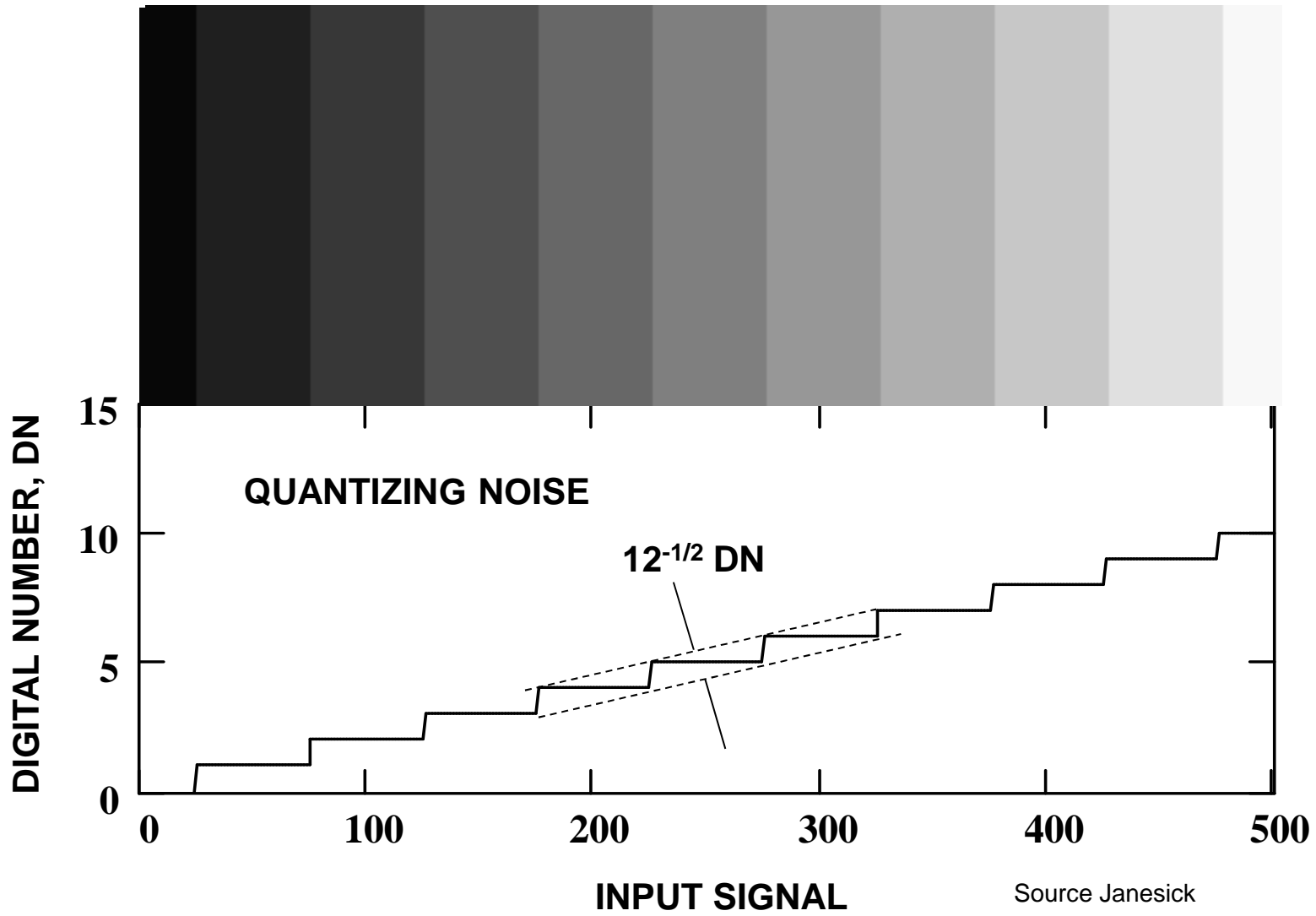


# Quantizing Noise

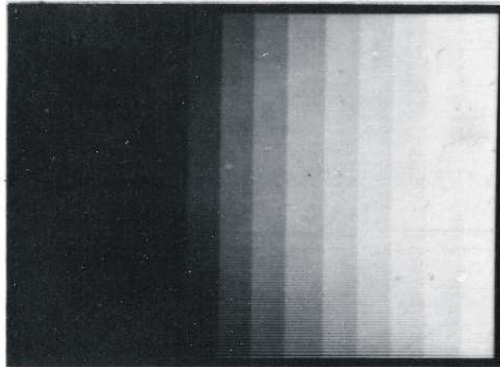
# ADC QUANTIZING NOISE



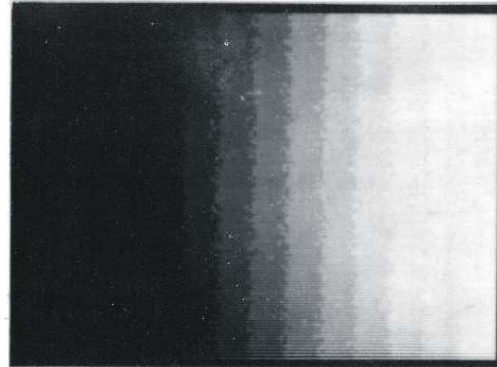
# ADC QUANTIZING NOISE

DEMONSTRATION OF RANDOM NOISE vs. QUANTIZATION  
INTERVAL TRADE-OFF

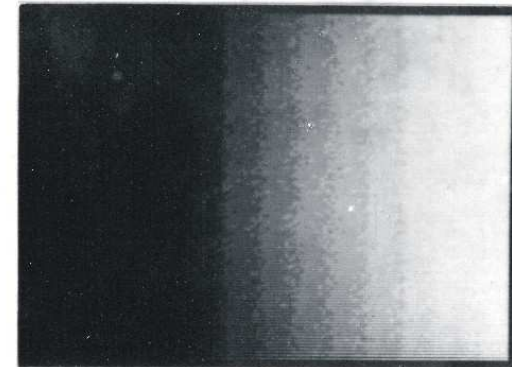
NOISE BANDWIDTH = ONE HALF PIXEL RATE



