$674.4 million in supplemental and other immediate emergency funding for Africa in 2005.

Additionally, on June 30, Bush challenged the world to reduce the burden of malaria dramatically as a major killer of children in sub-Saharan Africa, and pledged to increase funding of malaria prevention and treatment by more than \$1.2 billion over five years. The goal of this effort is reduce malaria deaths by 50 percent in each of the target countries after three years of full implementation.

More information (<http://www.usaid.gov/>) on USAID is available on the agency's Web site. The U.S. Agency for International Development has provided economic and humanitarian assistance worldwide for more than 40 years.

For additional information, see U.S. Aid to Africa (http://usinfo.state.gov/af/africa/aid_to_africa.html).

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U.S., Zimbabwe Researchers Help Subsistence Farmers

Teaching Zimbabwean farmers about weather forecasts and how to use them improved crop yields in that region, according to a study described in an August 24 press release from Boston University (BU) in Massachusetts.

Study findings could help farmers in regions strongly influenced by large global climate variations such as those caused by El Niño and La Niña, say the authors.

El Niño is a warming of the eastern and central Pacific Ocean surface water that occurs every four to 12 years when cold water does not rise to the surface, causing unusual weather patterns. La Niña is a cooling of the surface water off the western coast of South America that occurs every four to 12 years and affects Pacific and other weather patterns.

It is not enough to let subsistence farmers in Zimbabwe know it will be a dry or wet growing season, said BU's Anthony Patt. The information should be backed up with opportunities for the farmers to meet and ask questions about the forecasts.

MODEL YIELDS MEASURABLE RESULTS

The team's model -- coupling radio-delivered seasonal climate forecasts with workshops for subsistence farmers -- is the first to

show that communication with farmers at a grassroots level helps them better understand and apply forecast information to their farming decisions.

"The findings show that the farmers made good decisions in response to good information," says Patt, interpreting the data on improved crop yields for farmers who participated in workshops held for four years in four Zimbabwean villages.



The researchers wanted to know if farmers who used forecast information to make decisions that changed their usual approach to farming actually benefited from having done so.

They also wanted to know if subsistence farmers with access to a sustained, participatory communications process were more likely to use the information than were farmers who heard about the forecasts through less interactive channels, such as radio reports.

Farmers in four villages had access to seasonal weather forecasts by radio. To augment these broadcasts, the team held yearly workshops in each village. Participants were randomly selected from each village's subsistence farmers.

At the workshops, the farmers heard explanations of the rainfall forecasts and asked questions of agricultural service officers. After four years of workshops, the team surveyed participants and nonparticipants in each village about farming decisions, crop yields and other demographic factors.

Two-thirds of workshop attendees had changed their decisions concerning what and when to plant and when to harvest. None of those who had not participated in a workshop changed planting or harvesting decisions.

When the researchers compared crop yields, they found that even in bad growing years, farmers who had participated in workshops reported better crop yields than did farmers who had not participated -- a 9.4 percent increase over two years with an 18.7 percent increase in a particularly good growing year.

(Distributed by the Bureau of International Information Programs, U. S. Department of State. Web site: <http://usinfo.state.gov>) ♦

National Geographic Magazine Focuses Entire Issue on Africa

By Susan Ellis
Washington File Staff Writer

Washington -- Everyone should have the chance to visit Africa, says Chris Johns, editor in chief of National Geographic magazine. Recalling his countless visits to the continent, he says: "I always get up in the morning, exhilarated, to explore the new day. Africa is a million sights."

Reflecting that fact, he has devoted the entire September 2005 issue of National Geographic to Africa. On the cover, instead of a photo, is the earth-brown-colored word "Africa." Below it: "Whatever you thought, think again."

"Africa is a million voices," Johns said in an August 24 interview with the Washington File. "That's why we didn't put one photo on the cover. We took 100,000 photos over two years to prepare this issue. Then another two years to select what we would put in the issue to do justice to the diversity and complexity of this continent."

"That's why we say, 'Whatever you thought, think again.' Get rid of your misconceptions about Africa. Let African voices talk to you. We talked to the people ... strong, honest, unfiltered voices from Africa."

Johns put together a team of writers and photographers, the National Geographic's press department reports, who traversed the length and breadth of Africa, reporting on community development, environmental challenges, the role of the oil industry, diverse cultures and wildlife, and the intro-

duction and role of anti-retroviral drugs to combat HIV/AIDS.

Besides all its other virtues -- wild animals in a natural setting, wonderful wide-open vistas and a night sky dotted with stars and uncluttered by pollutants, colorful habitats and warm and friendly peo-

south across Kenya, Tanzania, and Malawi to the lower Zambezi River Valley in Mozambique. In Ethiopia, he met his wife, a third-generation American diplomat, who shares his love of Africa.

Johns has been a career photographer for 20 years -- 17 of them



An age-old race between lioness and kudu in Etosha National Park, Namibia, is no sure bet for the big cat—nor is her long-term survival. Fewer than 900 lions live in these arid lands, where scant resources force competition between humans and wild animals, and farmers shoot those that prey on livestock.

