

COMMAND 1

HFUS 3 BOU 192200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 109

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 19 APR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/2100 TO 19/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS ONLY SMALL C-CLASS EVENTS HAVE BEEN OBSERVED. REGION 4148 (S32W64) PRODUCED SEVERAL C-CLASS EVENTS THE LARGEST WAS A C1/SN AT 1819UT. REGION 4148 IS NOW A DKI OF 540 MILLIONTHS WITH A BETA/GAMMA-DELTA MAGNETIC CONFIGURATION ALSO SOME COUNTER CLOCK WISE MOTION HAS BEEN OBSERVED IN THE GROUP. REGION 4150 (S10E68) IS A DAO GROUP. A NEW GROUP, OR POSSIBLY MORE OF 4150, IS NOW VISIBLE AT SE11. NEW REGION TODAY 4153 (S09W11) IS A SIMPLE B TYPE GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE DUE TO REGIONS 4148 AND 4150. REGION 4150 IS A PROVEN M-CLASS EVENT PRODUCER AND 4148 LOOKS TO HAVE THE POTENTIAL.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 18/2100Z TO 19/2100Z: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETTLED TO SLIGHTLY ACTIVE AT MID-LATITUDES AND ACTIVE TO SHORT PERIOD OF MINOR STORM LEVELS AT HIGH-LATITUDES.

THE FILAMENT WHICH WAS LOCATED AT S22W22 ON 17 APRIL DISAPPEARED BEFORE 1600UT ON 18 APRIL. IT IS AS YET UNCLEAR IF A REORIENTATION OF THE NETURAL LINE HAS OCCURRED.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED UNTIL 21 APRIL WHEN ACTIVE CONDITIONS ARE EXPECTED FOR THE REST OF THE FORECAST PERIOD. HOWEVER IF A MAJOR REORIENTATION OF THE NETURAL LINE HAS OCCURRED THEN MINOR STORM CONDITONS MAY BE EXPECTED ON THE LAST DAY OF THIS FORECAST.

III. EVENT PROBABILITIES 20 APR-22 APR

CLASS M 40/40/20

CLASS X 10/10/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 APR 124

PREDICTED 20 APR-22 APR 127/127/122

90 DAY MEAN 19 APR 120

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 APR 011/013

ESTIMATED AFR/AP 19 APR 011/015

PREDICTED AFR/AP 20 APR-22 APR 010/015-015/015-020/020

SOLTERWARN

BT

20/30

25 30

20 30

20

(30)