

# Mars: 5 things you might not know

■ **The color:** It's called the red planet because the landscape is stained rusty-red by the iron-rich dust.

■ **Quick weight loss:** Its gravity is only 38 percent that of Earth. So if you weigh 150 pounds on Earth, you would weigh 57 pounds on Mars.

■ **Hot and cold:** Mars' temperatures can range from 80 degrees at its equator

to -199 degrees at its poles.

■ **The air is different:** Mars' atmosphere is mostly carbon dioxide with traces of nitrogen and argon. Earth's atmosphere is a mixture of nitrogen, oxygen and other gases.

■ **Longer days:** They last 40 minutes longer than a day on Earth.

— Associated Press

## NASA Mars mission

The Curiosity rover is designed to travel Mars studying climate and geology. The rover is looking for signs of carbon, the building blocks of life. Some of the rover's features:

**Robotic arm**  
Used to examine and manipulate soil and rocks; it also has two scientific instruments, one uses X-rays to determine materials' composition and the other is a magnifying camera

**Laser**  
Burns small holes in rocks and soil up to 23 feet away and identifies chemical elements

**Color cameras**  
Stereo mastcams on either side of the rover's mast take color pictures and movies in 3-D

**UHF antenna**  
Primary transmission antenna

**Plutonium power source**  
A nuclear battery that converts heat into electricity

**Neutron detector**  
Detects water in rocks and soil

**Weather station**  
Records wind speed/direction, air pressure, humidity, temperature and UV radiation

**Radiation detector**  
Measures radiation from the sun, supernovae and other sources

**Inside: Chemistry lab**  
Analyzes rock and soil samples for organics

**Mineral detector**  
Shines an X-ray beam at a rock or soil sample to identify types of minerals

Photo courtesy of NASA

SOURCE: NASA

AP

## MARS

From Page A1

to be recharged," Johnson said. "It will run for decades."

A team of about 65 scientists and technicians spent six years developing, building and testing the power source. Six years of weekends at work, Christmas breaks away from family and pizzas delivered to the site will soon pay off, said Kelly Lively, who supervised the project as manager of the Radio Isotopes Power Systems Department.

"We give life to what we're sending for deep-space exploration," Lively said. "That we had a part in that, there's a tremendous amount of satisfaction."

The team also built the power system on the spacecraft heading to Pluto as part of NASA's New Horizons mission.

The team and the world will have to wait until 2015 for New Horizons to complete its nine-year trek to Pluto. That's a long time for the team to wait, Johnson said.

Luckily, after Curiosity launched in November, the team waited just nine months to find out whether the power system aboard the rover will be up to the task.

"It's closer to instant gratification," Johnson said.

The team handles the radioactive materials in an airtight chamber with sealed gloves and robot-like arms.

Fuel cells in the energy source are 1 inch tall and 1-inch diameter cylinders. Each puts out a mind-boggling 9,000 to 10,000 degrees of heat, shift supervisor Dave Hendricks said.

"It's incredible to know how much energy you have, that you are holding something that costs so much money are relying on," said Hendricks, who worked on both projects. "If it

## LINGO

From Page A1

Even speakers acknowledge the jargon is sometimes jarring.

"It's kind of our own slang," explained Michael Watkins, mission manager of NASA's \$2.5 billion Mars project set to land Sunday night. "It's a shorthand way to talk about these very complicated systems."

He added: "Even folks from other missions have no idea what we're talking about."

Let's start with the rover's name. In the halls of NASA's Jet Propulsion Laboratory, it's called MSL — short for Mars Science Laboratory. Spacecraft typically have technical names before being rechristened by the public through naming contests sponsored by NASA.

For example: the twin rovers Spirit and Opportunity that landed in 2004 were known as MER-A and MER-B for the longest time (MER is shorthand for Mars Exploration Rover.)

MSL did not become Curiosity until 2009,

when a sixth-grader from Kansas proposed the nickname. Still, there are some hard-cores who continue to use the scientific moniker.

Curiosity is loaded with the most sophisticated instruments to study Mars' environment — with convoluted names to match. "Mastcam" refers to the pair of 2-megapixel color cameras on the rover's "head." "SAM" — short for Sample Analysis at Mars — is the mobile chemistry lab designed to sniff for carbon compounds. "ChemCam" stands for Chemistry and Camera, otherwise known as the rock-zapping laser. And "RAD" — That's the radiation detector.

Before Curiosity can start science experiments, it must first survive an intense EDL — entry, descent and landing — or as NASA has come to call it, seven minutes of terror.

Signals are received through the DSN, or Deep Space Network, a worldwide network of antenna dishes that communicates with interplanetary spacecraft. Nominal means A-OK. Not so for anomaly (translation: Houston, we have a problem).

fails, the whole thing fails. To have that kind of responsibility is overwhelming, but it's also exciting."

The moment of truth for Curiosity and the team comes Sunday night.

Team members and some of their family will fill O'Callahan's bar at the Shilo Inn in Idaho Falls, hopefully to celebrate. They'll listen to an audio stream of the landing. The signal from Mars will take 14 excruciating minutes to reach Earth.

