

Another view at the zoo

An Oklahoma zoo adds an exhibit about creationism near one about evolutionary science. **NATION A4**



FINALLY!

Dale Earnhardt Jr. breaks a 19-race winless streak at the USG Sheetrock 400. **SPORTS C1**



Britain mourns

Britons gather in churches across the country to remember bombing victims. **WORLD A5**

Richmond Times-Dispatch

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VIRGINIA'S NEWS LEADER
A MEDIA GENERAL NEWSPAPER

MONDAY, JULY 11, 2005

Soldier, leader, homicide victim

BY JIM NOLAN
TIMES-DISPATCH STAFF WRITER

It's not supposed to happen this way. Not to soldiers such as Maj. Gen. John Chapman Bard.

No, the John Bards of the world — battle-tested heroes, leaders of men, dedicated servants to their country and to the proud traditions of West Point's "long gray line" — aren't supposed to

fall in twisted domestic dramas.

Yet on June 28, the 75-year-old man died on a tree-lined residential street on a sunny day, a knife in his back. Brought down, police say, by what soldiers in the field call a "friendly" — John Townsend Mustin, the troubled teenage son of Bard's longtime personal friend. A boy Bard had helped raise as his own.

"It's kind of ironic," observed Bard's

oldest son, John C. Bard Jr., 46. "He made it through two tours in Vietnam, and died in this situation, because he was such a good person."

Bard's slaying on Albemarle Avenue in Richmond's West End ensured that the retired general would not simply fade away.

But those who knew Bard — as a

SEE HOMICIDE, PAGE A6 ▶



John C. Bard (right) received the Legion of Merit in Vietnam in June 1971.

DENNIS POUNDS THE COAST



LM OTERO/THE ASSOCIATED PRESS

Buck Lee, Santa Rosa Island Authority's general manager, braced against Hurricane Dennis in Pensacola Beach, Fla., yesterday.

Weakened storm smacks Fla., Ala.

Nearly half a million lack power after the relatively small storm zips through at a quick pace

PENSACOLA, Fla. — Hurricane Dennis roared quickly through the Florida Panhandle and Alabama coast yesterday with a 120-mph bluster of blinding squalls and crashing waves, but residents emerged to find far less damage than when Ivan took nearly the same path 10 months ago.

The tightly wound Dennis, which had been a Category 4, 145-mph monster as it marched up the Gulf of Mexico, weakened just before it struck less than 50 miles east of where Ivan came ashore. And despite downed power lines and losses affecting nearly half a million customers, early reports indicated no deaths and relatively modest structural damage.

"We're really happy it was compact and that it

lasted only so long," said Mike Decker, who lost only some shingles and a privacy fence at his home near where the storm came ashore. "It was more of a show for the kids."

The storm blew ashore at 3:25 p.m. EDT midway between the western Panhandle towns of Pensacola Beach and Navarre Beach.

White-capped waves spewed four-story geysers over sea walls. Sideways, blinding rain mixed with seawater blew in sheets, toppling roadside signs for hotels and gas stations. Waves offshore exceeded 30 feet, and in downtown Pensacola, the gulf spilled over sidewalks eight blocks inland. Boats broke loose and bobbed like toys in the roiling ocean.

But Dennis, which was responsible for at least 20 deaths in the Caribbean, spared those to the north because of its relatively small size and fast pace. Hurricane-force winds stretched only 40

SEE STORM, PAGE A3 ▶



Dennis should skip past Va.

Dennis should have little or no impact on Virginia if the storm does what computer forecast models think it will.

The hurricane's remains should stall over the Midwest tomorrow or Wednesday, said meteorologist Dan Reilly of the Wakefield Weather Forecast Office.

"After that, it's not clear what it's going to do, but it should be dissipated quite a bit by then," Reilly said.

— Peter Bacqué

Langley's shuttle work in spotlight

But experts hope new safety techniques won't be needed

BY A.J. HOSTETLER
TIMES-DISPATCH STAFF WRITER

CAPE CANAVERAL, Fla. — When Discovery returns to space, Langley Research Center engineers and scientists hope their work of the past two years doesn't get used.

During the 12-day shuttle mission, Langley researchers at Mission Control in Houston will sift through data to determine if the shuttle has suffered damage and how it might be repaired.

And if the shuttle is damaged at Wednesday's launch or later, Langley researchers will help figure out how the injured shuttle will react to the extreme heat of re-entry and how it might sur-

vive landing.

Langley's "return-to-flight" efforts were in the spotlight here yesterday, two hours before NASA began its official launch countdown.

