

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO
SDF NUMBER 064A ISSUED 1700Z OCTOBER 29 1968

MAJOR SOLAR ACTIVITY WILL CONTINUE FOR THE NEXT 12 HOURS.

A. A SERIES OF MAJOR SOLAR EVENTS BEGAN AT ABOUT 1218Z TODAY AND IS STILL IN PROGRESS AT 1700Z. IT IS CHARACTERIZED PRIMARILY BY EXTREMELY INTENSE SOLAR RADIO NOISE WHICH MAXIMIZED AT DIFFERENT TIMES IN THE DIFFERENT WAVELENGTH RANGES. THE EARLIEST REPORTED RADIO EVIDENCE BEGAN AT 1218Z AND WAS OBSERVED ON CENTIMETER WAVELENGTHS. MAXIMA OCCURRED AT 1312Z WITH 1200 FLUX UNITS ON 1.4 GHZ AND 370 FLUX UNITS ON 2.7 GHZ, AND AT 1522Z WITH 30000-100000 FLUX UNITS ON 1.4 GHZ AND 16000 FLUX UNITS ON 2.7 GHZ. CONTINUUM, POSSIBLY TYPE FOUR, DEKAMETRIC EMISSION BEGAN AT ABOUT 1257Z, AND IS STILL IN PROGRESS AT 1700Z. THE OPTICAL COUNTERPART OF THIS COMPLEX EVENT CONSISTED OF AT LEAST 5 FLARES, DEFINING A FLARE AS AN ASSOCIATION OF EMISSION AREAS WHICH REACH A BRIGHTNESS MAXIMUM TOGETHER. ALL OF THESE FLARES OVERLAPPED IN TIME. THEIR LOCATIONS WERE IN 4 SEPARATE PORTIONS OF THE VERY LARGE AND UNIQUELY COMPLEX PLAGE AT S14W14 WITH THE AREA NEAR THE STRONGEST SUNSPOTS FLARING TWICE IN THE SERIES OF BRIGHTENINGS. NONE OF THE 5 FLARES EXCEEDED IMPORTANCE ONE IN AREA. IF ALL AREAS HAD RISEN TO MAXIMUM TOGETHER THE IMPORTANCE MIGHT HAVE BEEN 3N. THE SUNSPOT GROUP HAS INCREASED TO OVER 1000 MILLIONTHS AND RESEMBLES A SPIRAL FORM WITH A VERY LARGE DARK UMBRA DOMINATING. THE HYDROGEN FILAMENTS DEFINE A GAMMA MAGNETIC CONFIGURATION WITH TWO DELTA CONFIGURATIONS. A FORBUSH EVENT BEGAN AT ABOUT 0840Z AND IS NOW RUNNING ABOUT 6 PERCENT. IT WAS PRECEDED BY A GRADUAL DROPOUT WHICH BEGAN ABOUT 3 HOURS EARLIER. A MAGNETIC SC OCCURRED AT 0909Z AND THE MAGNETIC FIELD BECAME SEVERELY DISTURBED AFTER 1500Z. THERE IS NO EVIDENCE OF PROTONS AS OF 1700Z.

B. THE VERY UNUSUAL AND MAJOR EVENTS SINCE 1218Z TODAY ARE NOT ADEQUATELY DESCRIBED BY THE INTERNATIONAL FLARE DEFINITIONS. FURTHER EVENTS OF MAJOR PROPORTIONS ARE ANTICIPATED FROM THE S14W14 REGION. PROTONS ARE NOT LIKELY FROM THE EVENTS WHICH HAVE OCCURRED THUS FAR, BUT FUTURE ACTIVITY MAY PRODUCE PROTONS. THE GEOMAGNETIC DISTURBANCE SHOULD INCREASE IN INTENSITY AND VISIBLE AURORA IS LIKELY TO MID LATITUDES TONIGHT.

FORECASTS FOR OCTOBER 30-NOVEMBER 01

C. DAILY PERCENT PROBABILITIES FOR FLARES AND PROTON EVENTS
MAJOR SOLAR EVENTS 90-60-40

IMPORTANCE TWO OR GREATER 60/40/30

IMPORTANCE THREE OR GREATER 20/10/10

PROTON EVENTS 30/20/20

D. OTTAWA 10.7 CM FLUX FOR 1700Z UNKNOWN DUE TO OUTBURST.
PREDICTED VALUES 175/170/165.

BT

79608

NNNN

96

NNNUV
PP KGFF
DE BOU 292300Z
THIS IS THE MESSAGE FOR REFILE

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO
SDF NUMBER 064B ISSUED 2300Z OCT 29 1968
MAJOR FLARES ARE POSSIBLE DURING THE NEXT 12 HOURS.
SECTIONS A B AND C REMAIN UNCHANGED FROM SDF 064A.
D. OTTAWA 10.7 CM FLUX FOR 2000Z WAS 180.
E. MAGNETIC A-FREDERICKSBURG FOR OCT 28 WAS 6. FOR OCT 29 ABOUT 30.
PREDICTED AP 20/20/10-15.
BT