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## **Sally K. Ride Papers - STS-51L Mission Operations Manual**

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28/13:03 Crew Ingress started.  
 28/13:36 Crew ingress completed.  
 28/13:44 Ice team inspection at pad B complete.  
 28/14:00 Decision made at KSC to continue launch attempt and perform another assessment during T-20 minute hold.  
 28/15:50 Flight Director reported no Launch Commit Criteria violations.  
 28/16:00 Ice team at pad performing final inspection during T-20 hold.  
 28/16:15 Inspection complete; ice team returning from pad.  
 28/16:23 Flight Director "GO" for launch given to KSC.  
 28/16:26 INCO command recorders on.  
 28/16:30:26 INCO final command to OV-099 (stored program command (SPC) for site handover comm config).  
 28/16:33:20 Auxiliary power unit (APU) start.  
 28/16:38:00.010 Lift-off.

These prelaunch operations were typical in that some delays and problems were encountered and resolved. The operations team's participation in these activities was straight-forward and had no effect on the accident.

## 2. Postlaunch Activities

Following lift-off, all real-time operations were seen in the MCC as nominal up until data were lost at 73 second. Only two voice calls, both of which were standard calls, were made by the Houston capsule communicator (CAPCOM). The first was an acknowledgement of the commander's (CDR's) call "Roll program" just after tower clear. The second was approximately 65 seconds into the mission to advise Challenger that they were "GO at throttle up" after the Space Shuttle main engine's (SSME's) had come back up from being throttled back during the period of max Q. The CDR's acknowledgement of this call was the last voice communication received from the Challenger.

The MCC Contingency Operations Plan was initiated at 1 minute 30 seconds mission elapsed time (MET) in order to capture and record as much data as possible in the MCC.

Following the STS 51-L incident, the following tasks were accomplished by the flight operations team:

a. All mission-related data were secured in accordance with the MCC Contingency Operations Plan. The Network and MCC configurations were frozen as was the JSC Center Computing Facility (CCF) configuration in building 12. The MCC configuration was released at 21:00 Greenwich mean time (GMT) on January 29, 1986. The Network configuration was released at 13:00 GMT on January 29, 1986. The CCF configuration was released at 09:36 GMT on January 29, 1986.

b. All real-time data tape originals were impounded and copied. These copies have been the data sources for all products requested by other investigation teams.

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