

Meteorite Craters Discovered by Means of Examining X-SAR Images—Part II

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Figure 1 – Craters 7, A (right) and B (left).

15. *Crater coordinates:* $\lambda = 92^{\circ}06$ E, $\varphi = 21^{\circ}48$ N (Bangladesh).

Diameter: 4.142 km.

Presumed age: less than 50 million years,

Reliability: possible.

Notes: The crater has a very sharp rim which suggests a young age. In the neighborhood, there are three more structures, one with the same size to the south and two smaller, that could be other craters, but some details make the author think that probably their origin is not extraterrestrial. Detached from this group, there is another crater; if this is an impact crater, it must have originated during an other event.

16. *Crater coordinates:* $\lambda = 103^{\circ}96$ W, $\varphi = 56^{\circ}42$ N (Saskatchewan, Canada).

Diameter: 10.264 km.

Presumed age: 250 million years,

Reliability: possible.

Notes: This is perhaps the most problematic structure among the ones presented in this study. Really, there is no evidence of a meteoric origin of this structure, consisting of an approximately circular lake, with an irregular shape.



Figure 2 – Crater 13.

The only reason for which it has been included in the present work is because, apparently, it seems to have a remarkable depth—it is deeper than many surrounding lakes in a radius of hundreds of kilometers—and an explanation of its origin does not seem to exist (ablation from part of the glacial cap, tectonic ground subsidence, karst phenomena, etc.). Possibly, Canadian geologists know more about the origin of this lake.

17. *Crater coordinates:* $\lambda = 97^{\circ}72$ W, $\varphi = 59^{\circ}05$ N (Manitoba, Canada).

Diameter: 1.304 km.

Presumed age: less than 50 million years,

Reliability: possible.

Notes: Its size is comparable with that of Meteor Crater in Arizona; apparently it seems to have a remarkable depth with regard to its size. Its origin preceeds the last glacial age, because it shows changes due to at least one glaciation.

18. *Crater coordinates:* $\lambda = 99^{\circ}65$ W, $\varphi = 54^{\circ}76$ N (Manitoba, Canada).

Diameter: 0.95 km.

Presumed age: less than 10 million years,

Reliability: possible.

Notes: Perfectly round crater, though its age can go up to one hundred million years, the author thinks that its age is not exceeding some million years.



Figure 3 – Craters 14, A (left), B (center), and Rotter Kamm Crater (right).

19. *Crater coordinates:* $\lambda = 99^{\circ}94$ W, $\varphi = 54^{\circ}56$ N (Manitoba, Canada).
Diameter: 1.237 km.
Presumed age: less than 10 million years,
Reliability: possible.
Notes: Same considerations as for Crater 18.
20. *Crater coordinates:* $\lambda = 107^{\circ}79$ W, $\varphi = 55^{\circ}87$ N (Saskatchewan, Canada).
Diameter: 0.575 km.
Presumed age: less than 10 million years,
Reliability: possible.
Notes: Same considerations as for Crater 18.
21. *Crater coordinates:* $\lambda = 107^{\circ}98$ W, $\varphi = 55^{\circ}85$ N (Saskatchewan, Canada).
Diameter: 1.341 km.
Presumed age: less than 10 million years,
Reliability: possible.
Notes: Same considerations as for Crater 18. This crater is probably older than the three previous ones, because its origin must be before the last glacial epoch as it has been eroded by ice during the last glaciation.
22. *Crater coordinates:* $\lambda = 95^{\circ}65$ W, $\varphi = 49^{\circ}83$ N (Manitoba, Canada).
Diameter: 5.741 km.
Presumed age: less than 50 million years,
Reliability: possible.
Notes: Nearly completely filled-up crater, practically invisible from the ground. It can only be perceived because of its slightly elevated rim.

23. *Crater coordinates:* $\lambda = 101^{\circ}45$ W, $\varphi = 58^{\circ}60$ N (Manitoba, Canada).

Diameter: 2.121 km.

Presumed age: less than 250 million years,

Reliability: possible.

Notes: The crater is below the surface, only a chain of lakes can be seen at the surface, showing the round incomplete shape of the crater rim: probably, the crater was created during the formation of the Canadian Shield.

