

HEUS 1 POU 171300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDY NUMBER 137A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1200UT 17 MAY 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
16/1200UT TO 17/1200UT:

SOLAR ACTIVITY HAS BEEN GENERALLY LOW THE PAST 24 HOURS. REGION 3106 (N12W03) IS DECAYING SLOWLY BUT IS STILL EXHIBITING DYNAMIC TENDENCIES. THE DELTA CONFIGURATION PROBABLY STILL EXISTS AND THE COMPACT, WELL-ORGANIZED PLAGE MAINTAINS THIS REGION AS THE DOMINANT DISK FEATURE. REGION 3113 (S25E36) IS SHOWING SLOW GROWTH WITH EMERGING FLUX. THE NEUTRAL LINE SUGGEST INCREASED COMPLEXITY WHILE CONTINUED DEVELOPMENT SHOULD MAKE THIS REGION CAPABLE OF ENERGETIC ACTIVITY IN 18 TO 24 HOURS.

IP. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE DURING THE COMING 24 HOURS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS SHOWN SUSTAINED DECAY FROM MINOR STORM CONDITIONS 24 HOURS AGO TO QUIET CONDITIONS AT PRESENT. THE X1/3B FLARE ON 16 MAY IS EXPECTED TO BRING STORM CONDITIONS COMMENCING ON 18 MAY. THE PROTON EVENT IS STILL IN PROGRESS WITH THE FLUX HOVERING AROUND 15/P/CM²/SEC/STER. THE PCA EVENT ENDED AFTER 17/0115Z.

III. EVENT PROBABILITIES: 18 - 20 MAY

CLASS M 90/90/90

CLASS X 25/25/25

PROTON 125/25/25

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 16 MAY 214

ESTIMATED 17 MAY 205

PREDICTED 18-20 MAY 200/195/190

90 DAY MEAN 16 MAY 215

V. GEOMAGNETIC AL INDICES

OBSERVED AFR 15 MAY 39 AP 16 MAY 58

ESTIMATED AFR 16 MAY 32 AFR/AP 17 MAY 10/15

PREDICTED AFR/AP 18-20 MAY 80/80 50/50 20/35

SOLTEWMARN

BT

HEUS 3 ROL 172200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO,
SDF NUMBER 1378

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200 UT 17 MAY 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/1200 UT TO 17/2200 UT. SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 10 HOURS. THE LARGEST EVENT WAS A C8/SN FLARE AT N17W03 WHICH LIES IN THE INTERACTING REGION BETWEEN 3106 (N12W09) AND 3112 (N17E08). MAX. TIME WAS 2134 UT. REGIONS 3106 AND 3112 ARE STILL IMPRESSIVE, MAGNETICALLY COMPLEX, AND CAPABLE OF MAJOR PROTON-PRODUCING FLARES. REGION 3113 (S24E30) IS NOW OBSERVED TO CONTAIN A DELTA MAGNETIC CONFIGURATION.

II. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH 3106/3112 AND 3113 CAPABLE OF SIGNIFICANT FLARES.

III. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET. A PROTON EVENT IN PROGRESS DECREASED TO NEAR THRESHOLD LEVELS AT 1300 UT, BUT HAS REINTENSIFIED AND IS FLUCTUATING NEAR 70 PROTONS/CM²/SEC/STER. AT FORECAST TIME. A POLAR CAP ABSORPTION EVENT RESUMED AT 1700 UT AND CONTINUES IN PROGRESS. THE GEOMAGNETIC FIELD IS EXPECTED TO REACH MAJOR STORM LEVELS FOR THE NEXT 2 DAYS IN RESPONSE TO AN X1/3B FLARE ON 16 MAY. THE PROTON EVENT AND PCA ARE EXPECTED TO END WITHIN THE NEXT 24 HOURS.

IV. EVENT PROBABILITIES 18 MAY - 20 MAY

CLASS M 90/90/90

CLASS X 25/25/20

PROTON 25/25/20

PCA/P 1N PROGRESS

V. OTTAWA 10.7 CM FLUX

OBSERVED 17 MAY 203

PREDICTED 18-20 MAY 200/195/190

90-DAY MEAN 17 MAY 215

VI. GEOMAGNETIC INDICES

OBSERVED AFR/AP 16 MAY 40/58

ESTIMATED AFR/AP 17 MAY 10/15

PREDICTED AFR/AP 18-20 MAY 80/80 - 50/50 - 20/35

SOLFERNO/WARN

PT