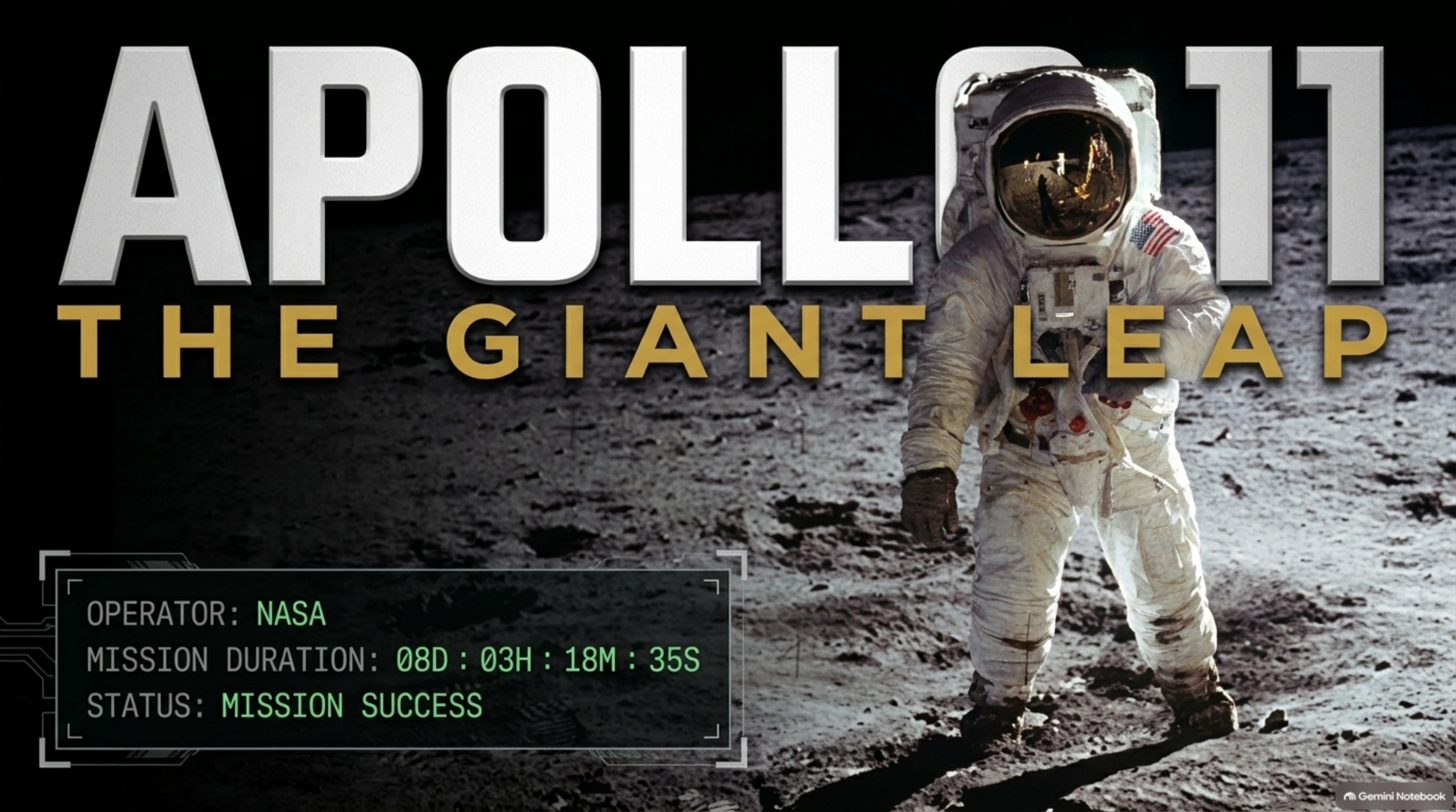
APOLLO 11

THE GIANT LEAP



OPERATOR: NASA
MISSION DURATION: 08D : 03H : 18M : 35S
STATUS: MISSION SUCCESS

Gemini Notebook

THE CATALYST: A COLD WAR ULTIMATUM

Oct 4, 1957: USSR launches Sputnik 1, igniting the Space Race and challenging US claims of superiority.

