

Gulf of Mexico - Yucatan Strait

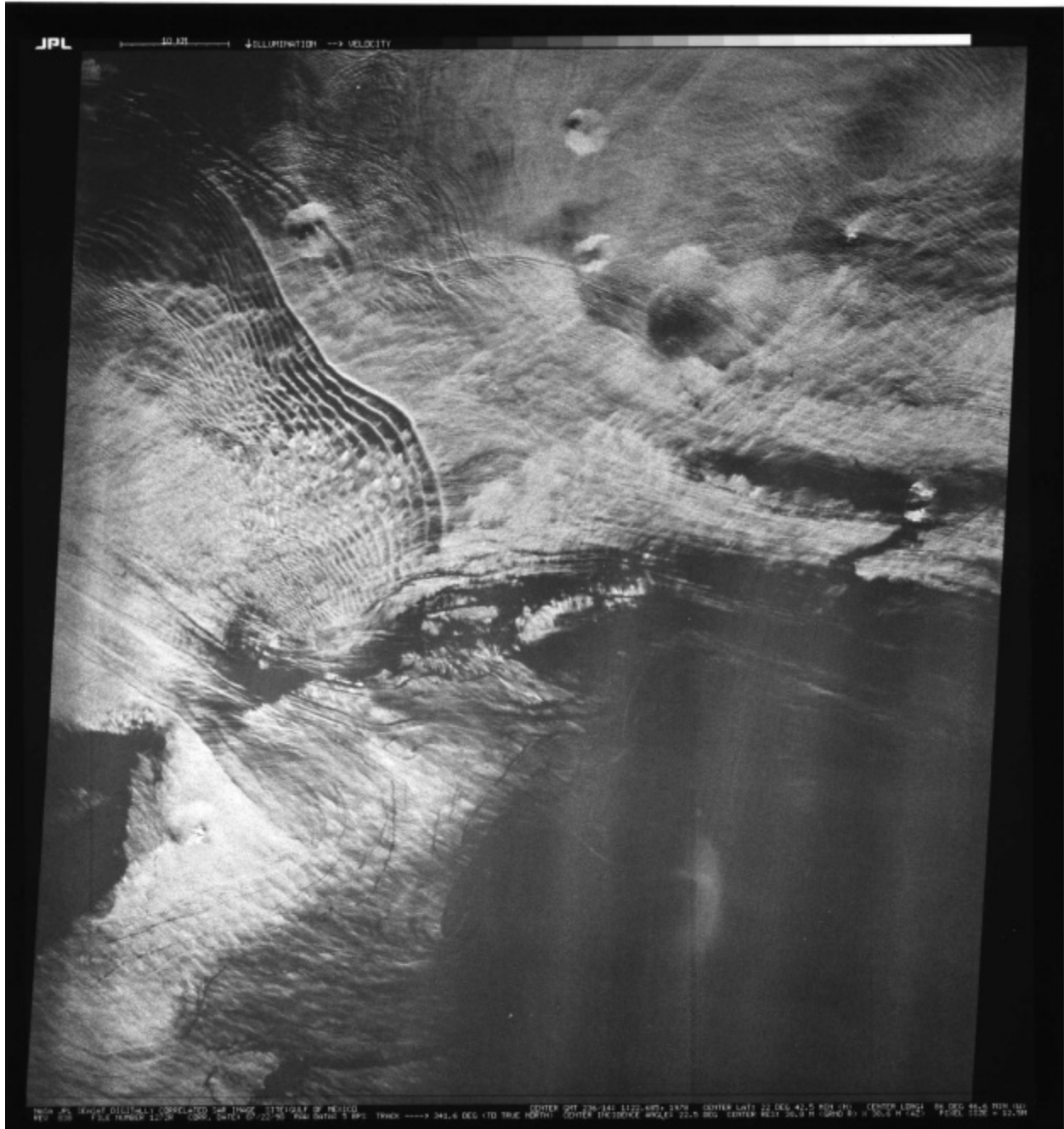


Figure 1. Seasat L-band HH SAR image of the Gulf of Mexico taken on August 24, 1978 (Rev 838) 1:22 GMT. Image dimensions are 100 km x 100 km centered at $22^{\circ}42.5' \text{ N}$, $86^{\circ}46.6' \text{ W}$. This image, taken north of the Yucatan Peninsula shows a very strong internal wave signature propagating to the Northwest over the continental shelf. [Image courtesy of Ben Holt NASA / JPL]

