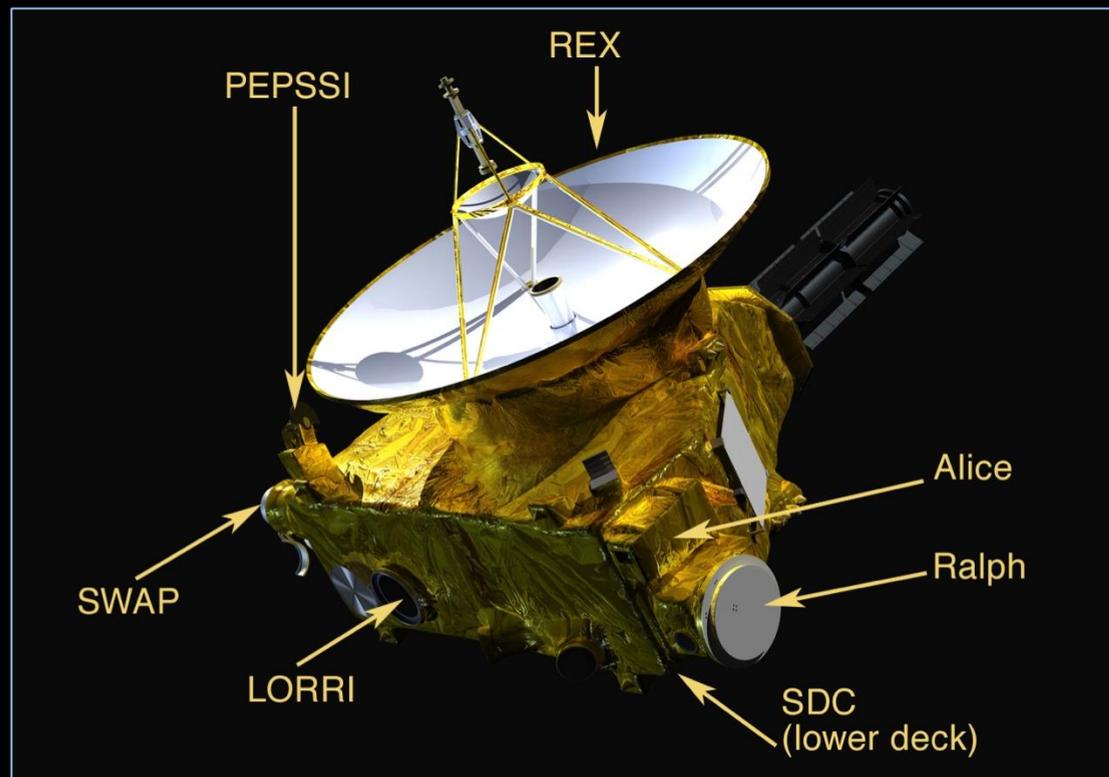


HOLD FOR RELEASE
UNTIL PRESENTED BY WITNESS
July 28, 2015

Testimony before the
Subcommittee on Space,
Committee on Science, Space and Technology
U.S House of Representatives

Statement of
Dr. S. Alan Stern
Principal Investigator
NASA's New Horizons Mission to the Pluto System
Southwest Research Institute, Boulder CO