Apr 12, 1961: Yuri Gagarin becomes the first human in space.



THE ULTIMATUM

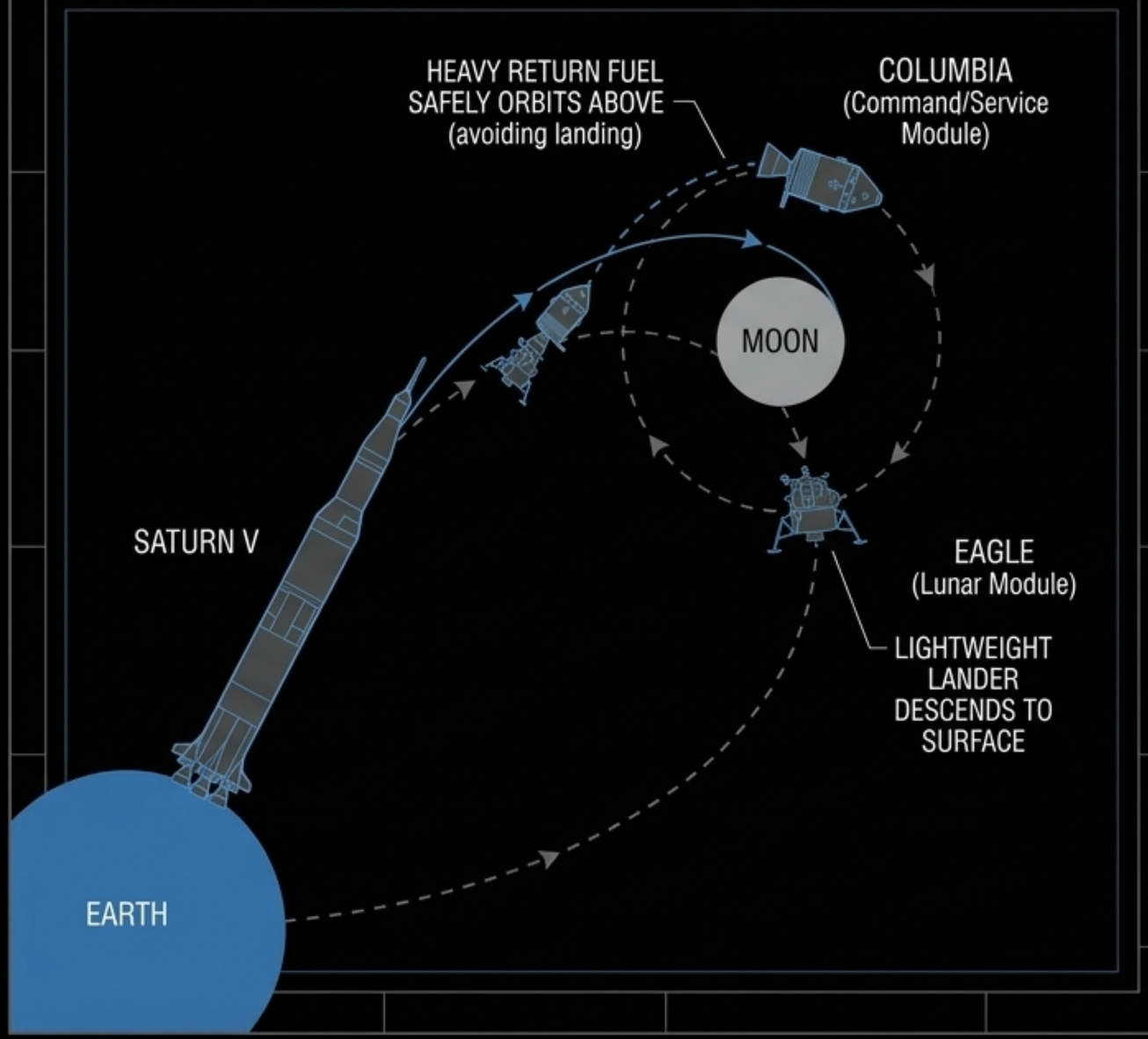
"We choose to go to the Moon in this decade and do the other things, not because they are easy, but because they are hard."

