

HFUS 1 BOU 041400

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO.

SDF NUMBER 094A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 04 APRIL 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200UT TO 04/1200UT

SOLAR ACTIVITY HAS BEEN HIGH. REGION 2999 (S43W93) PRODUCED A X1/2B FLARE BEGINNING AT 04/0500Z. RADIO BURSTS WERE VERY LARGE: 270,000 FLUX UNITS AT 245MHZ; 1300 FLUX UNITS AT 2695 MHZ; AND, 50,000 FLUX UNITS AT 15400 MHZ. STRONG TYPE II/IV DEKAMETRIC EMISSION AND SHORT WAVE FADE THROUGH 20 MHZ WERE OBSERVED. REGION 3022 (N07E31) PRODUCED A M2/2B BEGINNING AT 03/2319Z AND A M2/1B BEGINNING AT 04/0759Z. RADIO BURSTS WERE SMALL FOR BOTH FLARES; HOWEVER, TYPE II/IV EMISSION WAS REPORTED WITH TODAYS FLARE. REGION 3027 (N18E-0) PRODUCED A M8/2B BEGINNING AT 04/0829Z. LEARMONT REPORTED 20 PERCENT UMBRAL COVERAGE. CENTIMETRIC BURSTS WERE MODERATE (100 FLUX UNITS AT 2695 MHZ) WITH SHORT WAVE FADE REPORTED THROUGH 22 MHZ. REGION 3022 HAS BEEN REPORTED AS A SIMPLE C-TYPE SUNSPOT GROUP. CURRENTLY, THE CAUSE OF THE ENERGETIC FLARES FROM THIS REGION IS UNKNOWN. REGION 3027 IS STILL TOO CLOSE TO THE LIMB FOR PROPER EVALUATION.

IB. SOLAR ACTIVITY FORECAST

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE.

II. GEOPHYSICAL SUMMARY AND FORECAST

THE GEOMAGNETIC FIELD HAS BEEN UNSETLED. UNSETLED TO ACTIVE CONDITIONS ARE EXPECTED THROUGH THE NEXT 24-48 HOURS.

III. EVENT PROBABILITIES 05-07 APR

CLASS M 80/80/80

CLASS X 20/20/20

PROTON 20/10/05

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 03 APR 221

ESTIMATED 04 APR 225

PREDICTED 05-07 APR 225/230/225

90-DAY MEAN 04 APR 196

V. GEOMAGNETIC A INDICES

OBSERVED AFR 03 APR 07 AP 03 APR 09

ESTIMATED AFR 05 APR 09 AFR/AP 04 APR 10/13

PREDICTED AFR/AP 05-07 APR 12/25 - 10/15 - 12/10

SOLTERWARN

BT

HEUS 3 BOU 042200
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO
SDF NUMBER 094B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200UT 04 APRIL 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 04/1200UT TO 04/2200UT.

SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 10 HOURS. REGION 3027 (N18E64) IS NOW VISIBLE AS A LARGE AND COMPACT CLASS F SPOT GROUP WITH POSSIBLY A DELTA MAGNETIC CONFIGURATION. MINOR GROWTH IS REPORTED BETWEEN REGION 3027 AND REGION 3026 (S08E53) AND IN REGION 3022 (N05E25). ALL OF THESE REGION POSSESS COMPLEX STRUCTURES ON A SMALL SCALE BUT ARE SIMPLE OVERALL. SMALL NEW REGIONS 3028 (N24W-3), 3029 (S05W06) AND 3030 (N27E24) ARE REPORTED WITH NO SIGNIFICANT GROWTH. A FAINT PLAGE IS AT S05E90.

I B. SOLAR ACTIVITY FORECAST.

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH AS THE COMPLEX OF REGIONS IN THE NE QUADRANT CONTINUES GROWTH AND INTERACTION.

II. GEOPHYSICAL SUMMARY AND FORECAST.

THE GEOMAGNETIC FIELD HAS BEEN UNSETLED TO QUIET FOR THE PAST 10 HOURS. SIMILAR CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS. A VERY WEAK LOW-ENERGY PROTON EVENT CONTINUES.

III. EVENT PROBABILITIES, 05-07 APRIL

CLASS M 80/80/80
CLASS X 20/20/20
PROTON 20/10/05
PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 APR 220
PREDICTED 05-07 APR 216/212/210
90-DAY MEAN 04 APR 196

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 APR 14/09
ESTIMATED AFR/AP 04 APR 08/15
PREDICTED AFR/AP 05-07 APR 12/25 - 10/15 - 12/10

SOLTERWARN
BT