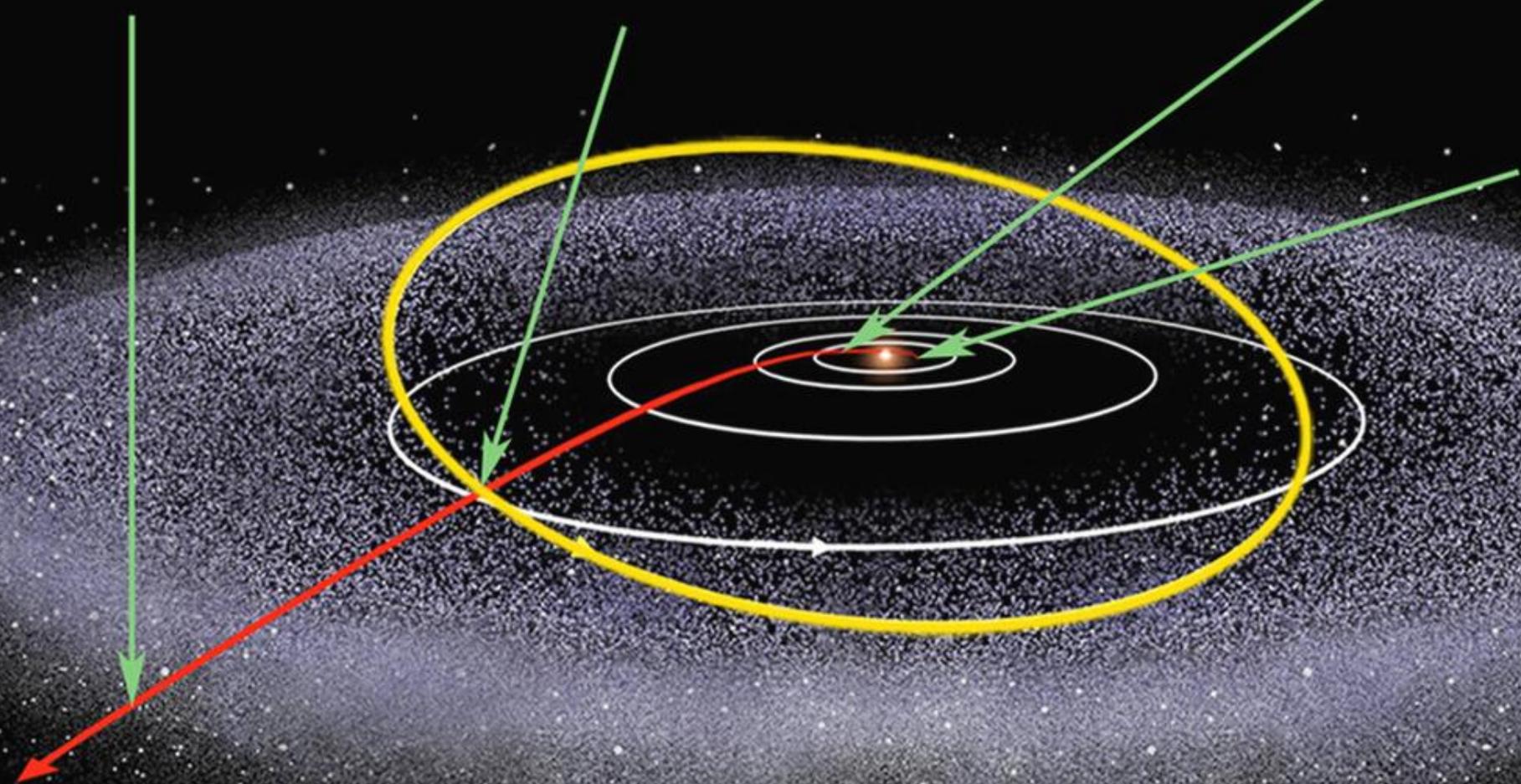


KBOs
2016–2020

Pluto System
July 2015

Jupiter System
Feb 2007