Photograph by Martin Harvey, National Geographic, September 2005

ple -- Africa is where all human-kind began, Johns pointed out.

He said his interest was kindled long ago when he read everything he could find about Africa, from the books and stories of Ernest Hemingway to *The Tree Where Man Was Born*, detailing author Peter Matthiessen's travels in East Africa. In about 1988 he traveled for a photo assignment to the Great Rift Valley, the geological fault system that extends from southwest Asia across Ethiopia and

spent primarily on assignment in Africa. "In Africa, human aspirations collide with the natural environment like nowhere else on the planet," he said. "My goal for this special issue is to highlight astonishing stories of renewal, ingenuity and potential heard through unfiltered African voices."

"These stories counterbalance the bleak headlines of civil war, disease, poverty and extinction. It is our belief that Africa will find a

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National Geographic Magazine Focuses . . .

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balance between the needs of its people and the needs of its wild places. It is our hope that the way in which Africa solves its problems can serve as a model for the rest of the world."

ONLINE MAGAZINE OFFERS NOVEL WAYS TO EXPLORE AFRICA

The September issue of the National Geographic's interactive edi-

mation index will link to myriad sights, sounds and stories about Africa.

One eye-catching photo shows an elephant walking through the lobby of a lodge in Zambia. When the lodge was remodeled it blocked the elephant's usual route to his favorite mango tree, so now he and the other elephants just walk through the lobby, the most direct route to the tree.

moved. Then that rhino exploded!"

Among the attractions featured in the Web magazine's September celebration of Africa is the "Wildcam," a remote video camera where viewers can log on 24 hours a day to Botswana's Mashatu Game Reserve in the far eastern corner of the country's Tuli block, to catch at least 50 species of animals, including lions, elephants, wildebeests, hyenas and cheetahs, gathering at a major watering hole.

The Web site says that as Mashatu moves into its summer season in September, increasing traffic in the afternoon from 1600 to 1800 hours will come to Pete's Pond, as it is known.

In a final comment about the continent, Johns said, "I always return from Africa energized and rejuvenated. ... Largely because of the African voices -- the wisdom in those voices -- [I'm] energized and invigorated!"

National Geographic's interactive edition is available at <http://www.ngm.com/wildcamafrika>.

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Pawing their way across a stream, lions forge toward whatever awaits them in the wilds of Botswana.

Photograph by Beverly Joubert National Geographic, September 2005

tion on the World Wide Web contains novel ways to explore Africa, including a map portal allowing one to connect to a vast warehouse of articles, photo galleries, multimedia features and more. Just a slide of a mouse over the interactive map of the continent or a click into an infor-

Another photo shows Johns, camera focused on a tranquilized rhinoceros, while working on a story on South Africa's parks. "Once I photographed one who'd been given an antidote," he recalled. "The handler said, 'If you don't move in the next 30 seconds, this animal will kill you.' I

Bush Renews Commitment to Equal Justice on Women's Equality Day

President Bush honored the "perseverance, leadership, and achievements" of U.S. women in a proclamation marking August 26 as Women's Equality Day.

In 2005, Women's Equality Day celebrates the 85th anniversary of the 19th Amendment to the U.S. Constitution (http://usinfo.state.gov/dhr/democracy/u.s._legal_system/constitution.html), which guaranteed American women the right to vote (http://usinfo.state.gov/dhr/democracy/u.s._legal_system/rights_and_freedoms.html).

In his proclamation statement, Bush paid tribute to both the suffragists who fought for women's right to vote and all women in the United States. "The hard work of American women is essential to the strength and vitality of our country," he said. On Women's Equality Day, "we renew our commitment to equal justice and dignity for all," Bush stated.

For additional information, see Women's Rights: 1848 to the Present (<http://usinfo.state.gov/usa/women/rights/index.htm>).

Following is the text of presidential proclamation:

WOMEN'S EQUALITY DAY, 2005

BY THE PRESIDENT OF THE
UNITED STATES OF AMERICA
A PROCLAMATION

On August 26, 1920, the 19th Amendment to the Constitution was adopted, guaranteeing American women the right to vote. The passage of this amendment was the culmination of a long struggle that reached back to the founding

of the country and was furthered by the 1848 women's rights convention in Seneca Falls, New York. By celebrating Women's Equality Day, we commemorate the adoption of this amendment and honor the visionary women

who fought tirelessly for women's suffrage.

Led by women such as Elizabeth Cady Stanton, Susan B. Anthony, and Lucretia Mott, the suffragists stood up against injustice and persevered until, as Susan B. Anthony wrote, the handful who first took a stand for suffrage grew into an army. The efforts of these pioneers helped secure for American women the right to vote.

Since the adoption of the 19th Amendment, women have continued to make great contributions to our Nation. Women today are leaders in medicine, law, journalism, business, government, and other professions. They are doctors and mothers, teachers and lawyers, homemakers and pilots, artists and entrepreneurs. Women also are serving with great honor in our Armed Forces as we fight a war on terror and defend our freedoms. The hard work of American women is essential to the strength and vitality of our country.

