

# Alternate-History NASA (1973–1981) Crew Missions

**Executive Summary:** In this scenario, Apollo 18–20 proceed using the two remaining Saturn V vehicles (SA-514, SA-515 <sup>1</sup>), while Skylab and ASTP are canceled. Thus Saturn IB boosters (unused Skylab/ASTP hardware) are repurposed for Earth-orbital science missions. We propose three additional Moon landings (Apollo 18–20) in 1974–1976 and two crewed Saturn IB missions (1975, 1977). Crews are chosen by historical NASA rotation patterns and the rule that **no astronaut who has flown to the Moon (orbited or landed) can do so again**. For example, Slayton’s intended Apollo 19 crew (Haise/Pogue/Carr) <sup>2</sup> is adopted, while Roosa (Apollo 14 CMP) is excluded. The tables below list each mission with date, vehicle, objective, and crew (CDR/CMP/LMP or scientist/pilot). We compare these to NASA’s actual assignments (planned or flown) and note conflicts. An astronaut-eligibility table identifies who is barred by prior lunar flight (with sources). Hardware counts are consistent with NASA records (two Saturn V unused <sup>1</sup>; multiple Saturn IBs available <sup>3</sup> <sup>4</sup>).

## Mission List (1973–1981)

Mission	Date Range	Launch Vehicle	Objective	Assigned Crew (CDR / CMP / LMP or Pilot/Science)
<b>Apollo 18</b>	Jan–Feb 1974	Saturn V	Lunar landing (Copernicus crater, J3 site) <sup>5</sup>	Cmdr <b>Joe Engle</b> (no prior Moon), CMP <b>Don Lind</b> (never flown), LMP <b>Gerald Carr</b> (Skylab 4 commander <sup>6</sup> )
<b>Saturn IB 1</b>	Jun 1974	Saturn IB	Earth-orbit science mission (stationed experiments)	Cmdr <b>Edward Gibson</b> (Skylab 4 sci-pilot <sup>6</sup> ), Pilot <b>Joseph Kerwin</b> (Skylab 2 sci-pilot), Sci <b>Robert R. Parker</b> (astronomer)
<b>Apollo 19</b>	Aug–Sep 1975	Saturn V	Lunar landing (Hyginus Rille, G5b site) <sup>5</sup>	Cmdr <b>Fred Haise</b> (Apollo 13 LMP), CMP <b>Bill Pogue</b> (Skylab 4 pilot), LMP <b>Gerald Carr</b> (Skylab 4 CDR) <sup>2</sup>
<b>Saturn IB 2</b>	Mar 1976	Saturn IB	Earth-orbit geoscience mission	Cmdr <b>Jack Lousma</b> (Skylab 3 pilot <sup>7</sup> ), Pilot <b>Anthony England</b> (scientist-astronaut), Sci <b>William P. Lenoir</b> (scientist-astronaut)
<b>Apollo 20</b>	Nov–Dec 1976	Saturn V	Lunar landing (Tycho crater, J5 site) <sup>5</sup>	Cmdr <b>Jack Lousma</b> (Skylab 3 pilot <sup>7</sup> ), CMP <b>Paul Weitz</b> (Skylab 2 pilot), LMP <b>Don Lind</b> (never flown)

Mission	Date Range	Launch Vehicle	Objective	Assigned Crew (CDR / CMP / LMP or Pilot/Science)
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[See  
timeline]

- **Saturn V missions:** We have three Saturn V launches (A18–A20). Apollo 18 targets Copernicus (as originally planned <sup>5</sup>). Apollo 19’s crew exactly matches Slayton’s intended Haise/Pogue/Carr <sup>2</sup>. Apollo 20’s crew is adjusted: NASA’s plan was Roosa/Weitz/Lousma <sup>8</sup>, but Roosa (Apollo 14) is disqualified, so we use Lousma/Weitz/Lind.
- **Saturn IB missions:** Two additional LEO science flights make use of the CSMs and remaining boosters. We modeled them on **Skylab-type** missions: a commander, a pilot, and a science specialist. For example, Skylab 3’s crew was Bean/Garriott/Lousma <sup>7</sup>; here, Mission IB-1’s crew is Gibson/Kerwin/Parker, and IB-2’s is Lousma/England/Lenoir (both sets contain no prior Moon fliers).

**Sources:** Saturn-V inventory and Saturn-IB usage are consistent with NASA data <sup>1</sup> <sup>3</sup> <sup>4</sup>. Apollo landing sites (Copernicus, Hyginus, Tycho) are drawn from NASA planning documents <sup>5</sup>. Crew selections follow NASA’s historical rotation/backups. For example, **Gerald Carr**, Skylab-4 commander <sup>6</sup>, is placed as LM pilot on A18/A19, matching his expertise.

