

Tiny probe Philae nails the landing

Harpoons fail to fire, may impact experiments

Traci Watson
Special for USA TODAY

The anxiety isn't over. After a nerve-racking seven-hour descent, a miniature spacecraft drifted softly onto the surface of a comet more than 300 million miles away from Earth on Wednesday morning. It was the first craft in history to land on a comet, and the apparently successful feat provoked hugs, cheers and joyous laughter in the control room in Germany.

But the jubilation over the touchdown of the washing-machine-size ship, known as Philae, was quickly overshadowed. Within an hour after the landing was confirmed, engineers learned that contrary to plan, Philae had failed to fire its two harpoons into the comet's dusty soil. The harpoons were designed to anchor the spacecraft firmly to the comet's surface, partly to assuage fears that the craft could ricochet off the strange terrain and back into space.

Preliminary data suggest the lander came down "abruptly" on one of its three legs and softly on the other two, then "bounced slightly off" the comet before settling onto the surface again, Finnish Meteorological Institute research manager Walter Schmidt told USA TODAY. Schmidt heads the team responsible for a Philae scientific instrument that has sensors in the spacecraft's feet.

"Maybe today we didn't just land once, we even landed twice," Philae lander manager Stephan Ulamec joked at a news conference Wednesday. There are some signs that the spacecraft started to rotate after lifting off again, but if so, it has stopped rotating, Ulamec said.

One option is to try to fire the harpoons again. Even if the harpoons don't work, a good number of the 10 scientific instruments on Philae could gather data, Schmidt said.

The situation is grimmer for Philae's drill and the probes on the harpoons unless the har-

poons can be coaxied to function properly.

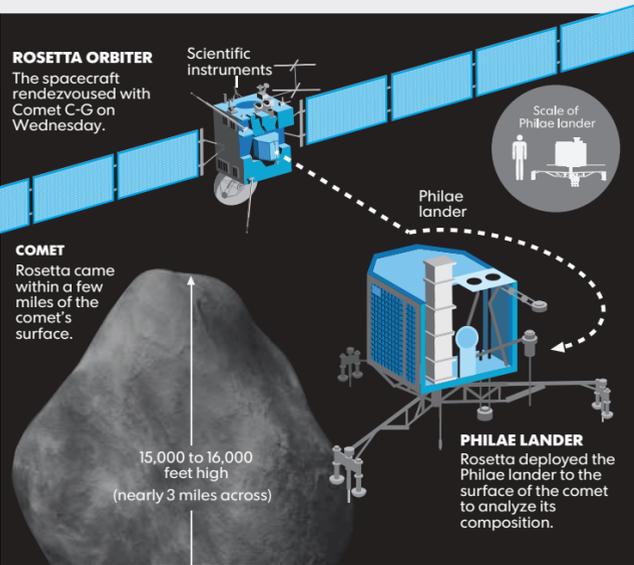
The experiments on Philae are designed to reveal the comet's composition, how it changes as it approaches the sun and more. Such clues could help scientists understand conditions in the solar system more than 4 billion years ago, when the comet formed.

The harpoon problems clouded a day of anxiety and triumph for the flight control team. The little spaceship cast off at roughly 4 a.m. ET from the mother ship that had carried it close to the comet. As mission personnel waited in suspense, Philae descended at a leisurely pace toward the comet's rugged surface. There was no way to steer it on its way down, no way to change course and no going back.

A few minutes past 11 a.m. ET, engineers received word that the spaceship, which belongs to the European Space Agency, had alighted safely on the comet's crater-scarred and boulder-filled landscape.

EXPLORING THE ESSENCE OF A COMET

On Wednesday, Spacecraft Rosetta reached Comet 67P/Churyumov-Gerasimenko, Comet C-G for short, after a 10-year, 4-billion-mile journey through the solar system.



Source: European Space Agency, AP
FRANK POMPA, USA TODAY

London mayor: PMs and prospects

Kim Hjelmgaard
USA TODAY

NEW YORK London Mayor Boris Johnson once said his chance of becoming British prime minister was about as good as finding Elvis on Mars or being reincarnated as an olive.

So was getting a straight answer Wednesday out of one of Britain's most flamboyant and gaffe-prone politicians.

"Can I take the Fifth on this one?" Johnson, 50, said in an interview with USA TODAY in a plush New York hotel suite.

London's New York-born mayor — he has a U.S. passport as well as a British one — was here to promote his book about his hero, Winston Churchill. *The Churchill Factor: How One Man Made History* (Riverhead Books) publishes today. In January, it will be 50 years since the death of one of the 20th century's most gifted — and cigar-chomping — politicians.

Most Americans may not recognize Johnson's name, although they may know about his unruly mop of blond hair. He is known for such antics as getting stuck hanging on a zipwire over the Thames River or being caught on camera tripping a child during a soccer game.

His speeches are often laced with ribald innuendo. For example, at the closing of the 2012 London Olympics, Johnson said, "Speaking as a spectator, you produced such a paroxysm of tears and joy on the sofas of Britain, you probably not only inspired a generation, you probably helped to create one as well."

In New York, Johnson wanted to plead the Fifth to a simple yes-or-no question asked several times about whether he wants to be prime minister.