One hundred and fifty-seven

years after the Seneca Falls Convention, we continue to work so that all people can enjoy their God-given rights. This Women's Equality Day, as we celebrate the 85th anniversary of the 19th Amendment, we honor the perseverance,



leadership, and achievements of the suffragists and all of America's women, and we renew our commitment to equal justice and dignity for all.

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, by virtue of the authority vested in me by the Constitution and laws of the United States, do hereby proclaim August 26, 2005, as Women's Equality Day. I call upon the people of the United States to observe this day with appropriate programs and activities.

IN WITNESS WHEREOF, I have hereunto set my hand this twenty-fifth day of August, in the year of our Lord two thousand five, and of the Independence of the United States of America the two hundred and thirtieth.

GEORGE W. BUSH ♦

United States Once a Struggling Democracy, Vulnerable to Empires

By Stephen Kaufman
Washington File White House Correspondent

Washington -- The capital city of the United States today influences global affairs, but 191 years ago Washington was occupied by a foreign enemy, and venerated national symbols such as the White House and the Capitol were put to the torch.

The incident, which occurred during the War of 1812, a conflict between the fledgling nation and the British Empire, might be one of the lowest points of American history. But the August 24, 1814, humiliation of having a U.S. president and the nation's leadership flee the capital while its public buildings burned would serve as a

backdrop to the writing of America's national anthem, a celebration of the United States' ability to prevail against the foremost military power of the time.

In light of the United States' major role in world affairs since the mid-20th century, it is difficult for many, especially those in developing nations, to imagine a time when the United States itself was a new struggling democracy, threatened by the world powers of the day, and seeking to define its national identity. It also was engaged in the slow process of im-

plementing its democratic form of government -- a process that began with the ratification of its constitution in 1789.

Many Americans know the words of the first verse to the "Star Spangled Banner," which is performed at the beginning of major public and sporting events, but the actions that led to its being written on September 14, 1814, including

ers banned American trading ships from each other's ports and Britain seized American sailors to fight against France in its navy. According to Pitch, 5,000 sailors, including 1,300 native-born Americans, were seized during a six-year period leading up to 1810.

In 1812, during the administration of President James Madison, the U.S. Congress declared war,

despite the mismatch in military power: America had 20 warships compared to Britain's 1,000-ship armada and battle-hardened troops.

It was a second war of independence for the Americans, Pitch says, because "not to have taken action would have meant that you're prepared to see your sov-



The British army invaded Washington and set fire to the city on August 24, 1814

the humiliating destruction of their capital three weeks before, are less well known.

Anthony Pitch, who authored the book "The Burning of Washington: The British Invasion of 1814," described the 1812-1814 military conflict between the United States and Great Britain as America's "second war of independence" in an interview with the Washington File.

The war had its roots in Britain's conflict with Napoleonic France, during which both European pow-

ereignty ignored and your independence shattered and your pride and your dignity in shreds. So they had to do something about it whether the odds were piled against them or not."

THE BRITISH INVASION

In the summer of 1814, British ships moved into the Chesapeake Bay, approximately 50 miles from Washington. Washington then was "a tiny little forlorn village with 8,000 residents," including African-American slaves, with

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United States Once a Struggling Democracy . . .

(Continued from page 11)

"absolutely no strategic value at all," Pitch said.

Some U.S. leaders, most notably Secretary of War John Armstrong, did not believe the capital would be targeted by the invading force, but the British proved him wrong. Rear Admiral George Cockburn, second-in-command of British forces in North America, wrote to his superior, Vice Admiral Sir Alexander Cochrane July 17, 1814, that the fall of a capital is "always so great a blow to the government of a country."

The British army routed the American forces at Bladensburg, Maryland, on August 24, 1814, with Madison and members of his Cabinet looking on. The U.S. troops fled back into Washington, warning the city's 8,000 residents and government officials that enemy forces would soon be entering the city. The president and other senior U.S. officials crossed the Potomac River into Virginia, and became refugees themselves.

WASHINGTON ABANDONED, LOOTED, BURNED

As Pitch describes in his book, panic ensued in Washington as nearly all its residents secured whatever horse, wagon and cart transport they could find and fled.

Approximately 800 were left in the city -- those who were "either slow moving, were not prepared to steal [horses], just couldn't afford transportation, or had looked and could not find it," Pitch said.

In the mayhem, the task of securing U.S. federal property and documents was left to clerks, of-

ten inexperienced, who were called upon to quickly decide what should be saved and transported out of the city, and what would be left and likely destroyed by the invaders.

"The State Department was very lucky," Pitch said, because its senior clerk Stephen Pleasonton quickly bought durable linen to be fashioned into bags, into which priceless manuscripts like the Declaration of Independence, the U.S. Constitution, international treaties, and some of President George Washington's papers were placed and packed into carts and out of the city, preserving some of the nation's most treasured documents.

