Fresh from space: Giant 18kg meteorite untouched by human hand discovered in the frozen wastes of Antarctica

- Find is the largest in 25 years in the area - and researchers spotted it against the whiteness of Antartica from 50m away
- Team discovered 425 meteorites during 40 day expedition
- Meteorite has yet to be aged as team is still thawing it out

By Mark Prigg

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It is one of the world's most virginal, untouched landscapes.

Yet while surveying the bleak whiteness of eastern Antarctica, researchers on an expedition to hunt for small fragments of meteorites were stunned to spot a dark blot on the landscape.

On further inspection, they realised they had found a giant 18kg (40-pound) meteorite poking out from the ice sheet - the largest found in the area in 25 years.

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Belgo-Japanese SAMBA meteorite team members examining the 18kg meteorite found during a field trip on the Nansen Ice Field, 140km south of Princess Elisabeth Antarctica. It is the largest found in the area for 25 years.
The 18kg meteorite found is the largest found in the area for 25 years

METEORITE NUMBERS

Total known meteorites discovered around the world: 56,555
Total meteorites found in Antarctica only: 38,537
Among Antarctic meteorites, only 30 have a mass greater than 18kg.
The 18kg meteorite has the fifth largest mass ever discovered in East Antarctica (Dronning Maud Land), and is the first of this size found in the area since 1988.
Per year, around 1,000 meteorites weighing less than 100g are found, and about 100 less than 1kg.

They described their find as 'special', and hope it could help explain how the solar system formed.
'To find something this large was very exciting for us - you can see it from very far away,' said Vinciane Debaille, a geologist from Université Libre de Bruxelles, who led the Belgian team during the expedition.
'That’s why we look for meteorites in Antarctica, because you can easily find the black spots on the white snow - but when it's huge like that you can see it from 50m away or more.'
The meteorite is unusual as the fusion crust – the meteorite’s outer casing - was eroded, allowing the scientists to inspect the rock underneath.
The Brussels-based International Polar Foundation said Thursday the meteorite is an 'ordinary chondrite,' the most common meteorite.

'This meteorite was a very unexpected find for us, not only due to its weight, but because we don’t normally find such large meteorites in Antarctica',

'This is the biggest meteorite found in East Antarctica for 25 years, so it’s a very special discovery for us, only made possible by the existence and location of Princess Elisabeth Antarctica.'

The rock was was discovered Jan. 28, and is undergoing a special thawing process in Japan so water won't penetrate it before it is studied.

The eight members of the SAMBA project, from Université Libre de Bruxelles (ULB) and Vrije Universiteit Brussel (VUB), Japan’s National Institute of Polar Research (NIPR) and Tokyo University were searching for meteorites scattered across the Nansen Ice Field on January 28, when they found the 18kg ordinary chondrite.

The team discovered a total of 425 meteorites, with a total weight of 75kg during the 40 day expedition, at an altitude of 2,900m, 140km south of Belgium’s Princess Elisabeth Antarctica research base.

While this is the largest found in eastern Antarctica since 1988, a 21.5-kilo (47.5-pound) meteorite was found on the continent in 2005, according to the Meteoritical Bulletin Database.
Researchers find giant 18KG meteorite sticking out of the Ant...
The largest in Antarctica was 407 kilograms (897 pounds), found in 1976 or 1977.

Initial field analysis by the scientists suggests that the 18kg meteorite is an ordinary chondrite, the most abundant kind of meteorite.

The fusion crust – the meteorite’s outer casing - was eroded, allowing the scientists to inspect the rock underneath.

'We study meteorites in order to better understand how the solar system formed, how it evolved, how the Earth became such a unique planet in our solar system', said Debaille.

'This season’s SAMBA mission was a success both in terms of the number and weight of the meteorites we found.

'Two years ago, we found less than 10kg.

'This year, we found so much that we had to call the travel agency – because we had 75kg of meteorites to take home'.

Members of the Belgo-Japanese SAMBA meteorite team celebrate behind the 18kg meteorite found during a field trip on the Nansen Ice Field, 140km south of Princess Elisabeth Antarctica.
Belgo-Japanese SAMBA meteorite team skidoos parked at the basecamp on the plateau, during the trip

Search for meteorites in Antarctica with the SAMBA team

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