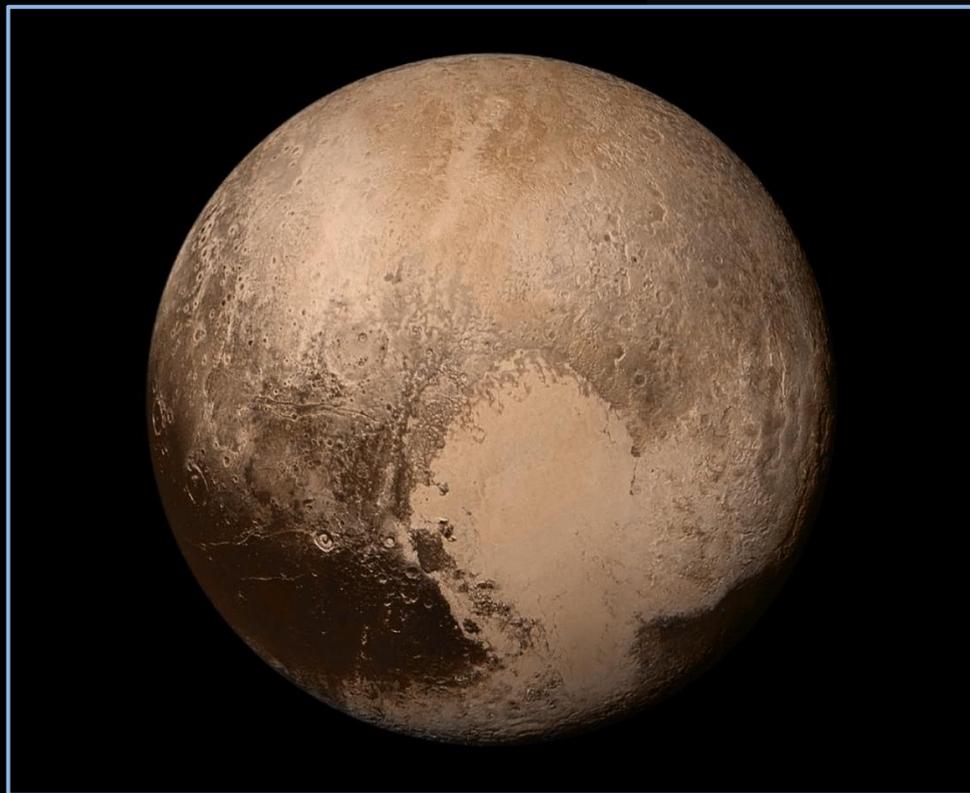
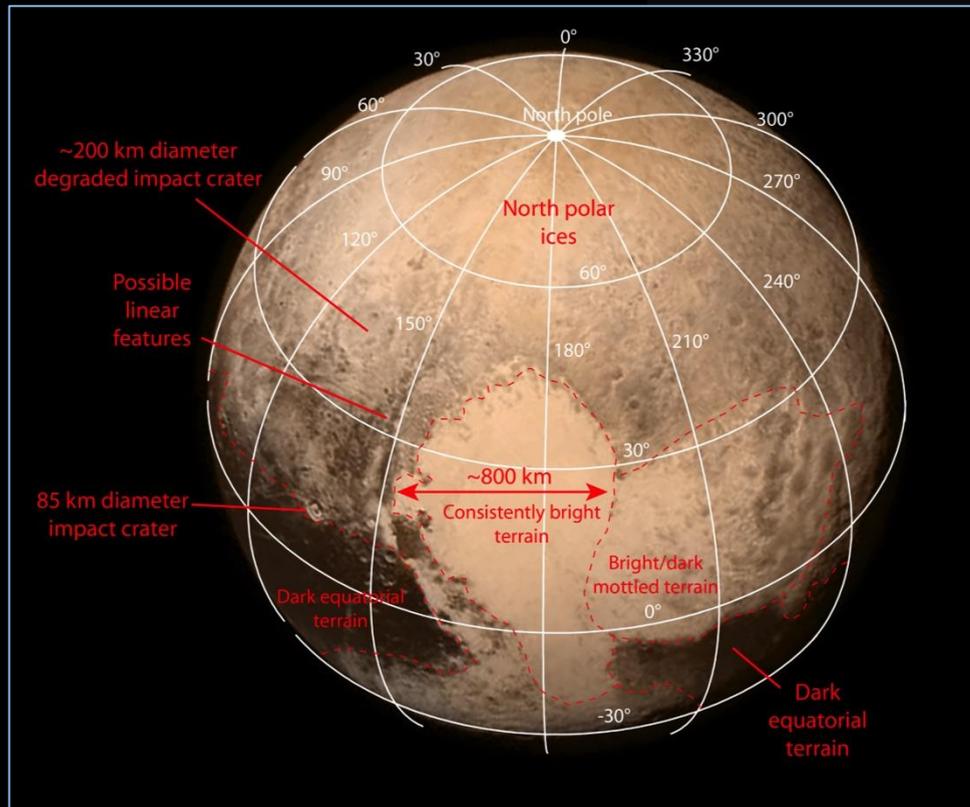
Launch
Jan 2006



