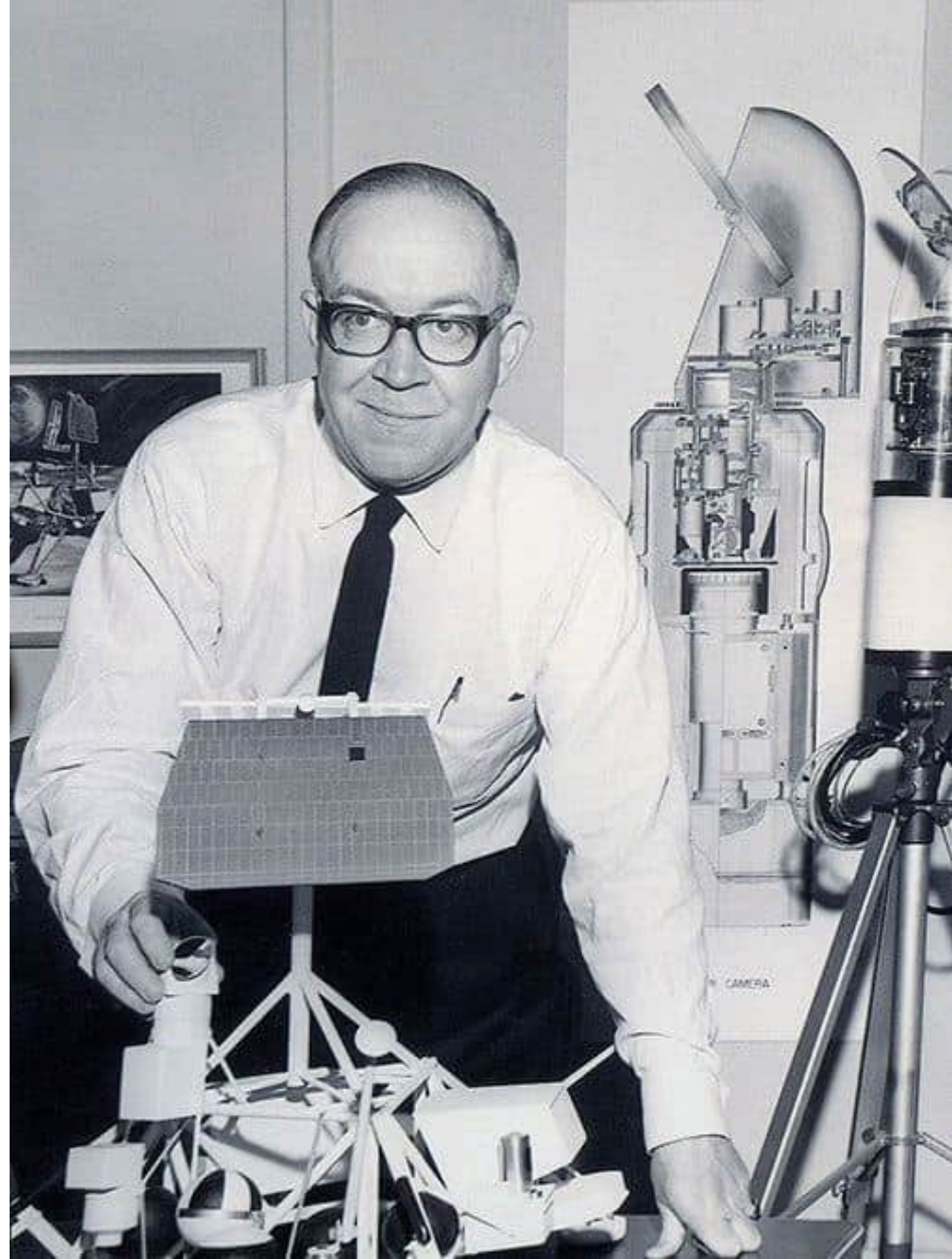


Tietoisku: Surveyor I ja sen kamera

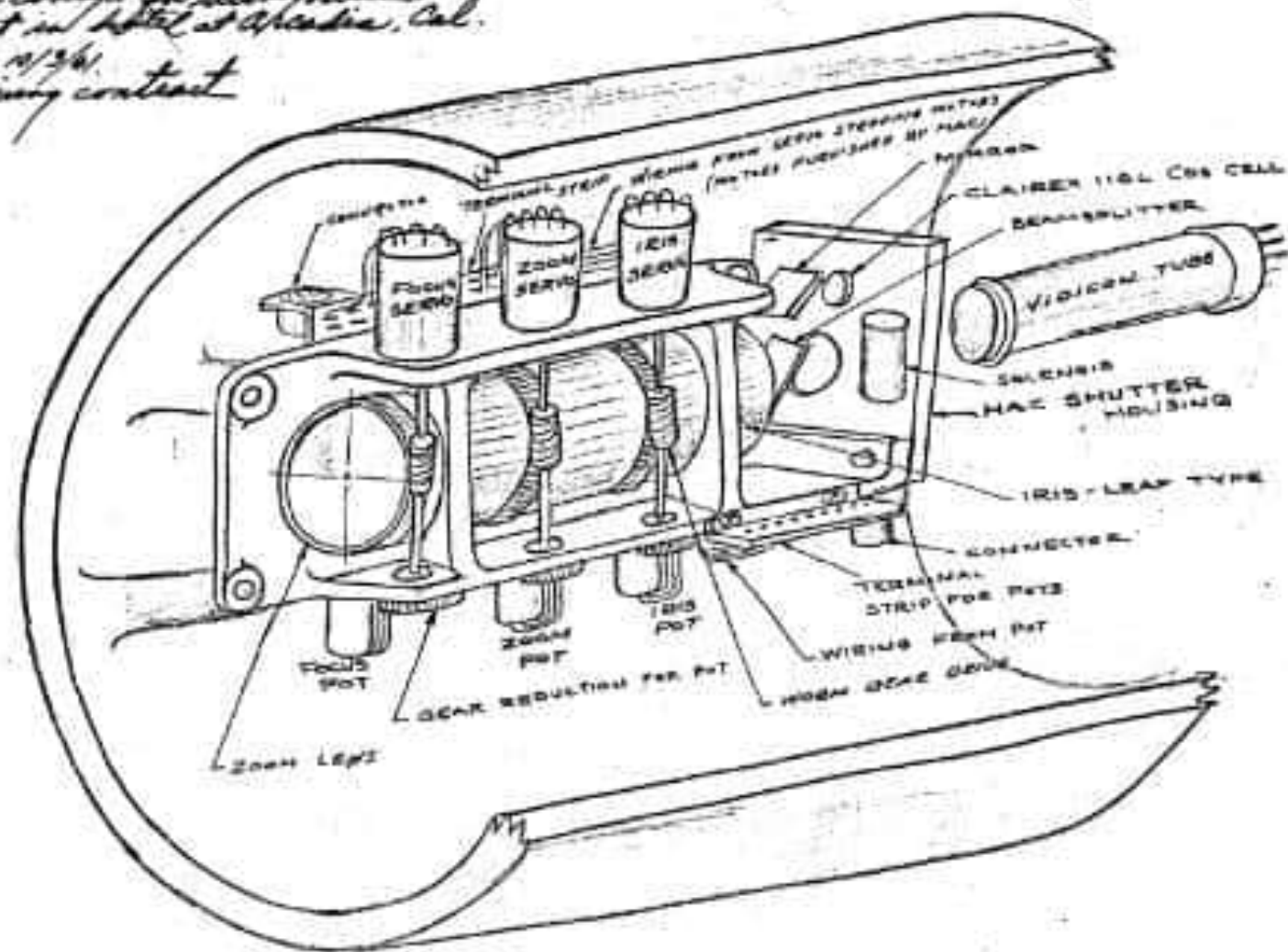
