



REMOTE MANIPULATOR SYSTEM LOST ON 51-L

One great loss of hardware during the explosion of Challenger on its 51-L mission has received very little public attention. And that is the multi-million-dollar Canadian built robot arm.

The mechanical arm was used to deploy satellites, retrieve satellites, and other payloads, and to grapple payloads for stowing in the payload bay with subsequent return to Earth.

The Manipulator Development Facility was housed at the Johnson Space Center in Houston and had its first public viewing on October 22, 1976. The system was unveiled to the press on that day. The objective of the MDF was to determine how to use the robot arm in space in moving delicate instruments in and around the cargo bay area of the space shuttle. The SCCS produced a cover for this event, illustrated above as #1

During the STS-2 mission, the robot arm had its first test made of it in space during the mission of Columbia. This was on November 13, 1981. Tests were made in direct, manual, automatic, and backup modes, and in activity and storing the arm. The SCCS produced a cover for this first test and it is illustrated as #2.

A special double cancel cover was made with a machine cancel of October 22, 1976 (opening of the MDF in Houston) and the MPP hand cancel of November 13, 1981 (first test of the robot arm in space). This is illustrated as #3.

TWO SPECIAL COVERS FOR LOSS OF RMS ON 51-L

With the explosion of Challenger on January 28, 1986 the robot arm is lost and will have to be re-built before shuttle can fly again with a cargo that would need the use of the RMS. The SCCS produced two special covers for this event and we do not know anyone else that covered this important loss.

The first cover is MPP hand cancelled January 28, 1986 with cachet detailing the event and loss. We then have a double cancelled cover (both MPP hand cancels). The first cancel is November 13, 1981, the day that the RMS was first tested in space during STS-2. The second cancel is January 28, 1986, the day of the explosion and loss of the robot arm during launch of 51-L.

With each order, we will send a detailed catalog listing of all events using the robot arm on all of the space shuttle missions, with illustrations, and with complete background information on the RMS. We feel that this is another example of how the SCCS gives you complete information that other cover producers don't even think about.

----- CUT HERE -----
TO: SPACE CITY COVER SOCIETY, P O Box 53545, Houston, Texas 77052

Please send me the following RMS related covers:

MDF debut (Oct 22, 1976 machine Houston) @ \$3.25	_____	\$	_____
First space test of RMS on STS-2 (Nov 13, 81 MPP) @ \$2.50	_____		_____
Dbl cancel RMS (Oct 22, 76/Nov 13, 81) @ \$5.75	_____		_____
Loss of RMS on 51-L (Jan 28, 1986) @ \$1.25	_____		_____
Dbl cancel RMS (Nov 13, 1981/Jan 28, 1986) @ \$3.75	_____		_____
Postage and handling	_____		.40
Total remittance	_____	\$	_____

NAME _____ ADDRESS _____
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(Mar 86 #51-L(1) Please include one addressed, gummed label with order. Thanks.