



SEARCH ALL [input field] go

SPONSORED BY:

HOME NEWS COMMUNITIES SPORTS VIDEO LIFE WEATHER OPINION OBITUARIES CLASSIFIEDS CUSTOMER SERVICE

Archives Brevard headlines Space Florida Nation & World Business Education Watchdog Crime Life Health Lottery

Homecoming Cram Session Blog Data Center: Education data



Water exists on moon

Spacecraft smash in October reveals liquid in crater

BY JAMES DEAN • FLORIDA TODAY • NOVEMBER 14, 2009

Comments (3) Recommend Print this page E-mail this article Share

CAPE CANAVERAL — NASA scientists said Friday the spacecraft they smashed into the moon last month detected "significant" amounts of water at the bottom of a frigid, shadowed crater.

If other polar craters share a similar composition, the finding increases the possibility explorers could some day harvest drinking water and components for air and rocket fuel from the moon's surface and reduce the cost of an outpost. It could make a return visit there more attractive.

"We didn't find just a little bit, we found a significant amount," Tony Colaprete, project scientist and principal investigator for the \$79-million mission, said in a news conference at NASA's Ames Research Center in Moffett Field, Calif.

An amount equivalent to a dozen 2-gallon buckets of water was dislodged from a roughly 65-foot crater when a rocket stage slammed into the moon's south pole Oct. 9, four minutes before the following spacecraft.

Colaprete said the water was not in the form of an ice sheet atop the targeted Cabeus crater, but likely a mixture of ice and vapor mixed with granules of soil.

"If you could clean it, it would be drinkable water," he said.

The Lunar Crater Observation and Sensing Satellite spacecraft launched June 18 from Cape Canaveral as a secondary payload to NASA's Lunar Reconnaissance Orbiter, which is now circling about 31 miles above the moon to create detailed maps.

The spacecraft known as LCROSS remained attached to the upper Centaur stage of its United Launch Alliance Atlas V rocket for nearly four months, separating about nine hours prior to impact.

The Centaur struck the crater at 5,600 mph with the mass of a large SUV, kicking up a curtain of soil and vapor.

Little could be seen of the impact live from spacecraft cameras, disappointing some observers and raising doubts about whether enough dirt was dislodged to answer questions about water.

ON THE WEB

Space Blog: The Flame Trench

Related Topics

Places - Cape Canaveral, FL

Contextual linking provided by Topix

MOST RECOMMENDED ARTICLES

- Arrest mugshots (300)
- Arrest made in Port St. John standoff (78)
- Accident changes family's life (12)
- Road reopens after I-95 crash in Melbourne (44)
- Palm Bay Juniors finish with 12-0 record (7)

MOST COMMENTED ARTICLES

- Your views: Deliberating health care (Nov. 13) (325)
- As pessimism grows, grouchy public sticks by Obama (162)
- Your views: Letters to the editor (131)
- Brevard GOP chief calls for state head to quit (92)
- Our views: Major step forward (Nov. 12) (89)

More Space Headlines

- Shuttle Atlantis to deliver space station parts (1)
- Titusville artist designs NASA's shuttle mission patches

The mission's goal was to identify the source of hydrogen concentrated at the lunar poles that was first detected by NASA's Lunar Prospector probe about 10 years ago.

1 | 2 Next Page

(1)



News update: Traffic expected to be light for shuttle launch: <http://bit.ly/kenPD> about 4 hours ago

Independent filmmakers take home awards: <http://bit.ly/4EhK2W> about 5 hours ago

News update: Man dies after dive on Oriskany wreck: <http://bit.ly/23t8TN> about 6 hours ago

News update: Miami Beach's aging Fontainebleu hotel in trouble: <http://bit.ly/3HuELG> about 6 hours ago

News update: Orange County tot dies in fall from window: <http://bit.ly/43uxYd> about 6 hours ago

[CLICK TO FOLLOW US ON TWITTER](#)