Jari Kuula

Aurinkokuntatapaaminen 2024





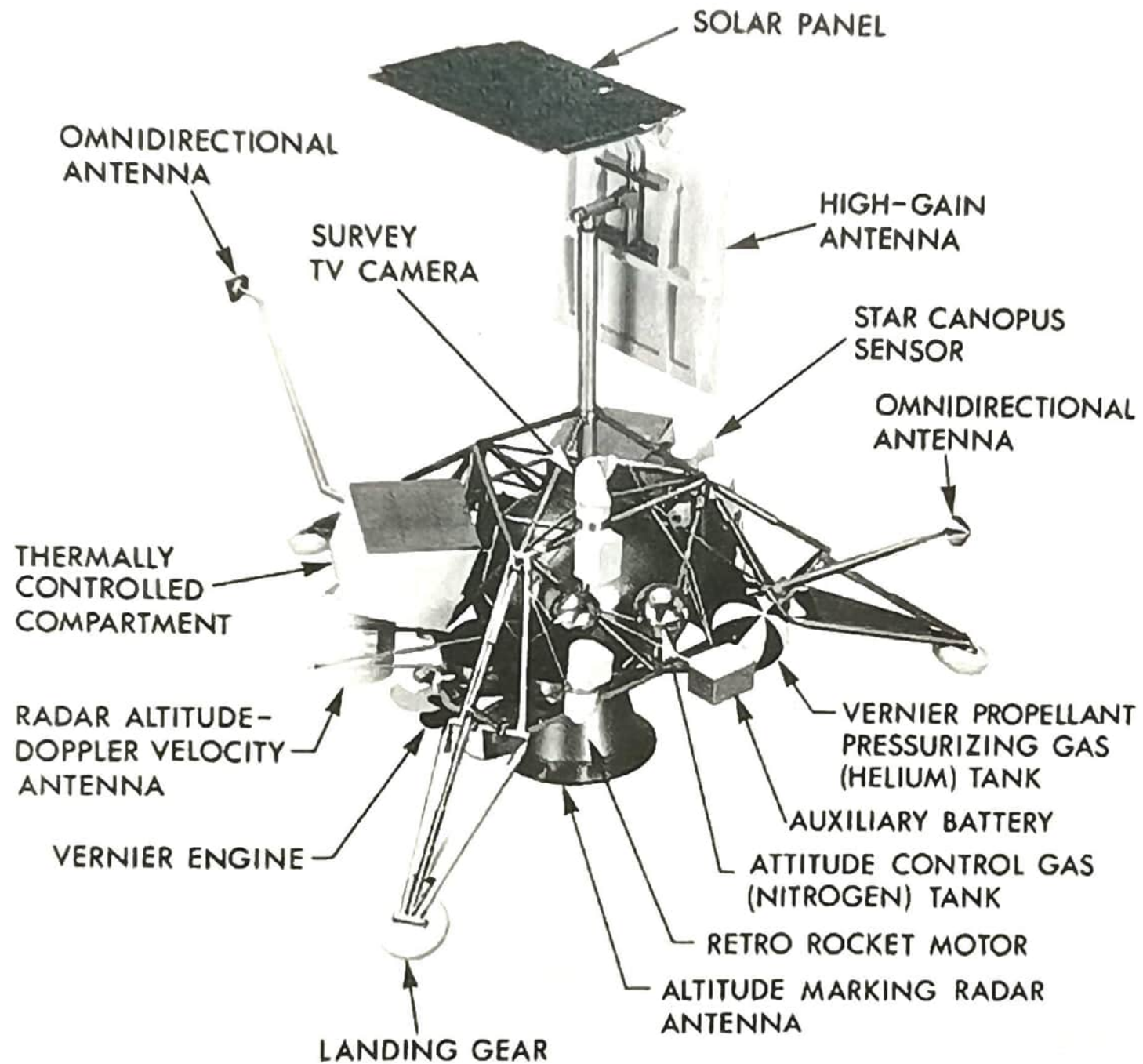
Original concept for Surveyor lens
 laid out in hotel at Aventura, Cal.
 by FWM 10/3/61
 before wiring contract

