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KMSC

HAUS BOU 230400Z

SDF NUMBER 484A ISSUED 0400Z 23 DECEMBER 1969

CLASS M FLARES ARE PROBABLE DURING THE NEXT 13 HOURS.

A. SOLAR ACTIVITY HAS BEEN AT A LOW LEVEL DURING THE PAST 11 HOURS. THE REGION AT S11E20 HAS SHOWN SOME GROWTH AND DEVELOPMENT IN WHITE LIGHT. ALL OTHER REGIONS ARE STABLE. THE GEOMAGNETIC FIELD IS QUIET AFTER THE SLIGHT DISTURBANCE OF YESTERDAY.

B. INFREQUENT CLASS M FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 23 DEC/0400Z ENDING 26 DEC/0400Z.

CLASS M OR GREATER 50/50/50

CLASS X 05/05/05

PROTON EVENTS 02/02/02

D. OTTAWA 10.7 CM FLUX 22/1700Z AND 2000Z WERE 168 AND 172 RESPECTIVELY.

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FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO
SDF NUMBER 484B ISSUED 1700Z 23 DEC 1969

CLASS M FLARES ARE PROBABLE DURING THE NEXT 11 HOURS.

A. HIGHLIGHTS FOR THE PERIOD 17-22 DECEMBER 1969--

A RATHER UNIMPRESSIVE DISK PRODUCES SEVEN CLASS M EVENTS DURING THIS PERIOD. MCMATH REGION 478, WHICH WAS MAGNETICALLY A SMALL BETA-GAMMA WITH TWO DELTA CONFIGURATIONS AND NEVER EXCEEDING 250 MILLIONTHS IN ITS D/TYPE SPOT GROUP, PRODUCED EVENTS AT 17/0657Z OPTICAL 1N, 17/0935Z OPTICAL 1E, 17/1210Z OPTICAL SN, 19/0417Z OPTICAL SB AND 20/2001Z OPTICAL SB. THIS REGION DECAYED RAPIDLY AFTER 18 DECEMBER. THE REMAINING TWO EVENTS OCCURRED FROM THE WEAK AND DECAYING MCMATH REGION 447 AT 17/0030Z OPTICAL 2N AND AT 19/1202Z OPTICAL 2N. MCMATH REGION 491 HAS GROWN RAPIDLY AND IS CURRENTLY CLASSIFIED MAGNETICALLY AS A BETA WITH A DELTA CONFIGURATION WITH A D/TYPE/510 MILLIONTHS SPOT GROUP. A SMALL, HIGH ENERGY PROTON ENHANCEMENT WAS OBSERVED BY THE ATS 1 SATELLITE BEGINNING AT 18/1600Z. A SECOND ATS 1 ENHANCEMENT OF HIGH ENERGY PROTONS WAS OBSERVED AT 20/0045Z WITH A MAXIMUM FLUX AT 20/0400Z OF 17 PROTONS PER SQUARE CM PER SECOND. THE LOW ENERGY CHANNEL OF 5-20 MEV SHOWED A MAXIMUM FLUX OF 105 PROTONS PER SQUARE CM PER SECOND AT 20/0900Z. NEITHER OF THESE EVENTS WERE DETECTED BY ANY GROUND BASED SENSORS. PIONEER VIII SATELLITE REPORTED A MAXIMUM SOLAR WIND VELOCITY OF 980 KM/SEC AT 18/2250Z, HOWEVER THE GEOMAGNETIC FIELD HAS REMAINED QUIET THROUGHOUT THE PERIOD.

B. FORECAST FOR THE PERIOD 24-30 DECEMBER 1969--

IF GROWTH OF MCMATH REGION 491 CONTINUES IT SHOULD PRODUCE SEVERAL CLASS M FLARES. IF GROWTH STOPS, ACTIVITY WILL BE LOW THROUGHOUT THE PERIOD.

28-DAY FORECAST FOR THE PERIOD 24 DECEMBER 1969-21 JANUARY 1970-- ACTIVITY WILL BE LOW UNTIL JANUARY 8 WHEN THE ACTIVE CARRINGTON LONGITUDES RETURN.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 23/1700Z ENDING 26/1700Z.

CLASS M OR GREATER 60/60/70

CLASS X 05/05/10

PROTON EVENTS 02/02/05

D. OTTAWA 10.7CM FLUX AT 1400Z WAS 153. PREDICTED 158/152/145.

E. MAGNETIC A-FREDERICKSBURG FOR 22 DEC WAS 08. FOR 23 DEC ABOUT 11. PREDICTED AP FOR 24-26 DEC 10/10/10.

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