When the British forces arrived, they offered Washington residents both safety and the protection of their private property so long as they did not take any hostile action against the occupation. But federal buildings suffered a radically different fate.

Rockets were fired through the roofs of the two wings of the U.S. Capitol, and all furniture, books, papers and other flammable materials were collected and set on fire. The flames that engulfed the buildings were visible to fleeing refugees miles away.

When British soldiers arrived at the White House, before setting the structure on fire, they found that the abandoned mansion's elegant dining room was set for a meal. First lady Dolley Madison, who fled only moments before, had selflessly neglected her personal possessions to preserve state papers and a portrait of George Washington, which she

had cut out of its frame and transported to safety in Virginia.

BIRTH OF A NATIONAL ANTHEM

Word of the destroyed capital and scattered government spread to Americans, Pitch says, a message that initially created "a sense of absolute desolation [and] melancholy." The British occupation of the city lasted only 24 hours, but the flames continued to burn for days. Some Americans feared their independence would soon be lost as well.

But sadness and fear soon yielded to anger, Pitch said, an effect opposite to what the British expected. "Almost immediately it galvanized everybody. They wanted payback." When word came that Maryland's largest city, Baltimore, was the next British target, approximately 15,000 people swarmed to its defense from nearby states and counties.

British forces quickly defeated the Americans at North Point, east of Baltimore, on September 12, but knew the city could not be taken until Fort McHenry, which defended its port, was subdued. The defense of the fort, Pitch says, "is what turned the tables" on what had been a successful British military campaign.

The defense of the fort against the world's premier maritime force proved legendary. "Nobody fled. Nobody flinched. They held out for a day and a night while the British lobbed between 1,500 and 1,800 shells, each weighing over 200 pounds, on and around that fort," Pitch said.

(Continued on page 13)

United States Once a Struggling Democracy . . .

(Continued from page 12)

Francis Scott Key, a Washington lawyer who had come to Baltimore to negotiate the release of a civilian prisoner of war, witnessed the bombardment of Fort McHenry from a nearby truce ship.

As Pitch describes, Key “paced the deck of his ship in the darkness, hoping the explosions would continue because if there was silence, it might mean the fort had capitulated.” Just before dawn there was a lull and Key did not know whether this meant the fort had capitulated or the British had imposed a cease-fire. When the daylight broke, Key saw the American flag still flying over the fort and realized the defenders had prevailed.

Key took a letter out of his pocket and recorded his reaction. “Three days later the British withdrew and those words, which are now polished up, were set the tune of an old English drinking song and eventually became the official national anthem,” Pitch said.

EMERGENCE OF A NATIONAL IDENTITY

In order to fully appreciate the anthem, known as “The Star-Spangled Banner,” Pitch says one must understand the context of the time in which it was written, particularly in the aftermath of the burning of Washington.

The destruction of the capital and the flight of U.S. leaders cannot be taken “as an isolated incident in American history,” Pitch said. “It is so tied in with what happened

three weeks later. It explains why Fort McHenry held out, why it was so well defended, and what the result meant to the nation at large.

“In other words, you see in three weeks the tables have turned from the lowest point in American his-

defined national identity, Pitch says.

“The national character was polished up, and the disparate elements in this country realized they had a lot in common because they’d come through this two-and-



The Battle of New Orleans, where British forces were defeated. The end of the war came with the 1815 Treaty of Ghent, signed two weeks before at New Orleans.

tory -- the most humiliating moment, the capital captured and the public buildings burned, the president is forced to flee. You don't get much lower than that. ... And then, three weeks later, they hold out against the mightiest navy in the world, and the British had to withdraw," he said.

The end of the war came with the 1815 Treaty of Ghent, signed two weeks before British forces were defeated at New Orleans. The former colonies retained their independence, and, despite incidents such as the burning of Washington, gained self-confidence and a more strongly

a-half-year war with the leading power of the day with flying colors, and that's the lasting legacy. It helped forge a good feeling about being American," he said.

The war's most visible legacy is the "Star-Spangled Banner," and as Pitch says, "If you don't know what happened in Washington, you cannot appreciate the full meaning of the national anthem."

(The Washington File is a product of the Bureau of International Information Programs, U.S. Department of State. Web site: <http://usinfo.state.gov>) ♦

U.S. Grants Support Cultural Preservation in 76 Countries

Through the Ambassador's Fund for Cultural Preservation, U.S. State Department is helping less-developed countries preserve historic sites and manuscripts, museum collections, and traditional forms of music, dance and language.

This year the fund is awarding grants that will support 87 cultural preservation projects in 76 countries.

Among the cultural heritage being preserved with fund support are rock art sites in Honduras, Kenya and Namibia; South Arabian texts inscribed on wood in Yemen; a manuscript collection in Kosovo dating from the Ottoman Empire; the historic center of Kabul, Afghanistan; two important Islamic monuments, the Ak-Saray-Ding Tower and the Sultan Takesh Mausoleum, in Kunya Urgench, Turkemenistan; and a former GULAG camp in Perm, Russia.

