

## Correction to "Variable Frequency VLF Signals in the Magnetosphere: Associated Phenomena and Plasma Diagnostics"

by C. R. Carlson, R. A. Helliwell, and D. L. Carpenter

In the paper "Variable frequency VLF signals in the magnetosphere: Associated phenomena and plasma diagnostics" by C. R. Carlson, R. A. Helliwell, and D. L. Carpenter (*J.*

*Geophys. Res.*, 90, 1507, 1985), Figures 2, 5-7, and 17 should have appeared as halftones. The corrected figures are as follows.

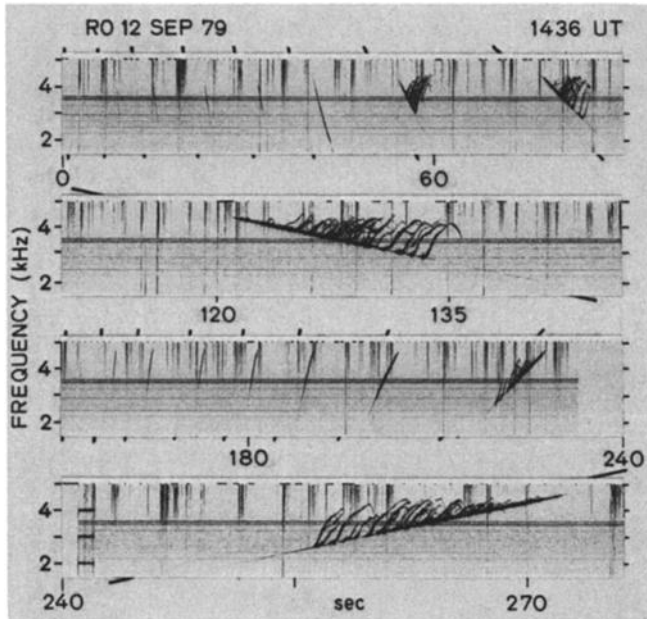


Fig. 2. Spectra of VLF frequency ramps transmitted from Siple, Antarctica, as received at Roberval, Canada, on September 12, 1979. Rising and falling ramps were transmitted with ramp slope magnitudes ranging from 7 to 0.125 kHz/s. Sloping tick marks preceding each ramp, above and below the spectra, indicate the transmitted slope (vertical tick marks show time).

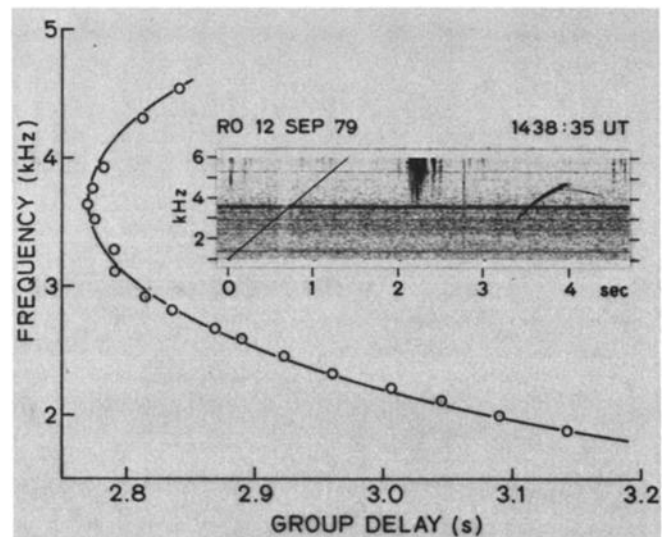


Fig. 5. Inset shows the spectra of a received ramp near  $t = 4$  s. The corresponding 3.5-kHz/s transmitted ramp (sloping straight line) is shown beginning at  $t = 0$  s. Circles and a solid curve show the measured and theoretical frequency versus group delay, respectively.

