AMENDMENT TO THE PERLMUTTER AMENDMENT
IN THE NATURE OF A SUBSTITUTE TO S. 141
OFFERED BY MR. PERLMUTTER

Page 2, lines 1 through 7, amend to read as follows:

"(2) The effects of severe space weather events on the electric power grid, satellites and satellite communications, services, orbits and information, airline operations, astronauts living and working in space, and space based position, navigation, and timing systems could have significant societal, economic, national security, and health impacts.

Page 2, after line 7, insert the following (and make such conforming changes as may be necessary):

"(3) Space weather observation and forecasting are essential for the success of deep space exploration.

Page 11, lines 10 through 12, amend to read as follows:

"(3) Identify knowledge gaps and their resolution through specific research and development ac-
activities to improve operational space weather forecasting;

Page 11, lines 22 through 24, amend to read as follows:

“(6) include a formal mechanism to share operational needs of space weather forecasters with Federal agencies engaged in space weather research and development activities, the academic community, and the commercial sector; and

Page 12, lines 12 and 13, amend to read as follows:

“(3) considers the National Academy of Sciences, Engineering, and Medicine’s decadal survey recommendations;

Page 13, after line 24, insert the following:

“(d) REVALUATION OF CONTENT.—Not later than one year after the date on which each Presidential term begins, as well as when determined to be necessary by the Chair of the National Space Council during the intervening years, the applicable entities shall review and assess the content previously developed under this section and update and resubmit such content when appropriate.

Page 19, lines 1 through 3, amend to read as follows:
“(3) NOAA DATA.—The Secretary shall work with the academic community to make space weather related data obtained from operational forecasting available for scientific research.

Page 19, lines 4 through 10, amend to read as follows:

“(e) RESEARCH FOR IMPROVED SPACE WEATHER FORECASTING.—The Secretary, the Director of the National Science Foundation, and the Administrator of the National Aeronautics and Space Administration shall support basic and applied research which could improve space weather forecasting lead time and accuracy.