

HFUS 1 ROL 011300

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 274A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 0300Z 01 OCTOBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 01/1200Z:

SOLAR ACTIVITY HAS REMAINED LOW DURING THE PAST 24 HOURS DESPITE APPROXIMATELY 18 SPOTTED REGIONS ON THE VISIBLE DISK, SEVERAL OF WHICH ARE GROWING. REGIONS 3370 (N15E11), 3372 (S07W14), 3374 (S18E38) AND 3375 (N13E32) HAVE ALL DISPLAYED A VARYING AMOUNT OF GROWTH AND ALL HAVE PRODUCED SMALL SUBFLARES. REGION 3377 (N08E75) HAS BEEN THE MOST DYNAMIC DURING THE PAST 8 HOURS, PRODUCING SEVERAL SUBFLARES, THE LARGEST A C1/SB AT 1126Z MAXIMUM. THIS REGION OF MODERATE SIZE AND COMPLEXITY COULD BE THE LEADING PORTION OF OLD ACTIVE SESC REGION 3317. A LONG DARK SECTOR BOUNDARY FILAMENT LOCATED FROM N18W28 TO S10W30 (AT 30/1051Z) BEGAN ERUPTING AT 30/2102Z. THIS WAS APPARENTLY AN IMPRESSIVE EVENT AS THE FILAMENT MOVED SOUTHWEST TOWARD REGION 3363 (S07W48) WHERE IT DISAPPEARED AFTER ABOUT AN HOUR.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN GENERALLY LOW, BUT MODERATE ENERGETIC EVENTS ARE BECOMING MORE POSSIBLE AS THE ABOVE MENTIONED REGIONS CONTINUE TO GROW. REGION 3377 IS EXPECTED TO BE THE PRIME CONTRIBUTOR TO MOST OF THE SUNS ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PAST 24 HOURS. A GRADUAL INCREASE TO NEAR ACTIVE CONDITIONS IS EXPECTED IN ABOUT 24 HOURS IN RESPONSE TO A NORTHERN CORONAL HOLE. THE DISAPPEARING FILAMENT MENTIONED IN SECTION IA IS EXPECTED TO INFLUENCE THE FIELD ON THE 4TH OF OCTOBER.

III. EVENT PROBABILITIES 02-04 OCT

CLASS M 50/60/60

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 SEP 203

ESTIMATED 01 OCT 212

PREDICTED 02-04 OCT 214/215/215

90-DAY MEAN 30 SEP 210

V. GEOMAGNETIC A INDICES

OBSERVED AFR 29 SEP 15 AP 30 SEP 14

ESTIMATED AFR 30 SEP 13 AFR/AP 01 OCT 10/12

PREDICTED AFR/AP 02-04 OCT 15/20 - 18/22 - 25/25

SOLTERWARN

BT

HFUS 3 R011 012200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 274P

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 01 OCTOBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 01/1200Z TO 01/2100Z: SOLAR ACTIVITY CONTINUED LOW UNTIL 1949Z WHEN REGION 3377 (N10E72) PRODUCED AN M2/1B FLARE WITH MAXIMUM AT 2000Z. THIS REGION IS NOW VISIBLE AS A SMALL CLASS D SPOT GROUP IN A COMPACT PLACE. AT LEAST 15 OTHER SMALL SPOT GROUPS ARE PRESENT. REGION 3375 (N13E26) IS THE ONLY REGION SHOWING SIGNIFICANT GROWTH. ITS PECULIAR CLASS C GROUP REMAINS SMALL.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY MAY BE OCCASIONALLY MODERATE IF GROWTH OCCURS IN REGION 3377. DECAY IN SOME REGIONS IS EXPECTED TO BALANCE GROWTH IN OTHERS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY UNSETTLED. CONDITIONS ARE EXPECTED TO BECOME MORE ACTIVE, CULMINATING IN A DISTURBANCE ON 04 OCTOBER RESULTING FROM A LARGE CORONAL TRANSIENT/DISAPPEARING FILAMENT ON 30 SEPTEMBER.

III. EVENT PROBABILITIES 02 OCTOBER - 04 OCTOBER

CLASS M 70/70/70

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 OCTOBER 214

PREDICTED 02-04 OCTOBER 215/215/215

30-DAY MEAN 01 OCTOBER 211

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 SEPTEMBER 15/12

ESTIMATED AFR/AP 01 OCTOBER 08/12

PREDICTED AFR/AP 02-04 OCTOBER 15/20 - 18/22 - 25/25

SOLTERWARM

BT