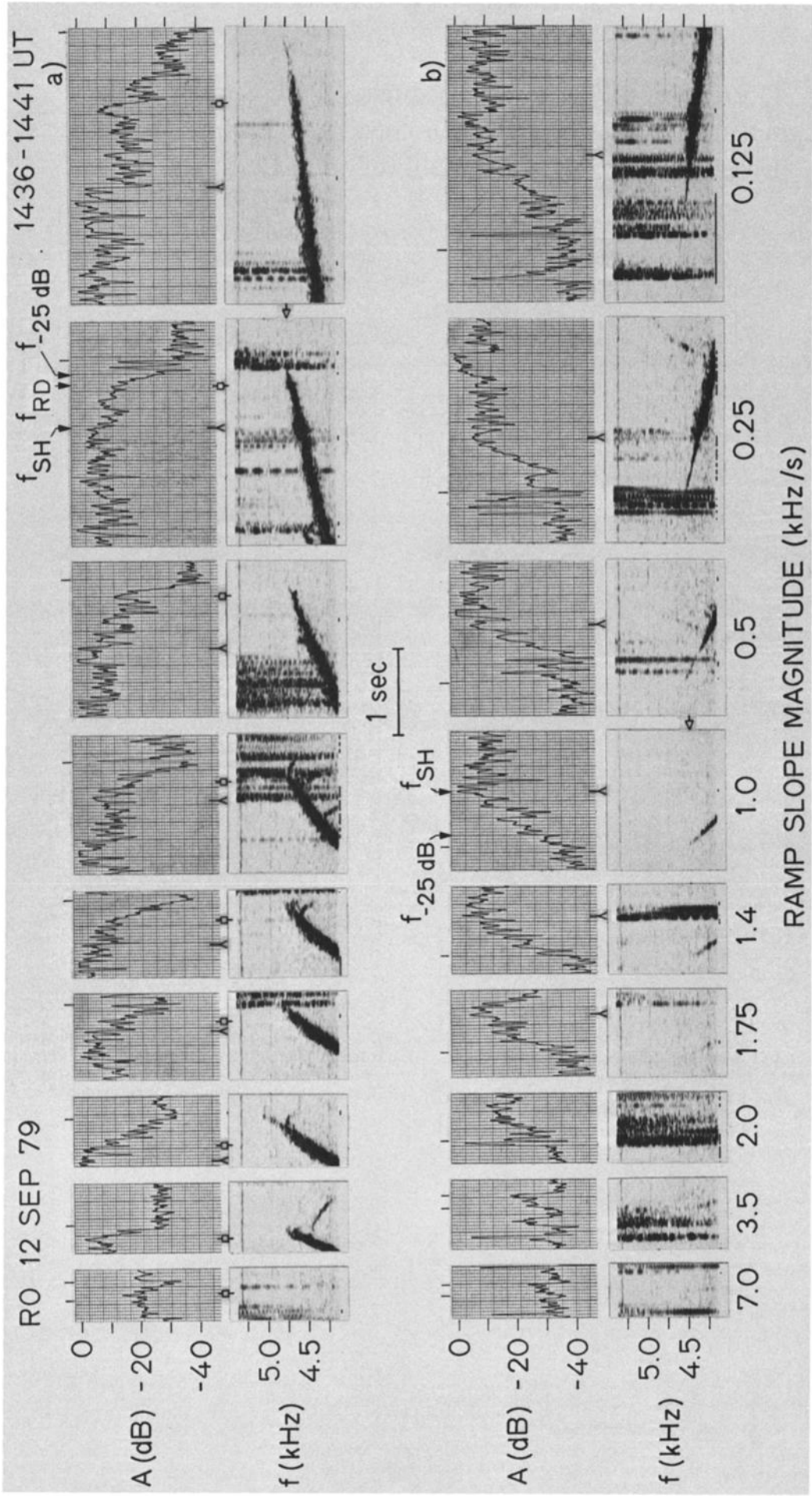


Fig. 6. Amplitude versus time and spectra of the upper intensity cutoff for both the rising (a) and falling (b) ramps shown in Figure 2. The amplitude profiles were obtained using a narrowband frequency tracking filter which locked onto or unlocked from the received signal coincident with a tick mark above the amplitude plots. The parameters  $f_{SH}$ ,  $f_{RD}$ , and  $f_{-25dB}$  are indicated above representative amplitude plots,  $f_{max}$  is indicated to the side of the corresponding spectra, and symbols for  $f_{SH}$  and  $f_{RD}$  are indicated below each amplitude plot. These refer to characteristic amplitude features whose frequencies are shown in Figure 8.

