

## Astronomers take first detailed photo of distant star

SAN ANTONIO (AP) — A dramatic view of the red supergiant Betelgeuse captures for the first time a detailed image of the surface of a distant star and shows that it is far different from our sun.

A Hubble Space Telescope photo released Monday shows that Betelgeuse has a single, gigantic hot spot that registers 12,000 degrees and has an atmosphere that extends much farther into space than previously thought.

"We have looked into space and have seen the face of a star," said Andrea Dupree of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass. "It is exciting."

Dupree presented images and an analysis of Betelgeuse at a national meeting of the American Astronomical Society.

Betelgeuse is located in the constellation Orion 500 light years from Earth — meaning it takes light 500 years to travel from the star to us. It is the seventh brightest star in the winter sky of the Northern Hemisphere and appears to have a reddish tint to the naked eye.

Using special filters, a team led by Dupree took 56 images of Betelgeuse with the Hubble Space Telescope to capture details of the star surface and its halo of hot gases.

# STRANGER

THAN FICTION

Dupree said the surface of Betelgeuse is smooth, almost featureless, except for one immense spot of intense light and heat. That spot, she said, is more than 3,000 degrees hotter than the rest of the star's 9,000-degree surface.

"What we see on Betelgeuse is completely different from what occurs on the surface of the sun," said Dupree. "Instead of lots of little sunspots, we find an enormous bright area."

"On the sun, we see smaller spots rather like a measles across the face of the sun," she said.

The Betelgeuse hot spot, which is wider than 10 Earth diameters, could be caused by a unique pattern of magnetic activity that forces superheated gases to the star's surface, Dupree said.

Images in the ultraviolet, which is invisible to the eye, shows that the star's envelope of hot gases extends more than twice its visible sphere.

Betelgeuse is so huge that if it occupied the position of our sun, the edge of the star would reach beyond the orbits of Jupiter and Saturn, she said.

Dupree said more photos will be taken periodically of Betelgeuse to track any movement of the giant hot spot.

## NEWS BRIEFING

A LOOK AT THIS MORNING'S HEADLINES

### High number of infants coming down with respiratory virus



NORTHWEST

BELLEVUE, Wash. (AP) — Doctors are uncertain whether a respiratory virus infecting area

infants in higher-than-normal numbers is simply more severe than usual or has just arrived early this year.

Seattle's Children's Hospital admits 5 to 10 infants with respiratory syncytial virus in a normal December. Last month it admitted 130 babies with the virus infection. The trend is continuing this month and November numbers also were much higher than usual.

Higher incidence of the virus also has been reported from southwestern Washington, where 20 cases were reported in December and another 20 so far this month.

It is impossible to tell whether this is a peak year for the virus or whether it merely appeared earlier in the season, said Dr. Craig Rubens, Seattle Children's Hospital's infectious disease specialist.

The virus grows in the cells that line the small airways of the lungs. It not only causes typical cold symptoms — runny nose, coughing, fever — but can also cause mucus to build up, obstructing the tiny air passages.

The virus is common and virtually every child has had it by age two, Rubens said.

### Hillary Clinton supported in Arkansas



NATIONAL

LITTLE ROCK, Ark. (AP) — Beaming at "I Trust Hillary" signs and likening her critics to

neighborhood bullies, Hillary Rodham Clinton basked in hometown cheers Tuesday. She said she will testify to Congress if that's what it takes to put Whitewater behind her.

As she began a 10-city tour to promote her new book, Mrs. Clinton told an auditorium filled with hundreds of supporters that "despite all the storm about Whitewater" she hoped the American people focus on important issues such as the well-being of the nation's children.

A few blocks from the downtown hotel where she spoke, her indicted Whitewater business partners and Arkansas Gov. Jim Guy Tucker were in a pre-trial court hearing trying to fend off charges that they looted a savings and loan before it collapsed. Tucker and James and Susan McDougal face a March 4 trial.

In Washington the Senate Whitewater Committee heard from three White House aides who on Nov. 5, 1993, met with the Clintons' personal lawyers after spending several months gathering information about the then-burgeoning criminal investigations of Whitewater.

### Chechen gunmen defy massive Russian assault, take hostages



WORLD

PERVOMAYSKAYA, Russia (AP) — The Chechen separatists' fierce campaign ignited

outside Russia for the first time Tuesday, with rebels hijacking a ferry in Turkey while their comrades battled Russian troops for a second day in this burned-out village.

Chechen gunmen clung to their positions as Russian tanks and helicopter gunships assailed Pervomayskaya for a second day. Despite salvo after salvo of missiles and artillery fire, they refused to release their dozens of hostages.

Tank rounds slammed across frozen fields and rockets from helicopter gunships exploded in the burning remains of the village as black columns of smoke rose in the winter sky.

At least 100 people had been killed and injured in the fighting. It was not known if any hostages were among the dead.

Maj. Gen. Alexander Mikhailov, a spokesman for the Federal Security Service, claimed the rebels had suffered terrible losses. "We're not counting them in terms of corpses — we're counting them in terms of arms and legs."

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