The fund received 156 grant proposals from U.S. ambassadors in 100 countries, according to the State Department.

Following is a State Department announcement concerning the Ambassador's Fund grants for 2005:

(begin text)

U.S. Department of State
<http://www.state.gov> (<http://>

www.state.gov/
Office of the Spokesman
August 29, 2005

AMBASSADOR'S FUND FOR CULTURAL PRESERVATION AWARDS FOR 2005 SUPPORT CULTURAL PRESERVATION IN 76 COUNTRIES



Guzara Castle, which is located in the North Gondar, Ethiopia, benefited from the Ambassador's Fund for Cultural Preservation in 2004

The Bureau of Educational and Cultural Affairs, U.S. Department of State, is pleased to announce that the 2005 Ambassador's Fund for Cultural Preservation awards will support 87 cultural preservation projects in 76 countries. Established by Congress in 2001, the Ambassador's Fund for Cultural Preservation aims to assist less developed countries in preserving

museum collections, ancient and historic sites and traditional forms of expression. Since its inception, the program has awarded 292 grants in 106 countries. This year, the funding level was raised to \$2.5 million.

U.S. Ambassadors in 100 of the 120 eligible countries in the developing world responded overwhelm-

ingly to the call for project proposals, submitting 156 projects for consideration. The 2005 projects represent the heritage of all geographic regions and vary from archive preservation to museum collections, historic building restoration, and ethnographic documentation.

Projects include:

-- The preservation of rock art sites in Honduras, Kenya, and Namibia;

-- A comprehensive survey and restoration program for the historic center of Kabul, Afghanistan;

-- The restoration of a former GULAG camp in Perm, Russia, just west of the Ural Mountains;

-- The preservation of two important Islamic monuments, the Ak-

(Continued on page 21)

U.S. Agriculture Agency Trains Scientists from Developing Nations



The U.S. Department of Agriculture (USDA) welcomed 36 agricultural research scientists and policy-makers August 29 from eight developing countries in Africa, Asia, eastern Europe and Latin America for training under an international fellowship.

According to a USDA press release, the Norman Borlaug International Agricultural Science and Technology Fellows Program is open to participants worldwide and is administered by USDA's Foreign Agricultural Service in cooperation with the U.S. State Department and the Agency for International Development (USAID).

"This program is providing a stepping stone to young scientists who are seeking to learn the latest agricultural research and scientific techniques," said Nobel Laureate Norman Borlaug.

"The training they are receiving will help these individuals become

scientific leaders in their countries," he added, "where their expertise will raise agricultural productivity, feed hungry people and stimulate economic growth."

In 1970, Borlaug won the Nobel Peace Prize for developing high-yield wheat varieties and reversing severe food shortages that haunted India and Pakistan in the 1960s.

Thirty-six Borlaug fellows from Bangladesh, Bulgaria, Cameroon, Costa Rica, Honduras, Morocco, Panama and Serbia-Montenegro

will receive four to six weeks of training at a U.S. university or research center.

Participants will learn new research techniques, make use of fully equipped libraries and learn about public-private research partnerships. Accomplishments from the 2004 program include:

Two Borlaug fellows from Serbia-Montenegro received competitive grants from their government to breed drought-tolerant corn varieties.

A Borlaug fellow from Bulgaria received funding from Cornell University to continue research with his U.S. mentor to isolate the bacterium responsible for a disease that affects grapevine productivity.

A Borlaug fellow from Romania secured a USAID grant to buy U.S. laboratory equipment and establish an extension service at his university to train farmers.

Additional information (<http://www.fas.usda.gov/icd/borlaug/borlaug.htm>) about the Borlaug Fellowship Program is available on the USDA Web site.

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Laureate Norman Borlaug in Ghana with farm family and their SG 2000 maize crop.

United Nations' Beginnings, Purpose, Structure Profiled

Washington -- In preparation for the 60th anniversary of the founding of the United Nations, the State Department has issued a lengthy fact sheet that provides details about the organization's origins, purpose and current structure, along with a short sketch of reforms currently proposed by the United States. These reforms are intended to help the United Nations meet "the threats and challenges and difficulties of the 21st century."

ORIGINS

President Franklin D. Roosevelt first used the term "United Nations" in 1942 to characterize the multinational, but common, effort of nations that opposed the military aggression of Nazi Germany, fascist Italy and imperial Japan during World War II. After the war, 50 nations signed the U.N. Charter in June 1945. It came into effect in October of that year.

AIMS

The United Nations' aims, according to the fact sheet, are set out in the preamble to the U.N. Charter: "to maintain international peace and security; to develop friendly relations among nations; to achieve international cooperation in solving economic, social, cultural, and humanitarian problems and in promoting respect for human rights and fundamental freedoms; and to be a center for harmonizing the actions of nations in attaining these common ends."

