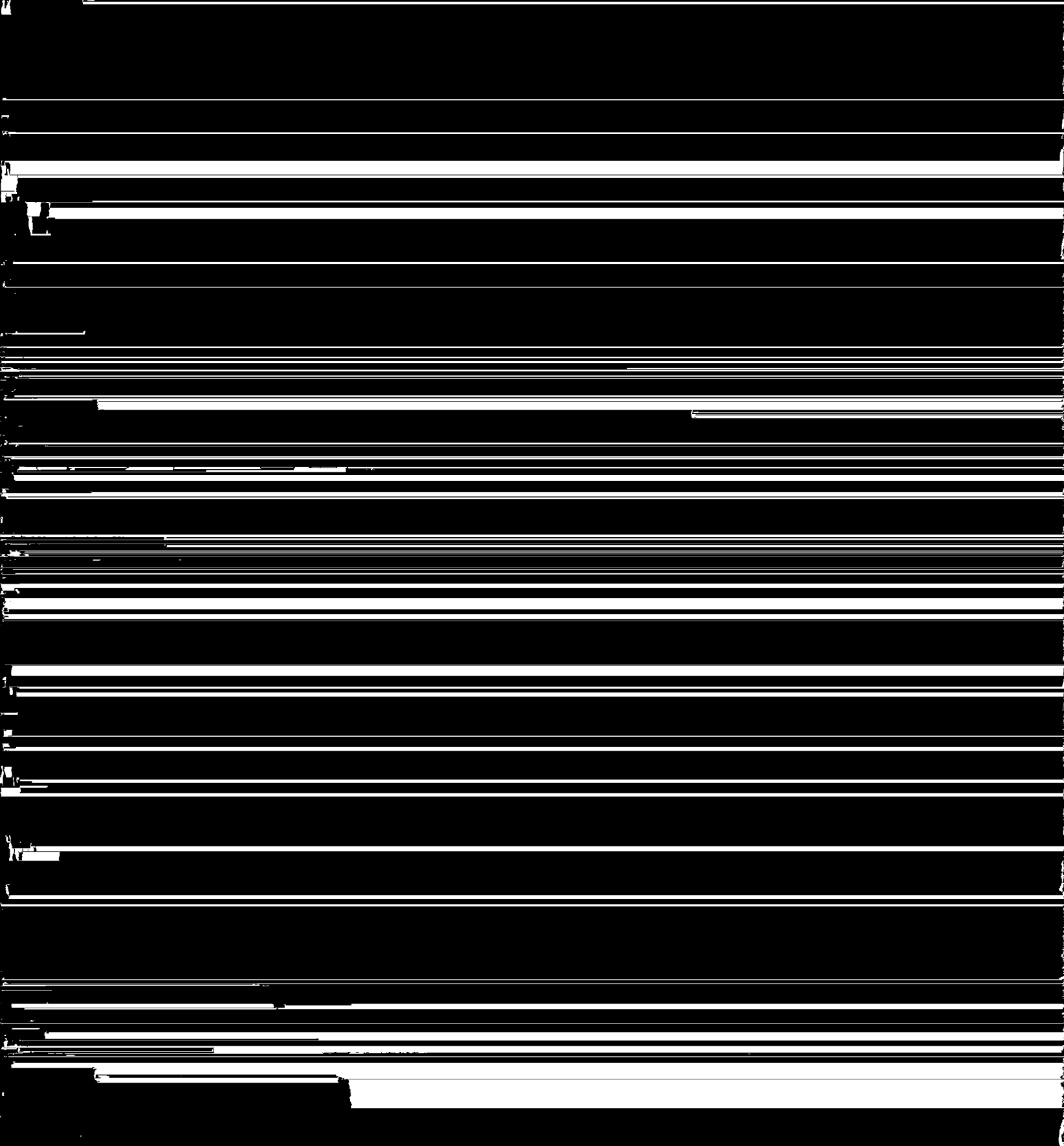


plifier with controllable gain. Linearity was determined by plotting the increase in received signal, measured on the spectrum analyzer, for known increases in radio frequency (RF) voltage applied to the transducer. The test system remained linear at both 1 and 2 MHz to a receiver



