

Apollo 12: Precision Navigation

HONR 269i

To the Moon and Back: The Apollo Program



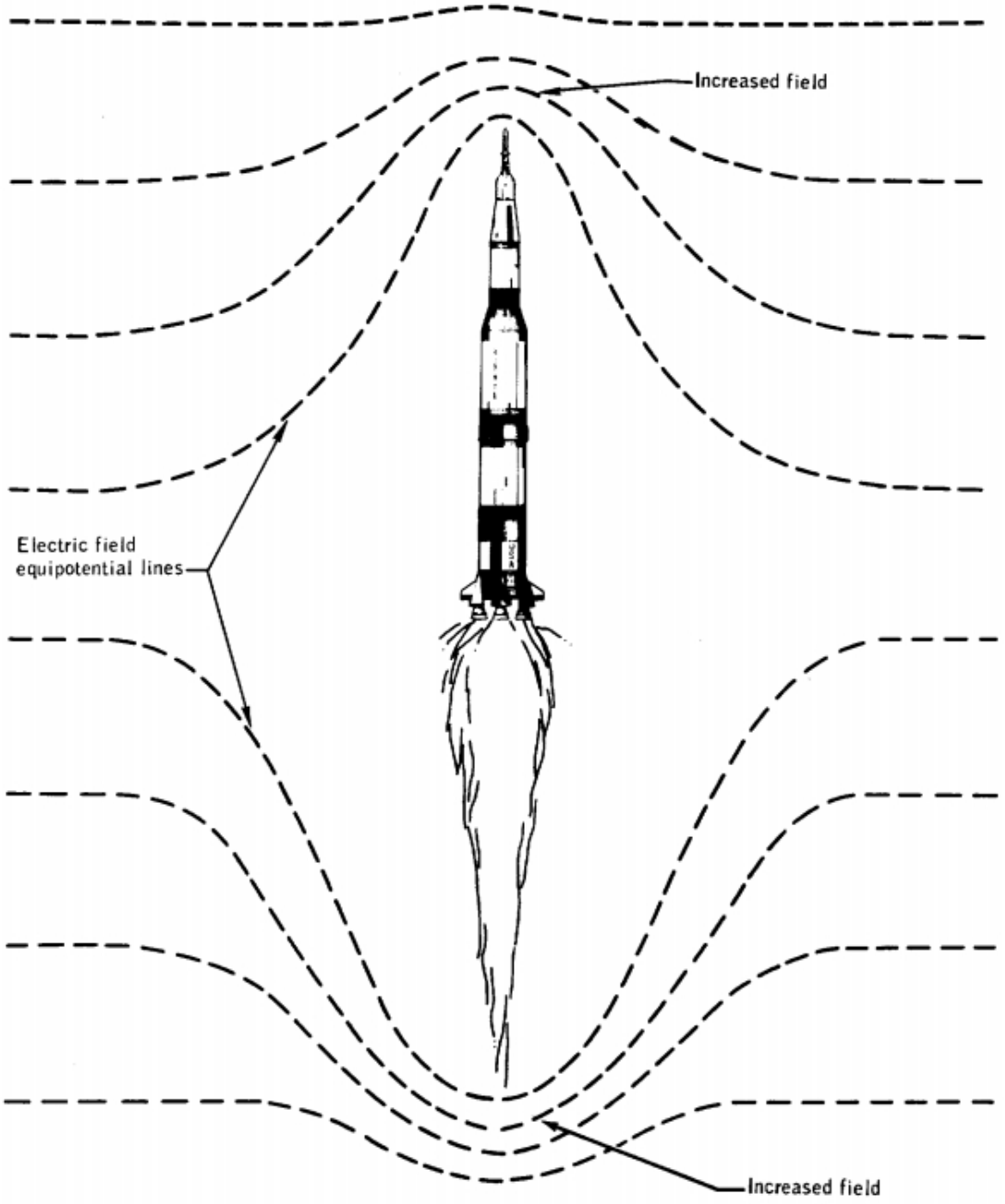
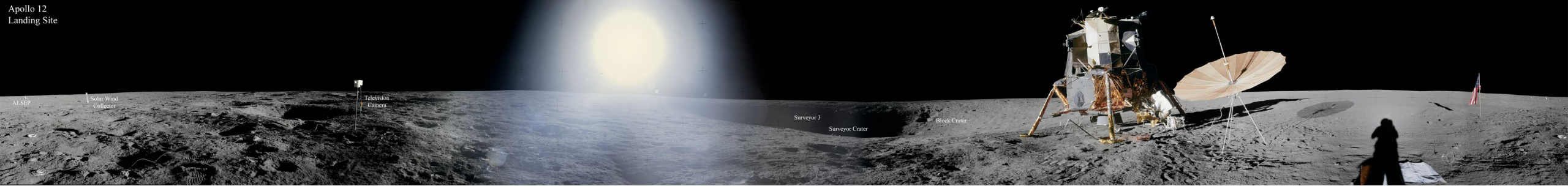


Figure 10.- Enhancement of electric fields at each end of the space vehicle .

