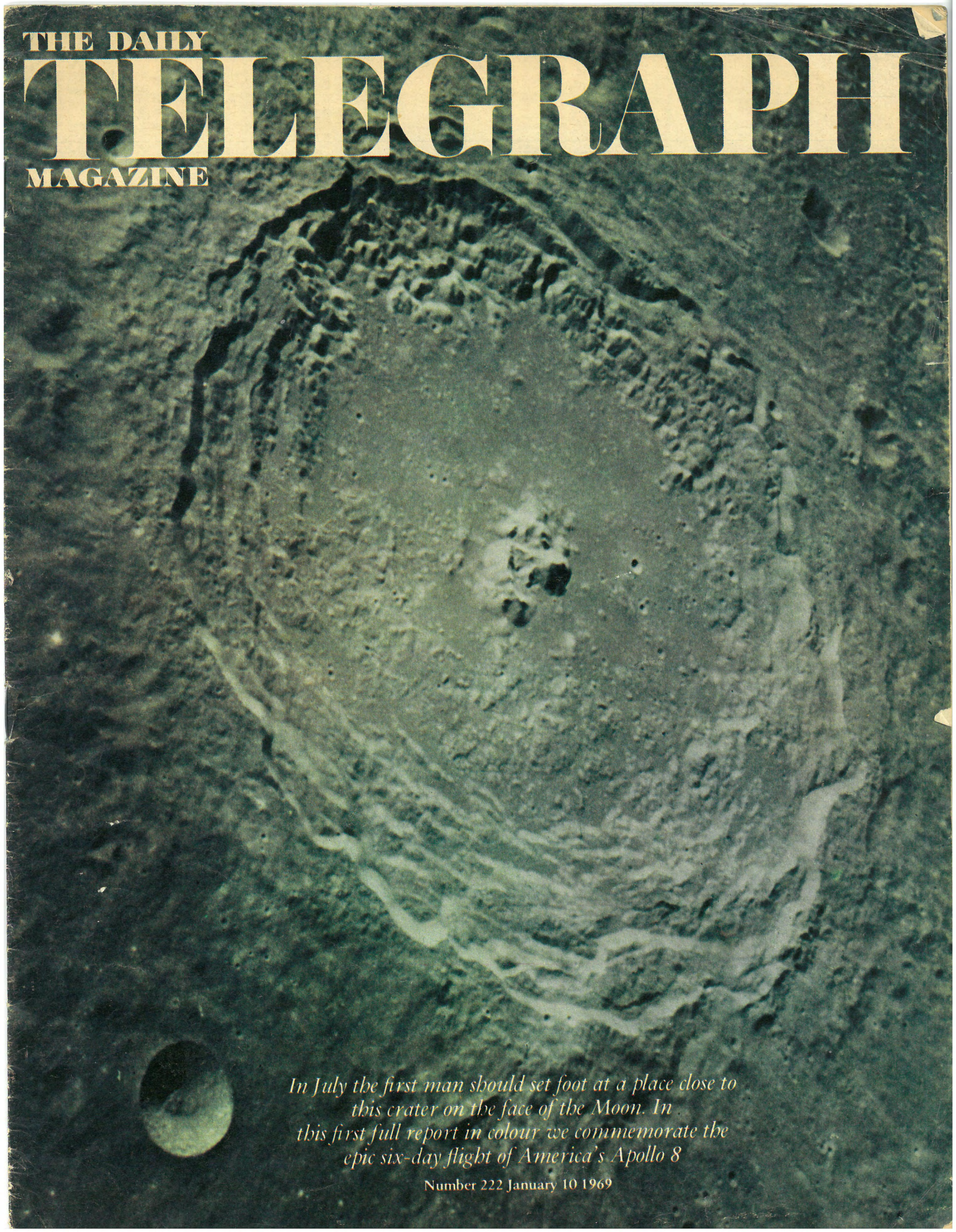
THE DAILY
TELEGRAPH
MAGAZINE



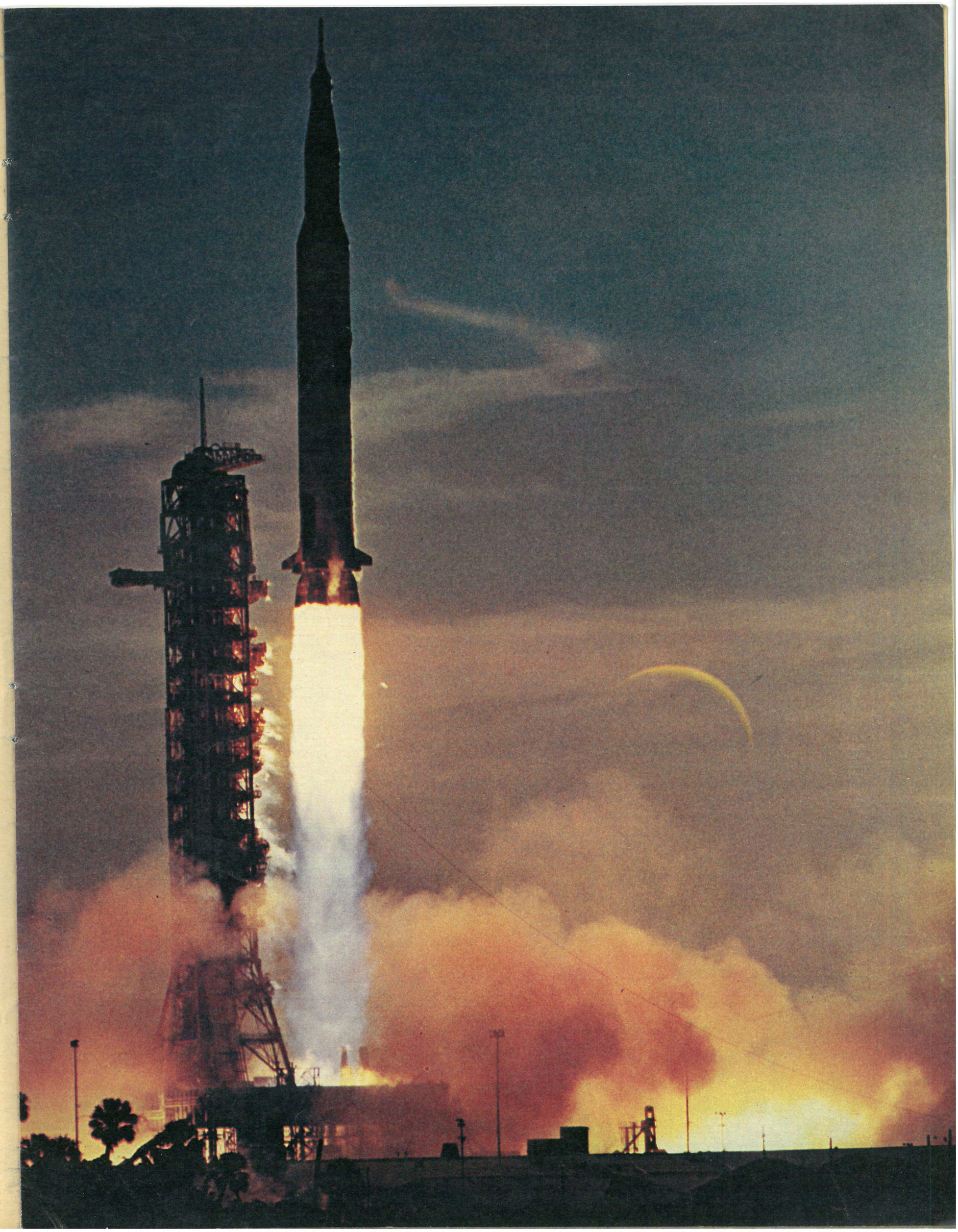
In July the first man should set foot at a place close to this crater on the face of the Moon. In this first full report in colour we commemorate the epic six-day flight of America's Apollo 8