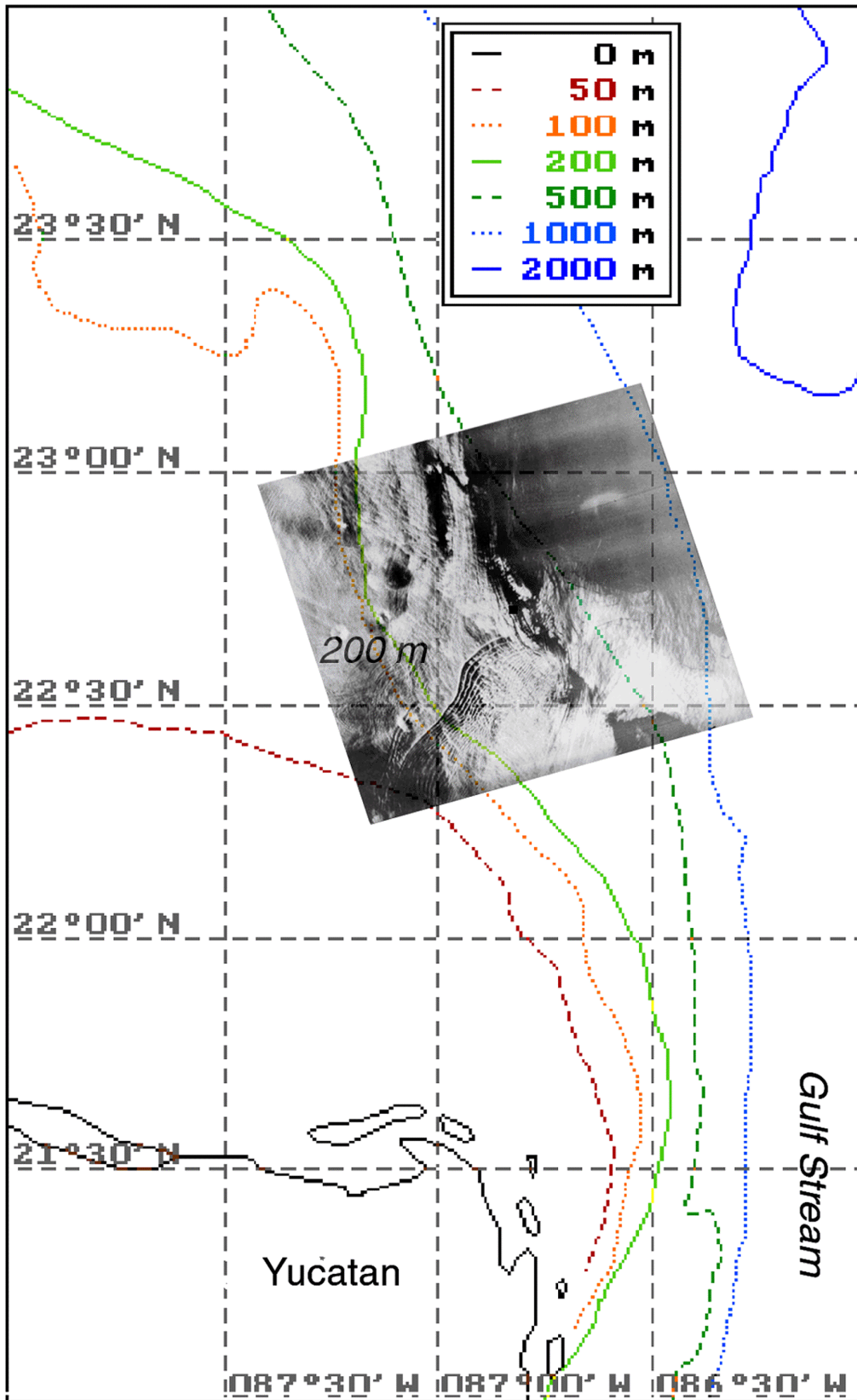


Figure 2. Seasat image shown with local bathymetry. Bathymetry derived from GEBGO Digital Atlas 97.