The mission remained on schedule yesterday, although NASA warns that stormy weather could delay the afternoon liftoff from Kennedy Space Center.

Discovery is set to deliver nearly 15 tons of supplies and replacement parts to the International Space Station, but its main task is to test the new safety and inspection techniques developed in the aftermath of Columbia's disintegration in 2003.

Many of those new techniques involved Langley researchers trying to ensure that another shuttle and its crew isn't lost.

"A lot of these tool and technologies we've worked on," said

SEE SHUTTLE, PAGE A9 ▶

In W.Va., the spin on wind farms is positive

Many see turbines as a majestic presence and tourist attraction

BY ABBY VOGEL
TIMES-DISPATCH STAFF WRITER

THOMAS, W.Va. — Most residents of this part of West Virginia are proud of their 44 windmills lined up along Backbone Mountain.

Across the country, wind-farm proposals often cause residents to battle each other and their local governments in contentious debate weighing the clean, green energy produced by wind turbines against their impact on scenic wilderness and wildlife.

One such battle is under way in Highland County, Va., where the Board of Supervisors is to vote on a wind-farm proposal Thursday. If approved, it would be the first commercial wind

Inside

Impact on nature? Virginia proposal stirs environmental doubts. **Page A8.**

Lower utility bills? Federal government expands its "Energy Star" conservation program. **Page A12.**

farm in the state.

Residents near the Mountaineer Wind Energy Center, with 40 wind turbines in Tucker County and an additional four in Preston County, say they did not fight it when the center was proposed. Now, 2½ years later, many say they believe the turbines are majestic and unique and that they don't mind having them in their backyards.

Betty Woods can see about 14 from her living room. And while Tucker County, population 7,000,

SEE WIND, PAGE A8 ▶

MONDAY



Mostly sunny.
High: 93. Low: 71. /B6

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Breakfast club

ROMEOS get together once a month for guys to enjoy laughs and food.

Prime Living /E1



Change is good for Bandit

Shannon Davis leaves his demure side behind when he steps onto the field.

Sports /C1

100 years of radiology

The roots of Radiology Associates of Richmond go back to the earliest days of X-ray use in the city.

Metro Business /D19



COMING TOMORROW Little-known testing

As the 60th anniversary of the first atomic bomb nears, people in Mississippi remember the ground rising.

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WIND FARMS

/ www.TimesDispatch.com /

Turbines' impact on nature debated

Blades kill birds, bats, and Highland region harbors rare species

BY REX SPRINGSTON
TIMES-DISPATCH STAFF WRITER

HIGHTOWN — Giant windmills are being proposed along the wild Appalachian ridges of Highland County because that's where the wind is.

But mountain ridges are also places where birds fly and bats chase insect dinners.

And experts say the Highland wind turbines would be in an unusual natural area harboring rare squirrels and plants left behind from the Ice Age.

The \$60 million proposal has stirred a mighty wind of controversy in this remote county of 2,500, about 150 miles northwest of Richmond. The wind farm would be Virginia's first.

Backers say the windmills would provide energy without contributing to smog, acid rain or global warming.

"I don't see how it's going to cause any harm at all," said Tal McBride of Harrisonburg, who is proposing the project with his father, retired poultry businessman Henry T. McBride.

But some scientists and activists say the potential environmental harm greatly outweighs the benefits.