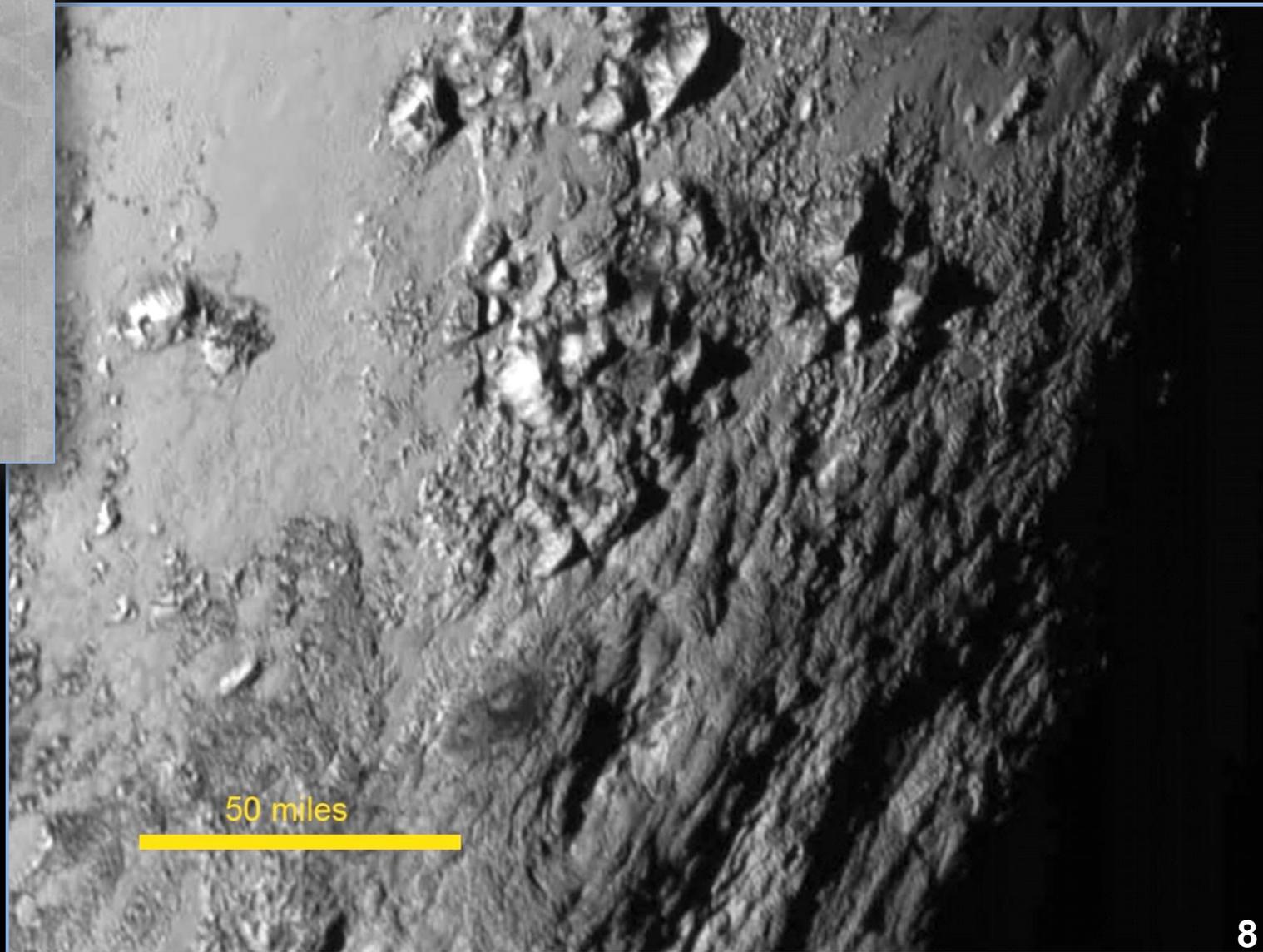