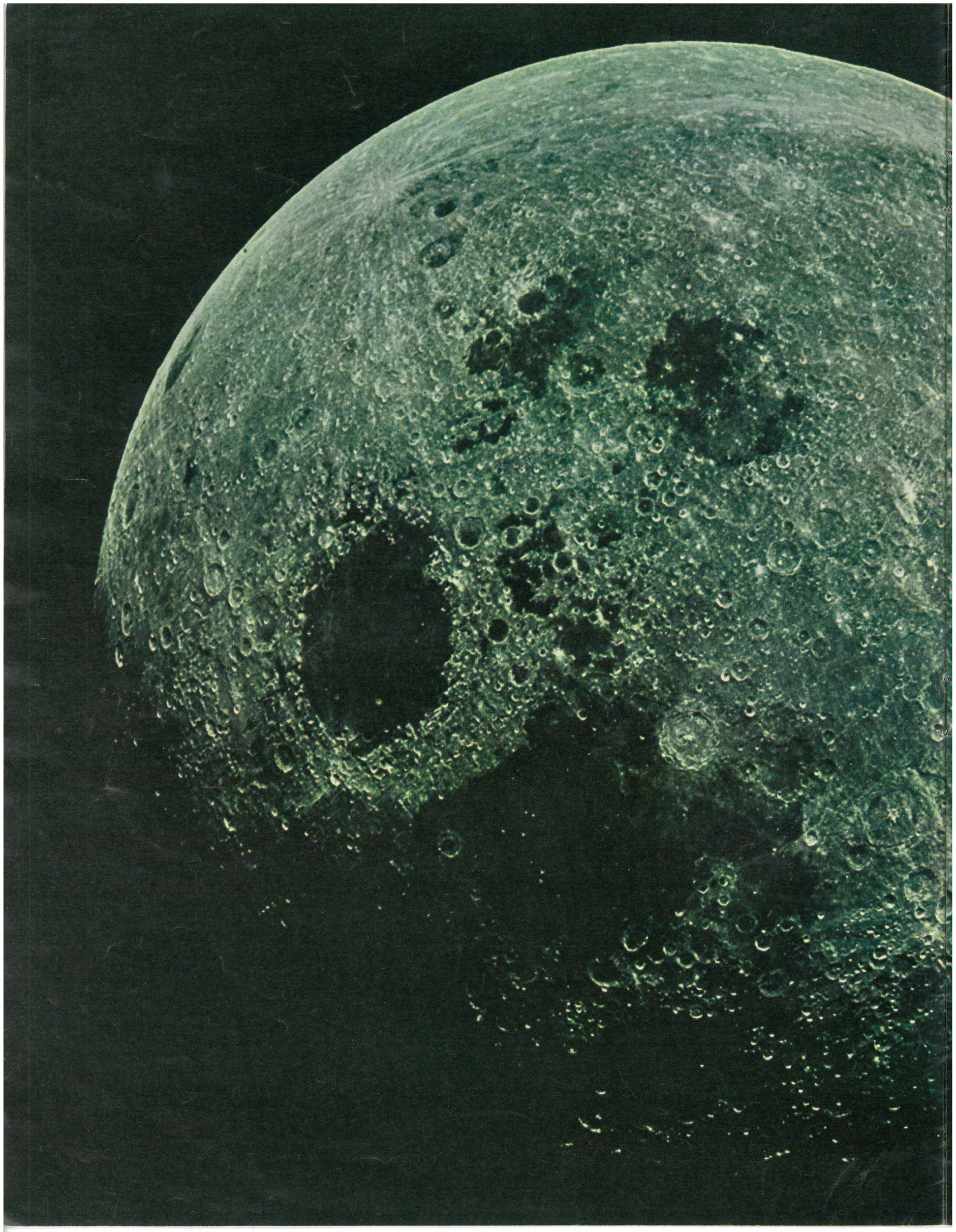
Number 222 January 10 1969

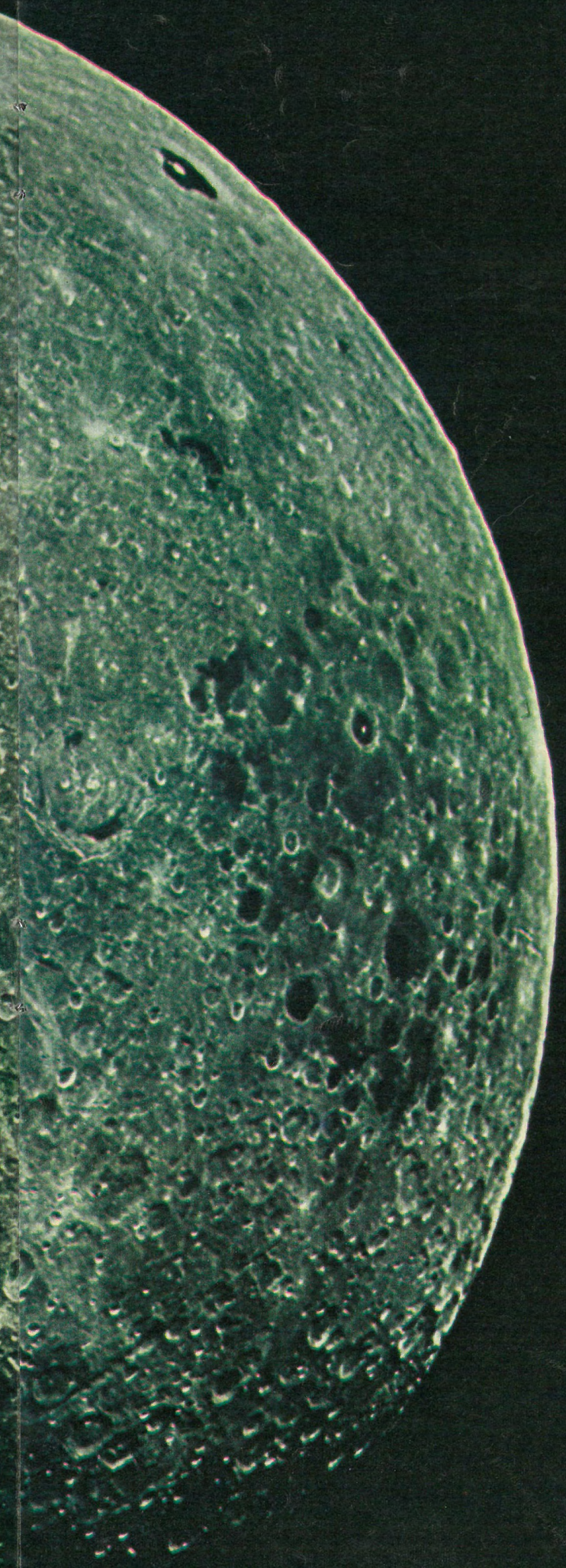
AIMING FOR THE MOON

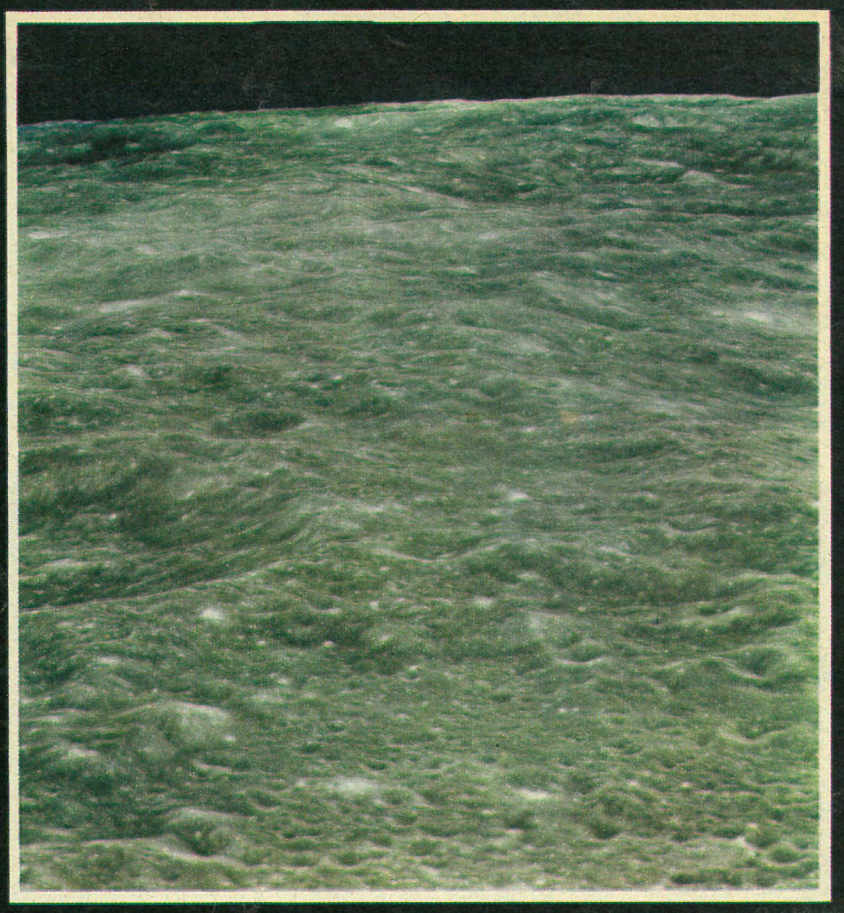
It was America's 18th manned space flight . . . Yet the journey of Col. Borman, Major Anders and Capt. Lovell had an epic sweep about it which enthralled the world during the week of Christmas 1968 and set Man more confidently than ever on the path towards setting foot on the Moon's surface in 1969

A VIEW of the launching never seen before. A crescent moon hangs low in the sky as the giant Saturn rocket blasts Apollo 8 on its 240,000-mile journey in a cloud of flame and smoke. Strapped inside the 13 foot wide command module on top of the 363 foot rocket lay the three astronauts (left): from left to right, Col. Frank Borman, 40, the flight commander, Lt. Col. William Anders, 35, and Capt. James Lovell, 40, All three are married men, with families. Lovell's wife, Marilyn, (below) was at Cape Kennedy with their three children to watch the blast-off; Mrs Borman and Mrs Anders and their families watched on television. Immediately after blast-off, control of the space flight passed to the Manned Space Flight Centre at Houston, Texas, which shared six days of anxious vigil with a rapt world