SITE MAP

- » 7-day archive
- » 7-day forecast
- » 90 seconds to fame film contest
- » Advice & columnists
- » Airport delays
- » Archives
- » Around the u.s.
- » Bca section
- » Barefoot bay
- » Bars & clubs
- » Bay bulletin
- » Blogs
- » Breeze
- » Brevard watchlist
- » Brevard headlines
- » Brian mccallum
- » Business
- » Classifieds
- » Communities
- » Customer service
- » Cape canaveral
- » Capitol news
- » Cars
- » Cash for clunkers
- » Cocoa
- » Cocoa beach
- » Cocoa beach web cam
- » Columnists & blogs
- » Contact us
- » Cram session blog
- » Crime
- » Crossword
- » Data center: crime data
- » Data center: education data
- » Data center: politics
- » Data center: real estate data
- » Data center: weather data
- » Dating
- » Education
- » Extreme culture
- » Fact book
- » Finding fitness
- » Flablaba
- » Flame trench blog
- » Florida
- » Football play of the week
- » Forums
- » Galleries
- » Garage sales
- » Gas
- » Gators
- » Gators sports scene blog
- » Grant-vaikaria
- » Grocery coupons
- » Home
- » Health
- » Help!
- » Help! column
- » High school galleries
- » High school sports
- » High schools blog
- » High schools forum
- » High school football play of the week
- » Homecoming
- » Hometown heroes
- » Horoscope
- » Horoscopes
- » Hour-by-hour
- » Hurricane preparation
- » Ihb
- » Indialantic
- » Interactive graphics
- » Jeff parker toons in
- » Jobs
- » Life
- » Launch schedule
- » Lee nessel
- » Legal ads
- » Little league
- » Local headlines
- » Local loop
- » Lottery
- » Magic
- » Malabar
- » Mark decotis
- » Melbourne
- » Melbourne beach
- » Melbourne village
- » Melbourne doppler radar
- » Memoriams
- » Merritt island
- » Metromix
- » Metromix: events
- » Metromix: music
- » Micco
- » Mike cherry
- » Mims
- » Momslikeme
- » More web cams
- » Motorsports
- » Movies
- » My cozi calendar
- » News
- » Nation & world
- » National loop
- » Notable deaths
- » Obituaries
- » Opinion
- » On the town
- » Our views & your views
- » Outdoors
- » Page prints
- » Palm bay
- » Palm shores
- » Patti sponsler
- » Pay bill
- » Personal technology
- » Pet project
- » Peter kerasotis
- » Photo galleries
- » Pineda
- » Place an ad
- » Port canaveral web cam
- » Port st john
- » Press
- » Radars
- » Real estate
- » Regional loop
- » Rentals
- » Restaurants
- » Rockledge
- » Sec
- » Sports
- » Satellite beach
- » Scottsmoor
- » Search obituaries
- » Shopping
- » Shopping with autumn
- » Space
- » Space / flame trench blog
- » Space chat
- » Space headlines
- » Spaces
- » Special project: moon landing memories
- » Special project: saving hubble
- » Star advocate
- » Stocks
- » Submit a letter to the editor
- » Subscribe now
- » Sudoku
- » Sudoku & features
- » Sun
- » Suntree
- » Surfing
- » Swine flu
- » Tee times
- » Times
- » Titusville
- » Today in brevard
- » Tribune
- » Video
- » Video ondemand
- » Videos
- » Viera
- » Weather
- » Watchdog
- » Weather news
- » Weather web cam
- » Web cams
- » Weekly deals
- » West melbourne
- » Work for us
- » Youth sports
- » Youth football
- » Youth soccer
- » Zap squad
- » Zoo web cam

Partners: [Jobs: CareerBuilder.com](#) [Cars: Cars.com](#) [Apartments: Apartments.com](#) [Shopping: ShopLocal.com](#) [Homes: Homefinder.com](#) [Dating: eHarmony](#)

[HOME](#) | [NEWS](#) | [COMMUNITIES](#) | [SPORTS](#) | [VIDEO](#) | [LIFE](#) | [WEATHER](#) | [OPINION](#) | [OBITUARIES](#) | [CLASSIFIEDS](#) | [CUSTOMER SERVICE](#) | [Site Map](#)

[Terms of Service](#) | [Privacy Policy](#) | [Contact Us](#) | [About Us](#) | [Work for Us](#) | [Subscribe](#)

Copyright ©2009

Use of this site signifies your agreement to the [Terms of Service](#) and [Privacy Policy](#) , updated March 2009.