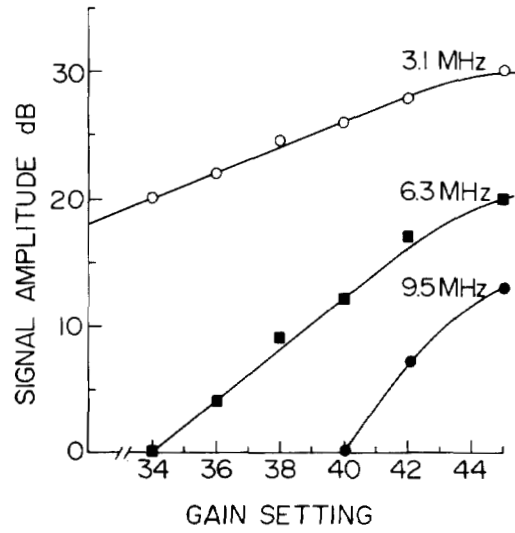
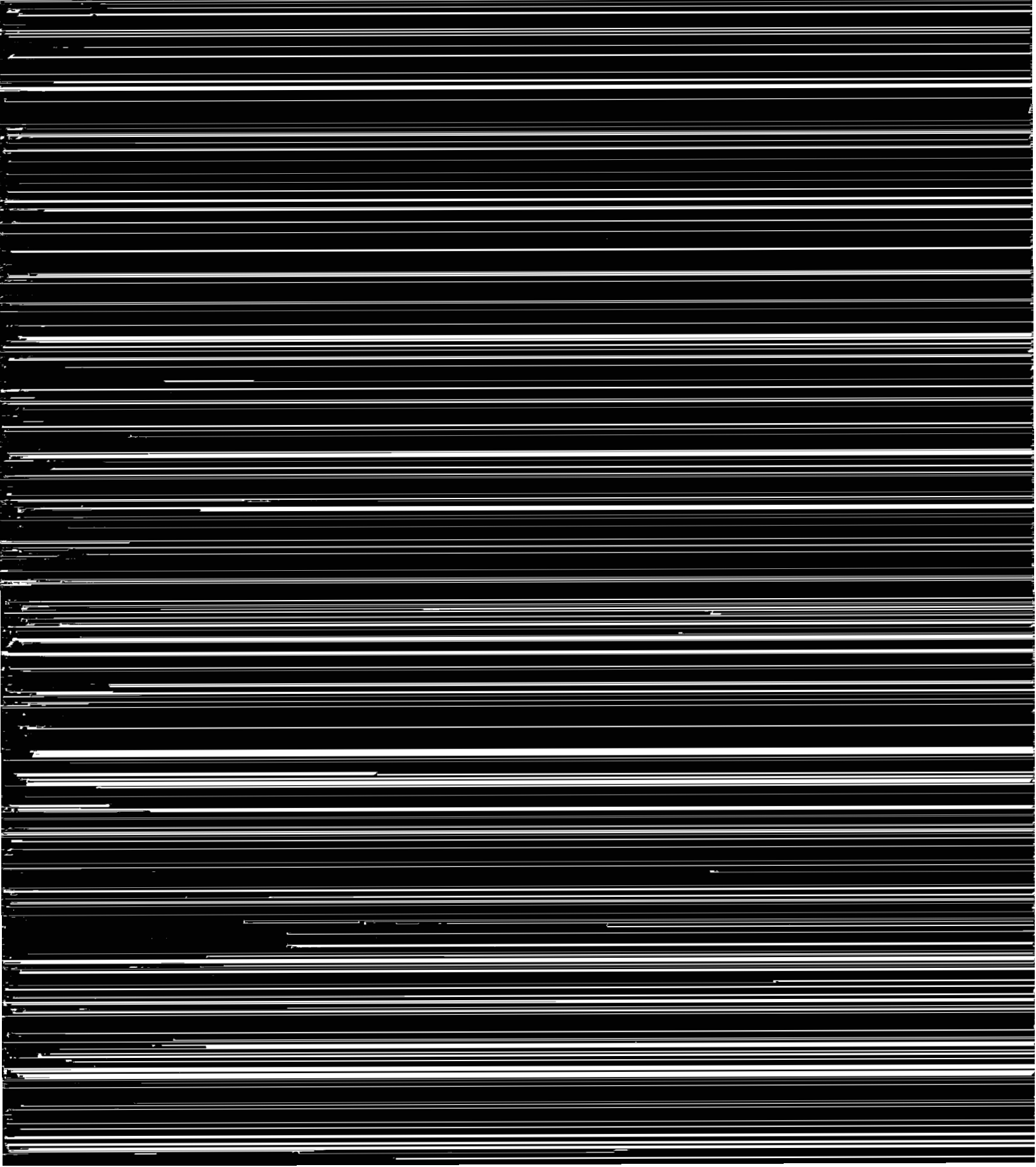
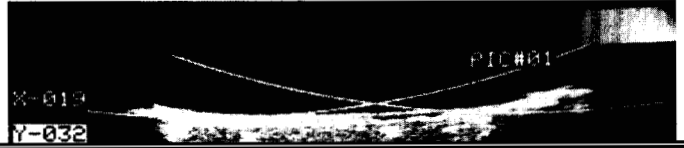


Fig. 2. Graph of the spectral magnitude (in dB above noise) versus transducer output power level (in dB) for signal components at 3.1, 6.3, and 9.5 MHz. The relative signal strengths at highest power output, 45 dB, are in good agreement with the theoretical description of $\sigma = 1$ weak shock conditions.



duction of additional finite amplitude effects. The system effects in water at highest power outputs, it is unlikely that