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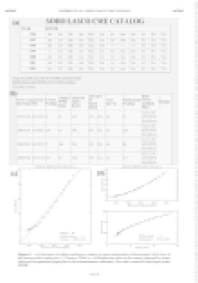

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JOURNAL OF GEOPHYSICAL RESEARCH,

A catalog of white light coronal mass e
SOHO spacecraft

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N. B. Rich,[5] and R. A. Howard[5]

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[1] The Solar and Heliospheric Observatory (SOHO
have observed nearly 7000 coronal mass ejections (
have documented the measured properties of all thes
describe this catalog and present a summary of the st
primary measurements made on each CME are the a
angular width in the sky plane, and the height (helioc
The height-time measurements are then fitted to firs
derive the average apparent speed and acceleration o
of CMEs are (1) the average width of normal CMEs
47° (1996; solar minimum) to 61° (1999; early phas
decreased to 53° (2002; late phase of solar maximum
equatorial region during solar minimum, while during
latitudes, (3) the average apparent speed of CMEs i
minimum) to 500 km s^{-1} (solar maximum), (4) the a
(957 km s^{-1}) is twice of that of normal CMEs (428
CMEs ($V \leq 250$ km s^{-1}) show acceleration while mo
show deceleration. Solar cycle variation and statistic
with greater clarity in this study as compared with p
findings for CME models are discussed. *INDEX TE*
Astronomy: Coronal mass ejections; 7536 Solar Physics, Astrop
(2162); 7509 Solar Physics, Astrophysics, and Astronomy: Cor
Astronomy: General or miscellaneous; *KEYWORDS:* Coronal Ma

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white light coronal mass ejections observed by the SOHO spac

1. Introduction

[2] Although the concept of mass ejection from the Su
has been known for a long time, the phenomenon of coron
mass ejections (CMEs) as we know them today was fir
discovered in 1971 using the seventh Orbiting Solar Ob
servatory (OSO-7) coronagraph [*Tousey*, 1973]. Sever
spaceborne coronagraphs such as the Apollo Telescop