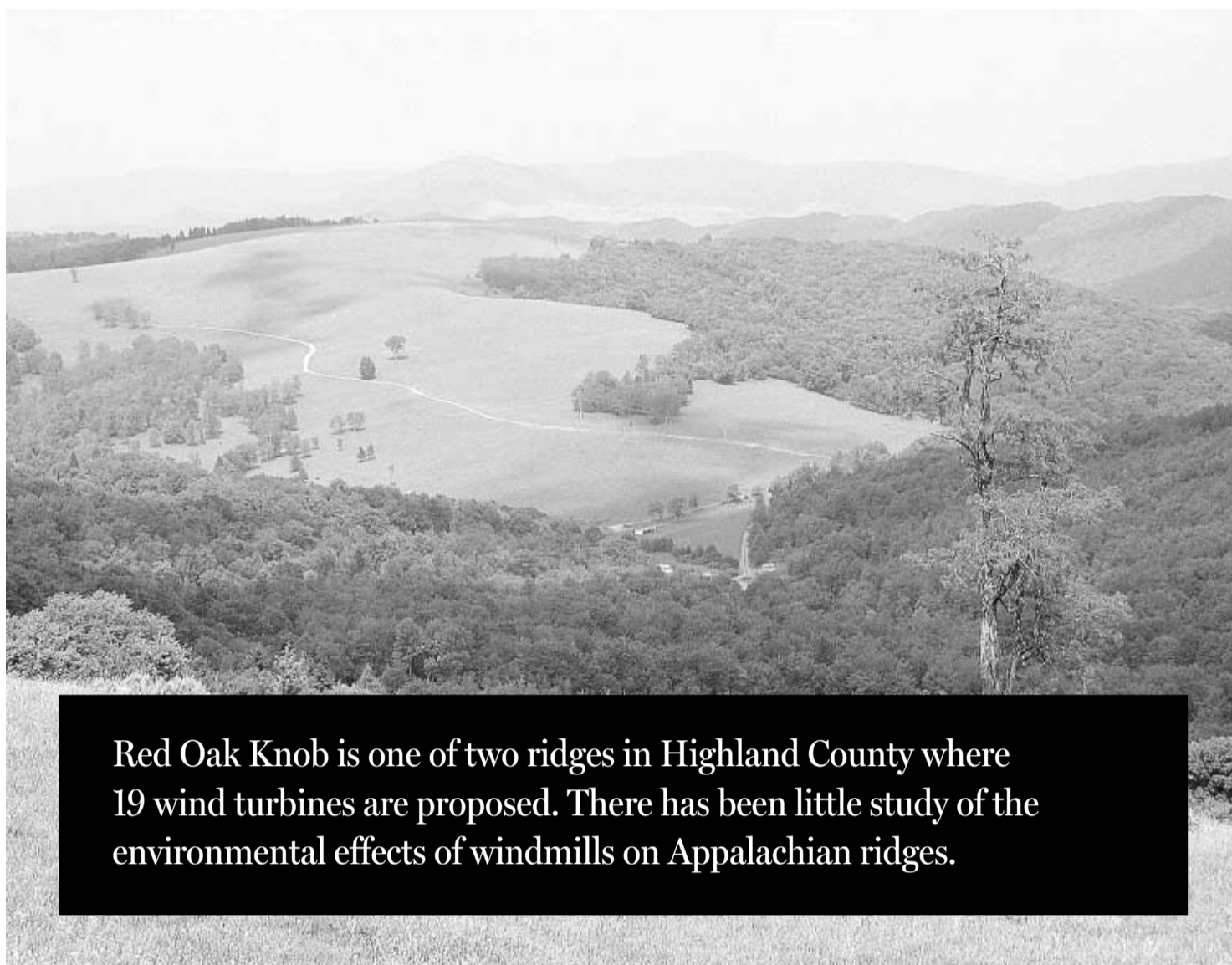
"I think wind turbines in the proper setting can be positive, but it certainly is not green energy if you have to destroy special habitats to get that energy," said Virginia Commonwealth University biologist John Pagels, who has studied Highland's mammals for more than 30 years.

♦ ♦ ♦

The McBrides are proposing 19 windmills on two 4,300-foot-high ridges the family owns near the West Virginia line.

The windmills and a substation would sit within 200 acres of the family's 4,000-acre tract, the McBrides say. Each windmill would be as much as 400 feet tall. By comparison, the Federal Reserve Bank building in downtown Richmond is 393 feet tall.

Hawks, bald eagles and songbirds migrate along Appalachian ridges, but experts don't know a lot about how high the birds fly, said Mitchell Byrd, a College of William and Mary ornithologist. That means it's unclear if birds



Red Oak Knob is one of two ridges in Highland County where 19 wind turbines are proposed. There has been little study of the environmental effects of windmills on Appalachian ridges.

REX SPRINGSTON

would fly above the spinning blades or into them.

Nationwide, estimates of birds killed by windmills range from 10,000 to 40,000 a year.

Many more birds — estimates run into the millions — are killed by collisions with buildings, cars and windows.

"Wind energy is having barely a blip on the chart" of bird deaths, said Christine Real de Azua, a spokeswoman for the American Wind Energy Association, an industry group.

Byrd replied, "That's kind of like someone slapping you 50 times and saying it doesn't hurt any more if they slap you 52. Why exacerbate a problem that we know exists by adding another problem to the pot?"

Tom Gray, deputy executive director of the wind association, said he is "pretty confident" the Highland sites would not pose a problem for birds. Radar research indicates that birds do not seem

to prefer to follow the ridgeline in migration, he said.

Bryan Watts, director of W&M's Center for Conservation Biology, said radar work in the Appalachians is problematic because the mountains interfere with the signals. "The entire spine of the Appalachians, which includes that [Highland] area, is a migratory pathway. That is not in dispute. We know that."