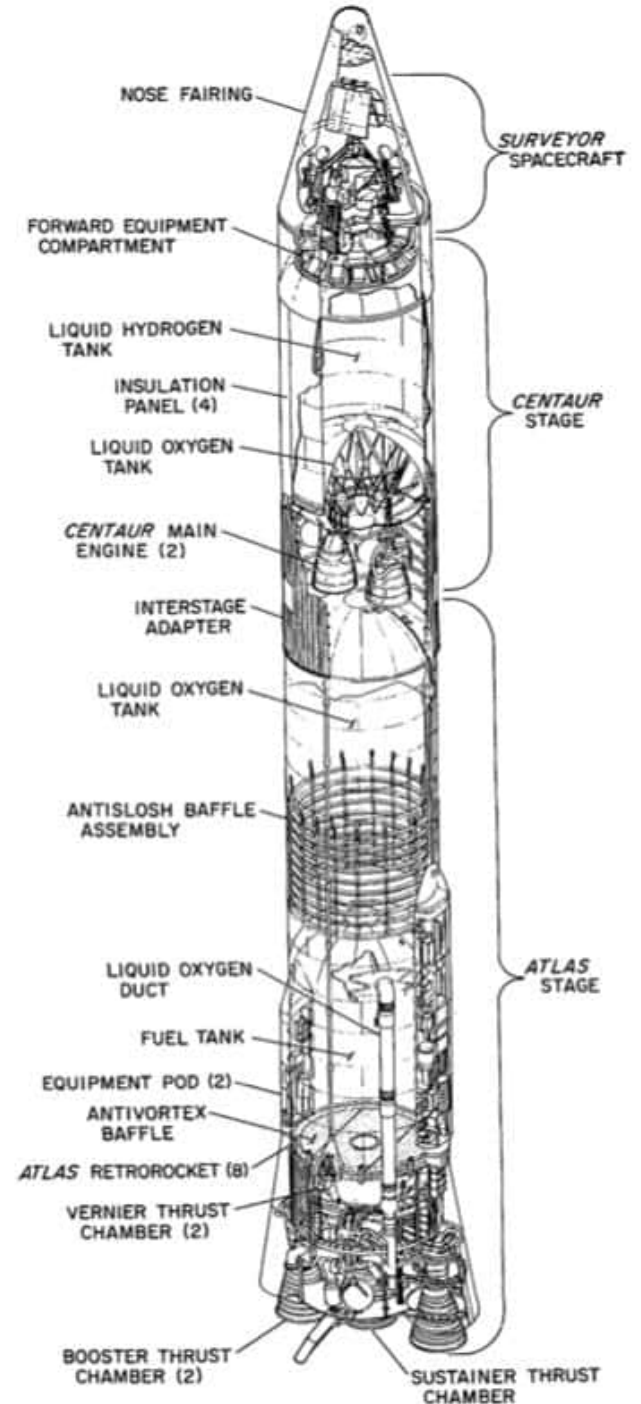


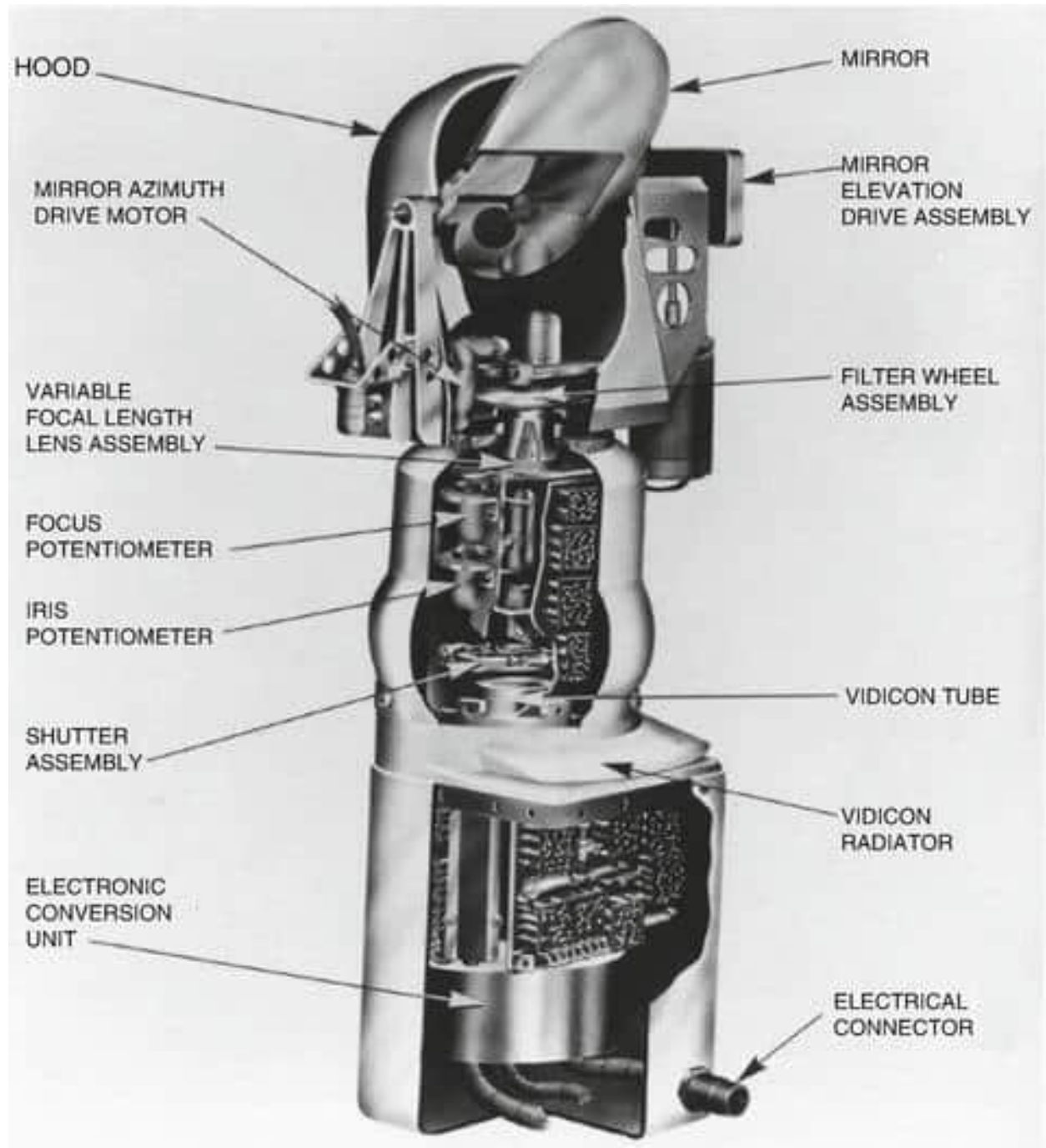
25MM-100MM ZOOM LENS CONCEPT FOR SURVEYOR SPACE CRAFT

