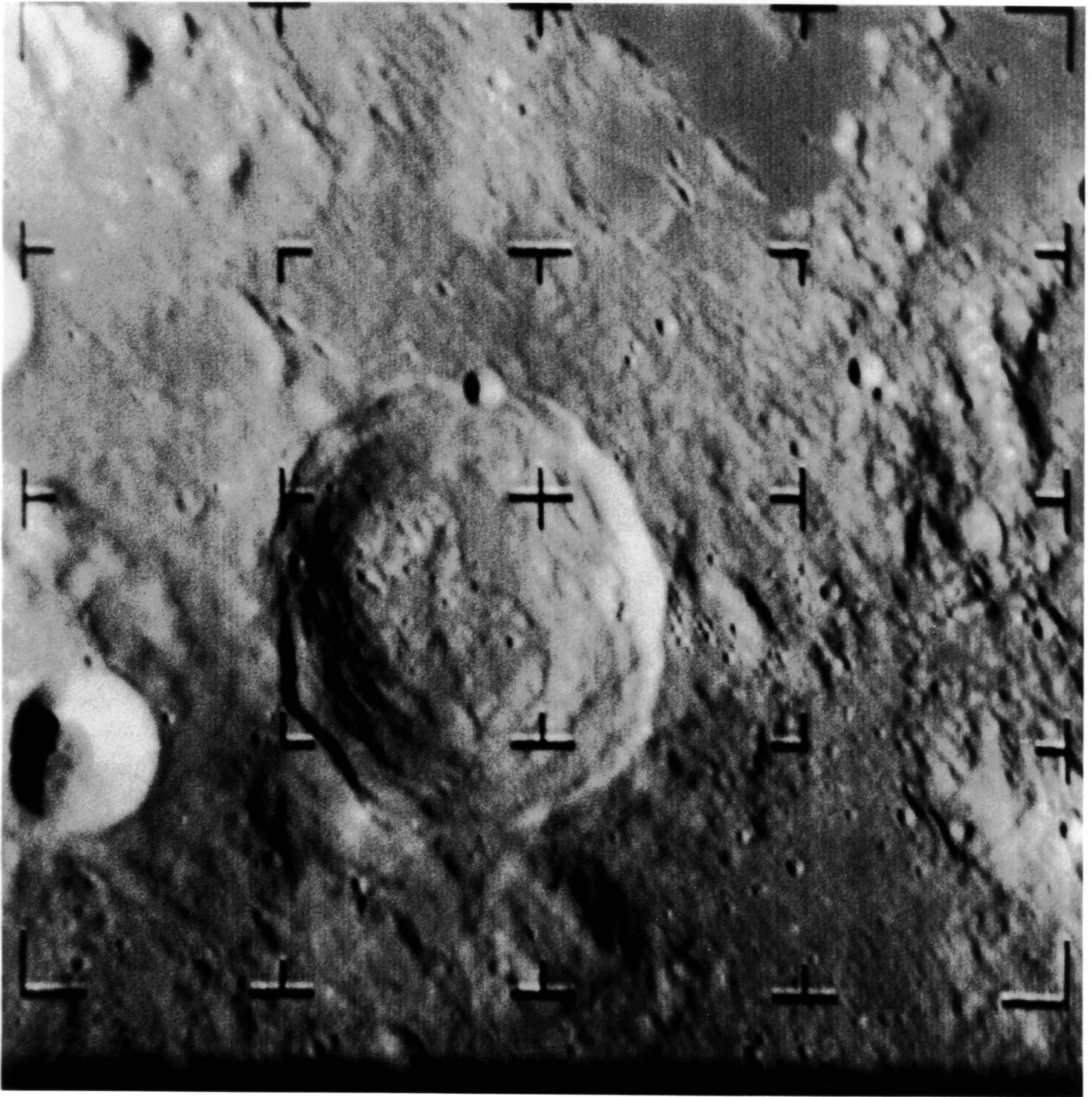
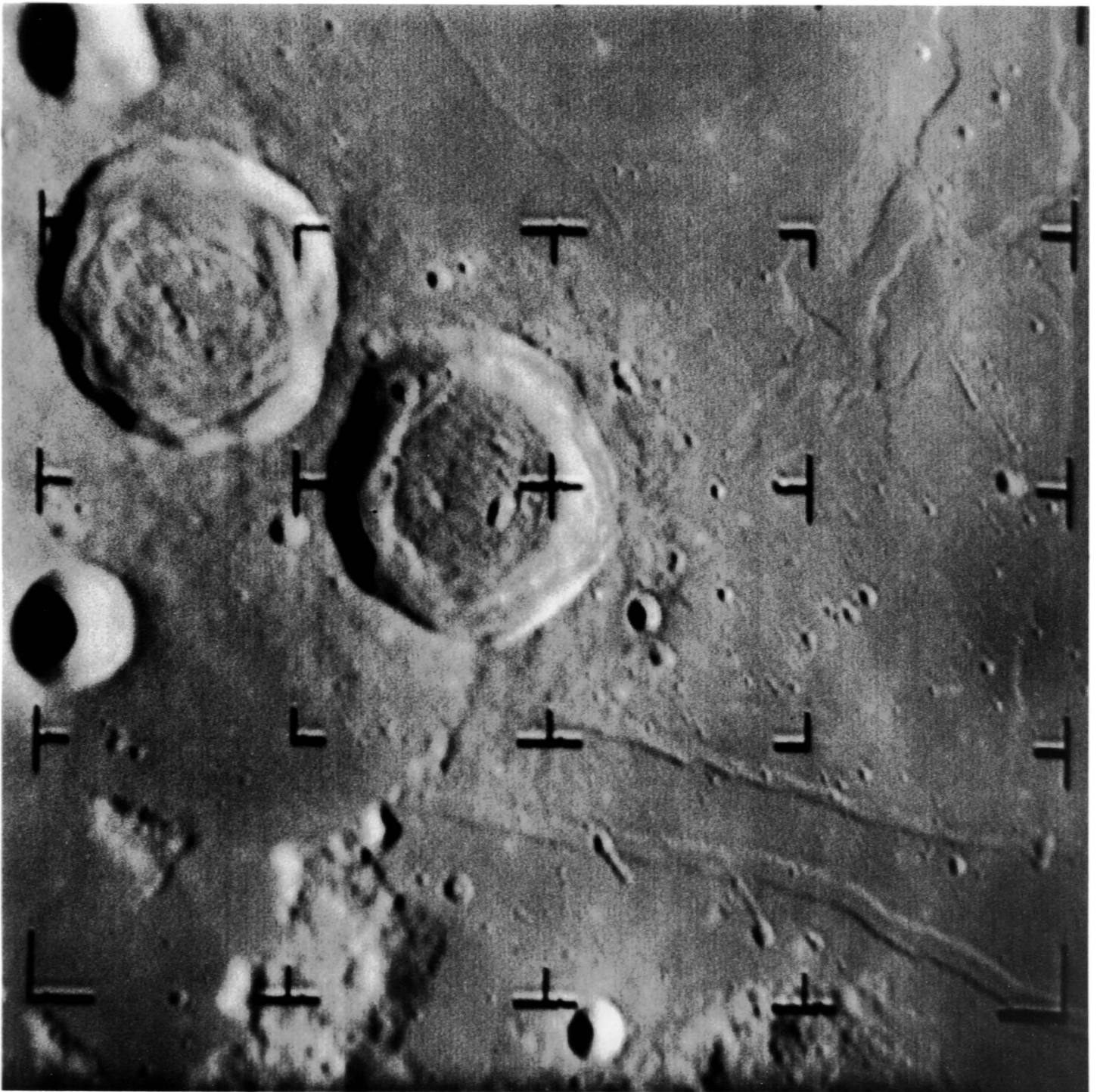


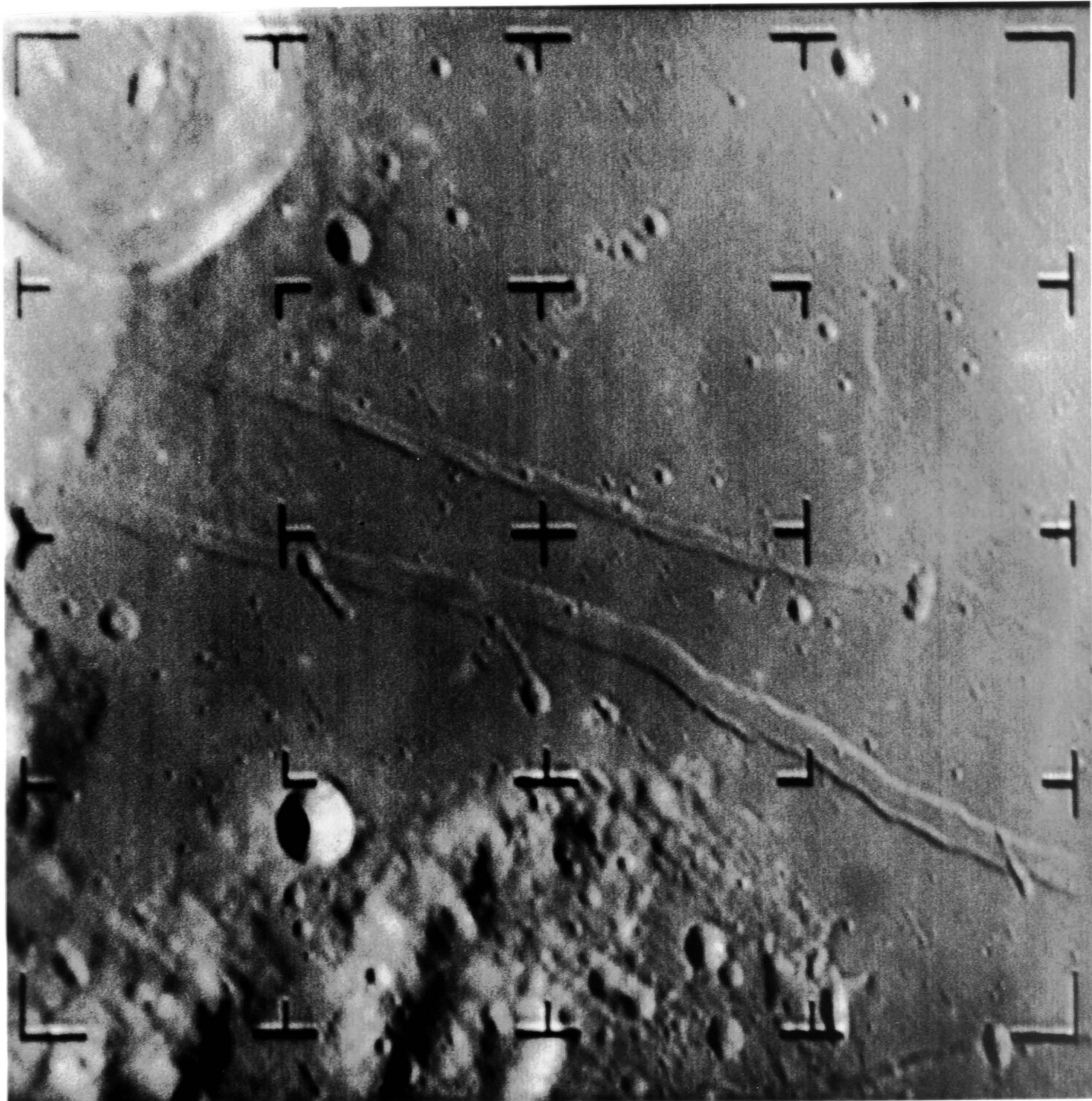
**This lunar map shows the area on the Moon's surface covered in more than 7000 photographs taken by Ranger VIII's six television cameras during the final 23 minutes of its mission, February 20, 1965. The total area covered is approximately 900,000 square miles. The first picture was