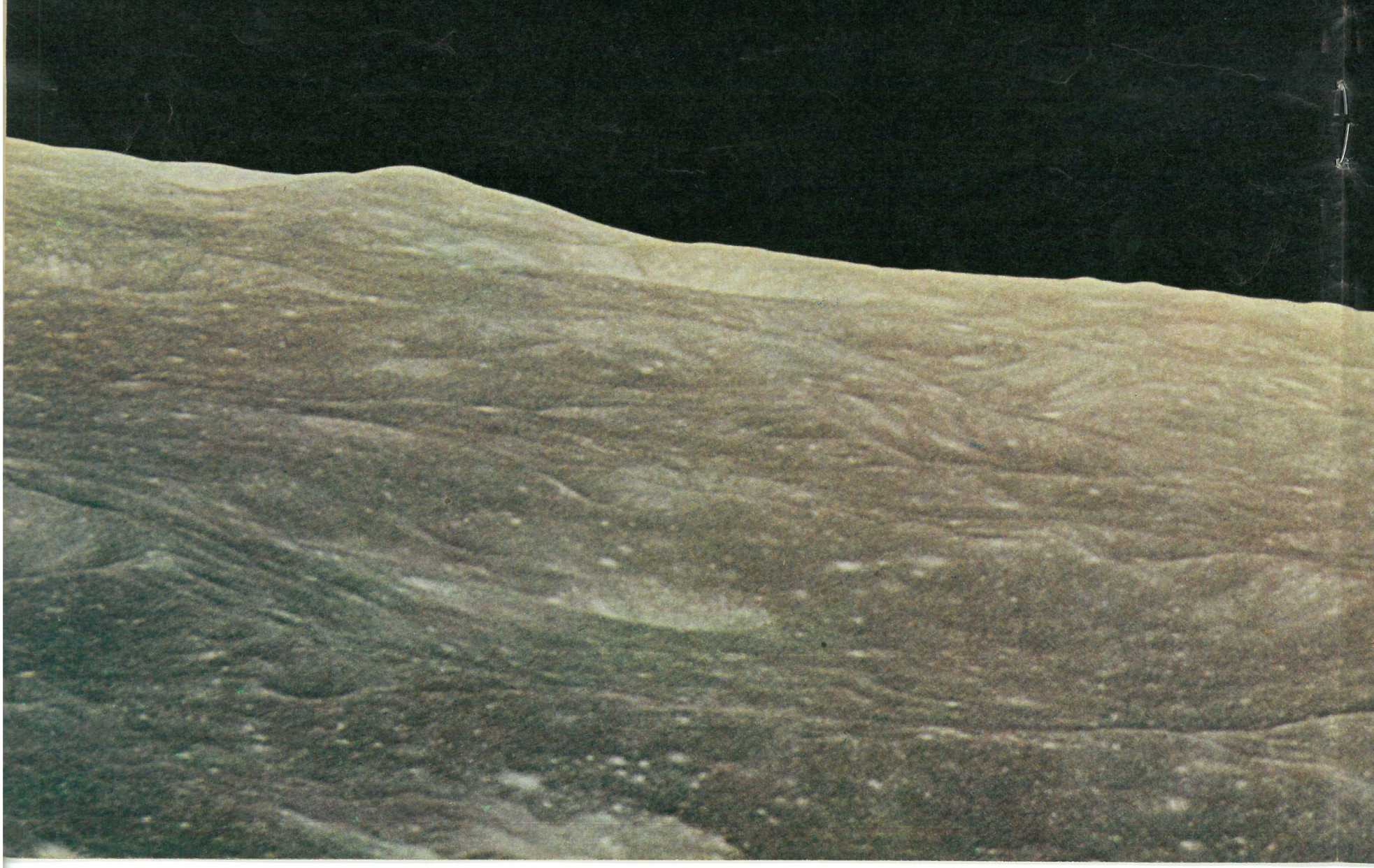


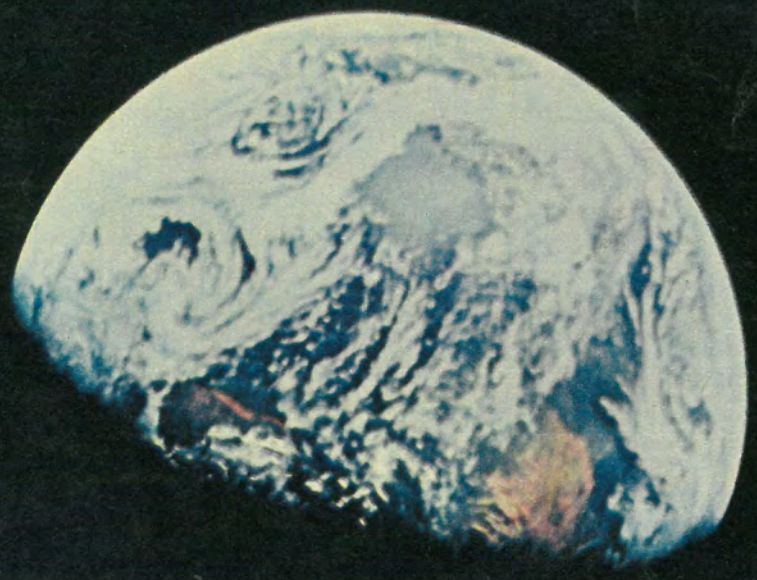




"THE VAST loneliness of the Moon is awe inspiring," said Captain Lovell. A nearly full moon (left) reveals the circular Mare Crisium near the centre and the darker Mare Nectaris to the left (from the Earth Mare Nectaris is on the east of the visible edge of a full moon). The large irregular maria disappearing into the darkness to the extreme left are Tranquillitatis and Fecunditatis. An astronaut's eye view (top) of the lunar horizon looking South West illustrates Major Anders' impression of the sky as "rather forbidding". And (below) a close-up of the centre of an unnamed crater on the dark side of the Moon where the area covered is about 20 miles square. In Colonel Borman's words the surface is "rather like clouds and clouds of pumice stone" and to Major Anders its colour looked "like dirty sand with lots of footprints".

First sight of earth from
another planet,
huge and marbled in the jet-cold
infinity of space.
In the foreground the burnt-out
desert of the Moon's
eastern surface is 80 miles
wide and the horizon is 485
miles from Apollo 8's camera
lens. Earth is 240,000
miles and two days away.
The photograph was taken by
astronaut Anders
with hand-held Hasselblad.



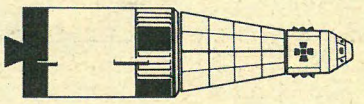


WHAT NEXT IN SPACE?