STRUCTURE

The United Nations' main bodies consist of the Security Council, the General Assembly, the Economic



and Social Council (ECOSOC), the International Court of Justice, and the Secretariat. In addition, there exist various commissions and funds created by the General Assembly, including UNICEF (U.N. Children's Fund) and the World Food Program; specialized agencies, such as the World Health Organization, the International Atomic Energy Agency and the International Monetary Fund; and other U.N. creations, such as the Office of the High Commissioner for Human Rights and the peacekeeping missions established by the Security Council.

PROPOSED U.S. REFORMS

The United States has several priorities to strengthen and reform the United Nations. They include:

- Budget, Management and Administrative Reform: The United States wants "measures to improve internal oversight and accountability, to identify cost savings, and to allocate resources to

high priority programs and offices."

- Peace-Building Commission: An idea of Secretary-General Kofi Annan, this would help to galvanize the international community to aid countries in post-conflict situations where humanitarian support and reconstruction are needed, followed by long-term development.

- Human Rights Council: This would replace the current Commission on Human Rights with a smaller, more active group that would bar from membership governments that abuse human rights of their citizens.

- Democracy Initiatives and the U.N. Democracy Fund: Proposed by President Bush in his 2004 U.N. General Assembly speech, the idea is to create a mechanism to help new and emerging democracies develop civil society and democratic institutions.

- Comprehensive Convention on International Terrorism: Adopting this convention would be an important symbolic achievement in the United Nations' efforts to counter terrorism.

- Economic Development: The United States wants to see the Monterrey Consensus, a 2002 international agreement on financing, applied to development where the emphasis is put on supporting good governance and sound economic policies.

The full text (<http://www.state.gov/p/io/fs/51371.htm>) of the fact sheet is available on the State Department's Web site. ♦

Global Efforts Deliver More Treatment to Disease Patients

By Charlene Porter
Washington File Staff Writer

Washington — The Global Fund to Fight AIDS, Tuberculosis and Malaria reports that it is supporting the delivery of AIDS treatment to 220,000 HIV-infected persons, according to an August 23 announcement from the Geneva headquarters of the private-public organization.

Programs operating with grants from the Global Fund are also supporting treatment for 600,000 patients with tuberculosis and 1.1 million people with malaria. The numbers reflect only 15 months of program operations, the announcement said, and exceed the goals set by the three-year-old granting organization.

With a pledge of \$2.1 billion, the United States has provided more financial support to Global Fund programs than any other nation.

The treatment-delivery initiatives supported by the Global Fund operate on a different but parallel track to the programs supported by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), a five-year, \$15 million program delivering services in 15 nations. The U.S. State Department's Global AIDS Coordinator (GAC), overseer of PEPFAR, reported in June that its support to grassroots treatment programs has led to delivery of life-saving drugs to 235,000 HIV-infected persons.

"Together, the Global Fund and PEPFAR are the major financial engines to achieve greatly increased

treatment numbers over the coming years," said the Global Fund announcement. "In 15 countries, Global Fund grants and PEPFAR are supporting different parts of the same national scale-up efforts."

The Global Fund does not deliver patient care or treatment itself. Instead, it provides grants to grassroots organizations that submit plans to address disease, which are tailored to the particular needs of their own communities. The proposals are carefully reviewed by Global Fund experts before being approved. The implementation of the programs is also monitored to ensure efficient operations and responsible use of funds.

The success of the programs is particularly noteworthy because most of the grants are issued to organizations in very poor countries with few health care resources and little expertise, according to the announcement.

"The fact that these programs have achieved substantial results after such a short time is a tribute to the tremendous efforts made by thousands of health workers operating under extremely difficult conditions," said Global Fund Executive Director Richard Feachem.

Even as the Global Fund and PEPFAR report results that exceed expectations, both initiatives strive for further expansion of their activities to fight disease.

The Global Fund has set targets to reach 1.6 million people with anti-retroviral treatment for AIDS

and 3.5 million people with TB treatment over five years. The announcement said, "The programs are on track to reach these targets set for HIV/AIDS and TB, but are behind on targets for malaria."

Projections for the five-year life of programs already under way seek to deliver 145 million drug treatments for resistant malaria and 108 million bed nets, which are considered among the best means to protect individuals from the mosquitoes that spread malaria in endemic areas.

PEPFAR aims to support treatment for 2 million people with HIV/AIDS by the fifth year of the one-year-old program.

"I'm very encouraged by the progress that is being made," said GAC Ambassador Randall Tobias at a press briefing in June. "The numbers are important, but that's because each number represents a human being. For them, these programs are turning the despair of suffering and death to the hope of health and life."

For additional information, see HIV/AIDS and Other Infectious Diseases (http://usinfo.state.gov/global_issues/hiv_aids.html).

(The Washington File is a product of the Bureau of International Information Programs, U.S. Department of State. Web site: <http://usinfo.state.gov>) ♦

Trials Beginning on New Medication for Sleeping Sickness

Clinical trials are soon to begin on a new treatment for trypanosomiasis -- also known as sleeping sickness -- a disease that threatens about 60 million people a year in 36 countries of sub-Saharan Africa.