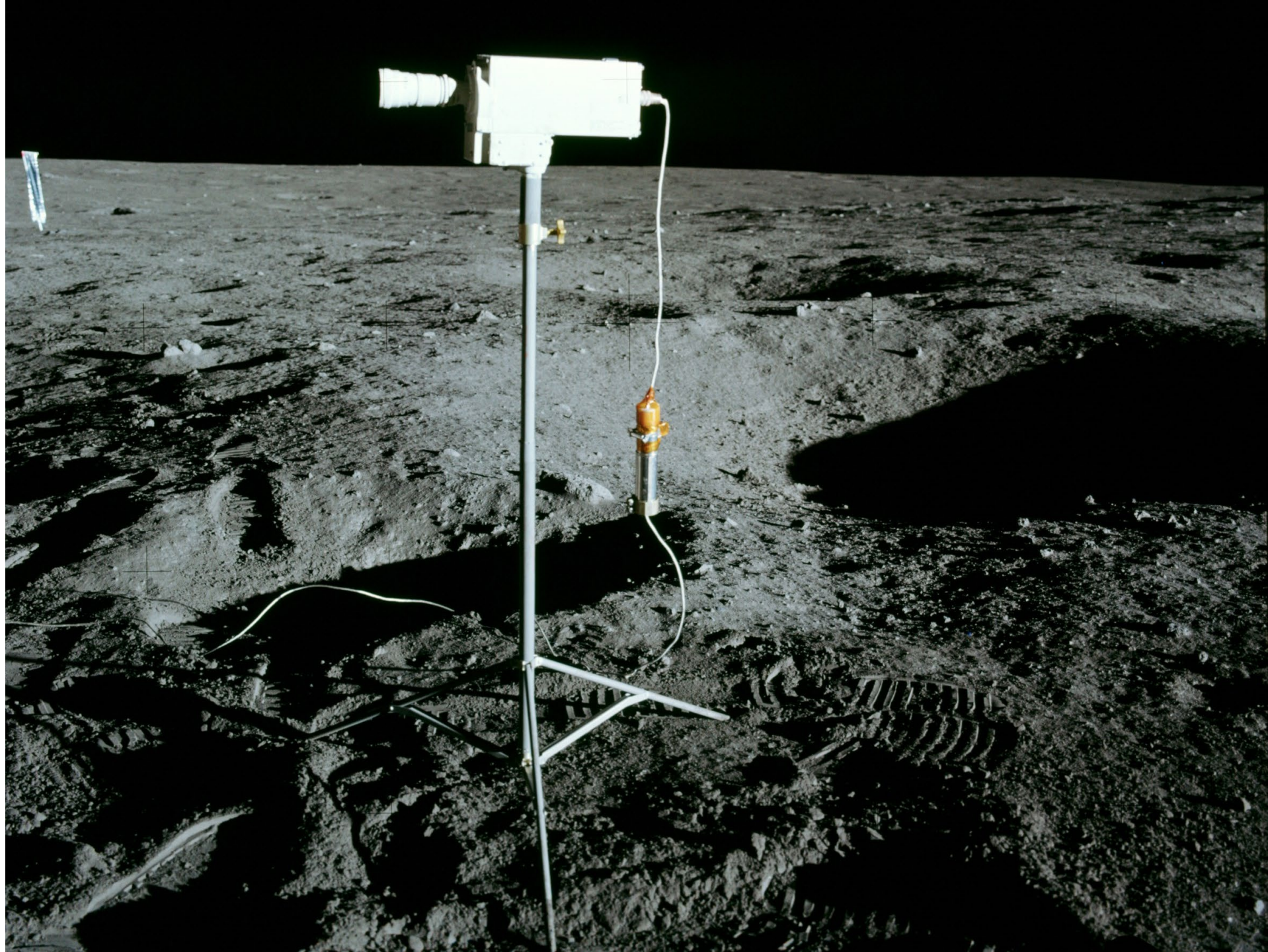
Apollo 12
Landing Site



**Apollo 12
Landing Site**

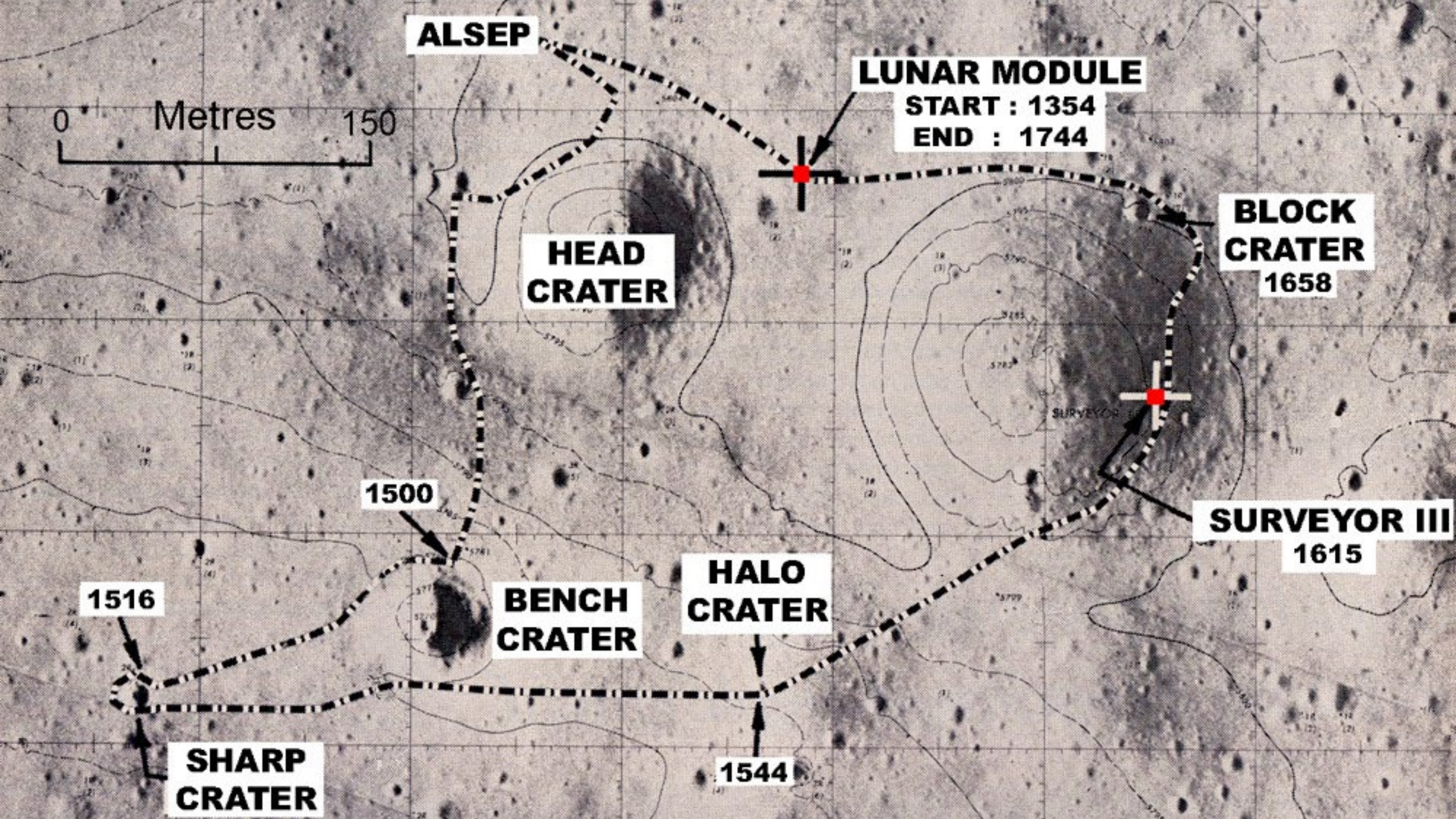


View from 9 m southeast of LM









ALSEP

0 Metres 150

LUNAR MODULE
START : 1354
END : 1744

HEAD CRATER

BLOCK CRATER
1658

1500

SURVEYOR III
1615

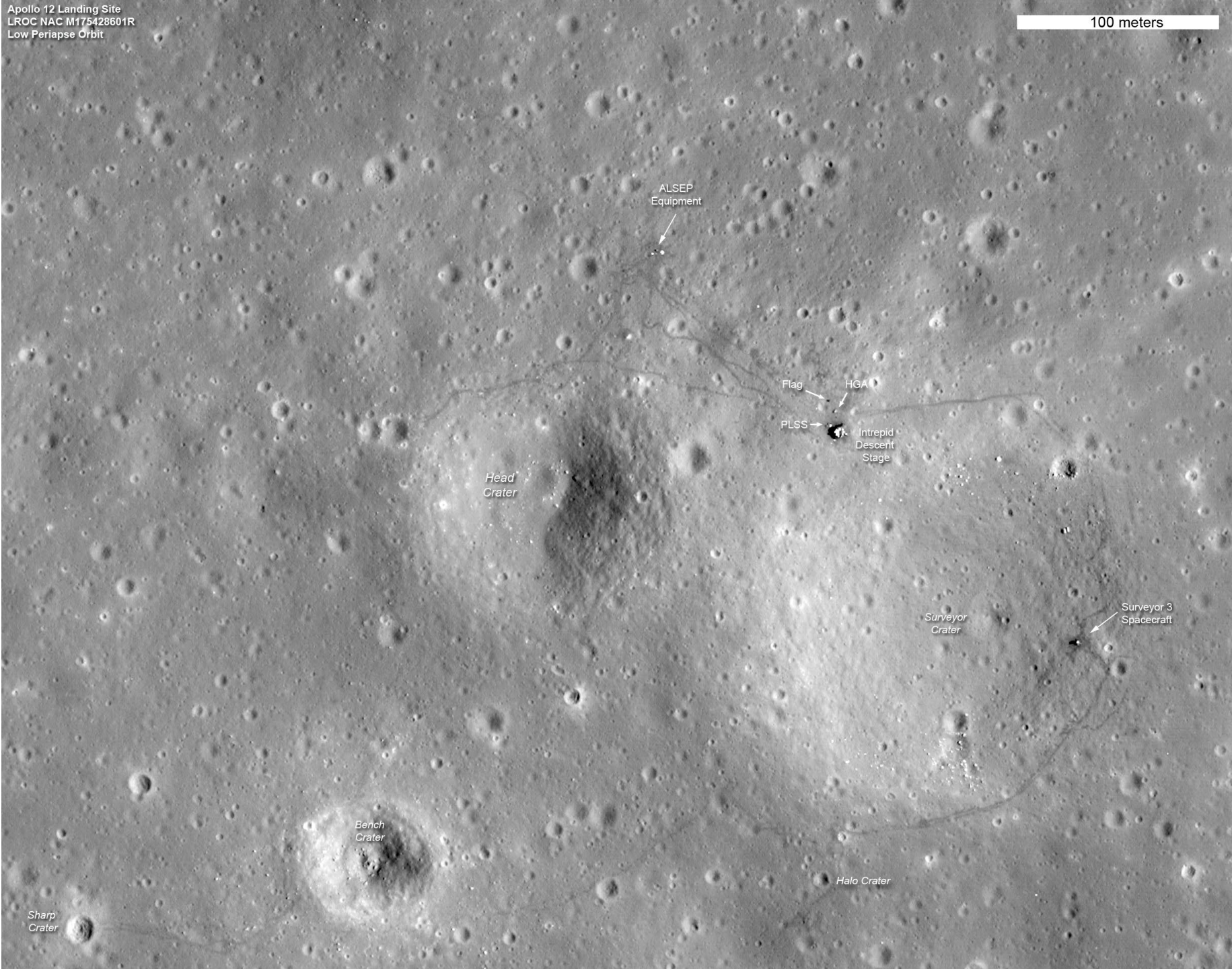
1516

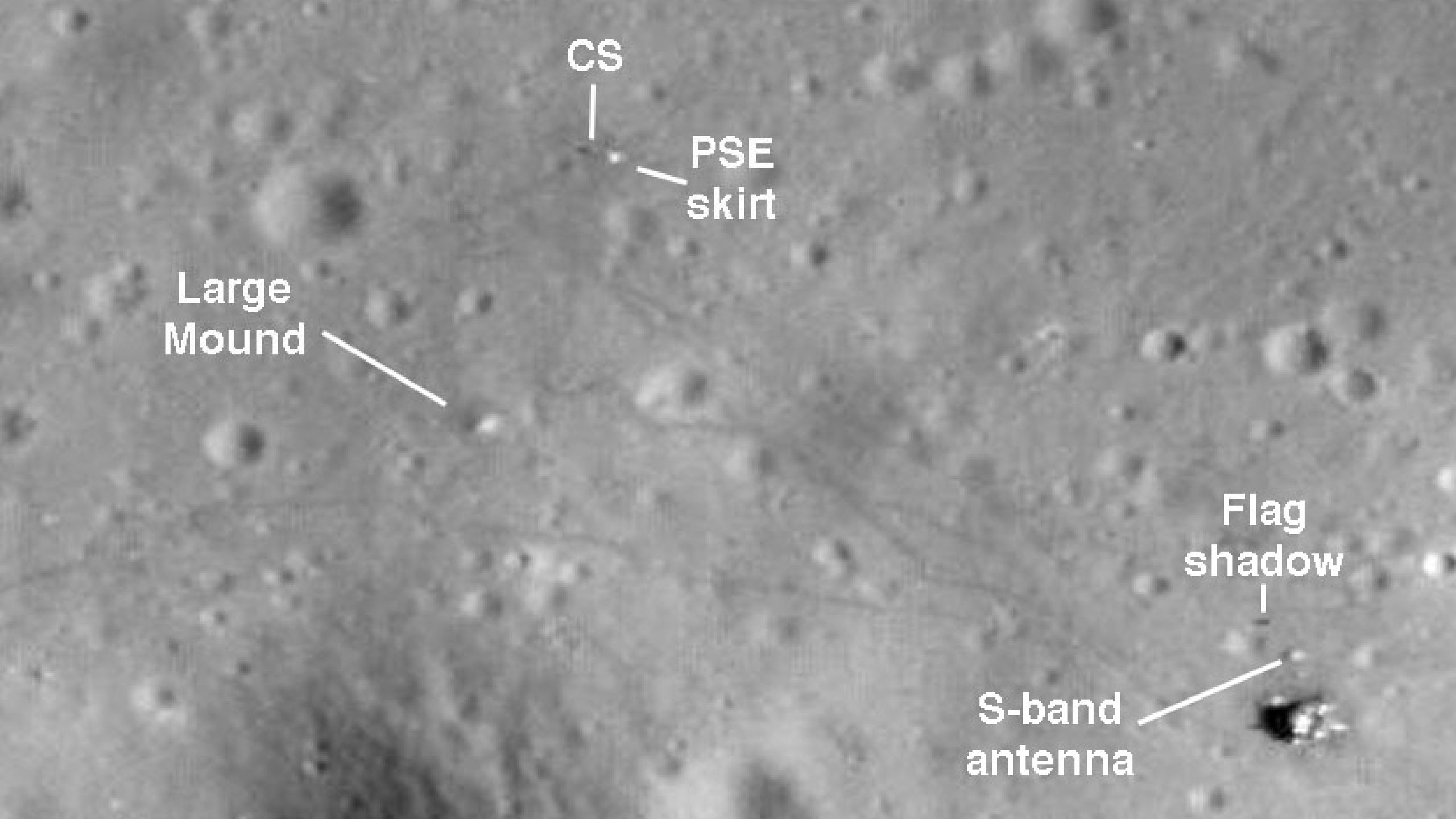