Many birds, particularly songbirds, are in decline for reasons including destruction of nesting habitats in the U.S. and wintering grounds in the tropics.

Songbirds would probably be most imperiled by windmills because most migrate at night, when it's harder to see, Watts said.

"There is no question that there are going to be birds hitting [the windmills], no matter what industry says. . . . The question is how much mortality there is, and whether it is significant" to bird populations.

♦ ♦ ♦

Highland is so cool, scenic and high it's called "Virginia's Switzerland." More appropriate would be "Virginia's Canada."

During the last Ice Age, cold-weather plants and animals abounded in the region. When the Ice Age ended about 12,000 years ago, cold-loving species could find homes this far south only at the highest elevations — in places such as western Highland.

On Highland's ridges, you can find trees such as red spruce and animals such as the endangered northern flying squirrel, species more likely to turn up in Canada.

Byrd said there has been little study of the environmental effects of windmills on Appalachian ridges.

Pagels, the VCU biologist, said it's wrong to build in "such a phenomenally beautiful area" to obtain such a small percentage of

overall power.

McBride said no trees would be cut and little natural area disturbed. He called the output "an enormous amount of electricity."

The 19 windmills could produce 38 megawatts of power, much less if little wind is blowing. McBride said they could produce enough power on average for 15,000 to 20,000 homes.

Some windmills on Appalachian ridges kill bats, important components of healthy forests and eaters of mosquitoes and agricultural pests.

A group called the Bats and Wind Energy Cooperative is studying ways to minimize windmills' threats to bats. The cooperative includes members from industry, the federal government and a conservation group.

The cooperative studied bat deaths for six weeks in 2004 at the Mountaineer wind farm in northeastern West Virginia and the Meyersdale farm in southwest

Pennsylvania. Both are along forested ridges and are owned by FPL Energy of Juno Beach, Fla.

The 44 windmills at the Mountaineer site killed an estimated 1,400 to 2,000 bats during the six-week period. At Meyersdale, 20 windmills killed an estimated 400 to 920 bats.

The bat deaths were "among the highest ever reported," said the group's report, which came out last month.

Building hundreds of windmills in the mid-Atlantic could mean large kills, said Merlin Tuttle, president of Bat Conservation International, a partner in the study.

"Easily, it could be 60,000 bats in a year. That is not likely to be sustainable. We are talking about one of the world's lowest-reproducing mammals."

No one knows if the open McBride land would draw fewer bats than the forested study sites, said Edward B. Arnett, a scientist with Bat Conservation International. He called for studies before building windmills to learn how bats are using the sites.

The Highland project's effect on bats is a legitimate question, said Gray, of the wind-industry association. "I don't think we've got the data to say" it wouldn't kill bats.

But an opponent would have to make a convincing argument to overcome a wind project's environmental benefits, he said.

♦ ♦ ♦

Jonathan Miles, a James Madison University energy expert, said the nation needs to move to renewable sources of power.

Miles declined to comment on whether he thought the Highland project's benefits outweigh costs, but said, "We need to start somewhere. . . . I think this would present Virginia an opportunity to develop a project and study it very closely" to determine its environmental effects.

The Highland Board of Supervisors is scheduled to vote on the windmill proposal Thursday. If approved, the proposal would go to the State Corporation Commission for review. That process would include an environmental review.

It is unclear whether there has been any environmental study of the project to date. Tal McBride declined to be specific. Highland County Administrator Roberta Lambert said she was unaware of any study.

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Wind

— FROM PAGE A1

is better known for its Canaan Valley ski resorts, some residents consider the wind farm a valuable tourist attraction. Motorists stopping to gaze at the line of windmills now have their own scenic overlook along Sugarland Road. And a backwoods outfitter said bicycle trekkers are usually entranced by the sight of the towering turbines.

Allison Lewis of Columbia, S.C., who heard about the wind farm before she visited the area, said she loves the whoosh, whoosh of the spinning blades.

"It's the same as the beach at the ocean with the wind and the waves," she said. "I think it's peaceful. I'd rather live near this than an airport."

To an unsuspecting motorist, the sudden appearance of a towering windmill can be unsettling. Driving along U.S. 219 from Thomas, a motorist can see the 328-foot-tall windmills looming above the treeline.

Standing next to a wind turbine, you can hear only a gentle whooshing sound, punctuated by an occasional beep.

The Lambert family home may be one of the closest to the wind turbines, about a mile distant.