THE STRATEGY

Because the USSR had superior launch capacity, Kennedy chose a challenge so extreme (a crewed lunar landing) that both nations would effectively have to start from zero.

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THE ARCHITECTURE: LUNAR ORBIT RENDEZVOUS



Command Module (Columbia)	Service Module	Lunar Module (Eagle)
Manufacturer: North American Rockwell		Manufacturer: Grumman
Role: Crew cabin, Earth return vehicle	Role: Propulsion, electrical power, oxygen, and water	Role: Lunar descent and ascent (2 stages)
Final Resting Place: Preserved at National Air and Space Museum	Final Resting Place: Jettisoned / Burned up	Landing Mass: 10,873 lb (4,932 kg)
		Final Resting Place: Descent stage remains at Tranquility Base

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The Vanguard: An Ecosystem of Support



The Crew Triad

Neil Armstrong (Commander) – Surface
Buzz Aldrin (Lunar Module Pilot) – Surface
Michael Collins (Command Module Pilot) – Lunar Orbit

Mission Control

Gene Kranz (Flight Director, White Team - Lunar Landing)
Charles Duke (CAPCOM - The sole voice to the capsule)

The Invisible Army

Margaret Hamilton (Onboard flight computer software engineer)
Jack Garman (Computer engineer)
Eleanor Foraker (Spacesuit tailor)

"All you see is the three of us, but beneath the surface are thousands and thousands of others." — Michael Collins

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THE DESCENT: OVERLOAD AND OVERRIDE



TENSION METERS & ACTION LOG

ALTITUDE



120 FT

PROPELLANT

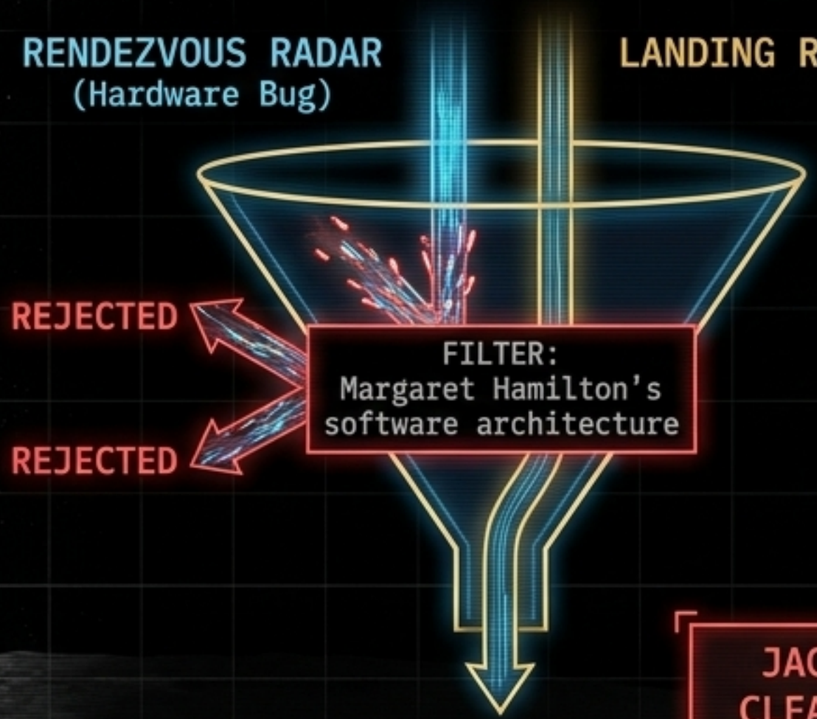


90 SECONDS REMAINING

(SENSOR UNCOVERED BY SLOSHING)

HAZARD: AGC TARGETING BOULDER FIELD (WEST CRATER)

THE 1202 EXECUTIVE OVERFLOW



JACK GARMAN CLEARS ALARM: SAFE TO CONTINUE

-> ARMSTRONG TAKES SEMI-AUTOMATIC CONTROL
-> CONTACT LIGHT
-> HOUSTON, TRANQUILITY BASE HERE. THE EAGLE HAS LANDED.