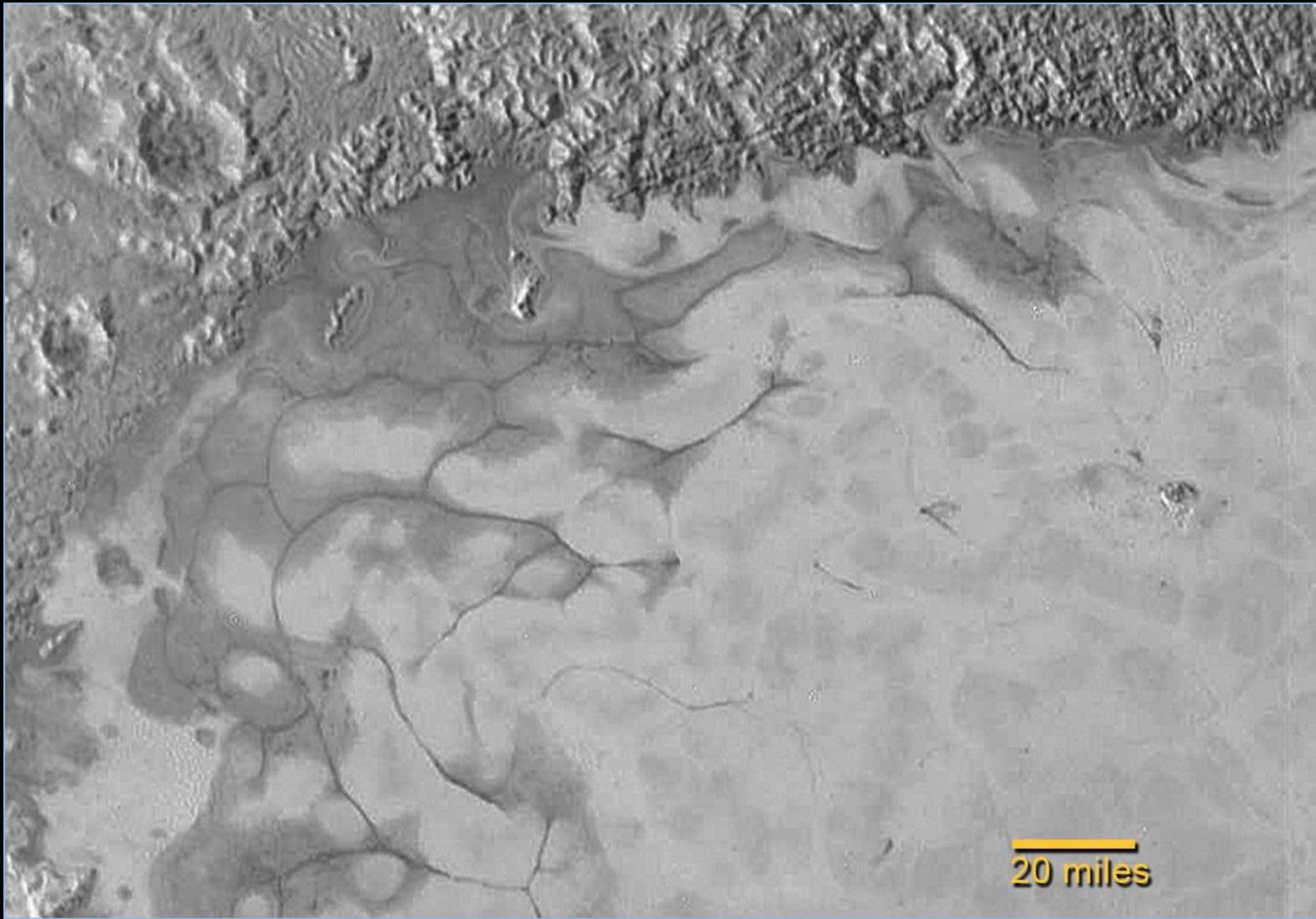