taken at an altitude of 1560 miles, 23 minutes 6 seconds before impact in the Sea of Tranquillity. Ranger VIII's altitude when the last picture was taken was less than 1/3 mile. The 809-pound spacecraft was launched at 9:05 a.m. PST on February 17 and impacted the Moon at 1:57 a.m. on February 20. The camera system consisted of two F (for full-scan) and four P (for partial-scan) cameras. Also inscribed on the map are the impact points of Rangers VI and VII. Ranger VI hit the Moon on February 2, 1964, within 17 miles of its aiming point. Ranger VII transmitted to Earth more than 4000 pictures of an area near the Sea of Clouds on July 31, 1964.**



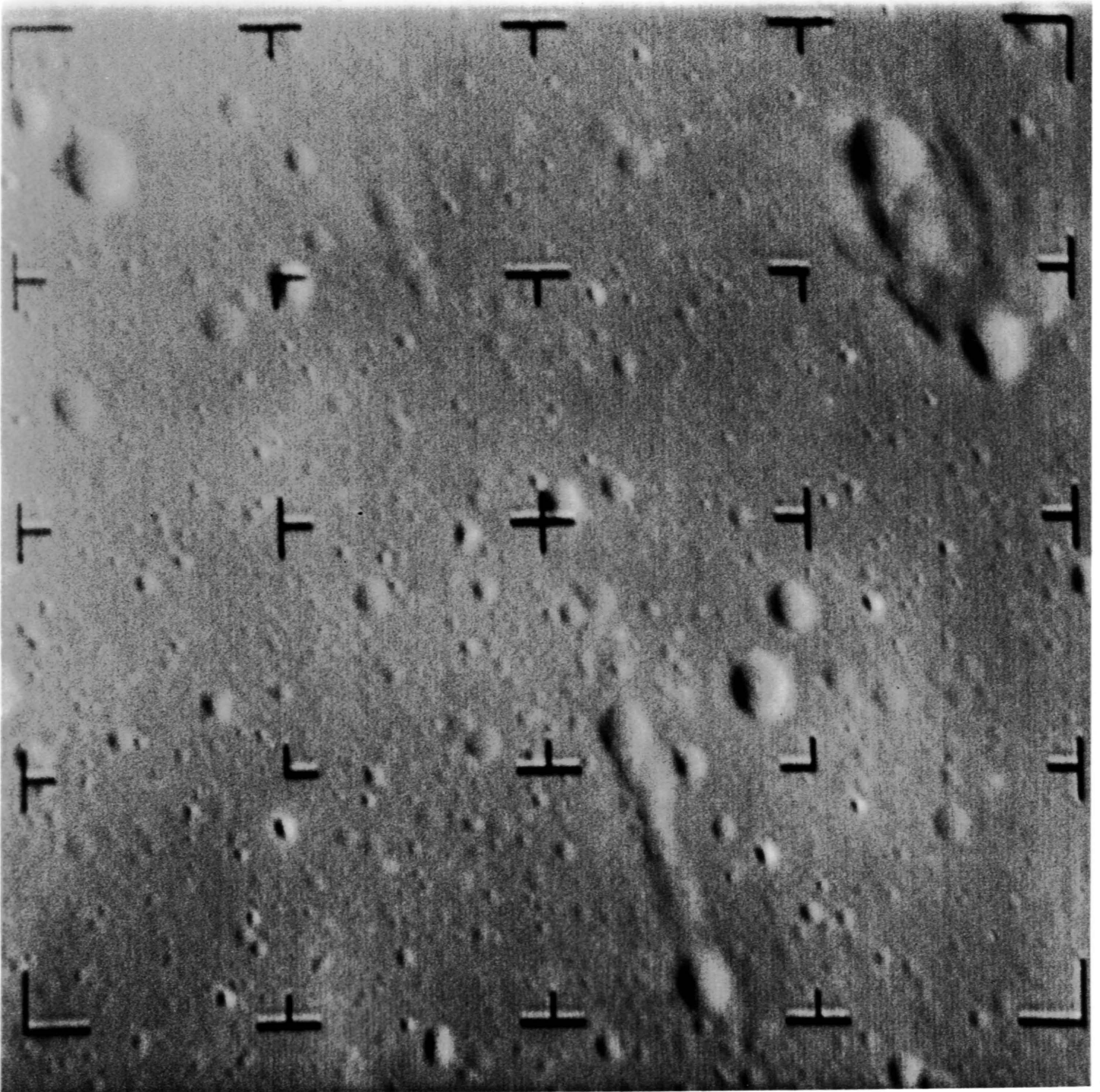
Photograph taken by Ranger VIII prior to its impact on the Moon at 1:57 a.m. PST, February 20, 1965. North is at the top. The picture was taken by the  $F_8$  camera, with a 75-mm  $f/2$  lens, from an altitude of 470 miles about 7 minutes before the spacecraft crashed onto the Sea of Tranquillity. The photograph covers an area 93 miles from East to West and 72 miles from North to South. The large crater in the center is Delambre, 32 miles in diameter. Highlands are seen at right, shore of the Sea of Tranquillity at upper right.