BENCH CRATER

HALO CRATER

SHARP CRATER

1544





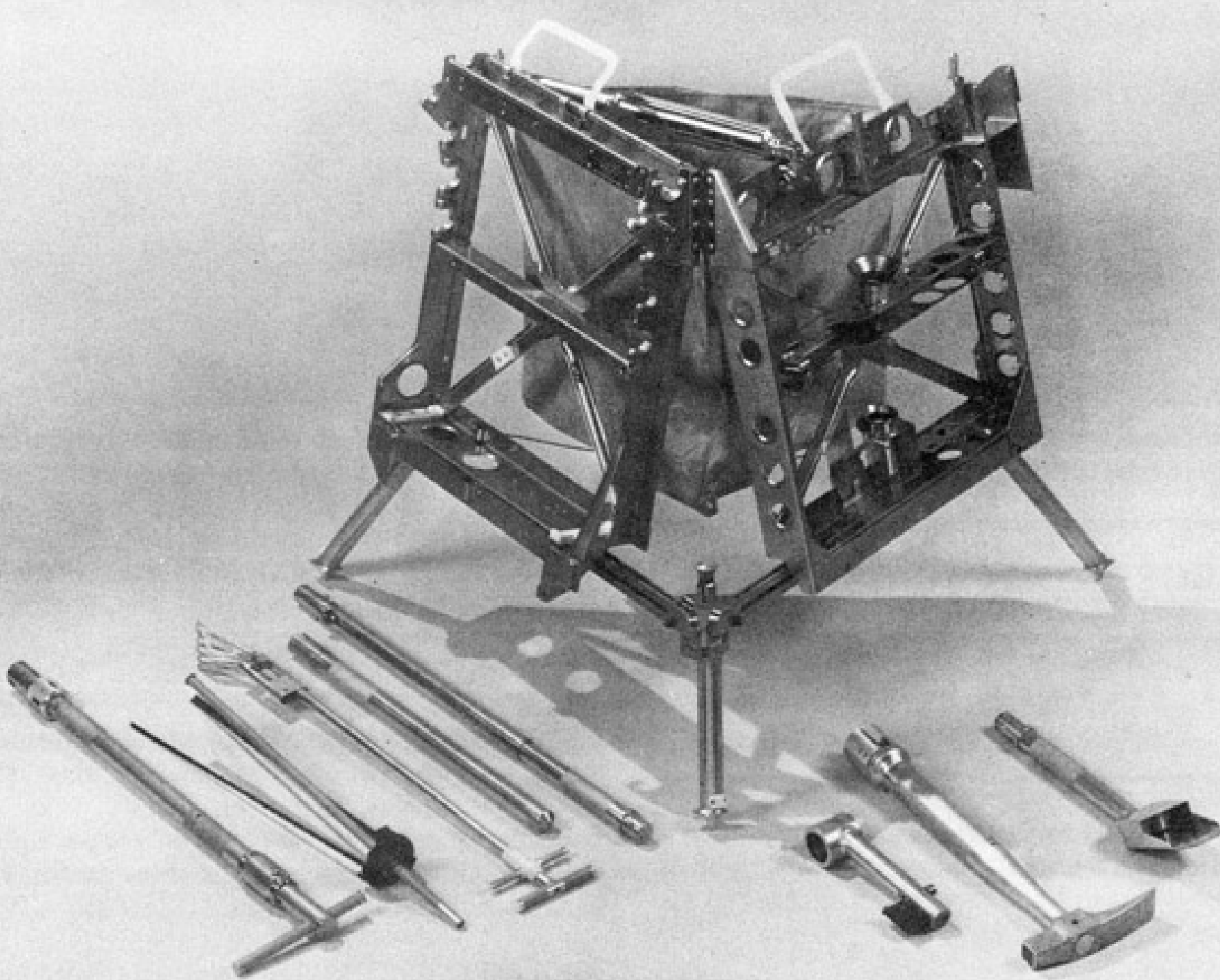
CS

PSE
skirt

Large
Mound

Flag
shadow

S-band
antenna



TOOL OR CONTAINER	WEIGHT (g)
Bag, Documented Sample	713.4
Bag, Documented Sample, Flat, Rectangular-shape	170.8
Bag, Documented Sample, Flat, Rectangular-shape	170.8
Bag, Documented Sample, Flat, Rectangular-shape	170.8