PLUTO ~~IS~~ ~~NOT~~ EXPLORED 29 USA

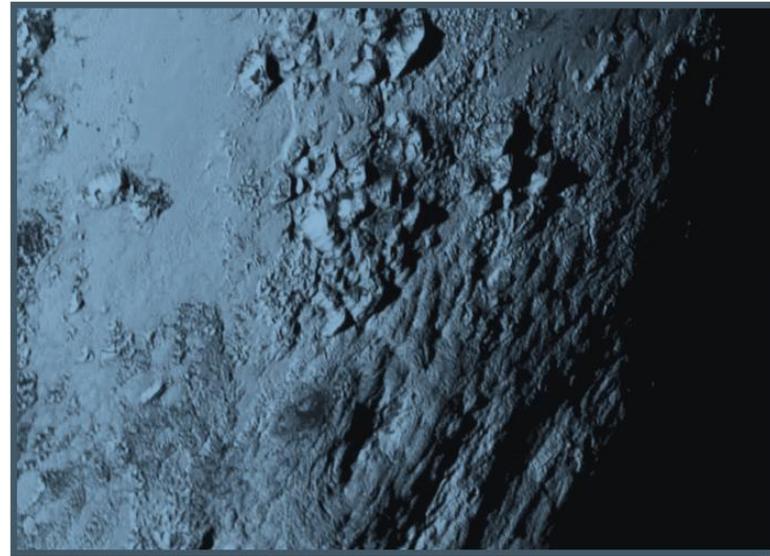




False Color







Pluto's Portrait: Ice Mountains, No Craters and, for Scientists, a 'Toy Store'

By KENNETH CHANG

LAUREL, Md. — The first close-up image of Pluto has revealed mountains as tall as the Rockies, and an absence of craters — discoveries that, to their delight, baffled scientists working on NASA's New Horizons mission and provided punctuation for a journey nine and a half years in the making.

Only 12 years after the Wright Brothers were barely able to get their airplane off the ground, a machine from Earth has crossed the solar system to a small, icy world three billion miles away. The flyby on Tuesday, when New Horizons buzzed within 7,800 miles of the former ninth planet, came 90 years to the day after NASA's Mariner 4 spacecraft made a similar first pass by Mars.

Pluto until a few weeks ago was a blurry dot. Within the past couple of days, it has been transformed into a dynamic world with varied geography, discoveries that point to the possibility of ice volcanoes and charming tectonics. All of this new information could provide clues to how planets form and even to the origins of some of the building blocks of life.

"I don't think any one of us could have imagined that this could have been a better toy store," S. Alan Stern, the mission's principal investigator, said during a news conference on Wednesday.

William Grundy, an investigator working to analyze the surface composition of Pluto, chimed in: "This is what we came for."

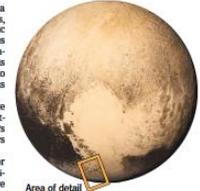
"This exceeds what we came for," added Catherine Oikarinen, the deputy project scientist.

Earlier in the day, New Horizons had sent back the first batch of a bountiful trove of data that it had collected during its close flyby of Pluto. Dr. Stern said the images were "something close to bedlam."

A day before, NASA had released a mesmerizing image of the full 1,472-mile-wide disc of Pluto, highlighted by a bright heart-shaped swath of terrain. The newer image focused on a much smaller patch, about 150 miles across, near the bottom of the heart shape, and captured features as small as a half-mile across.

The first surprise was the rugged topography — mountains up to 11,000 feet high. But these mountains are almost certainly as high as the Rockies.

Continued on Page A17



Area of detail. An image of Pluto showed mountains about as high as the Rockies.

YEARS OF TRADING AND COMPROMISE SEALED IRAN DEAL

ASSIST FROM A SULTAN

Concluding That Halting Bomb Development Eclipsed All Else

By DAVID E. SANGER and MICHAEL R. GORDON

VIENNA — One by one, the roadblocks to a nuclear accord between Iran and the United States had been painstakingly cleared. But as the negotiations went into their third week in the neoclassical Coburg Palace hotel this month, a major dispute lingered: whether a ban on Iran's ability to purchase conventional weapons and missile technology would remain in place.

The American delegation, led by Secretary of State John Kerry, insisted on extending the ban. But Mohammad Javad Zarif, the Iranian foreign minister and his country's chief negotiator, was opposed. Backing him were the Russians and Chinese, equal parties in the talks, who saw a lucrative market in selling arms to Tehran.

