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Note verbale dated 30 June 2017 from the Permanent Mission of the Sudan to the United Nations (Vienna) addressed to the United Nations Secretariat*

The Permanent Mission of the Sudan to the United Nations (Vienna) has the honour to enclose herewith the first report of the group of technical experts that has conducted the survey of a meteorite impact which occurred on Wednesday, 21 June 2017, in the Al-Abbasiya area of the White Nile State in the southern part of the Sudan (see annex).

The survey mission collected fragment samples of the meteorites, which are still under scientific analysis by the experts.

* The Office for Outer Space Affairs is disseminating the present information pursuant to General Assembly resolution 71/90, paragraph 9, concerning the work carried out by the International Asteroid Warning Network (IAWN) and the Space Mission Planning Advisory Group (SMPAG) and in its capacity as the permanent secretariat of SMPAG.

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Annex

Report on the scientific expedition to locate the Al-Abbasiya meteorite in White Nile State, the Sudan*

After news was received from several sources that a space object had fallen in White Nile State, the Sudan, between Rabak and Al-Jabalain, the Institute of Space Research and Aerospace (ISRA) and the physics and geology departments of the School of Sciences at the University of Khartoum established a joint team to investigate the incident. The team was selected under the supervision of M'aawiya Shedad, Head of the Sudanese Society for Astronomy and Space Science, and Mu'tamin Mirghani, lecturer at the department of physics at the University of Khartoum and director of ISRA.

On the morning of 22 June 2017, the eight-person team set out for Rabak. The team spent the first two days surveying the area east of the White Nile between Rabak in the north, Al-Jabalain in the south and the area of Kananah and Campo 5 in the east, which included the following locations:

> Rabak, Shembat village, Khor Ajwal, Al-Mansoura, a number of crossings and checkpoints, Mount Cody/Sheikh Hassan, Al-Hassania villages, the Campo 5 area, Kananah air base, Al Beyarah 1, Al Beyarah 2 and some unnamed areas.

The team travelled for three days, during which its members made enquiries and gathered data from local residents and eyewitnesses to the event. They cross-referenced and compared the information gathered in order to identify the location of the fallen space object or parts thereof.

On the third day, based on the conclusions drawn from the previous two days' enquiries, the team travelled to the area west of the White Nile. They started in Kosti, from where they travelled to Um Hani village in the south, then to Al-Fatah al-Mubin village. Next, the team travelled to the Campo Kamal area and then to Al-Abbasiya, where they found the first fragments of the meteorite at 12.51 p.m. precisely. Some fragments had fallen onto the homes of local residents. Members of the team combed the area and were able to find samples along the west bank of the White Nile. The team also recorded the coordinates of each fragment using a Global Positioning System device.

It has been confirmed that the fragments were part of a meteorite. Meteorites are rocky bodies that appear in the space between the planets of the solar system. They also orbit the sun. When the orbit of a meteorite crosses that of the Earth and the two bodies collide, the meteorite enters the Earth's atmosphere at high velocity and its main body burns up. It is possible, however, that some parts of the meteorite will collide forcefully with the Earth's surface. Alternatively, the meteorite may reach the surface intact or may splinter into parts of varying sizes. Meteorite samples have little material worth but are prized for their research value. The body and its component parts must therefore be protected until the scientific authorities arrive to collect them.

The meteorite samples discovered from what has become known as the Al-Abbasiya meteorite will be preserved and studied in detail in order to identify the size of the body that fell and its main components. The meteorite is of significant national research value and will benefit universities and research centres across the country. Foreign research institutes could also make use of the samples; this could provide an opportunity to develop a mutually beneficial research exchange with these institutes and to build ties with them, which would help drive forward scientific research in the Sudan.

* The information is reproduced in the form in which it was received.

The scientific expedition was made up of the following members:

ISRA:	University of Khartoum:
Hadhifah Ahmed Berimah, researcher	Amimah ‘Athman Mohammed ‘Athman, lecturer
Ahmed Taj al-Sir Ahmed, researcher	Diya’ al-Din al-N‘aman, lecturer
Abubakkir Ahmed al-Tayib, researcher	Khaled Mabrouk al-Nou, lecturer
Hassan al-Nour Hassan	Khadijah Mohammed al-Mabrouk, lecturer

The team wishes to thank the communities and governmental officials in the area who supported the expedition.

Hadhifah Ahmed Berimah, researcher
Head of the mission