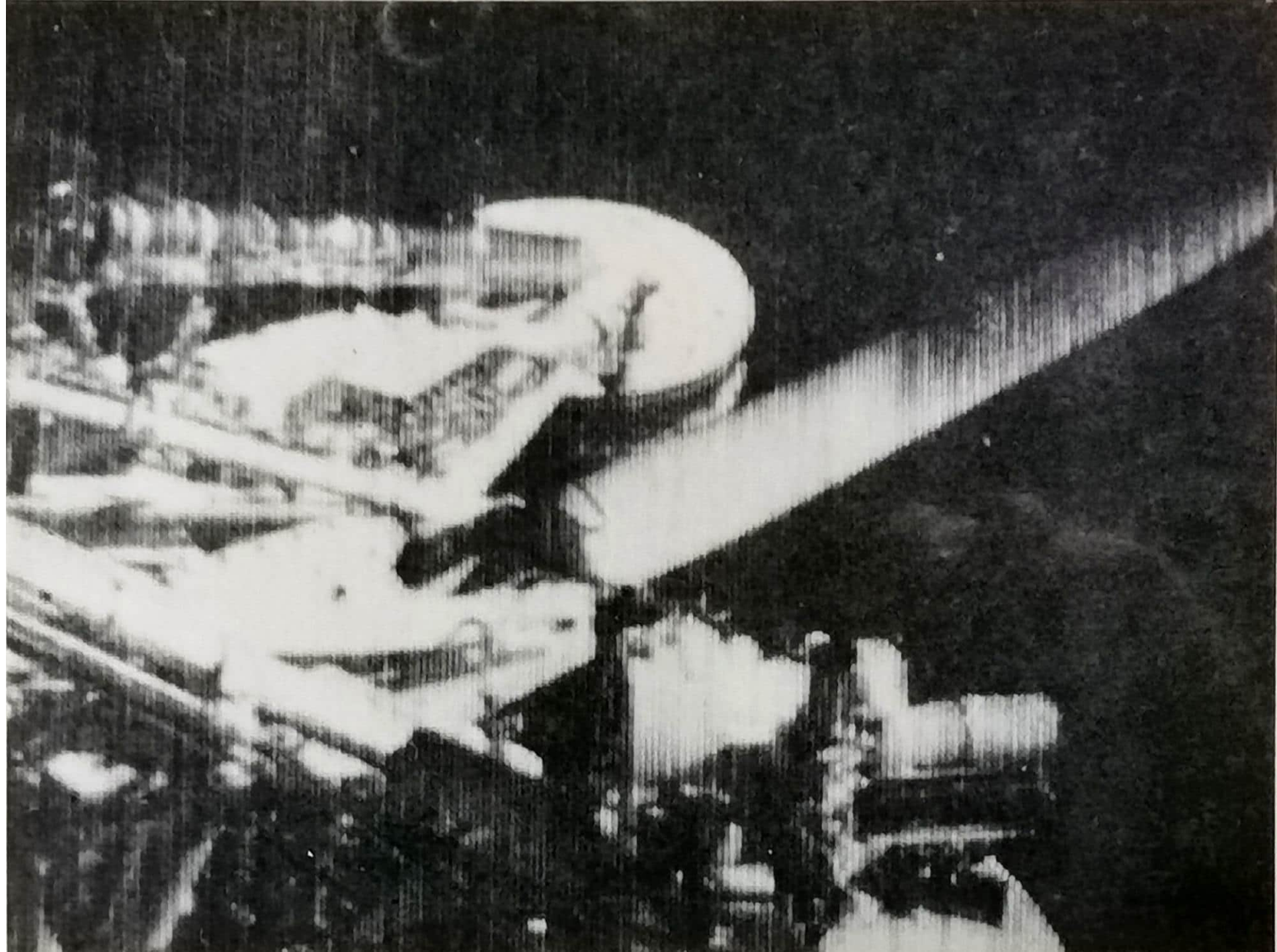
HAC

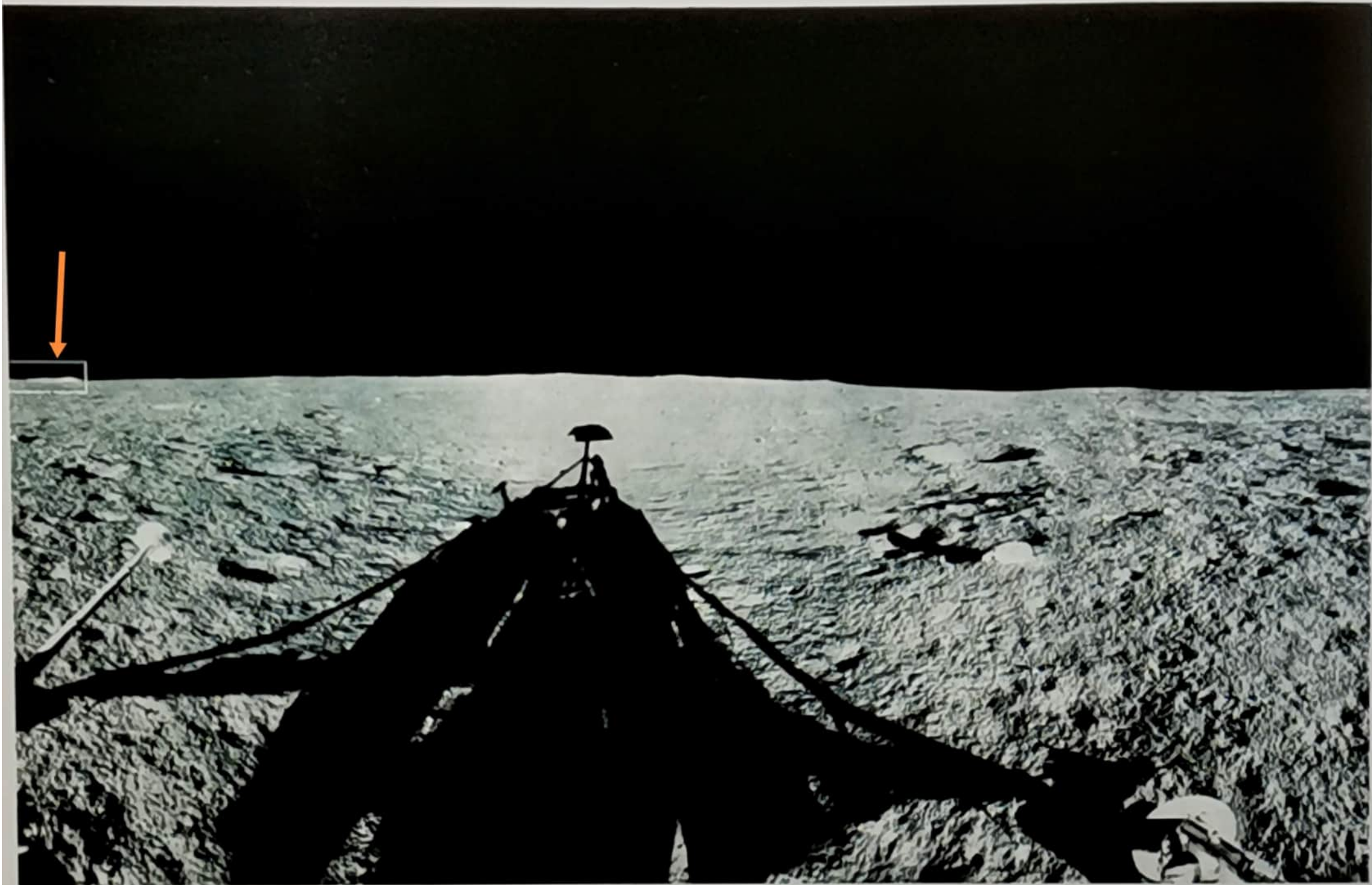
FWM
 10-3-61