The compound, known as DB289, is the first new medication for the disease in 50 years, and the only oral medication that has ever been developed, according to a news release on the trials from the University of North Carolina at Chapel Hill (UNC), the lead institution in a team that also includes researchers from Scotland, Kenya, England, and Switzerland.

Oral delivery of medication is important because the disease most frequently occurs in rural areas and villages not served by medical professionals who can administer injections.

The Seattle-based Bill and Melinda Gates Foundation is backing this undertaking in the absence of research in this area by large pharmaceutical companies, according to Dr. Richard R. Tidwell of the UNC School of Medicine.

"Despite being one of Africa's most prevalent and economically devastating illnesses, sleeping sickness is definitely one of those

give the treatment to hundreds of patients for the first time.

Sleeping sickness is passed from human to human by tsetse fly bites. The symptoms are fever, lymph node inflammation, impairment of the brain and nervous system in the late stages. It can lead to death without treatment.

The World Health Organization received reports of 45,000 cases of the disease in 1999. The agency says that most cases are occurring in areas where there is not reliable reporting on the occurrence of disease, and consequently estimates that the actual number of cases could be as

much as 10 times higher.

WHO offers detailed information (<http://www.cdc.gov/ncidod/dpd/parasites/trypanosomiasis/default.htm>) about sleeping sickness.

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Tsetse fly biting. In parts of Africa the tsetse fly carries trypanosomiasis or sleeping sickness, an often fatal disease. Their bites are also extremely painful. Tsetse flies live in scrub acacia woodlands.

that has been neglected," Tidwell said. "For that reason, we decided to put this consortium together, and that's why the Bill & Melinda Gates Foundation was very interested in supporting our work."

DB289 has successfully undergone trials that have demonstrated its safety and effectiveness in patients with early-stage sleeping sickness. In the testing phase soon getting under way, scientists will

U.S. Researchers Develop Tests for Devastating Cattle Disease

Researchers at the University of Minnesota (U of MN), working with scientists at the U.S. Department of Agriculture (USDA), have used genomic information to develop tests that can rapidly detect and differentiate the bacterium that causes Johne's disease, a chronic wasting disease found in cattle and other animals.

The bacterium is also implicated as a factor in Crohn's disease, an inflammatory bowel disease in humans. In the future, researchers might be able to use this information to work on a test to detect the bacteria in blood or tissue of patients with Crohn's disease and ulcerative colitis.

According to an August 29 University of Minnesota press release, the research also will help scientists better understand the Johne's disease process and the design of vaccines to prevent infection.

Funding was provided in part by the USDA and its Agricultural Research Service.

Johne's disease is a serious economic and animal-health problem throughout the world in domesticated animals called ruminants – hooved animals that chew cud and have stomachs with multiple chambers. Such domesticated animals are mainly dairy and beef cattle, sheep and goats.

Because the bacterium that causes Johne's disease -- *Mycobacterium avium*, subspecies *paratuberculosis* – grows slowly in the laboratory, previous tests often took six to 18 weeks to process.

The current study shows how ge-

nomeric information can be used to develop highly specific, sensitive and rapid tests to detect infected animals.

The new tests allow the bacterium to be detected in fecal matter or milk and can be completed in 72 hours or less with an accuracy that was not possible previously without knowing the bacterium's complete genome.

Because animals shed the bacteria in their milk, faster diagnosis will likely help monitor and improve the quality of dairy foods.

"Since the results of this new test are available much sooner, infected animals can be identified and isolated more quickly, thereby providing an opportunity to minimize economic losses to the herd, and breaking the chain of transmission from animal to animal," said principal investigator Vivek Kapur of U of MN's medical school and College of Veterinary Medicine.

Text of the University of Minnesota press release follows:

(begin text)

University of Minnesota
[Minneapolis, Minnesota]
Press release, August 29, 2005

U of MN researchers develop tests for devastating cattle disease

More rapid and accurate test results may translate to better quality products Researchers at the University of Minnesota, working in collaboration with scientists at the USDA, have used genomic information to develop tests that can rapidly detect and differentiate the

bacteria that causes Johne's disease, a chronic wasting disease found in cattle and other ruminant animals such as sheep, goats and deer. This research, scheduled to be published in the Aug. 30 issue of the Proceedings of the National Academy of Sciences, also provides the foundation for a better understanding of the Johne's disease process and the design of vaccines to prevent infection.



Johne's disease is devastating to the United States dairy industry, costing about \$200 million per year due to reduced milk production. Estimates indicate that the disease is present in approximately 25 percent of Minnesota's dairy herds. Because the bacterium that causes Johne's disease, *Mycobacterium avium* subspecies *paratuberculosis*, is slow growing in the laboratory, previous tests often took between 6 and 18 weeks to process. The current study shows how genomic information may be used to develop highly specific, sensitive, and rapid tests for the detection of infected animals.

These new tests, which enable detection of the bacterium in fecal matter or milk, can be completed in 72 hours or less with an accuracy that was not possible without

(Continued on page 21)

Public Collections of DNA, RNA Make Data Available Worldwide

The three leading public repositories for DNA and RNA genetic-sequence data have collected 100 billion bases – or “letters” of the genetic code – according to an August 22 press release from the National Library of Medicine of the National Institutes of Health (NIH).

