A PROBABLE INTERVAL FOR THE MEAN TRANSIT TIME OF THE FLARE-GENERATED DISTURBANCES*

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Abstract: Using the correlation method, we have calculated a probable interval for the mean transit of the solar disturbances producing sudden storm commencements (SSC).

108 SSC events for the 1966—1971 period were taken into account. We have considered all the solar flares which preceded a SSC in a 72-hour time interval. This interval was divided into six equal parts and for each of them we have calculated the correlation coefficients between solar flare index and an index of SSC, obtained from the A_p geomagnetic index. The results have indicated maximum value for the 36—48-hour interval.

For a more exact determination, we have also divided this interval in four equal parts and we have recalculated the correlation coefficients for each of them. We have found the 39—42-hour interval as the most probable for the transit time of the solar disturbances producing SSC's. This fact involves a mean propagation velocity of about 1000 km/sec.

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