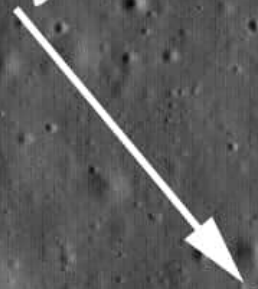




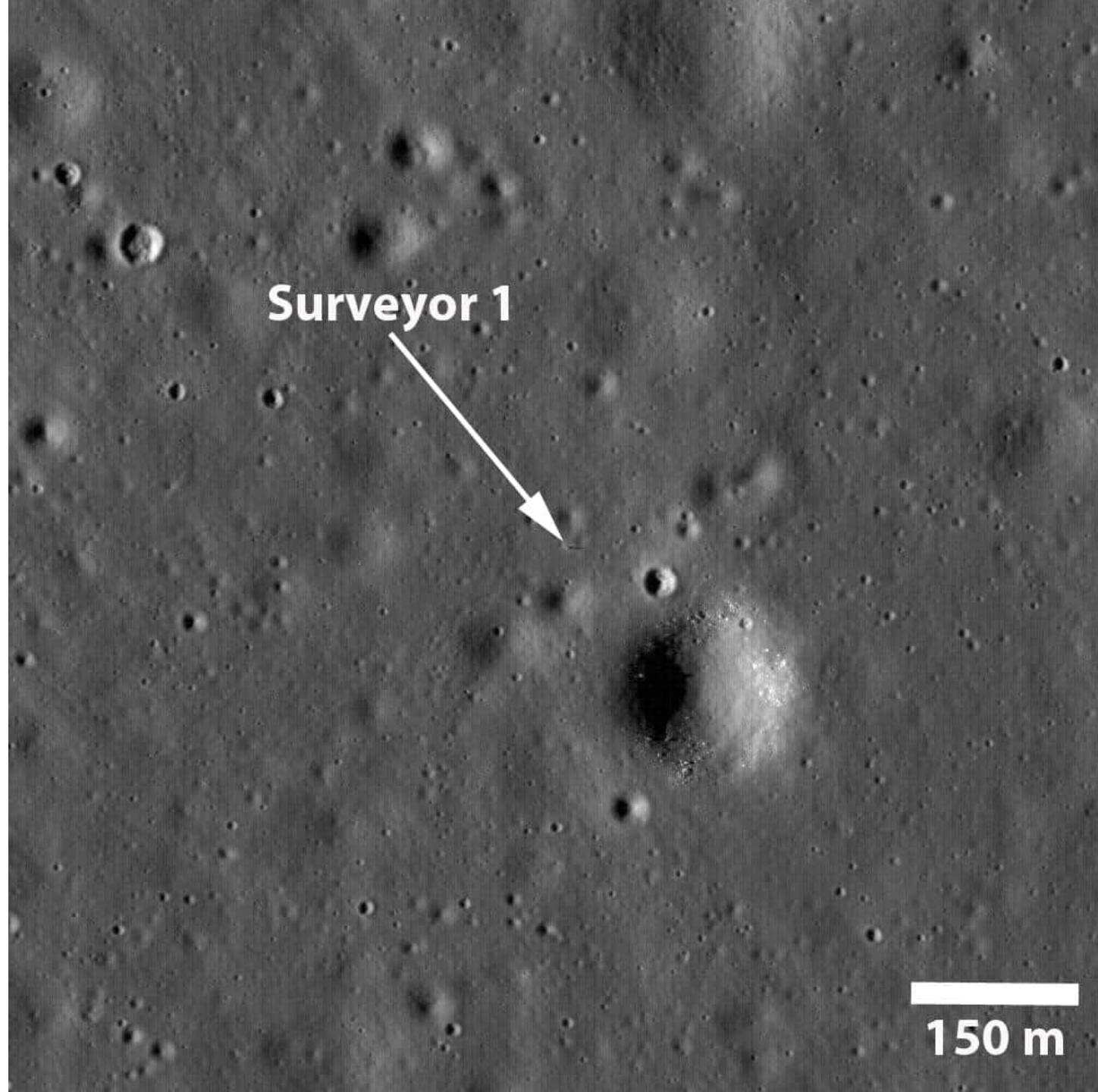




Surveyor 1