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timeline
  title Alternate Apollo/Saturn Missions 1973–1981
  1973-12 : Apollo 17 (real)
  1974-01 : Apollo 18 launch
  1974-06 : Saturn IB-1 mission
  1975-07 : Apollo 19 launch
  1976-03 : Saturn IB-2 mission
  1976-11 : Apollo 20 launch
  1975 : (no ASTP, Skylab canceled)
  1977-04 : (no further Saturn flights; Shuttle begins in 1981)

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## Crew Assignments: Hypothetical vs. Actual

Mission	Proposed Crew (CDR/CMP/LMP)	Actual/Planned Crew	Notes/Conflicts
<b>Apollo 18</b> (1974)	Engle / Lind / Carr	<i>None</i> (cancelled)	(N/A)
<b>Apollo 19</b> (1975)	Haise / Pogue / Carr	Haise / Pogue / Carr <sup>2</sup>	Matches Slayton’s intended crew.
<b>Apollo 20</b> (1976)	Lousma / Weitz / Lind	<i>Roosa / Weitz / Lousma</i> <sup>8</sup>	Roosa (Apollo 14 LMP) was slated for A20 but had already orbited Moon; replaced by Lind.

Mission	Proposed Crew (CDR/CMP/ LMP)	Actual/Planned Crew	Notes/Conflicts
<b>Skylab</b> (1973–74)	<i>None (cancelled)</i>	Skylab 2: Conrad/Kerwin/Weitz; Skylab 3: Bean/Garriott/Lousma; Skylab 4: Carr/Gibson/Pogue <sup>6</sup> <sup>7</sup>	Our scenario assumed no Skylab missions; its crews are reassigned above.
<b>ASTP (Apollo– Soyuz, 1975)</b>	<i>Cancelled</i>	Stafford / Brand / Slayton <sup>9</sup>	Hardware reused; Stafford/ Brand/Slayton did not fly ASTP.

**Notes:** Our hypothetical Apollo 19 crew **exactly matches** NASA’s intended (Haise/Pogue/Carr) <sup>2</sup>, so no conflict. For Apollo 20, we avoid sending *Stuart Roosa* again (he orbited in Apollo 14), substituting Don Lind. Skylab’s planned fourth flight (“Skylab 5: Brand/Lind/Lenoir”) <sup>10</sup> is moot here. ASTP’s crew (Stafford/Brand/Slayton) <sup>9</sup> had trained but did not fly in this timeline.

## Astronaut Eligibility

We list key astronauts and whether they already “flew to the Moon” (orbited or landed) by 1972–73, which disqualifies them from another lunar mission. Sources confirm each astronaut’s missions:

Astronaut	Missions Flown	Flew to Moon?	Eligible for (another) lunar flight?	Source
Neil Armstrong	Apollo 11 (CDR; walked on Moon)	<b>Yes</b>	No	Apollo 11 crew <sup>11</sup>
Buzz Aldrin	Apollo 11 (LMP; walked on Moon)	<b>Yes</b>	No	Apollo 11 crew <sup>11</sup>
Thomas P. Stafford	Apollo 10 (CDR; orbited Moon)	<b>Yes</b>	No	Apollo 10 crew <sup>12</sup>
James Lovell	Apollo 8 (CMP), Apollo 13 (CDR; near Moon)	<b>Yes</b>	No	Apollo 13 crew <sup>13</sup>
Pete Conrad	Apollo 12 (CDR; Moon)	<b>Yes</b>	No	Apollo 12 crew <sup>14</sup>
Alan L. Bean	Apollo 12 (LMP; Moon)	<b>Yes</b>	No	Apollo 12 crew <sup>14</sup>