24. *Crater coordinates:* (Crater A) $\lambda = 67^{\circ}925$ W, $\varphi = 42^{\circ}29$ S;
(Crater B) $\lambda = 67^{\circ}98$ W, $\varphi = 42^{\circ}28$ S (Chubut, Argentina).

Diameter: (Crater A) 3.657 km; (Crater B) 2.063 km.

Presumed age: less than 25 million years.

Reliability: (Crater A) probable; (Crater B) probable.

Notes: Crater A shows a flat floor. Its northwest rim shows considerable erosion. Crater B is a nearly completely filled-up, only its rim is visible.

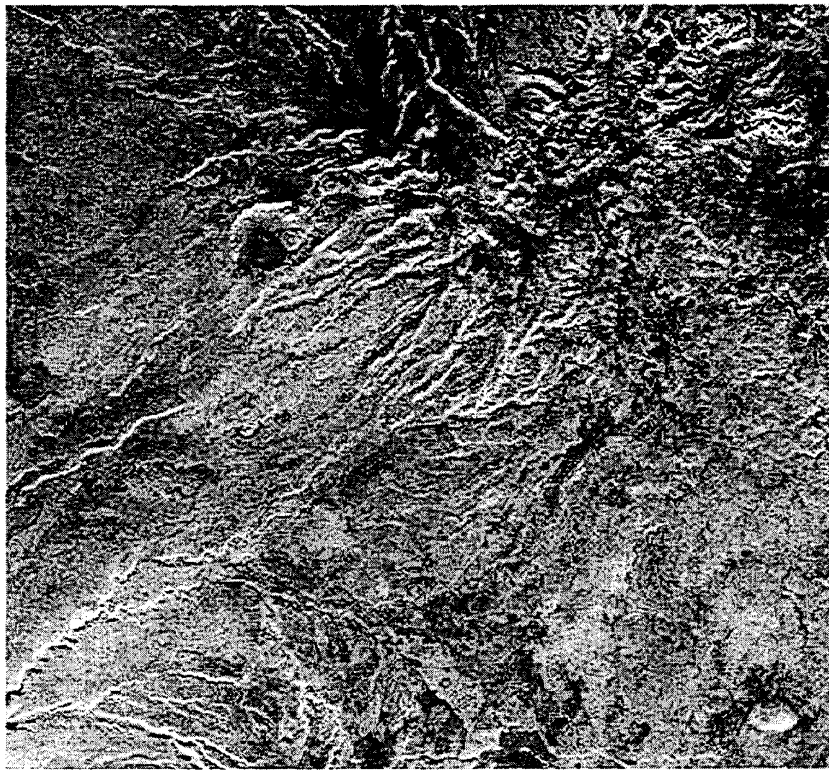


Figure 4 – Craters 24, A (right) and B (left).

The author reminds the readers that all the craters presented are yet to be identified as such, so it is expected that part of them will turn out to be of terrestrial origin. The author invites the readers capable of doing so to check these craters, because even non-professional researchers can provide valuable help.

The images used in this study have been taken from the Internet site of DLR:

<http://isis.dir.de/XSAR/catalog.html>.

The identification data of the images containing these craters are shown in Table 1. If the reader wants to see a quicklook, he must enter the above site and follow directions using the number of the quicklook, or directly use the address

<http://isis.dlr.de/XSAR/jpeg/qlxxxxx.jpg>,

replacing xxxxx by the number of the selected quicklook. Table 2, finally, is a listing of images containing craters of known meteoritic origin.

Table 1 – Identification of the images containing the craters discussed in this study. Notice that image 8 also shows the Al Umchaimin Crater and that image 14 also contains the Rotter Kamm Crater.