According to NASA, seven minutes will pass as the capsule holding Curiosity goes through a complicated landing sequence before setting the rover down (see box

on Page A1). That makes for another seven nerve-racking minutes before the world finds out whether Curiosity safely touched down or whether it exploded in an expensive rubble pile. NASA calls it the Seven Minutes of Terror.

Lively said team members will be on the edges of their barstools, ready to cut loose once word arrives that Curiosity — and their baby, the Multi-Mission Radioisotope Thermoelectric Generator — are safe and ready to get to work.

"It will be geeks gone wild at that point," Lively said.

Zach Kyle can be reached at 542-6746.

## BECK

From Page A1

directly from Trigon ... so Beck wasn't entitled to any of the money," Klein said.

Klein's complaint alleged Yost made three separate payments to Beck in 2007 using Trigon money funneled through businesses entities Yost controlled.

"The payments made by Trigon to (Beck) ... were made by Trigon with actual intent to hinder, delay or defraud its investors," the lawsuit said. "These investors mostly consist of innocent investors who gave money to Trigon and Palmer believing the money was being invested profitably on their behalf."

But defense attorney Smith said that wasn't the case. The jury apparently agreed.

Since Beck had loaned Yost \$500,000, Smith said Beck was entitled to the payments he received from Yost.

Ultimately, the jury decided Beck should repay only \$55,000 because that amount wasn't included in the original amount he gave to Yost.

"Mr. Beck would have paid (Klein) the (\$55,000) two years ago," Smith said. "(But) since Mr. Beck was cleared of fraud, we believe the investors are not entitled to it. We're going to challenge (paying back

the \$55,000) in court."

Smith did not indicate when that might happen.

During this week's trial, Palmer testified as a witness — via a video hookup — from the federal prison in Duluth, Minn., where he's serving an eight-year prison sentence.

Under cross-examination by Smith, the attorney said Palmer — "for the first time" — cleared Yost of any wrongdoing. Palmer testified, according to Smith, that Yost had "no knowledge of — and did not engage in — the Ponzi scheme."

Smith went on to say that Palmer told the court he went out of his way to keep Yost in the dark because had Yost known about the scam, Palmer said Yost would have alerted authorities.

In 2011, Idaho won a \$27 million judgment against Yost in connection with Palmer's scam.

Investigators at the time said Yost brought Trigon \$27.3 million in investment contracts or promissory notes that were deposited with Palmer. Yost did not respond to the lawsuit seeking the judgment but previously told the Post Register that Palmer had kept him in the dark about the fraudulent nature of Trigon.

"The bottom line was Daren was the only one who knew anything in this whole thing," Yost told the Post Register in May 2011.

## CRAIG

From Page A1

commission argues Craig's defense had no connection to his campaign for federal office.

Craig counters that money tied to his airport bathroom trip was neither for personal use or his campaign, but falls under his official, reimbursable duties as senator because he was traveling between Idaho and the nation's capital for work.

He cites a U.S. Senate rule in which reimbursable per diem expenses include all charges for meals, lodging, hotel fans, cleaning, pressing of clothing — and

bathrooms.

"Not only was the trip itself constitutionally required, but Senate rules sanction reimbursement for any cost relating to a senator's use of a bathroom while on official travel," wrote Andrew Herman, Craig's lawyer in Washington, D.C., in documents filed Thursday.

In its complaint, the FEC contends the three-term U.S. senator's campaign account, Craig for U.S. Senate, paid at least \$139,952 to the law firm Sutherland, Asbill and Brennan in Washington, D.C., and \$77,032 to Kelly & Jacobson in Minnesota for legal services related to his guilty plea to disorderly conduct.

An undercover officer said Craig tapped his feet and signaled under a stall divider that he wanted sex.

Regulators who voted unanimously in May to pursue the complaint against Craig after informal negotiations failed are seeking repayment of the money, as well as fines of up to \$6,500 from the former senator and his treasurer, Kaye O'Riordan.

Contacted Friday, FEC spokeswoman Judith Ingram cited pending litigation and declined to comment on the case.

Craig also didn't return a phone call Friday to his lobbying firm, New West Strategies.

### Stocks of Local Interest — Friday, Aug. 3, Close

Name	Open	Close	Range	Name	Open	Close	Range
AnhBsch Inbev	81.64	81.64	81.64/81.64	Lockheed Martin	89.43	89.39	88.47/89.56
CenturyLink	42.02	41.74	41.63/42.29	Martin Marietta	74.23	74.80	73.46/74.99
Chev. Texaco	111.14	111.12	110.90/111.88	Micron Technlgy	6.33	6.33	6.24/6.45
ConAgra Foods	24.53	24.57	24.46/24.66	OfficeMax	5.11	4.92	4.86/5.13
Exxon Mobil	87.07	87.55	86.80/87.89	PepsiCo	72.51	72.87	72.19/72.90
Gnrl Dynamics	62.89	63.10	62.78/63.47	PrknsElmer Inc	25.37	26.78	25.37/27.30
Gnrl Electric	20.82	20.96	20.77/21.00	ShrwnWilliams	135.80	136.08	135.41/136.85
H.J. Heinz	55.16	55.54	55.15/55.77	Union Pacific	123.93	124.54	123.69/126.91
Home Depot	52.20	52.29	51.86/52.34	U.S. Bancorp	33.42	33.49	33.27/33.69
IdaCorp	42.40	42.67	41.97/42.75	Viacom	44.86	47.20	44.85/47.60
KeyCorp	8.05	8.24	8.03/8.26	Wal-Mart	74.62	74.55	74.25/74.96
Kroger	22.10	22.20	22.00/22.32	Wells Fargo	33.76	34.34	33.63/34.40