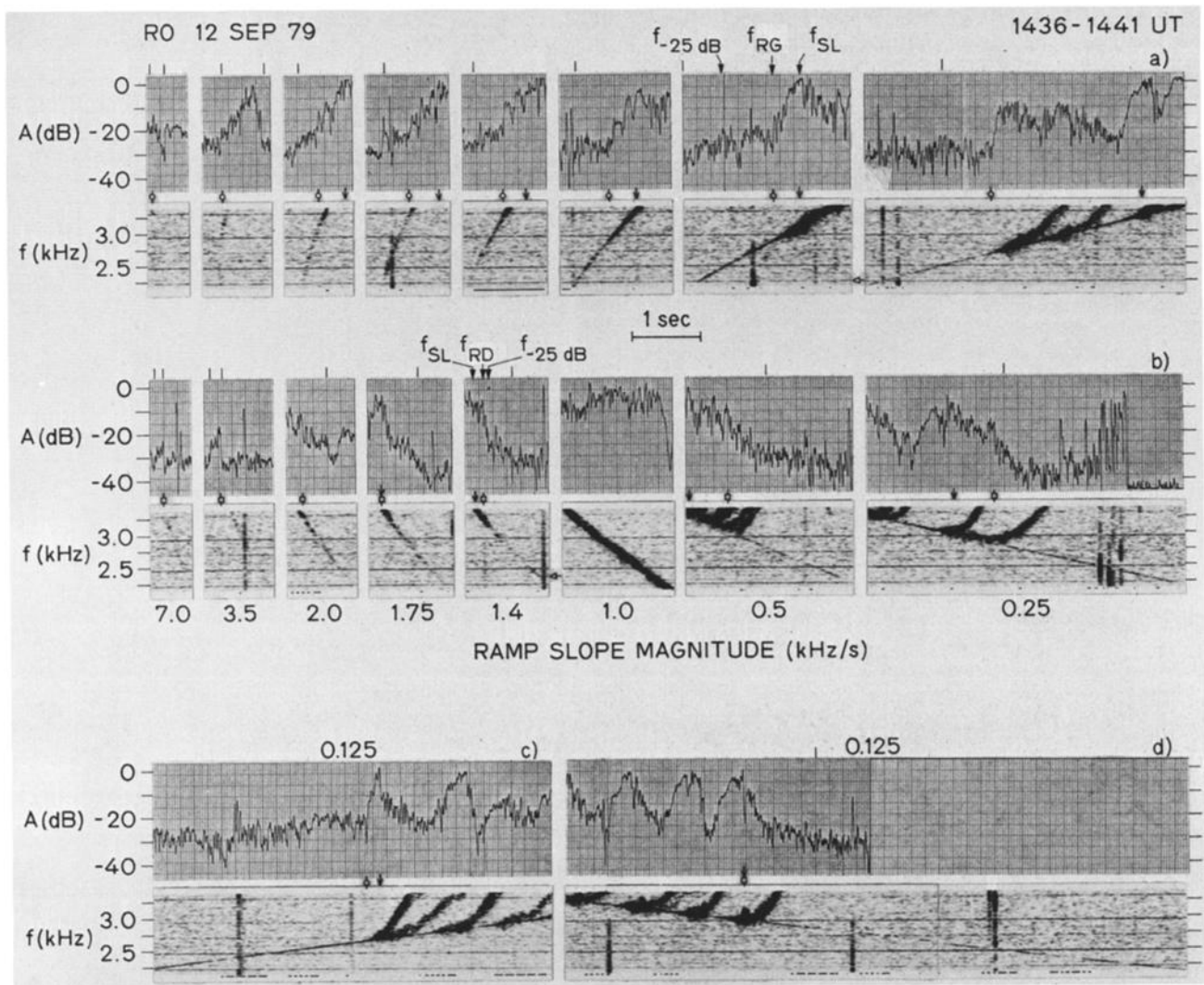


Fig. 7. Amplitude versus time and spectra of the lower intensity cutoff for both the rising (a and c) and falling (b and d) ramps shown in Figure 2, analogous to Figure 6. The parameters  $f_{-25 \text{ dB}}$ ,  $f_{\text{RG}}$ ,  $f_{\text{SL}}$ , and  $f_{\text{RD}}$  are indicated above representative amplitude plots;  $f_{\text{min}}$  is indicated beside the corresponding spectra; and symbols for  $f_{\text{RG}}$ ,  $f_{\text{SL}}$ , and  $f_{\text{RD}}$  appear below each amplitude plot. These refer to characteristic amplitude features whose frequencies are shown in Figure 8.