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Tranquility Base: Magnificent Desolation

VIEWERSHIP

~600 million viewers

(Roughly 1/5th of global population)

SURFACE EVA DURATION

2 hours, 31 minutes, 40 seconds



LUNAR YIELD

47.51 lb (21.55 kg) of samples

Discovered 3 new minerals: armalcolite, tranquillityite, pyroxferroite

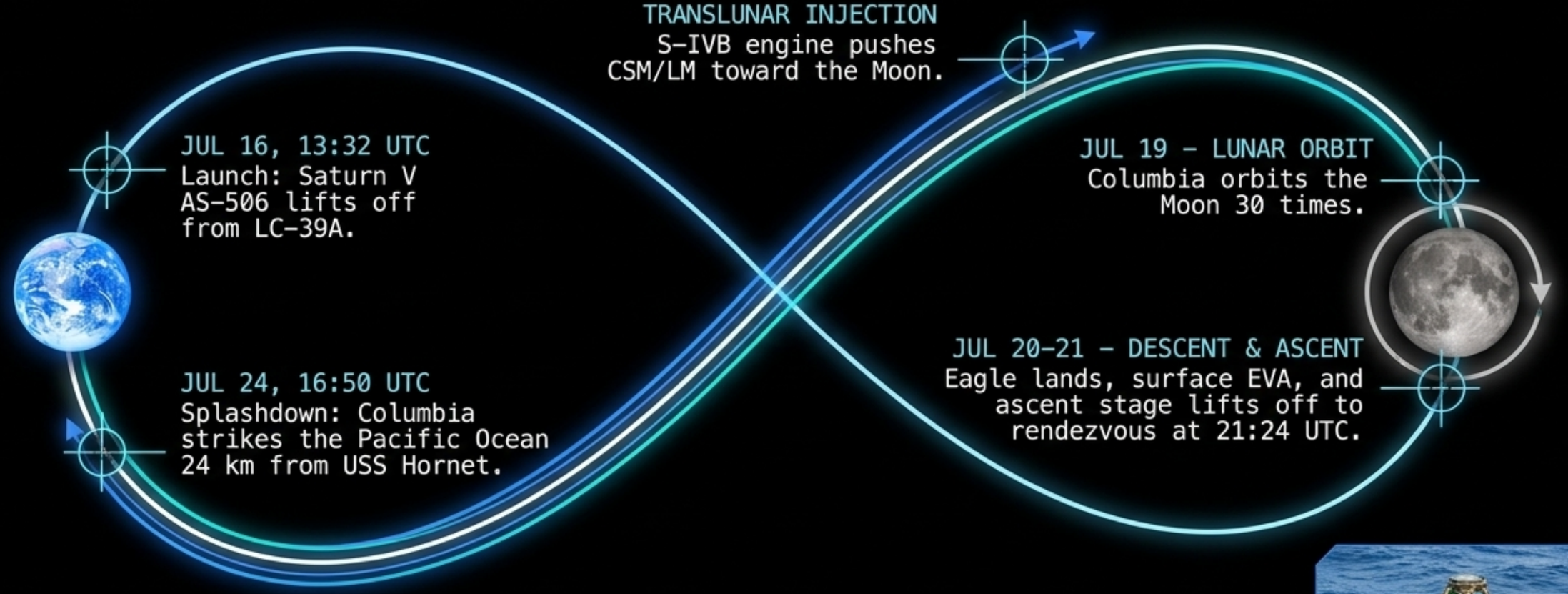
COMMUNICATION

The most historic phone call ever made

– President Nixon from the Oval Office

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The Trajectory: 8 Days, 3 Hours, 18 Minutes



NOTE: Returning astronauts placed in a Mobile Quarantine Facility for 21 days due to Extra-Terrestrial Exposure laws.



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The Synthesis: For All Mankind

THE ORIGIN (1961)

Driver: National survival and military/technological superiority.

Context: A divided world locked in the Cold War.



Here men from the planet Earth
first set foot upon the Moon
July 1969, A. D.
We came in peace for all mankind.

THE RESULT (1969)

Driver: Global unification and insatiable human curiosity.

Context: 600 million people experiencing a single moment together.

The ultimate weapon of the Cold War Space Race inadvertently engineered humanity's greatest moment of peaceful unification. As President Nixon stated upon their return:

"The world has never been closer together before."

Gemini Notebook