

HFUS 1 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDP NUMBER 146

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 25 MAY 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE TO LOW DURING THE PAST 24 HOURS. THE MOST ENERGETIC FLARE WAS AN M1/1N WITH MAXIMUM AT 25/0140Z IN REGION 2456 (S13W69). REGIONS 2469 AND 2470, (S12E-2) AND (S19E04) RESPECTIVELY, HAVE GROWN SLIGHTLY AND LOOK AWESOME IN WHITE LIGHT. HOWEVER, ON CLOSE EXAMINATION, THEY DO NOT LOOK TERRIBLY COMPLEX MAGNETICALLY AND THEY HAVE SPREAD SOMEWHAT IN LONGITUDE. THUS, WHAT MAGNETIC GRADIENTS EXIST IN THESE REGIONS HAS RELAXED A BIT. REGION 2478 (S10E67) WHICH JUST CAME OVER THE EAST LIMB IS REPORTED TO BE UNDERGOING RAPID DEVELOPMENT.

IB. REGION 2456 SEEMS DESTINED TO COMPLETE A LIMB-TO-LIMB DISK PASSAGE AS A CONSISTENT ENERGETIC FLARE PRODUCER. THIS REGION IS MAINLY RESPONSIBLE FOR HIGH M-CLASS PROBABILITIES. REGIONS 2469 AND 2470 HAVE NOT SHOWN MUCH TENDENCY TO PRODUCE X-RAYS. THEIR CONFIGURATION INDICATES THEY WILL EITHER PRODUCE NO SIGNIFICANT FLARES AT ALL OR THEY WILL PRODUCE EXTREMELY LARGE AND ENERGETIC FLARES. THIS EXPLAINS THE ELEVATED X-CLASS PROBABILITIES. FINALLY, REGION 2478 IS A NEW ENERGETIC THREAT IF ITS DEVELOPMENT CONTINUES.

II. THE GEOMAGNETIC FIELD WAS UNSETTLED UNTIL THE GRADUAL COMMENCEMENT OF A GEOMAGNETIC STORM AT ABOUT 0715Z. MAJOR STORM CONDITIONS PREVAILED FOR ABOUT 6 HOURS. THE DISTURBANCE WAS DIMINISHING AT FORECAST TIME. THE GEOMAGNETIC FIELD IS EXPECTED TO BE ACTIVE ON 26 MAY AND UNSETTLED ON 27 AND 28 MAY.

III. EVENT PROBABILITIES 26 MAY - 28 MAY

CLASS M 75/70/70

CLASS X 20/20/20

PROTON 10/15/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 25 MAY 285

PREDICTED 26-28 MAY 287/287/285

90-DAY MEAN 25 MAY 197

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 24 MAY 17

ESTIMATED AFR/AP 25 MAY 32/30

PREDICTED AFR/AP 26-28 MAY 21/18 - 14/12 - 10/10

SOLTERWARN

BT