Bag, Organic Sample Monitor	90.2
Bag, Organic Sample Monitor	101.9
Bag, Weigh, tether hook	69.0 *
Bag, Weigh	135.9
Bag, Weigh	132.9
Bag, Weigh	136.8
Bag, Weigh	132.9
Bag, Weigh	140.0
Bag, Weigh	140.0
Container, Apollo Lunar Sample Return (ALSRC)	7200.0
Container, Apollo Lunar Sample Return (ALSRC)	7756.0
Container, Apollo Lunar Sample Return (ALSRC), aluminum mesh packing material	199.0
Container, Apollo Lunar Sample Return (ALSRC), aluminum mesh packing material	930.9
Container, Contingency Sample, Soft	1180.0
Container, Gas Analysis Sample (GASC)	246.7
Container, Lunar Environment Sample (LESC)	468.8
Container, Special Environment Sample (SESC)	360.0
Drive Tube, 2-cm Diameter, cap	33.8
Drive Tube, 2-cm Diameter	272.2
Drive Tube, 2-cm Diameter	272.3
Drive Tube, 2-cm Diameter	271.2
Drive Tube, 2-cm Diameter, cap & bracket assembly	315.2
Drive Tube, 2-cm Diameter	272.8
Extension Handle, Short	590.0
Gnomon	227.0
Hammer, Light-weight	860.0
Scale, Sample	498.0
Scoop, Box-shape	410.0
Scoop, small	163.0 *
Tongs, Small	140.0
Tool Carrier, Small	4200.0 *
<hr/>	
TOTAL WEIGHT for APOLLO 12	29172.3 grams