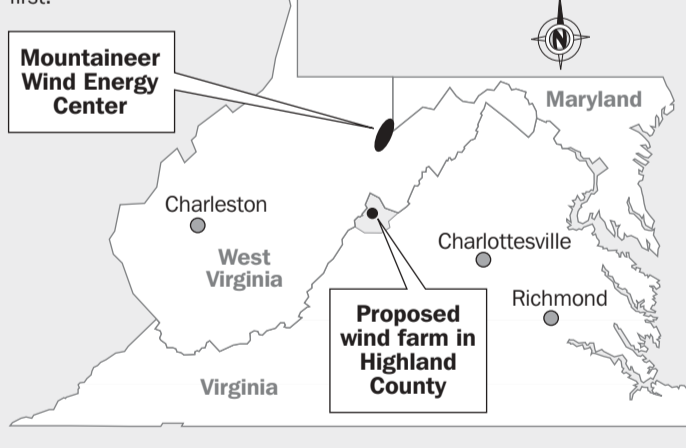
"We don't hear them unless it's real calm," Judy Lambert said. "It also depends on which direction they're facing. If the blades are facing us, we hear them most. . . . If it's really windy, you can hear them moving really fast."



ONLINE: View a slideshow of Tucker County's wind turbines and hear the sound they make. Click on TimesDispatch.com

Windy region

Forty-four wind turbines have been generating electricity for 2½ years at the Mountaineer Wind Energy Center in Tucker and Preston counties in West Virginia. Several other wind farms have been proposed in nearby areas of West Virginia. The commercial wind farm proposed for Highland County by Highlands New Wind Development LLC would be Virginia's first.



TOM ROBERTS/TIMES-DISPATCH

At the top of the mountains of the Canaan Valley resorts, about a dozen miles from the wind farm, the turbines can be seen in the distance. But they don't seem to be affecting the market for vacation homes.

Real estate sales have been "constantly increasing at a steady rate," said Laura Reed of Canaan Realty. The windmills have "become a tourist attraction. They're an oddity."

But some residents just don't like them.

"They are an ugly eyesore," said Silas Witzemann, who lives in St. George. "They're just not natural-looking the way they stick out of the tallest mountain and you can see them from so far away."

Interested tourists in Tucker County can get as close as 100 feet from the turbines. In Highland County, the proposed sites are more remote, with the closest public roads about a mile away.

To build the first proposed wind farm in West Virginia, the

developers of the Mountaineer wind farm had to get approval from the Public Service Commission, which regulates public utilities in the state, and two public forums were held to hear residents' opinions.

"There was no negative comment given at that time — locally, that is," said Robert Burns, the just-retired director of economic development for Tucker County. "At the state hearing, there was some opposition from the Nature Conservancy" because of the potential impact on birds and bats running into the windmill blades.

Thousands of visitors have been coming to see the windmills since they began spinning in 2002, according to Tucker County Commissioner David Leary, who also works for the company that maintains the wind farm.

"I don't think people are coming just to see the windmills," said John Bright, owner of the Purple Fiddle coffee house and market in Thomas. "But when they come, they're staying longer."

At a gravelled pull-off on Sugarland Road at one end of the row of windmills, it is not unusual to see five or six cars parked with visitors looking at the windmills and taking pictures, said Burns, the retired economic-development director.

Besides attracting tourists, the wind farm has created some jobs for the area, which has an unemployment rate of more than 6 percent. During construction, about 225 temporary jobs were created. After construction, six permanent jobs were filled with local residents.

Florida-based FPL Energy LLC spent about \$66 million to build the wind farm and sells the electricity it produces to Exelon Generation, FPL Energy spokesman Steven Stengel said. The wind farms have a life expectancy of 20 years, he said.

The 44 turbines can each generate 1.5 megawatts, giving the wind farm the capacity of 66 megawatts. The company would not release the productivity of the Mountaineer operation, but because of the variability of the wind, wind farms typically produce a fraction of their generating capacity.

Because of incentives, FPL Energy gets a break on the taxes it pays Tucker County on the land, turbines and other equipment — 5 percent of what conventional businesses pay.

Since 2002, FPL Energy has paid about \$92,000 in taxes, county officials said. When the project was proposed, it was projected to produce \$135,000 in annual revenue for the two counties.

The cost of producing wind power is higher than coal or nuclear energy. But to some, the cost is worth it.

"I grew up in this state watching the land get raped and polluted with orange water and acid rain," said Bright, the shop owner in Thomas. "Any form of energy is better than the coal mines."

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"We don't hear them unless it's real calm. It also depends on which direction they're facing. If the blades are facing us, we hear them most."

JUDY LAMBERT
LIVES ABOUT A MILE FROM TURBINES WITH HER HUSBAND TED



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ALEXA WELCH EDLUND/TIMES-DISPATCH