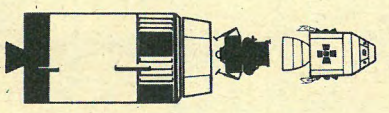
Beyond Apollo 8 – the first manned flight into lunar orbit – will come lunar landing practice missions. The first, Apollo 9, will be made in earth-orbit, to give astronauts some preliminary experience with the moonbug lander, carried by the same Saturn 5 launch rocket. Apollo 10 will take a moonbug into orbit near the moon for more trials, and it is hoped to make the actual landing attempt with Apollo 11 in mid-summer

Apollo 9
Launch date: February 28, 1969

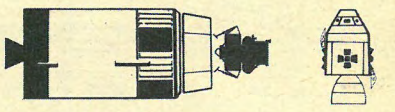
Astronauts: James McDivitt, Russell Schweikart and David Scott. Objective: to launch spacecraft into earth orbit to practise transposition and docking with lunar module "moonbug"



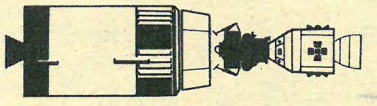
Spacecraft arrive in earth orbit for practice mission with third stage of Saturn attached



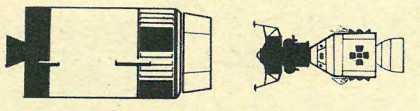
Parent spacecraft (command and service modules) separates leaving lunar module ('moonbug') attached to rocket stage



Spacecraft turns through 180 degrees to face moonbug on rocket stage



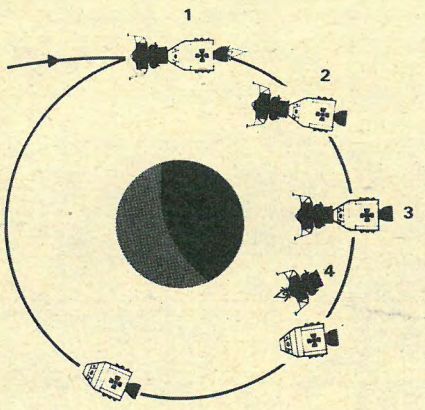
Spacecraft docks with moonbug

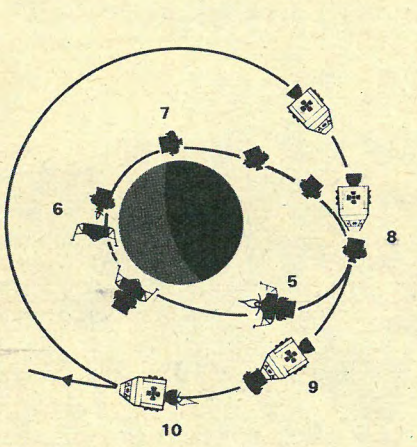


Spacecraft pulls moonbug clear of expended rocket stage. Astronauts perform separation and docking manoeuvres in earth orbit before returning to earth