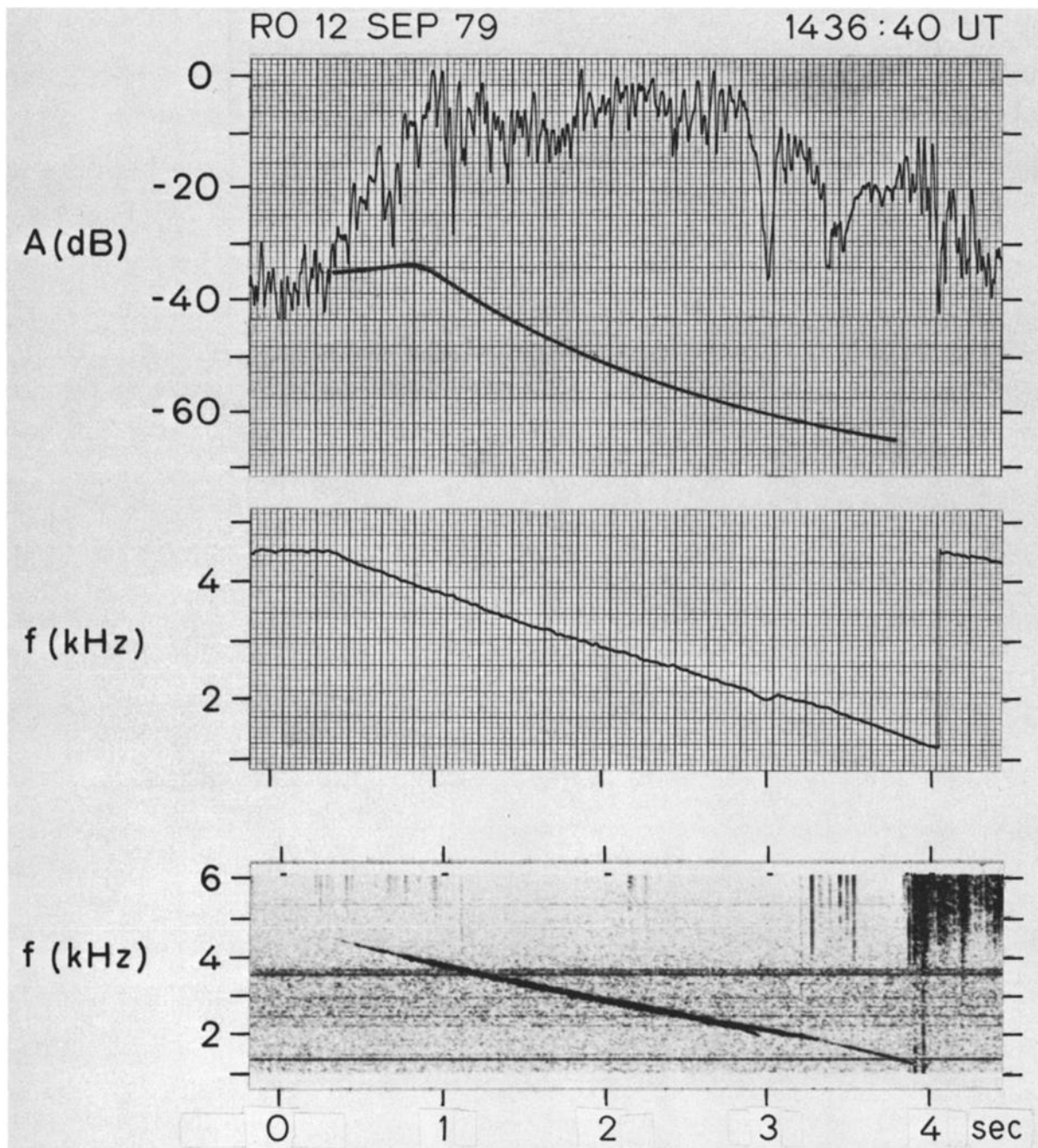


Fig. 17. Details of the  $-1$ -kHz/s ramp shown in Figure 2. The top and middle panel are frequency tracking filter, amplitude and frequency versus time curves, respectively. The  $-1$ -kHz/s ramp spectra are given in the bottom panel. The radiated power profile, corrected for ionospheric absorption, is given by the solid curve in the top panel.

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