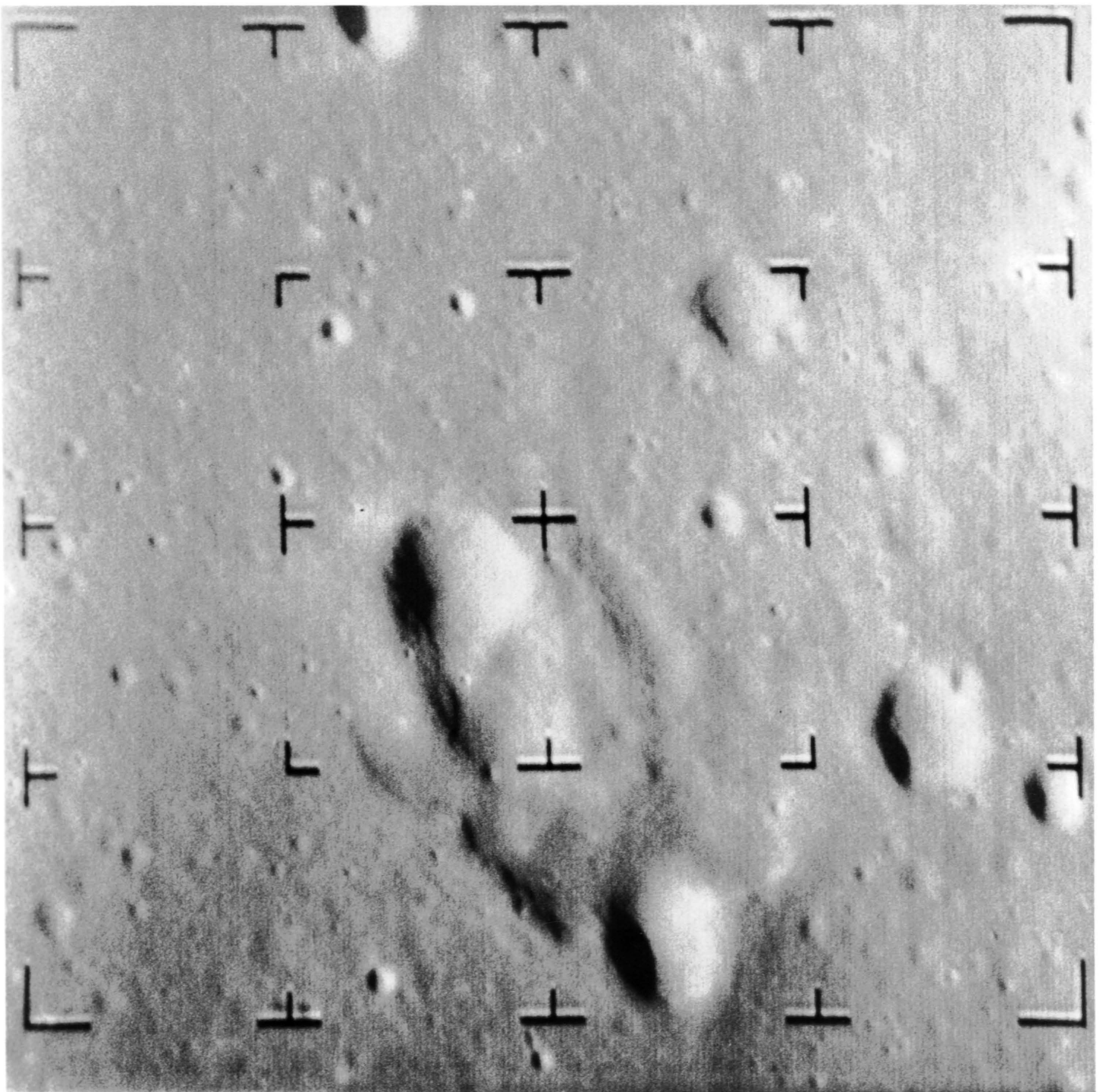
Photograph taken by Ranger VIII prior to impact at 1:57 a.m. PST, February 20, 1965. North is at the top. The picture shows the southwest corner of the Sea of Tranquillity and the large flat-bottomed craters Sabine and Ritter. Two large conical craters are at the left edge of the photograph, low ridges are at the upper right. Two parallel rilles, center and lower right, are seen in more detail in picture 4. The photograph was taken by the F<sub>A</sub> camera, equipped with a 25-mm f/1 lens, 2 minutes 15 seconds before impact at an altitude of 151 miles. The area covered is 77 miles from East to West by 67 miles from North to South.