Apollo 10
Provisional launch date: April/May, 1969

Astronauts: Thomas Stafford, John Young and Eugene Cernan. Objective: to launch spacecraft into lunar orbit to practise landing approach manoeuvres with two-man lunar module in elliptical orbit passing within ten miles of the lunar surface. Then to return to rendezvous and dock with parent in circular orbit 69 miles above the moon

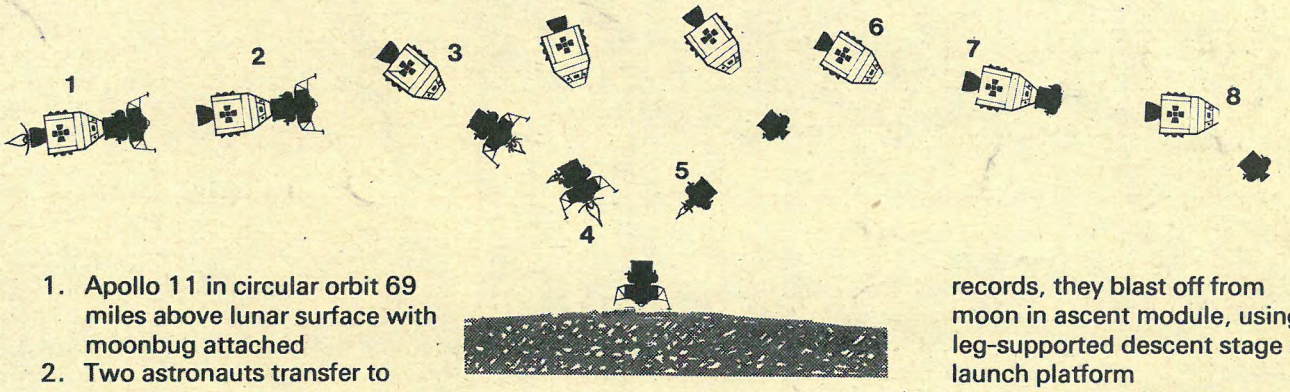




1. Spacecraft arrives in lunar orbit with moonbug attached
2. Two of three astronauts transfer by tunnel to moonbug
3. Combined craft manoeuvres ready for moonbug separation
4. Moonbug retro-fires to achieve 'free-return' elliptical orbit (see diagram right)
5. Elliptical orbit takes moonbug within 10 miles of Moon's surface
6. Possible "abort" separation of moonbug's ascent stage, containing men, from unmanned descent stage
7. Ascent stage of moonbug returns towards circular orbit
8. Moonbug docks with parent craft
9. Moonbug crew returns to parent; moonbug component discarded
10. Parent craft starts return flight to earth

Apollo 11
Provisional launch date: June/July, 1969

Astronauts have not yet been assigned to this craft. Objective: the first attempt to land two men on the surface of the moon, using the updated lunar module



1. Apollo 11 in circular orbit 69 miles above lunar surface with moonbug attached
2. Two astronauts transfer to moonbug
3. Moonbug separates for retro-fire
4. Moonbug hovers over lunar surface to achieve soft-landing
5. After astronauts take samples, instrument readings and film records, they blast off from moon in ascent module, using leg-supported descent stage as launch platform
6. Parent spacecraft prepares to receive returning moonbug
7. Spacecraft dock together and astronauts transfer to parent craft
8. Moonbug discarded and parent craft returns to earth