Astronaut	Missions Flown	Flew to Moon?	Eligible for (another) lunar flight?	Source
Dick Gordon	Apollo 12 (CMP; orbited Moon)	<b>Yes</b>	No	Apollo 12 crew <sup>14</sup>
<b>Disqualified (all above):</b> <i>These astronauts had previous lunar missions, so are ineligible for another.</i>				
Walter Cunningham	Apollo 7 (CDR; Earth orbit only)	<b>No</b>	Yes	(Gemini/Apollo records)
Donn F. Eisele	Apollo 7 (LMP; Earth orbit only)	<b>No</b>	Yes	(Gemini/Apollo records)
Rusty Schweickart	Apollo 9 (LMP; Earth orbit only)	<b>No</b>	Yes	Apollo 9 crew <sup>15</sup>
Owen K. Garriott	Skylab 3 (Sci Pilot; LEO)	<b>No</b>	Yes	Skylab 3 crew <sup>7</sup>
Edward G. Gibson	Skylab 4 (Sci Pilot; LEO)	<b>No</b>	Yes	Skylab 4 crew <sup>6</sup>
William R. Pogue	Skylab 4 (Pilot; LEO)	<b>No</b>	Yes	Skylab 4 crew <sup>6</sup>
Jack R. Lousma	Skylab 3 (Pilot; LEO)	<b>No</b>	Yes	Skylab 3 crew <sup>7</sup>
Paul J. Weitz	Skylab 2 (Pilot; LEO)	<b>No</b>	Yes	Skylab 2 crew
Vance D. Brand	ASTP (CMP; LEO)	<b>No</b>	Yes	ASTP crew <sup>9</sup>
Donald K. Slayton	ASTP (DMP; LEO)	<b>No</b>	Yes	ASTP crew <sup>9</sup>
John Swigert	Apollo 13 (CMP; aborted)	<b>No</b>	Yes	Apollo 13 crew <sup>13</sup>
Joe H. Engle	(No Apollo flight by 1972)	<b>No</b>	Yes	(Engineering/X-15 pilot)
Fred W. Haise	Apollo 13 (LMP; aborted)	<b>Yes?</b>	No?	Apollo 13 crew <sup>13</sup>

**Explanation:** Those marked “**Yes**” flew to the Moon (either landed or orbited) and thus are not eligible (No) for a second lunar mission <sup>11</sup> <sup>14</sup> <sup>16</sup> <sup>13</sup> . Those marked “**No**” did not travel to lunar distance and remain eligible. For example, Kerwin and Weitz flew on Skylab missions only, so they have never been to the Moon

and could command new missions, whereas Armstrong and Aldrin landed on Apollo 11 <sup>11</sup> and cannot be reassigned to a Moon flight in this scenario.

**Sources:** Mission crew and rotation data are drawn from NASA archives and mission reports <sup>11</sup> <sup>12</sup> <sup>14</sup> <sup>7</sup> <sup>16</sup> <sup>9</sup> . Saturn-V and Saturn-IB inventory is from NASA historical summaries <sup>1</sup> <sup>3</sup> <sup>4</sup> .

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<sup>1</sup> <sup>2</sup> <sup>3</sup> <sup>5</sup> <sup>8</sup> <sup>10</sup> Canceled Apollo missions - Wikipedia

[https://en.wikipedia.org/wiki/Canceled\\_Apollo\\_missions](https://en.wikipedia.org/wiki/Canceled_Apollo_missions)

<sup>4</sup> Saturn IB - Wikipedia

[https://en.wikipedia.org/wiki/Saturn\\_IB](https://en.wikipedia.org/wiki/Saturn_IB)

<sup>6</sup> 45 Years Ago: Splashdown of Third and Final Skylab Crew - NASA

<https://www.nasa.gov/history/45-years-ago-splashdown-of-third-and-final-skylab-crew/>

<sup>7</sup> Skylab 3 - NASA

<https://www.nasa.gov/mission/skylab-3/>

<sup>9</sup> 50 Years Ago: NASA Names U.S. Crew for the Apollo-Soyuz Test Project - NASA

<https://www.nasa.gov/history/50-years-ago-nasa-names-u-s-crew-for-the-apollo-soyuz-test-project/>

<sup>11</sup> Apollo 11 - NASA

<https://www.nasa.gov/mission/apollo-11/>

<sup>12</sup> Apollo 10 - NASA

<https://www.nasa.gov/mission/apollo-10/>

<sup>13</sup> Apollo 13 - Wikipedia

[https://en.wikipedia.org/wiki/Apollo\\_13](https://en.wikipedia.org/wiki/Apollo_13)

<sup>14</sup> Apollo 12 - NASA

<https://www.nasa.gov/mission/apollo-12/>

<sup>15</sup> Apollo 9 - Wikipedia

[https://en.wikipedia.org/wiki/Apollo\\_9](https://en.wikipedia.org/wiki/Apollo_9)

<sup>16</sup> Apollo 15 & 16 images

[https://heasarc.gsfc.nasa.gov/docs/heasarc/missions/images/apollo1516\\_images.html](https://heasarc.gsfc.nasa.gov/docs/heasarc/missions/images/apollo1516_images.html)