A compromise was struck that fully satisfied neither side: a five-year ban on the sale of conventional weapons and an eight-year ban on ballistic missiles.

Privately, Mr. Kerry told his team that any lifting of the ban was bound to inflame many in Congress, where fears of empowering Iran would mix with presidential politics. But shortly before midnight on Monday he called President Obama, and together they agreed that it was not worth losing what they saw as the best chance to roll back Iran's nuclear program simply because there was a risk that sometime in the future Iran would be able to acquire far less.

Continued on Page A10



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Continued on Page A17



I ♥ PLUTO

July 14, 2015: NASA's New Horizons #PlutoFlyby

FIRST MARS PHOTO IS TRANSMITTED; MARINER SIGNALS INDICATE PLANET LACKS A LIQUID CORE LIKE EARTH'S

By WALTER D'ARCO

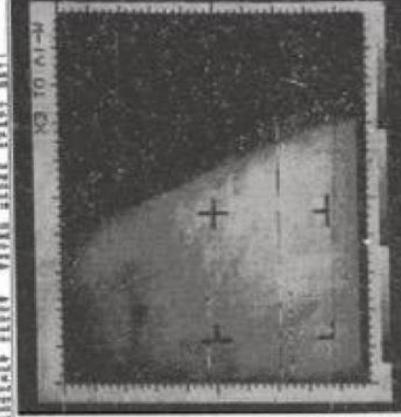
PARANAPA, Pa. — The first photograph of Mars, taken by the Mariner 4 spacecraft, was transmitted to Earth on Tuesday. The image, which was the first close-up photograph of the planet, revealed a rocky, cratered surface that is very different from Earth's.