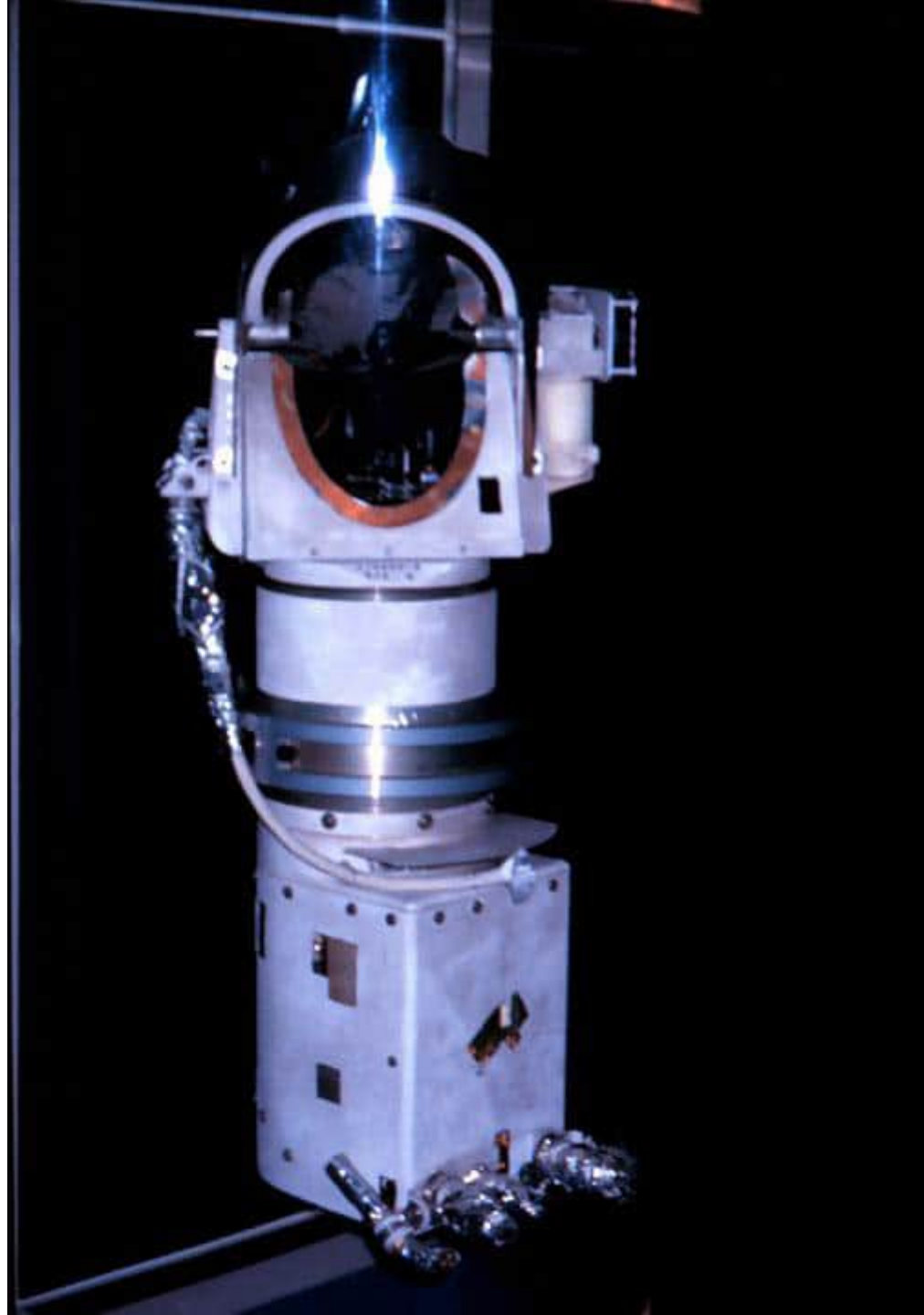


150 m



Chicago 2009





A Bell & Howell zoom lens is on the moon...

