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TWO NEW POSSIBLE IMPACT STRUCTURES IN THE ALGERIAN SAHARA CHABOU Moulley Charaf

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To date, 4 impact structures have been confirmed in Algeria, all of them located in the Sahara. This number is small considering (i) the large area of the region, mainly composed of good surfaces for the preservation of impact craters (arid desert), (ii) estimates of *cratering rates on Earth* and (iii) *the numbers of impact craters known in other regions* where there have been active programmes to study impact structures. *This indicates that number of impact craters remain to be discovered in the Algerian Sahara.* Remote sensing techniques have become indispensable tools for identifying promising impact structures, notably in the desert areas where there is no obscuring vegetation. Here, we used satellite and radarsat images to discuss possible impact origin of two circular features located in Algerian Central Sahara. This assumption is rooted on morphological criteria and the difficulty to explain the formation of these structures by other prevalent geological processes. On satellite imagery, the first structure exhibits a concentric ring of about 2,6 km in diameter, and what seems to be a central peak of about 0,6 km in diameter. These two features are apparent on radarsat image. The second structure also exhibits a complex morphology in satellite images, with an outer circular ring of about 3 km in diameter, a possible middle ring and a dark central area. The outer ring is clearly visible on radarsat image. Morphological characteristics of these two circular features are typical of that of small, deeply eroded complex impact structures. Detailed field investigations remain to be done to confirm the impact origin of these two structures.

Key words : impact structures - Algerian Sahara - Remote sensing - Algeria.