# Space Log



### SPACE CITY COVER SOCIETY

P. O. BOX 53545

HOUSTON, TEXAS 77052

Volume 16

MISSION 61-C BULLETIN

June 1986

## MISSION 61-C THE FINAL COMPLETED MISSION BEFORE THE TRAGEDY OF CHALLENGER

The 61-C mission of Columbia was historic in two very large ways. First, it was the final completed mission for a space shuttle before the tragedy of Challenger. And second, it was the first shuttle to be renovated and to fly again. After its flight in December 1983, it was ordered back to the factory for an 18-month overhaul. It went back to the Rockwell International Shuttle manufacturing plant in Palmdale, California.

At Palmdale, hundreds of modifications were made. Then in late 1985 it was transferred back to the Kennedy Space Center for a scheduled flight in December 1985. But because it has been out of service so long, Columbia was put through a three-day "launch confidence test" that ended on Dec 1, 1985.

Launch for mission 61-C and the first "re-flight" of Columbia did not come easily. After an unprecendented seven delays, and a month of trying, Columbia climbed from the launch pad at KSC on January 12, 1986 at 6:55 a.m. EST. It carried the youngest crew of astronauts to fly on shuttle and Gibson as the youngest shuttle flight commander. The crew was: Robert L. Gibson, commander; Charles F. Bolden, Jr., pilot; mission specialists Franklin R. Chang-Diaz, Steven A. Hawley, and George D. Nelson; and payload specialists Robert J. Cenker and Congressman Bill Nelson.

During the mission, Columbia performed flawlessly, and the crew successfully launched a commercial satellite for RCA. But experiments did not go as well. Photography of Halley's comet was done but a key piece of equipment failed to work despite two attempts at repair. A new device to carry experiments in the payload bay worked fine; the experiments did not.

The flight was originally scheduled for five days but officials ordered the craft home a day early. After some delays in flight, however, the craft came home a day later than planned and had to land in California rather than at the Kennedy Space Center. The landing was at Edwards on January 18, 1986 at 5:59 a.m. PST.

#### SCCS MISSION COVERS

As we have done on all past Space Shuttle missions, the SCCS has produced three different sets of covers for the launch and landing events. The first set of two has a launch cover machine cancelled at KSC on launch date. The landing cover in that set is machine cancelled at Edwards on landing date. Then, from the site of Shuttle Mission Control in Houston, we have two different sets of two. The first set is machine cancelled on launch date and landing dates. The second set is cancelled on launch date and landing date with the MPP hand cancel. (The SCCS has Houston permit #1 for the MPP hand cancel). The cachet for the three sets gives complete detailed information, with illustration.

(over)

RCA SATCOM K-1 LAUNCH FROM 61-C... This was the second of a planned fleet of three communications satellites operating in the Ku-band of the spectrum. It was launched successfully late during the first day of the 61-C mission. These RCA SATCOM satellites are designed to provide coverage to the continental 48 states or to either the eastern half or western half. Our cover is cancelled on launch date of the satellite (Jan 12, 1986).

CHAMP (COMET HALLEY ACTIVE MONITORING PROGRAM... Due to the tragedy of Challenger on January 28, 1986, the March 1986 flight of Columbia was grounded. It was on that upcoming flight that much CHAMP work was to be accomplished. As it turned out, the photographs taken on the 61-C mission would be the only completed Comet Halley photography done from space shuttle. Even though the equipment was not fully working, photos were taken on four days of the 61-C mission. We have a set of four covers for this final and only CHAMP investigations from shuttle. The dates are January 13, 14, 15 and 16, 1986. We offer these covers in a set of four, each correctly cancelled on each date with the MPP hand cancel.

MSL-2 (MATERIALS SCIENCE LABORATORY)...This is a new payload carrier developed for the Materials Science Laboratory program. This facility allows economical use of Shuttle Orbiter Vehicles for materials science processing. This MSL-2 is composed of an MSL carrier and three experiments and is managed by the Marshall Space Flight Center. Our SCCS cover is hand cancelled with MPP cancel on January 12, 1986, launch date of 61-C and cachet illustrates the position of MSL-2 in Columbia's payload bay.

Enclosed is an order form for all of the covers detailed on this issue. With the 61-C mission being the final one for shuttle for quite some time, we feel that these covers are more important than usual.

#### \* \* \* \* \* \* \*

#### A RECAP OF ALL COMPLETED SPACE SHUTTLE MISSIONS:

Flight #	Launch	Landing	Shuttle Orbiter
Flight #  STS-1  STS-2  STS-3  STS-4  STS-5  STS-6  STS-7  STS-8  STS-9  41-B  41-C  41-D  41-G  51-A  51-C	Launch  Apr 12, 1981  Nov 12, 1981  Mar 22, 1982  Jun 17, 1982  Nov 11, 1982  Apr 4, 1983  Jun 18, 1983  Aug 30, 1983  Nov 28, 1983  Feb 3, 1984  Apr 6, 1984  Aug 30, 1984  Oct 5, 1984  Nov 8, 1984  Jan 24, 1985	Landing  Apr 14, 1981  Nov 14, 1981  Mar 30, 1982  Jul 4, 1982  Nov 16, 1982  Apr 9, 1983  Jun 24, 1983  Sep 5, 1983  Dec 8, 1983  Feb 11, 1984  Apr 13, 1984  Sep 5, 1984  Oct 13, 1984  Nov 16, 1984  Jan 27, 1985	Shuttle Orbiter  Columbia Columbia Columbia Columbia Columbia Challenger Challenger Challenger Columbia Challenger Columbia Challenger Discovery Challenger Discovery Discovery
51-D 51-B	Apr 12, 1985 Apr 29, 1985	Apr 19, 1985	Discovery
51-B 51-F 51-I 51-J 61-A 61-B 61-C	Jun 17, 1985 Jul 29, 1985 Aug 27, 1985 Oct 3, 1985 Oct 30, 1985 Nov 26, 1985 Jan 12, 1986	May 6, 1985 Jun 24, 1985 Aug 6, 1985 Sep 3, 1985 Oct 7, 1985 Nov 6, 1985 Dec 3, 1985 Jan 18, 1986	Challenger Discovery Challenger Discovery Atlantis Challenger Atlantis Columbia
51-L	Jan 28, 1986	*	Challenger (*) Exploded/Launch