### Market watch

Aug. 3, 2012

<b>Dow Jones industrials</b>	<b>+217.29</b>
	13,096.17
<b>Nasdaq composite</b>	<b>+58.13</b>
	2,967.90
<b>Standard &amp; Poor's 500</b>	<b>+25.99</b>
	1,390.99
<b>Russell 2000</b>	<b>+19.88</b>
	788.48

## WOODYSMITH AUTOMOTIVE GROUP

**WAR BONNET ROUND-UP**

Idaho's Oldest Rodeo Est. 1911

**Coca-Cola Coors**

## Idaho's Oldest Rodeo

Thursday-Friday-Saturday

August 2-4, 2012

Sandy Downs

Idaho Falls

Get Tickets Online at

[www.WarBonnetRoundup.org](http://www.WarBonnetRoundup.org)

Tickets Starting at \$15

3-Day Pack Starting at \$40!

Gates Open - 5:30  
Mutton Bustin & Miniature Bull Riding - 7:00  
Rodeo - 8:00

Tickets also available at

Sportsman's Warehouse

Cal Ranch

Vicker's Western Store

KJ's on Sunnyside

Sponsored by

KUPA 99  
ZIONS BANK  
CONRAD-BISCHOFF  
PR Post Register  
CABLE ONE  
LOCAL 3  
alphanographics  
REGIONAL MEDICAL CENTER  
AMERICAN NATIONAL

An independent newspaper with more than 100 employee owners



"We are committed to serving this special place, our home, now and in future generations. Our unique responsibility is to provide information people need in the way they want to receive it. In our dealings, we will be fair and ethical, accurate and courageous."

Jerry Brady, president, Post Company, jbrady@postregister.com 522-1800  
Roger Plowow, editor and publisher, rplowow@postregister.com 522-1800

Brett Acor, 542-6776  
Director of Sales  
bacor@postregister.com

Rob Thornberry, 542-6795  
Managing Editor  
rthornberry@postregister.com

Ivy Berry, 542-6710  
Chief Financial Officer  
iberry@postregister.com

Katie Foster, 542-6721  
Circulation Home  
Delivery Manager  
kfoster@postregister.com

Karen Fioretti, 542-6779  
Director of  
Production & Technology  
kfioretti@postregister.com

Member of The Associated Press

Although every effort will be made to make sure your ad runs without errors, some mistakes do occur. If we run your ad with a significant error or omission, we will gladly submit a letter of correction, but we cannot be held responsible for any loss beyond the actual value of the advertising space itself.

(USPS)-439-900)

The Post Register is published daily except Mondays and Christmas Day by The Post Co., Inc. 333 Northgate Mile, Idaho Falls, ID 83401. Periodicals postage paid at Idaho Falls, Idaho.

POSTMASTER: Send address changes to:

Post Register, Circulation Department, P.O. Box 1800, Idaho Falls, ID 83403  
The Tuesday issue is hereby designated as the issue of the week in which such legal notices required by any order of a court of competent jurisdiction for publication weekly will be published.

■ **Corrections:** Our Code of Ethics calls us to admit mistakes and correct them promptly, which we do with a standing item in the first section of the paper. If you spot a mistake, call Managing Editor Rob Thornberry at 208-542-6795 or e-mail him at rthornberry@postregister.com. Readers interested in our commitment to accountability should review our ethics code at [www.postregister.com/ethics](http://www.postregister.com/ethics)

In Idaho Falls:  
333 Northgate Mile  
Idaho Falls, ID 83403  
Main number (208) 522-1800  
Monday through Friday  
8:30 a.m. to 5:30 p.m.

■ **To place an ad: 522-1800**

To place a classified ad: Call Monday-Friday 8:30 a.m. to 5:00 p.m. 524-7355  
For all other advertising: Call Monday-Friday 8:30 a.m. to 5:00 p.m. 542-6704

■ **To order delivery: 542-6777 or 1-800-574-6397:** To subscribe or report delivery problems, call Monday-Friday 6:00 a.m. to 5 p.m., or weekends from 6 a.m. to noon, or for 24-hour subscriber service and rates go to [www.postregister.com/subscribe/subservices.php](http://www.postregister.com/subscribe/subservices.php)

■ **To get your news in the paper email or fax your information to:**  
[news@postregister.com](mailto:news@postregister.com) or fax 529-9683

Newroom customer service hours are 8 a.m. to 5:30 p.m. Monday-Friday