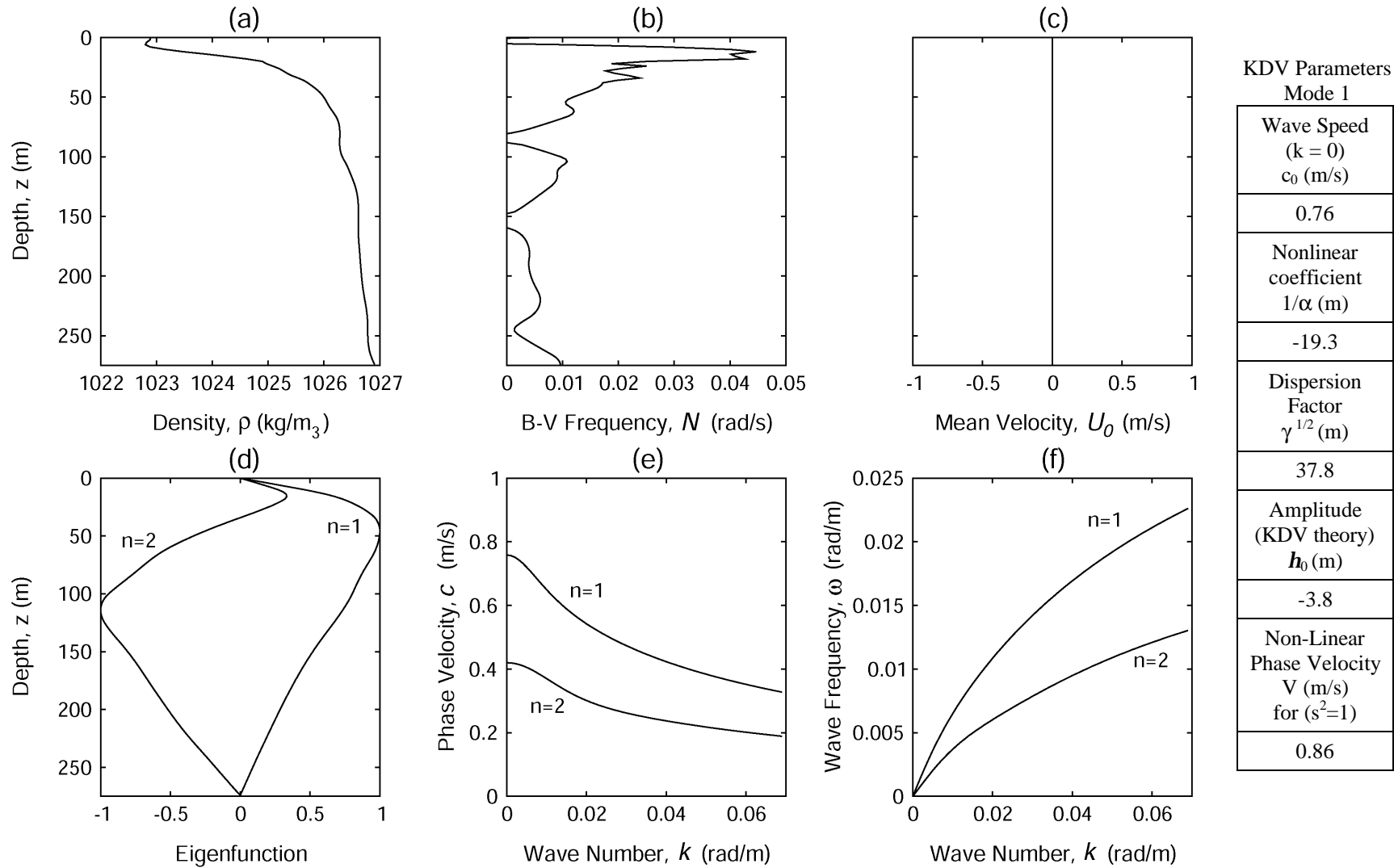


Figure 3. a) Density Profile derived from SD2 data collected on September 13, 1969 at 22°33' N. latitude, 86°40' W. longitude, depth = 275 m (Source NODC Global Ocean Temperature and Salinity Profiles (Jun 1991) b) derived Brunt-Väisälä frequency $N(z)$ c) zero flow current profile d) Normalized vertical eigenfunctions (mode 1 & 2) for $2\pi/k_0 = 640$ m, $H = 275$ m for density and velocity profiles shown e) Phase Velocity f) Dispersion relations.

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