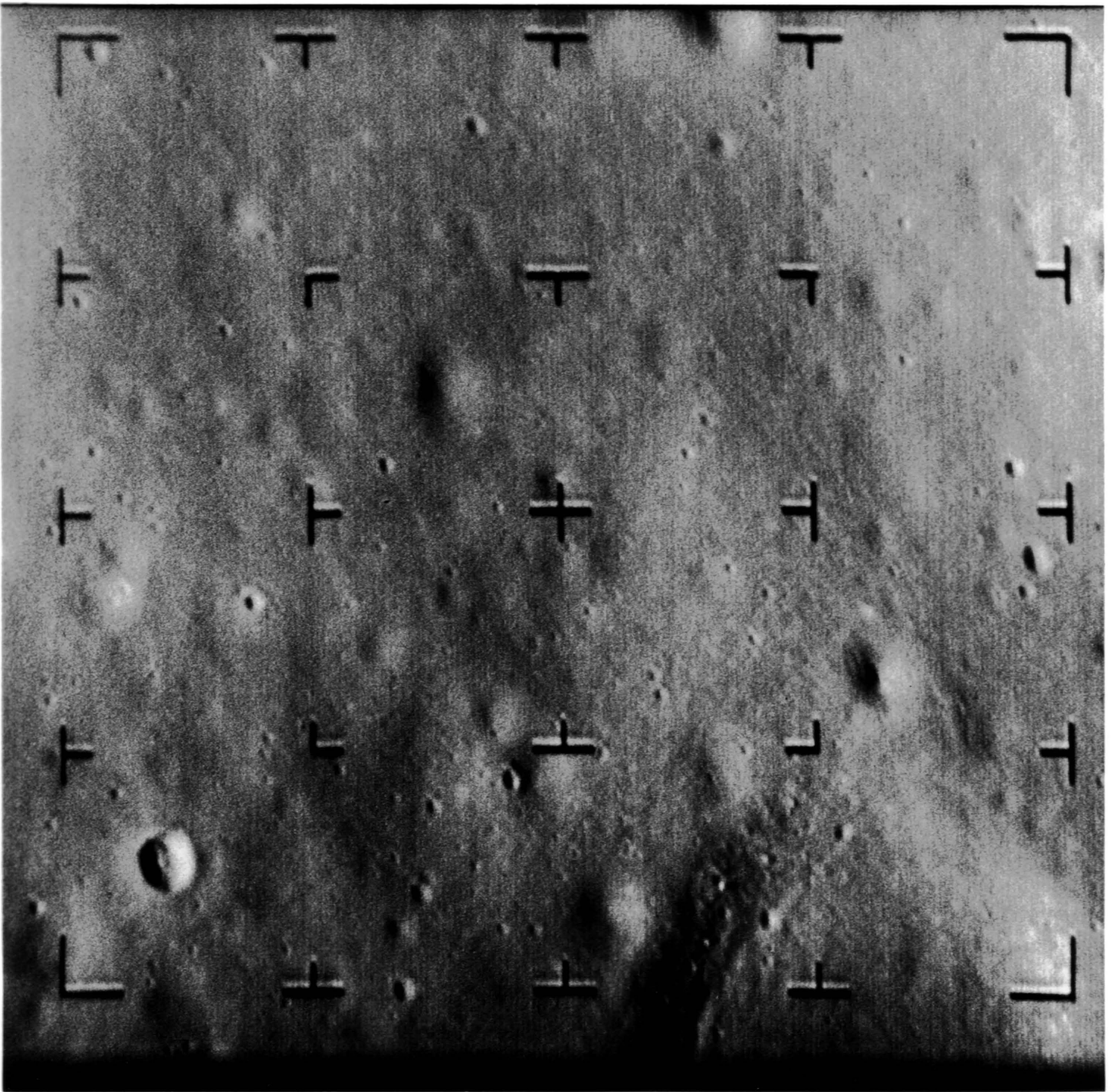
Photograph taken 4 minutes before impact of Ranger VIII on the Moon at 1:57 a.m. PST, February 20, 1965. North is at the top. The picture was made by the  $F_8$  camera when Ranger VIII was 270 miles above the lunar surface and covers an area 58 miles wide by 43 miles from top to bottom. The crater Sabine is seen in the upper left corner. Two parallel rilles, similar to terrestrial graben (ditches) caused by sinking in faulted areas on Earth, cut across the center of the picture. The elongated scar-like craters were probably caused by fragments thrown from the crater Theophilus located some 250 miles southeast of the area pictured.