Surveyor designed and developed by Hughes Aircraft Company for the National Space Administration under the direction of the JPL Propulsion Laboratory. (A scale model of Surveyor is shown.)

It's the "eye" of the television camera on Surveyor 1.

It had to be able to sustain 30 times the pull of gravity at blast-off. Its glass elements had to be protected from vibration damage and potential radiation discoloring. It had to withstand the extremes of heat and cold on the moon—ranging from 250° Fahrenheit to 250° below zero.

Once in the lunar vacuum, it had to zoom and focus perfectly by electronic commands from a control panel 230,930 miles away.

The lunar lens has performed to specifications.

We like to think we were chosen to design and build it because of our continuing commitment to build photographic instruments a little better than they really have to be.

and in this camera.

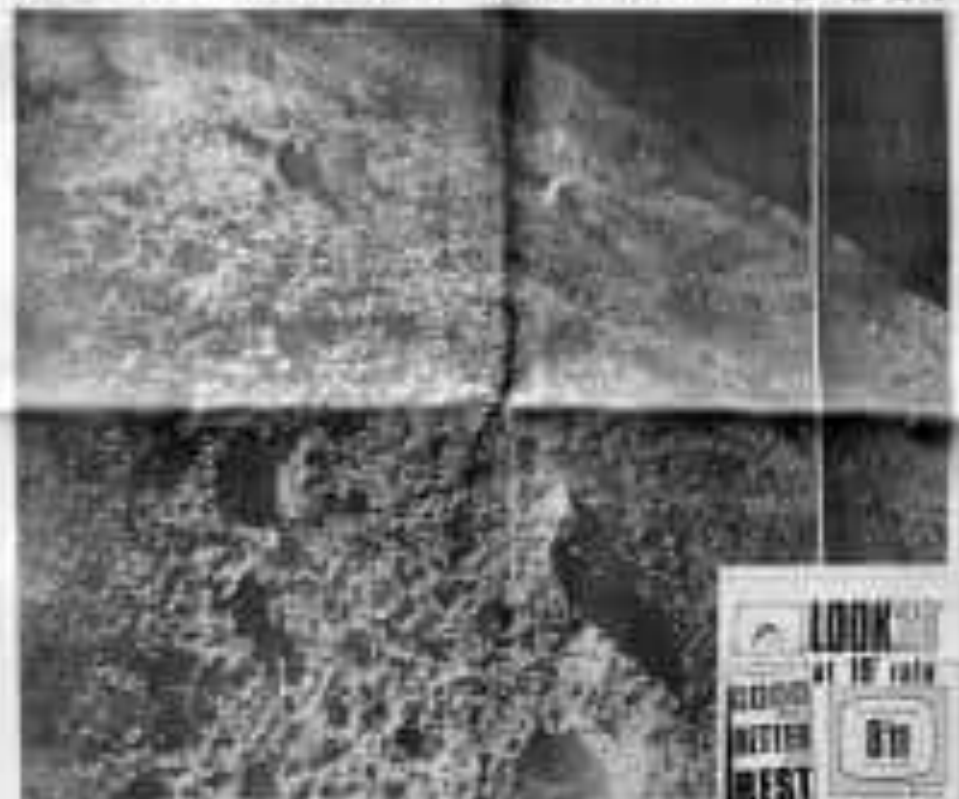
For instance, this Bell & Howell Focus-Tronic Super 8 home movie camera employs a zoom lens which is quite similar in optical design to the lunar lens. Both grew out of the same technological skill.

Bell & Howell®



From Linn 9 to Manchester

THE EXPRESS CATCHES THE MOON



THE EXPRESS has taken the first photographs of the moon from the Linn 9 lunar lander. The pictures show a rugged, cratered surface, and are the first ever taken from the moon. The lander was launched on 14th July and reached the moon on 18th July. The first photographs were taken on 19th July. The pictures show a rugged, cratered surface, and are the first ever taken from the moon. The lander was launched on 14th July and reached the moon on 18th July. The first photographs were taken on 19th July.

How we did it...

The Linn 9 lunar lander was launched on 14th July and reached the moon on 18th July. The first photographs were taken on 19th July. The pictures show a rugged, cratered surface, and are the first ever taken from the moon.

LOOK
at 10.10.10

BEST

VISIONWARE