

National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, AL 35812



Reply to Attn of:

SD20 (00-001)

August 29, 2000

TO: DA01/A. G. Stephenson
THRU: AD33/Amanda Wilson *ajw*
FROM: SD20/Fred G. Sanders
SUBJECT: Request for Deviation/Waiver

Deviation/Waiver Number: MPG 5000.1-WAV02

It is requested that, in accordance with MPG 1410.2, SD20 requests approval for deviation/waiver from MPG 5000.1, paragraphs 3.1.3 and 3.1.4, which requires work descriptions for proposed procurements to be reviewed by S&MA to incorporate appropriate S&MA and quality requirements.

Define the proposed departure from the requirements:

It is requested that the Microgravity Crystal Growth Demonstration (MCGD) project, specifically SD22, Experiment Definition and Development Group, which is designing and building the MCGD flight hardware system, be permitted to use the electrical and mechanical components of the MCGD which were procured without using the MPG 5000.1 guideline.

Justification for deviation/waiver:

The MCGD components were procured in accordance with the draft Project Plan. See enclosure for the application section of the Project Plan, section 11, "Acquisition Summary." This hardware system does not constitute mission critical hardware and is not considered safety critical. It is, rather, a technology demonstration to ascertain the suitability of Commercial-Off-The-Shelf for short duration Low Earth Orbit (LEO) applications. The use of COTS components greatly reduces the cost to orbit and the time required to develop a flight system. The MCGD budget is \$156K over less than two years total development time. Extensive subsystem testing has already been performed on selected electrical components with good success. Extensive integrated system testing will be conducted on the flight hardware system to minimize risk to the overall SPASE Project. In addition, the primary objectives of the SPASE mission can be accomplished even if the performance of the MCGD system is minimal or non-functional. There is no applicable nonconformance, discrepancy, or deficiency report.