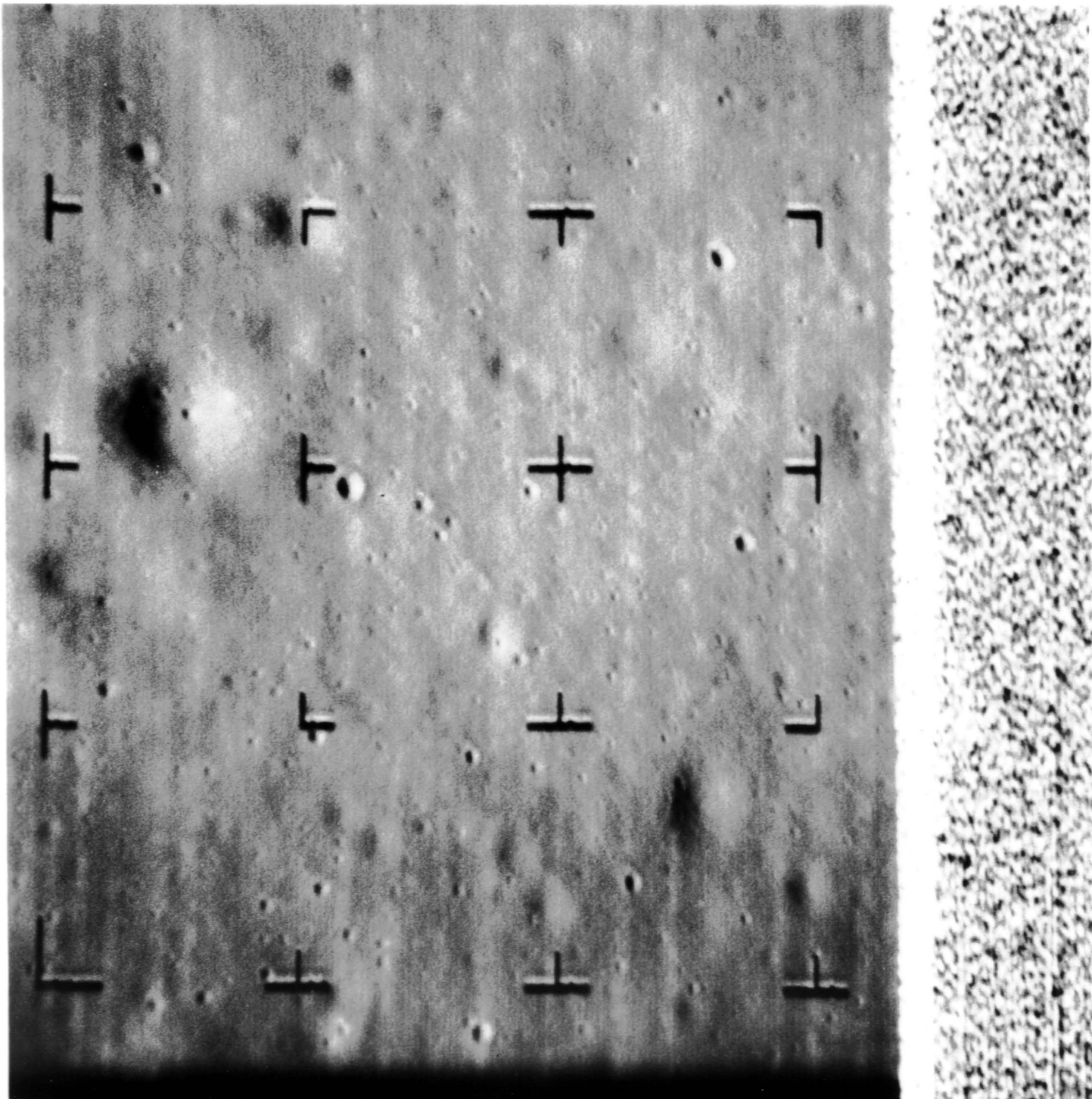
Photograph taken by the Ranger VIII television subsystem from an altitude of 50 miles above the lunar surface. The picture, covering an area 12 miles from East to West and 8.5 miles from North to South, was made by Camera F<sub>B</sub>, which has a 3-inch focal length, 45.6 seconds before impact. North is at the top. Ranger VIII impacted the Moon's Sea of Tranquility 2.59 degrees above the lunar equator at 24.77 degrees East longitude.



Photograph taken 25.13 seconds before Ranger VIII impacted the Moon in the Sea of Tranquillity at 1:57 a.m. PST, February 20, 1965. The photograph, taken by the  $F_8$  camera, shows an enlargement of the irregular depressions seen in the upper right corner of picture 5. North is at the top. The spacecraft was 27.5 miles above the lunar surface when the picture was taken and transmitted to Earth. It covers an area 6.5 miles wide and 4.5 miles from top to bottom.