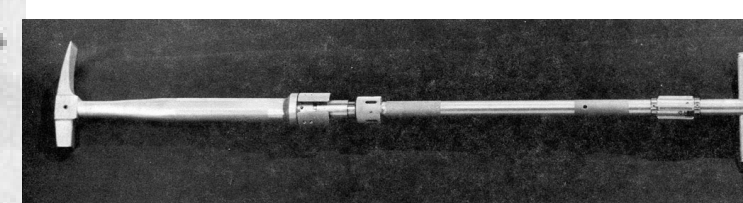
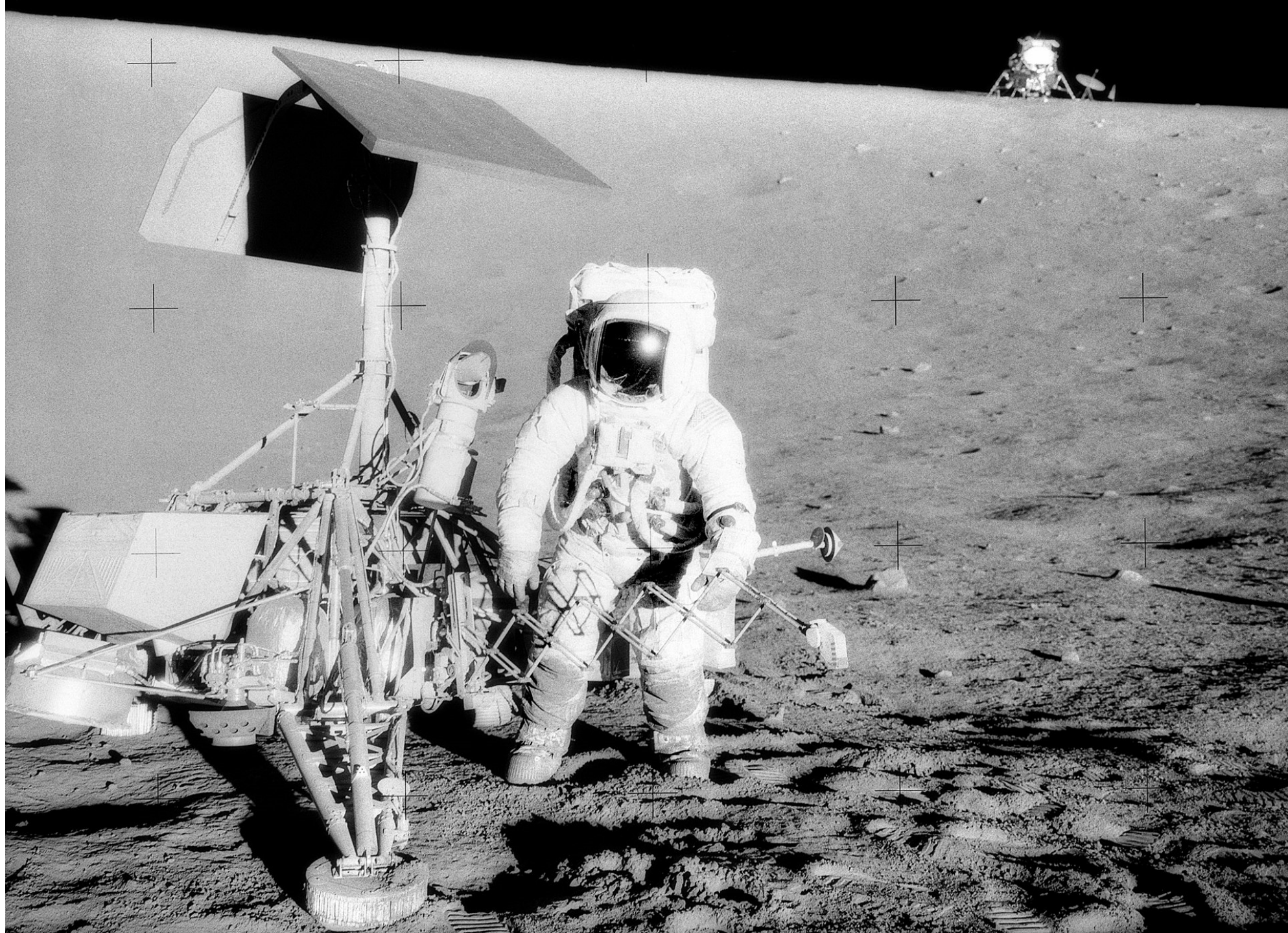


Fig. 32. Lighter weight hammer attached to extension handle for use as a hoe (NASA photo S60-31849).



DISCARD CUTTING TOOL
(LMP LOAD TV CAMERA IN BAG)
COMPLETE GEOLOGY TRAVERSE
REPORT START AND END OF TRAVERSE

2+46 SRC 2 PACKING
(LMP REMOVE PARTS BAG)

PLACE 70 mm IN ETB
REMOVE & EMPTY LMP SADDLE BAG
RETRIEVE SWC
STOW IN SRC 2:

- SWC FOIL/BAG
- CORE TUBES (3)
- ENVIRONMENTAL SAMPLE CAN
- GAS SAMPLE CAN
- DOCUMENTED SAMPLES

CHECK & CLEAN LMP EMU
SEAL SRC 2

DATE: 6 MAR 21 1969
PAGE 07 OF 07
PAGE 10 OF 11

3+01

LEC TRANSFERS

CHECK 70 mm (2) IN ETB
TRANSFER ETB
TRANSFER SRC 2
TRANSFER SURVEYOR PARTS BAG

3+20

EVA TERMINATION

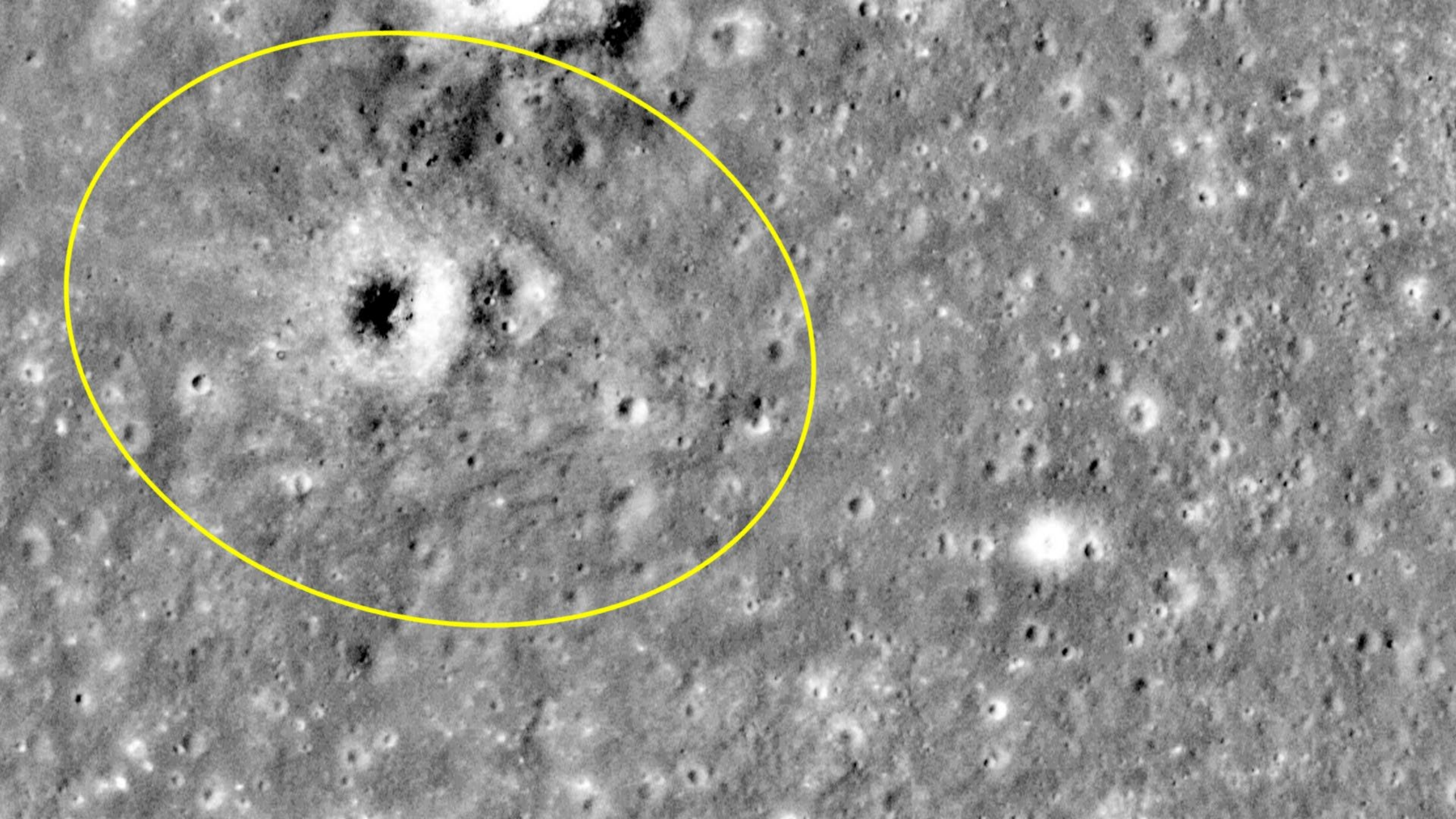
CLEAN EMU
CLEAR LEC OF ASCENT STAGE
INGRESS
JETTISON EQUIPMENT
CLOSE HATCH
REPRESS CABIN

WELL, BACK TO THE SOFT BALL GAMES



EMU MALE
COND - 6
10 - 11
SMU MALE
MU MALE

LEC XEER
EVA TERM.





Discussion Groups

- Chaikin Chapter 6 (“Sailors on the Ocean of Storms”)
 - A telling of the astronaut’s view of Apollo 12
- Apollo 12 Mission Report Chapter 9 (“Pilots’ Report”)
 - The astronaut’s actual view of Apollo 12
- Cox Chapter 26 (“I Think We Need to do a Little More All-Weather Testing”)
 - A view of Apollo 12 from mission control
- From the Earth to the Moon Episode 7 (“That’s All There Is”)
 - An dramatization of a mission that largely lacked video