The purpose of the databases, all launched in the 1980s, is to make every nucleotide (DNA base) sequence in the public domain freely available to the scientific community as rapidly as possible.

Free access to this information enables scientists to study and compare the same data as their colleagues nearly anywhere in the world, and makes possible collaborative research that will lead ultimately to disease cures and improved health.

“Today’s nucleotide sequence databases allow researchers to share completed genomes, the genetic make up of entire ecosystems and sequences associated with patents,” said David Lipman, director of the National Center for Biotechnology Information (NCBI) at NIH.

The three members of the International Nucleotide Sequence Data-

base Collaboration are GenBank (part of the NIH National Library of Medicine) in Maryland, the European Molecular Biology Laboratory’s (EMBL) European Bioinformatics Institute in the United Kingdom, and the DNA Data Bank of Japan.

The DNA structure is called a double helix because two long strands twist around each other like a twisted ladder. The rails or sides of the ladder are made of alternating molecules of a sugar and a chemical called a phosphate.

Each step or rung of the ladder is made of two bases joined together. In DNA the two bases are either adenine (A) and thymine (T), and cytosine (C) and guanine (G). In RNA, a related single-stranded molecule, the bases are adenine (A) and thymine (T), cytosine (C) and uracil (U).

For DNA in a vast range of combinations, the 100 billion base sequences represent individual genes and partial and complete genomes of more than 165,000 organisms.

A single gene from organisms as diverse as humans, elephants, earthworms, fruit flies, apple trees

and bacteria can range in length from less than 100 bases to more than several thousand bases. An organism’s genome – all the genes that make up the life form – can be longer than 1 billion bases.

For nearly 20 years, these public DNA-RNA repositories have collaborated to provide access to the increasing amount of genetic data produced by institutions around the world.

Additional information about GenBank (<http://www.ncbi.nlm.nih.gov/>) is available on the NCBI Web site, about EMBL-Bank (<http://www.ebi.ac.uk/embl>) on the European Bioinformatics Institute Web site, and about DNA Data Bank of Japan (<http://www.ddbj.nig.ac.jp/>) on its Web site.

For more information about NIH and its programs, visit <http://http://www.nih.gov/>.

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U.S. Grants Support Cultural Preservation . . .

(Continued from page 14)

Saray-Ding Tower and the Sultan Takesh Mausoleum in Kunya Ur-gench, Turkemenistan, a site recently inscribed on the World Heritage List;

-- Assistance in the post-Tsunami efforts through the restoration of Omo-Hada type houses on the Indonesian island of Nias;

-- A post-Tsunami survey of buildings in the 13th century coastal town of Matara, Sri Lanka;

-- Preservation of historic documents including South Arabian texts inscribed on wood in Yemen, and in Kosovo, a manuscript collection dating from the Ottoman Empire.

The Ambassador's Fund for Cultural Preservation is administered by the Bureau of Educational and Cul-

tural Affairs. Through a range of cultural preservation activities, the Bureau promotes cooperation with other countries to reduce the threat of pillage of irreplaceable cultural heritage, and to develop long-term strategies for preserving cultural property.

For more information on the Ambassador's Fund for Cultural Preservation, as well as a complete list of funded projects for 2005, please visit: <http://exchanges.state.gov/culprop/afcp/>.

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U.S. Researchers Develop Tests . . .

(Continued from page 19)

knowledge of the complete genome of the bacterium. Since animals shed the bacteria in their milk, faster diagnosis will likely help monitor and improve the quality of dairy foods.

"Since the results of this new test are available much sooner, infected animals can be identified and isolated more quickly, thereby providing an opportunity to minimize economic losses to the herd, and breaking the chain of transmission from animal to animal," said Vivek Kapur, BVSc., Ph.D., principal investigator, faculty member of the University's Medical School and College of Veterinary Medicine, and director of the Biomedical Genomics Center. In 2003, Kapur and his colleagues at the University of Minnesota were also

awarded one of the largest research grants by the USDA to form a national consortium to study Johne's disease in cattle.

Mycobacterium avium subspecies paratuberculosis is also implicated as a factor in Crohn's disease, an inflammatory bowel disease in humans. Infection with this bacterium in humans and all animals is generally believed to occur at an early age, with clinical manifestations of the disease only showing up after several years. In the future, researchers are likely to be able to use this information to work on a test to detect these bacteria in blood or tissue of patients with Crohn's disease and ulcerative colitis.

"This research both advances knowledge of the basic science is-

sues surrounding the disease as well as applies that knowledge for immediate benefits to animal and potentially human, health," said Sagarika Kanjilal, associate professor of medicine, and a co-author of the paper.

Funding for the project was provided in part by grants from the U.S. Department of Agriculture Cooperative State Research, Education, and Extension Service National Research Initiative, and the Agricultural Research Service.

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