Flamboyant politician writes about Winston Churchill and plays cagey about his own plans for a future in government



LEON NEAL, AFP/GETTY IMAGES



ROBERT DEUTSCH, USA TODAY



IAN GAVAN, GETTY IMAGES

Top: Mayor Boris Johnson boxes with a trainer at Fight for Peace Academy in London on Oct. 28. Johnson, who has written a book on Winston Churchill, is also fond of Paddington Bear.

The question isn't so far-fetched. Johnson, who has been London's mayor for six years, will step down in May 2016. Before he is out the door, he said, he will seek re-election to Parliament — a move many view as a step toward becoming prime minister, despite his denials.

"He's going back into Parliament, and I would be very surprised if he were doing that to be a back-bencher," said Tony Travers, a political professor at the London School of Economics. A YouGov poll after Johnson said he wanted to return to Westminster showed 69% of Londoners said he wanted to succeed Prime Minister David Cameron.

Johnson, a direct descendant of King George II, has passed through many hallowed corridors of British establishment. There was Eton and Oxford, which he attended with Cameron. Before he was mayor, Johnson was a member of Parliament from 2001 to 2008. He also was editor of *The Spectator*, a long-standing political magazine.

Wednesday, the mayor addressed the question of Britain leaving the European Union (No, but there need to be changes.) and the idea of London getting an NFL franchise ("Yes to NFL! Come to London. We will strew your way with petals.")

Despite many similarities to Churchill — both started as journalists; both have U.S. roots — Johnson nixed comparisons: "I have more in common with a three-toed sloth or a one-eyed pterodactyl or a Kalamata olive."

NOW SHOWING AT USATODAY.COM
Watch the video of the interview with London Mayor Boris Johnson.

SUPREME COURT

Racially drawn district lines may likely stay that way

Justices point out irony in arguments from Democrats

Mary Troyan
USA TODAY

WASHINGTON How much state lawmakers can use voters' race in drawing election districts was debated by the Supreme Court on Wednesday in an Alabama case that could affect future maps for state legislatures and Congress.

Oral arguments in the case centered on when race and party affiliation are proper criteria for deciding political boundaries.

Democrats say the new Republican majority in the Alabama Legislature marginalized African-American voters by packing more of them into districts that were already mostly black and reducing their ability to influence elections in other districts.

During oral arguments, some

Supreme Court justices noted an irony: that when Democrats were in charge, they used race to draw certain election districts specifically to help elect more blacks to public office.

Courts have sanctioned that policy to remedy historic racial discrimination.

"You think it's possible for the state to navigate between not enough minority members in the district and too many minority members in the district without taking race into account?" Chief Justice John Roberts asked lawyers representing the Alabama Democrats challenging the GOP redistricting map.

Justice Samuel Alito said the Democrats lack the credibility to accuse Republicans of pursuing racial quotas simply by maintaining or increasing the percentage of black voters in majority-black districts. "It sounds to me that you are just as interested in quotas," he told lawyers for the Democrats. "You're just interested in

lower quotas."

Justice Anthony Kennedy, normally a swing vote on the court, described as a "one-way ratchet" the notion that Democrats may disperse black voters to help elect more Democrats but Republicans can't move them back into fewer districts.

The line of questioning indicated a general skepticism of the view that Alabama Republicans misused the issue of race in redrawing the state's election maps. If the justices rule for the GOP in the case, the current maps would remain until the 2020 census.

Redistricting is among the spoils awarded to the political party in power in a given state, and the Supreme Court has long allowed party affiliation to influence the drawing of political boundaries. In Alabama, however, race and political affiliation are intertwined, and the court has limited how strongly lawmakers can consider race when drawing new maps.

Justices do double take on states' double taxation

Richard Wolf
@richardjwolf
USA TODAY

WASHINGTON The Supreme Court came to a simple conclusion Wednesday about taxes: They're not always fair.

The justices reached that conclusion during oral arguments in a case testing Maryland's income tax system, which does not grant a full credit to residents who also pay income taxes in states where they work. If Maryland loses the case, it could threaten millions in tax revenue there and in several other states and localities.

What became clear during the debate was that state and local income taxes constitute a double-edged sword. Residents forced to pay taxes where they live and where they work are victims of double taxation. But if they get a credit from their home state, then they're not paying their fair share for services.

"There's an inequity either way," Justice Antonin Scalia said.

Maryland is one of only a few states that don't credit residents fully for the taxes they pay to states where they work.

The lawsuit was brought by Brian Wynne, part owner of a company operating in several states. He paid state and county income taxes in Maryland and state income taxes elsewhere. He received a credit against his Maryland state tax, but not the county tax.

The issue of double taxation seemed to worry the most justices. Chief Justice John Roberts and Justice Samuel Alito compared it to a tariff, which Wynne's lawyer, Dominic Perella, called "the quintessential unlawful tax."

But William Brockman, the state's acting solicitor general, won some sympathy when he said Maryland shouldn't forfeit revenue from residents who still enjoy all state and local services.

"You don't get 18% of a fire-truck or a day of school because you earned 82% elsewhere," he said. "You get 100%, just like your neighbor does."