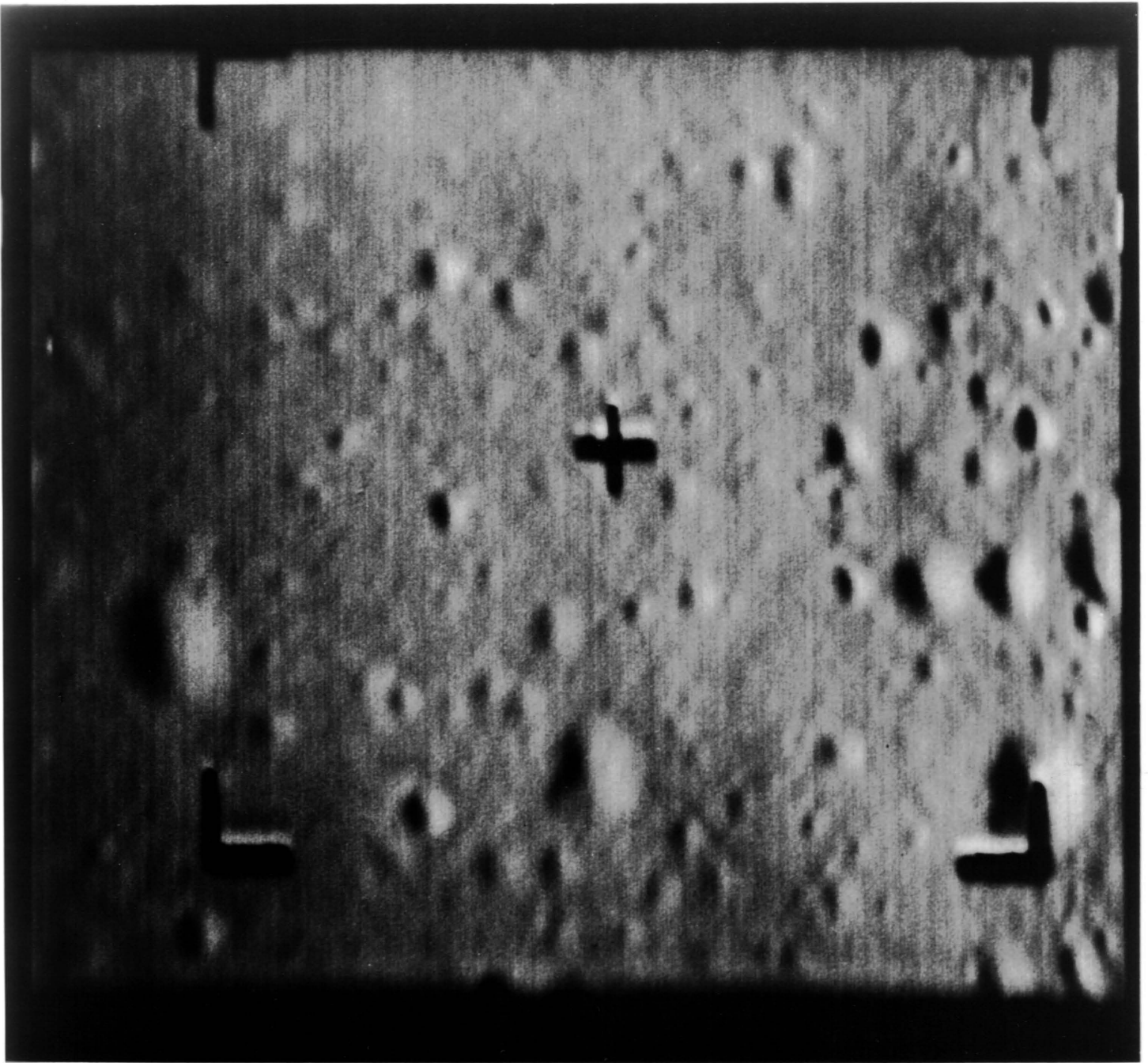


Rocks, apparently a rarity on the Moon, can be seen in this final picture taken by Ranger VIII's full-scan  $F_8$  camera 4.65 seconds prior to impact on the Moon at 1:57 a.m. PST, February 20, 1965. With North at the top, the rocks, or rock-like masses, are in the southeast corner. The area covered by this photo is 4000 feet from East to West and 3000 feet from North to South. The crater at the lower left has a steep wall and a central ridge. Ranger VIII was 5.1 miles above the lunar surface when this picture was taken.



Photograph taken by the full-scan  $F_A$  camera just 2.09 seconds before Ranger VIII impacted the Sea of Tranquillity on the surface of the Moon. Before transmission was completed, impact occurred, resulting in the band of radio noise seen at the right edge. North is at the top. Ranger VIII's altitude was 12,000 feet when the picture was taken. The area covered is 4250 feet from East to West and 4460 feet from North to South. This last picture taken by Camera  $F_A$  shows a lunar surface area closely resembling Mare Cognitum, which was photographed by Ranger VII cameras on July 31, 1964. Ranger VIII impacted the Moon at 1:57 a.m. PST on February 20, 1965.





Photograph taken by Ranger VIII 0.4 second before impact on February 20, 1965, from an altitude of 2400 feet. The picture covers an area 300 by 400 feet. North is at the top. This is the next-to-last picture taken by Ranger VIII's six-camera system and the last made by Camera P<sub>3</sub> with its 25-mm f/1 lens. The smallest crater shown is about 5 feet in diameter. Before it impacted the Moon in the Sea of Tranquillity at 1:57 a.m. PST, Ranger VIII transmitted more than 7000 pictures of the lunar surface to Earth.