



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON 25, D.C.

Saturn 5

"All up"

IN REPLY REFER TO:
M-C N 9330.186

OCT 31 1963

TO: Director, Manned Spacecraft Center
Houston 1, Texas

Director, Launch Operations Center
Cocoa Beach, Florida

Director, Marshall Space Flight Center
Huntsville, Alabama

FROM: Deputy Associate Administrator for Manned
Space Flight

SUBJECT: Revised Manned Space Flight Schedule

Recent schedule and budget reviews have resulted in a deletion of the Saturn I manned flight program and realignment of schedules and flight mission assignments on the Saturn IB and Saturn V programs. It is my desire at this time to plan a flight schedule which has a good probability of being met or exceeded. Accordingly, I am proposing that a flight schedule such as shown in Figure 1, with slight adjustments as required to prevent "stack-up", be accepted as the official launch schedule. Contractor schedules for spacecraft and launch vehicle deliveries should be as shown in Figure 2. This would allow actual flights to take place several months earlier than the official schedule. The period after checkout at the Cape and prior to the official launch date should be designated the "Space Vehicle Acceptance" period.

With regard to flight missions for Saturn I, MSC should indicate when they will be in a position to propose a firm mission and spacecraft configuration for SA-10. MSFC should indicate the cost of a meteoroid payload for that flight. SA-6 through SA-9 missions should remain as presently defined.

CLASSIFICATION CHANGED

To Unclassified
 Authority of MAA Sec. Exec. Office
 Date 4-21-71 L. B. Mims

It is my desire that "all-up" spacecraft and launch vehicle flights be made as early as possible in the program. To this end, SA-201 and 501 should utilize all live stages and should carry complete spacecraft for their respective missions. SA-501 and 502 missions should be reentry tests of the spacecraft at lunar return velocity. It is recognized that the Saturn IB flights will have CM/SM and CM/SM/LEM configurations.

Mission planning should consider that two successful flights would be made prior to a manned flight. Thus, 203 could conceivably be the first manned Apollo flight. However, the official schedule would show the first manned flight as 207, with flights 203-206 designated as "man-rating" flights. A similar philosophy would apply to Saturn V for "man-rating" flights with 507 shown as the first manned flight.

I would like your assessment of the proposed schedule, including any effect on resource requirements in FY 1964, 1965 and run-out by November 11, 1963. My goal is to have an official schedule reflecting the philosophy outlined here by November 25, 1963.

George M. Low

George E. Mueller
Deputy Associate Administrator
for Manned Space Flight

Enclosures:

Figure 1

Figure 2

FIGURE 1 - FLIGHT SCHEDULE

Station I

SA-5	Veh. Dev.	Dec. 1963
SA-6	Apollo B/P	Apr. 1964
SA-7	Apollo B/P	Aug. 1964
SA-9	Meteoroid	Dec. 1964
SA-8	Meteoroid	Apr. 1965
SA-10	Undetermined	Aug. 1965

Station 2-B

SA-201	OV/SM	Jan. 1966
SA-202	OV/SM	Apr. 1966
SA-203	OV/SV/LEM	Jul. 1966
SA-204	" "	Oct. 1966
SA-205	" "	Dec. 1966
SA-206	" "	Feb. 1967
SA-207	Manned	Apr. 1967
SA-208	" "	Jun. 1967
SA-209	" "	Aug. 1967
SA-210	" "	Oct. 1967
SA-211	" "	Dec. 1967
SA-212	" "	Feb. 1968

Station Y

SA-501	"All-Up" Vehicle and S/C Re-entry	Jan. 1967
SA-502	" "	Apr. 1967
SA-503	Lunar Mission Conf.	Jul. 1967
SA-504	" "	Oct. 1967
SA-505	" "	Dec. 1967
SA-506	" "	Feb. 1968
SA-507	Manned	Apr. 1968
SA-508	" "	Jun. 1968
SA-509	" "	Aug. 1968
SA-510	" "	Oct. 1968
SA-511	" "	Dec. 1968
SA-512	" "	Feb. 1969
SA-513	" "	Apr. 1969
SA-514	" "	Jun. 1969
SA-515	" "	Aug. 1969

FIGURE 2 - DELIVERY SCHEDULES (A-1)

Legend: All months Delivery

SCHEDULE I

SA-5
SA-6
SA-7
SA-9
SA-8
SA-10

VEHICLE

Delivered
Jan. 1964
May 1964
Sep. 1964
Dec. 1964
Feb. 1965

S/O

Delivered
Jan. 1964
May 1964
Sep. 1964
Dec. 1964
Undetermined

SCHEDULE I-A

SA-201
SA-202
SA-203
SA-204
SA-205
SA-206
SA-207
SA-208
SA-209
SA-210
SA-211
SA-212

Aug. 1965
Nov. 1965
Feb. 1966
May 1966
Jul. 1966
Sep. 1966
Nov. 1966
Jan. 1967
Mar. 1967
May 1967
Jul. 1967
Sep. 1967

Jan. 1966
Sep. 1966
Jan. 1967
Mar. 1967
May 1967
Jul. 1967
Sep. 1967
Nov. 1967
Jan. 1968
Mar. 1968
May 1968
Jul. 1968

SCHEDULE I

SA-501
SA-502
SA-503
SA-504
SA-505
SA-507
SA-508
SA-509
SA-510
SA-511
SA-512
SA-513
SA-514
SA-515

Jun. 1966
Oct. 1966
Jan. 1967
Apr. 1967
Jul. 1967
Aug. 1967
Oct. 1967
Dec. 1967
Feb. 1968
Apr. 1968
Jun. 1968
Aug. 1968
Oct. 1968
Dec. 1968
Feb. 1969

May 1966
Aug. 1966
Nov. 1966
Feb. 1967
Apr. 1967
Jun. 1967
Aug. 1967
Oct. 1967
Dec. 1967
Feb. 1968
Apr. 1968
Jun. 1968
Aug. 1968
Oct. 1968
Dec. 1968