

HFUS 1 BOU 121300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 193A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 12 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 11/1200Z TO 12/1200Z: SOLAR ACTIVITY HAS BEEN HIGH. REGION 3804(N13E36) CONTINUES TO DOMINATE THE DISK. IN ADDITION TO NUMEROUS CLASS M FLARES, REGION 3804 PRODUCED A SLOW RISE, LONG LIVED X7/2B EVENT WITH A START TIME OF 120914Z AND A MAX TIME OF 120956Z. SOME RESTRUCTURING AND REARRANGING IS OCCURRING IN THIS REGION BUT AN ADEQUATE DESCRIPTION WOULD BE AWESOME. THE M EVENTS FROM 3804 WERE: M4 AT 111350Z, M1 AT 111646Z, M1 AT 111848Z, M2 AT 111930Z, M5 AT 120058Z, M2 AT 120309Z AND M3 AT 120624Z. THE OTHER COMPLEX REGION ON THE DISK IS REGION 3806 (S24E18) WHICH PRODUCED AN M3 AT 120751Z. THIS REGION IS A CLASS D SPOT GROUP WITH A BETA GAMMA DELTA MAGNETIC CONFIGURATION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE HIGH. REGION 3804 WILL CONTINUE TO DOMINATE THE DISK.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS AT ACTIVE TO MINOR STORM LEVELS DURING THE PAST 24 HOURS. THE FREQUENT FLARE ACTIVITY SHOULD KEEP THE FIELD DISTURBED WITH OCCASIONAL MINOR STORM CONDITIONS LIKELY. THE X7 EVENT IS EXPECTED TO INCREASE THE PARTICLE FLUX STARTING AROUND 121900Z WITH A FAVORABLE CHANCE THAT THE POLAR CAP ABSORPTION WILL EXCEED 2 DB.

III. EVENT PROBABILITIES 13 JUL-15 JUL

CLASS M 99/99/99

CLASS X 70/70/70

PROTON 20/25/30

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 11 JUL 223

ESTIMATED 12 JUL 240

PREDICTED 13 JUL-15 JUL 255/260/265

90 DAY MEAN 11 JUL 156

V. GEOMAGNETIC A INDICES

OBSERVED AFR 10 JUL 011 AP 11 JUL 022

ESTIMATED AFR 11 JUL 023 AFR/AP 12 JUL 015/013

PREDICTED AFR/AP 13 JUL-15 JUL 020/020-025/025-020/020

SOLTERWARN

BT

HFUS 3 BOU 122200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 193B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 12 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 12/1200Z TO 12/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE PAST 9 HOURS. REGION 3804 (N14E28) HAS PRODUCED 4 M-CLASS EVENTS INCLUDING AN M2/2B AT 2048Z. X-RAY BACKGROUND LEVELS HAVE BEEN CONSTANTLY NEAR THE M-LEVEL ( $10^{-5}$  WATTS/M<sup>2</sup>) THROUGHOUT THIS REPORTING PERIOD. REGION 3804 HAS MAINTAINED ITS EXTREMELY COMPLEX WHITE LIGHT AND H-ALPHA APPEARANCE OF GAMMA/Delta MAGNETIC CLASSIFICATION. REGION 3806 (S24E13) HAS SHOWN SIGNIFICANT GROWTH WITH STRENGTHENING MAGNETIC GRADIENTS IN THE VICINITY OF ITS DELTA CONFIGURATION. NEW REGIONS NUMBERED TODAY WERE 3811 (N10W38) AND 3812 (N21E72) WHICH ARE BOTH C-TYPE GROUPS, AND 3813 (S04E73) WHICH IS AN H-TYPE SPOT. REGION 3812 IS THE RETURN OF OLD REGION 3781.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE HIGH. REGION 3804 SHOULD PRODUCE ADDITIONAL X-CLASS FLARES AND REGION 3806 IS CAPABLE OF AN ISOLATED X-CLASS EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO MINOR STORM LEVELS FOR THE PAST 9 HOURS. THE FIELD IS EXPECTED TO CONTINUE AT OR ABOVE ACTIVE LEVELS FOR THE NEXT 24 HOURS AND THEN INTENSIFY TO OVERALL MINOR STORM CONDITIONS FOR THE FOLLOWING 36 HOURS IN RESPONSE TO THE X7/2B FLARE THIS MORNING. THE PROTON EVENT HAS CONTINUED IN PROGRESS WITH FLUXES AT SATELLITE LEVELS NEAR 30 PROTONS/CM<sup>2</sup>/SEC/STER. ADDITIONAL PROTONS ARE EXPECTED FROM TODAY'S EVENT.

III. EVENT PROBABILITIES 13 JUL-15 JUL

CLASS M 99/99/99

CLASS X 70/70/70

PROTON 20/25/30

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 JUL 245

PREDICTED 13 JUL-15 JUL 255/260/265

90 DAY MEAN 12 JUL 157

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 11 JUL 032/022

ESTIMATED AFR/AP 12 JUL 026/040

PREDICTED AFR/AP 13 JUL-15 JUL 025/040-035/035-025/040

SOLTERWARN

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