Nr.	Quicklook	Time (UT)	Orbit	Coordinates
1	q100218	Apr 10, 1994, 04 ^h 57 ^m 55 ^s	X1 013.00	010°–020° E /30°–40° N
2	q103574	Apr 13, 1994, 11 ^h 55 ^m 08 ^s	X1 066.05	030°–040° E /10°–20° N
3	q103571	Apr 13, 1994, 11 ^h 54 ^m 34 ^s	X1 066.05	030°–040° E /10°–20° N
4	q110936	Oct 02, 1994, 00 ^h 08 ^m 04 ^s	X2 025.50	040°–050° E /20°–30° S
5	q110936	Oct 02, 1994, 00 ^h 08 ^m 04 ^s	X2 025.50	040°–050° E /20°–30° S
6	q122693	Oct 10, 1994, 02 ^h 23 ^m 46 ^s	X2 157.20	100°–110° E /40°–50° S
7	q119374	Oct 08, 1994, 13 ^h 40 ^m 23 ^s	X2 132.30	010°–020° W /10°–20° N
8	q105737	Apr 15, 1994, 09 ^h 41 ^m 05 ^s	X1 097.06	030°–040° E /30°–40° N
9	q119289	Oct 08, 1994, 13 ^h 22 ^m 17 ^s	X2 132.10	090°–100° W /50°–60° N
10	q102772	Apr 12, 1994, 14 ^h 52 ^m 43 ^s	X1 052.03	100°–110° W /50°–60° N
11	q106122	Apr 15, 1994, 20 ^h 02 ^m 44 ^s	X1 104.05	110°–120° W /30°–40° N
12	q102235	Apr 12, 1994, 02 ^h 49 ^m 09 ^s	X1 044.11	020°–030° E /20°–30° N
13	q102677	Apr 12, 1994, 13 ^h 20 ^m 46 ^s	X1 051.32	090°–100° W /40°–50° N
14	q101690	Apr 11, 1994, 15 ^h 43 ^m 54 ^s	X1 036.08	040°–050° E /20°–30° S
15	q107603	Apr 17, 1994, 06 ^h 05 ^m 29 ^s	X1 127.62	090°–100° E /20°–30° N
16	q104906	Apr 14, 1994, 15 ^h 45 ^m 20 ^s	X1 085.01	100°–110° W /50°–60° N
17	q119291	Oct 10, 1994, 13 ^h 22 ^m 29 ^s	X2 132.10	090°–100° W /50°–60° N
18	q112544	Oct 10, 1994, 15 ^h 03 ^m 30 ^s	X2 052.30	090°–100° W /50°–60° N
19	q112544	Oct 10, 1994, 15 ^h 03 ^m 30 ^s	X2 052.30	090°–100° W /50°–60° N
20	q108022	Apr 17, 1994, 16 ^h 14 ^m 18 ^s	X1 134.03	100°–110° W /50°–60° N
21	q108022	Apr 17, 1994, 16 ^h 14 ^m 18 ^s	X1 134.03	100°–110° W /50°–60° N
22	q102677	Apr 12, 1994, 13 ^h 20 ^m 46 ^s	X1 051.32	090°–100° W /40°–50° N
23	q119286	Oct 08, 1994, 13 ^h 21 ^m 59 ^s	X2 132.10	100°–110° W /50°–60° N
24	q124119	Oct 10, 1994, 19 ^h 06 ^m 30 ^s	X2 168.80	060°–070° W /40°–50° N

Table 2 – Identification of images containing craters of known meteoritic origin.

Nr.	Quicklook	Time (UT)	Orbit	Coordinates
Henbury craters, Australia	q100898	Apr 10, 1994, 18 ^h 00 ^m 26 ^s	X1 021.08	130°–140° E /20°–30° S
Munsan, South Korea	q102306	Apr 12, 1994, 04 ^h 43 ^m 28 ^s	X1 045.03	120°–130° E /30°–40° N
Aorounga chain, Chad	q108374	Apr 18, 1994, 00 ^h 46 ^m 08 ^s	X1 140.01	010°–020° E /10°–20° N
Wolf Creek, Australia	q109285	Apr 18, 1994, 15 ^h 20 ^m 49 ^s	X1 149.41	120°–130° E /10°–20° S
BP, Libya	q112978	Oct 04, 1994, 02 ^h 41 ^m 10 ^s	X2 060.10	020°–030° E /20°–30° N
Oasis, Libya	q116068	Oct 07, 1994, 01 ^h 42 ^m 00 ^s	X2 108.10	020°–030° E /20°–30° N

Acknowledgment

The author gives his thanks to Mr. Andrea Pelloni of the *Associazione Romana Astrofili* (Roman Amateur Astronomers Association) for the precious advice given during the preparation of this paper, and for the English translation of the text, originally in Italian, and to the DLR for the authorization to publish some images of its catalogue.