

UNCLASSIFIED

AD _402 056 _

DEFENSE DOCUMENTATION CENTER

FOR

SCIENTIFIC AND TECHNICAL INFORMATION

CAMERON STATION, ALEXANDRIA, VIRGINIA



UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

ASTIA FILE COPY

① 402056

2

S/210/62/000/011/001/001
E032/E414

STEP

AUTHOR: ⑤ 17 511
⑥ Vinogradov, P.A.

TITLE: ⑥ Beat-type oscillations in the electromagnetic field
of the earth (according to observations in Irkutsk)

PERIODICAL: ⑤ Geologiya i geofizika, no.11, 1962, 114-124

TEXT: Regular observations of PP-oscillations were begun at Irkutsk in August 1957. The present paper reports results obtained as a result of four years of observations. The PP-oscillations have the form of beats. The most frequently encountered repetition frequency of these beats was found to be 0.3 to 0.1 cps. The most frequently encountered frequency of the "carrier" was found to correspond to a period of 0.6 to 1.0 sec. Finally, the maximum amplitude of the resultant oscillation was found to lie between 0.05 and 2.5 mV/km, but the most frequently encountered values were in the range 0.15 to 0.60 mV/km. A study was also made of the diurnal variations in the frequency of appearance of the PP-oscillations, the diurnal variation in their intensity and the seasonal distribution. A further study was concerned with changes in the ionosphere during PP-oscillations and their geographical distribution. A survey of the results obtained at Card 1/2

Beat-type oscillations ...

S/210/62/000/011/001/001
E032/E414

twelve different stations shows that for geomagnetic latitudes greater than 40° the mean monthly repetition frequency of PP-oscillations is given by the empirical formula $n = -3.8 + 0.15\varphi$ where φ is the geomagnetic latitude. It is noted that the results now reported are only preliminary. There are 6 figures and 15 tables.

ASSOCIATION: Sibirskiy institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln, Irkutsk (Siberian Institute of Terrestrial Magnetism, Ionosphere and the Propagation of Radio Waves, Irkutsk)

SUBMITTED: October 27, 1961