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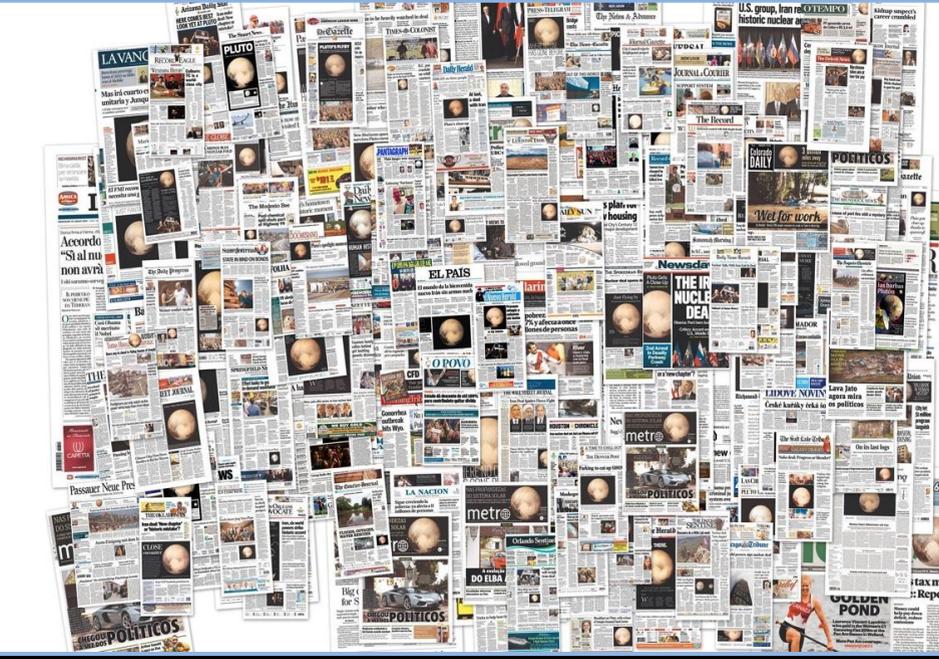
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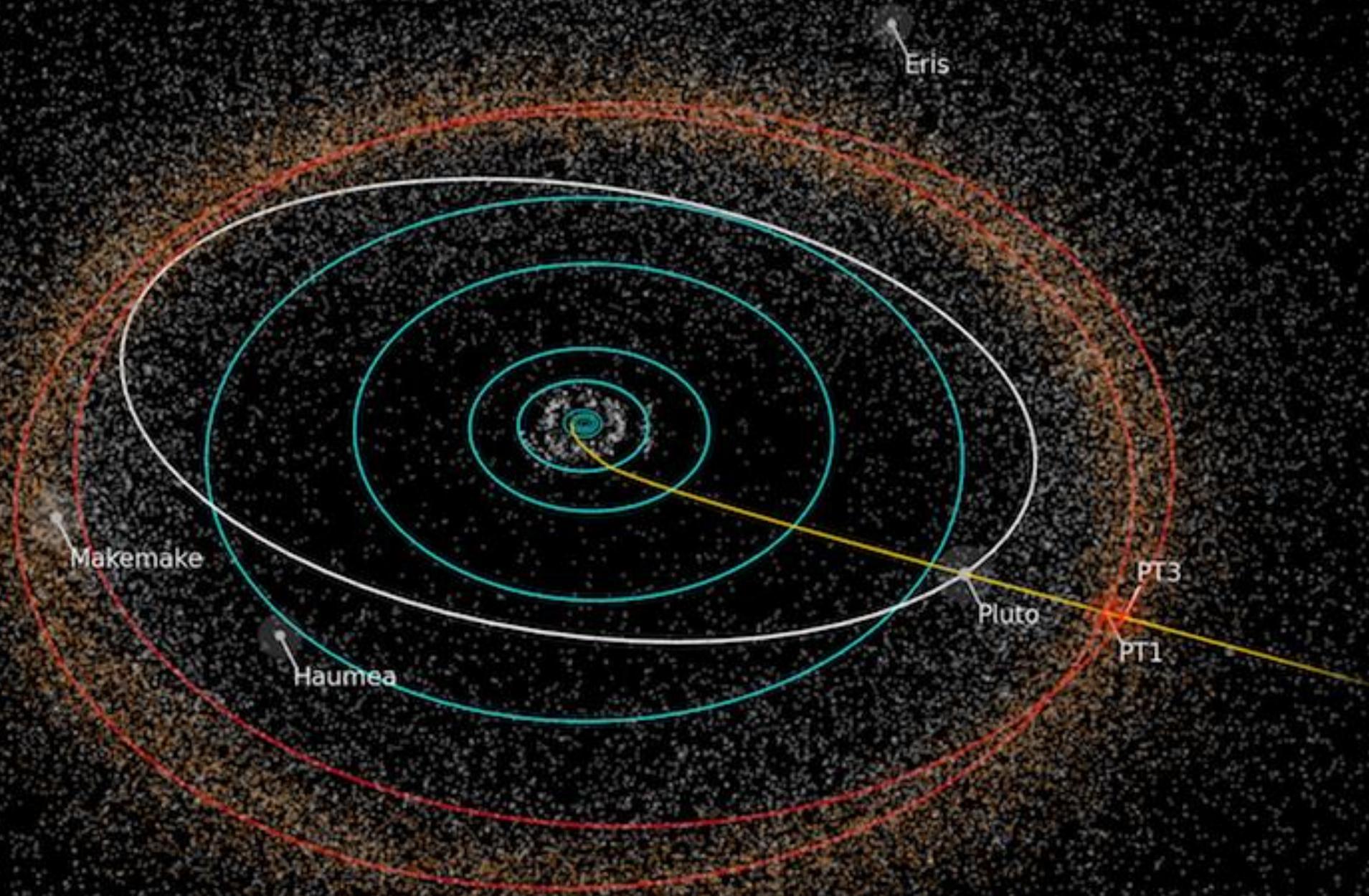


FIRST CLOSE-UP OF MARS Photograph made by Mariner 4 of the planet and sent back to earth. The area covered along edge of planet is about 200 miles. Shot was taken at about 15,000 miles. It is expected to add greatly to scientists' knowledge of Mars.



Spyder Webb @Spyder_Webb · 4h
 Front page of The New York Times as it appeared on 16 July 2015 and 16 July 1965 #PlutoFlyBy #NewHorizons #Mariner
 You, Pluto, NASA New Horizons and 7 others

3 3



Eris

Makemake

Haumea

Pluto

PT3

PT1

