

| No. | Mission/ID | Launch Date | Vehicle Configuration | Test Range | Response Mode | Flight Phase | Rep. Conf. |
|-----|---------------------|-------------|-----------------------|------------|---------------|--------------|------------|
| 31 | WS | 02/20/61 | I (J-13) | ER | | | 0 |
| 32 | WS | 03/03/61 | I (J-12) | ER | 4 | 2 | 0 |
| 33 | WS | 03/28/61 | I (J-14) | ER | | | 0 |
| 34 | WS | 03/31/61 | I (J-15) | ER | 4 | 1 | 0 |
| 35 | SILVER SADDLE | 05/03/61 | I | WR | | | 0 |
| 36 | WS | 05/23/61 | I (J-16) | ER | | | 0 |
| 37 | WS | 06/24/61 | I (M-1) | ER | 4T | 2 | 0 |
| 38 | WS | 07/20/61 | I (J-18) | ER | | | 0 |
| 39 | WS | 07/25/61 | I (M-2) | ER | | | 0 |
| 40 | WS | 08/03/61 | I (J-19) | ER | | | 0 |
| 41 | WS | 09/06/61 | I (J-17) | ER | | | 0 |
| 42 | WS | 09/07/61 | I (M-3) | ER | 5 | 2 | 0 |
| 43 | BIG SAM | 09/23/61 | I (SM-2) | WR | | | 0 |
| 44 | WS | 09/28/61 | I (J-20) | ER | | | 0 |
| 45 | WS | 10/06/61 | I (M-4) | ER | 5 | 2 | 0 |
| 46 | WS | 10/24/61 | I (J-21) | ER | | | 0 |
| 47 | WS | 11/21/61 | I (J-22) | ER | | | 0 |
| 48 | WS | 11/29/61 | I (M-5) | ER | | | 0 |
| 49 | WS | 12/13/61 | I (J-23) | ER | | | 0 |
| 50 | WS | 12/15/61 | I (M-6) | ER | 4 | 2 | 0 |
| 51 | DOUBLE MARTINI | 01/20/62 | I (SM-4) | WR | 4 | 2 | 0 |
| 52 | WS | 01/29/62 | I (M-7) | ER | | | 0 |
| 53 | BLUE GANDER | 02/23/62 | I (SM-18) | WR | 4 | 2 | 0 |
| 54 | WS (first Titan II) | 03/16/62 | II (N-2) | ER | | | 0 |
| 55 | SILVER TOP | 05/04/62 | I (SM-34) | WR | | | 0 |
| 56 | WS | 06/07/62 | II (N-1) | ER | 4 | 2 | 0 |
| 57 | WS | 07/11/62 | II (N-6) | ER | | | 0 |
| 58 | WS | 07/25/62 | II (N-4) | ER | 4 | 2 | 0 |
| 59 | WS | 09/12/62 | II (N-5) | ER | | | 0 |
| 60 | TIGHT BRACELET | 10/06/62 | I (SM-35) | WR | | | 0 |
| 61 | WS | 10/12/62 | II (N-9) | ER | | | 0 |
| 62 | WS | 10/26/62 | II (N-12) | ER | | | 0 |
| 63 | YELLOW JACKET | 12/05/62 | I (SM-11) | WR | 4T | 2 | 0 |
| 64 | WS | 12/06/62 | II (N-11) | ER | 4 | 1 | 0 |
| 65 | WS | 12/19/62 | II (N-13) | ER | | | 0 |
| 66 | WS | 01/10/63 | II (N-15) | ER | 4 | 2 | 0 |
| 67 | TEN MEN | 01/29/63 | I (SM-8) | WR | | | 0 |
| 68 | WS | 02/06/63 | II (N-16) | ER | 4 | 2 | 0 |
| 69 | AWFUL TIRED | 02/16/63 | II | WR | 4T | 1 | 0 |
| 70 | WS | 03/21/63 | II (N-18) | ER | 4T | 2.5 | 0 |
| 71 | YOUNG BLOOD | 03/30/63 | I (SM-3) | WR | | | 0 |
| 72 | HALF MOON | 04/04/63 | I | WR | | | 0 |
| 73 | RAMP ROOSTER | 04/13/63 | I (SM-1) | WR | | | 0 |
| 74 | WS | 04/19/63 | II (N-21) | ER | 4 | 2 | 0 |
| 75 | DINNER PARTY | 04/27/63 | II | WR | | | 0 |
| 76 | MARES TAIL | 05/01/63 | I | WR | 2 | 1 | 0 |