
Investigation on Setpoint Modification of Contingency Heater in Low Earth Orbit Satellite

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In contingency mode, most satellite adopt contingency heater or survival heater to reduce heater power consumption. Reducing consumption takes place by lowering the setpoint of heaters. After the contingency mode is finished, setpoint of heater should be changed to normal operating limit such that satellite can be in normal operation. If contingency heaters are computer controlled ones, all heater setpoint can be changed simultaneously. In this case, huge power can be required and simultaneous operation of heaters should be avoided. In this study, scenario on modification of setpoint of contingency heaters, which are computer controlled, are explained and ,through analysis of flight data, heater operation concept of contingency mode for future satellite will be presented