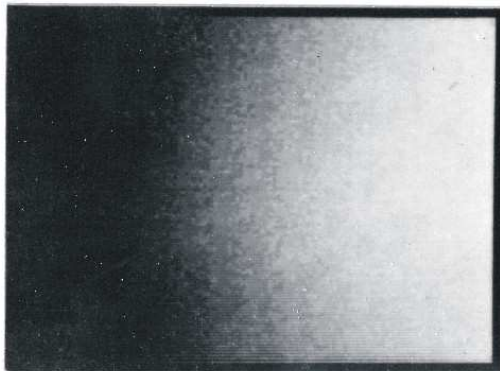
WITHOUT ADDED NOISE



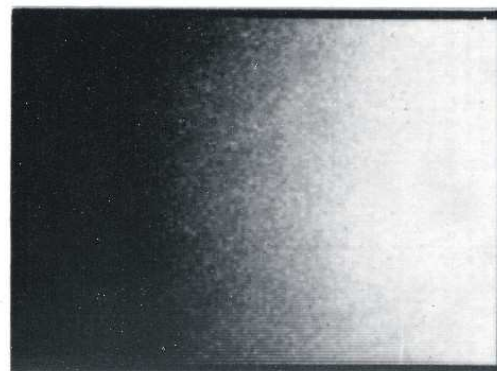
RMS NOISE = 0.1 DN



RMS NOISE = 0.2 DN



RMS NOISE = 0.3 DN



RMS NOISE = 0.4 DN

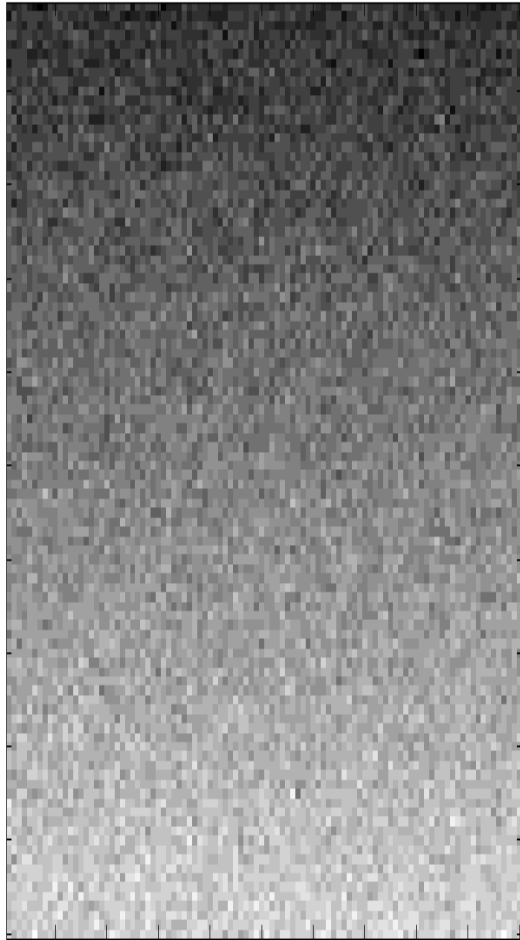


RMS NOISE = 0.5 DN

Source Janesick

# ADC QUANTIZING NOISE

$K_{\text{ADC}}(\text{e-}/\text{DN}) = 2$



$K_{\text{ADC}}(\text{e-}/\text{DN}) = 10$

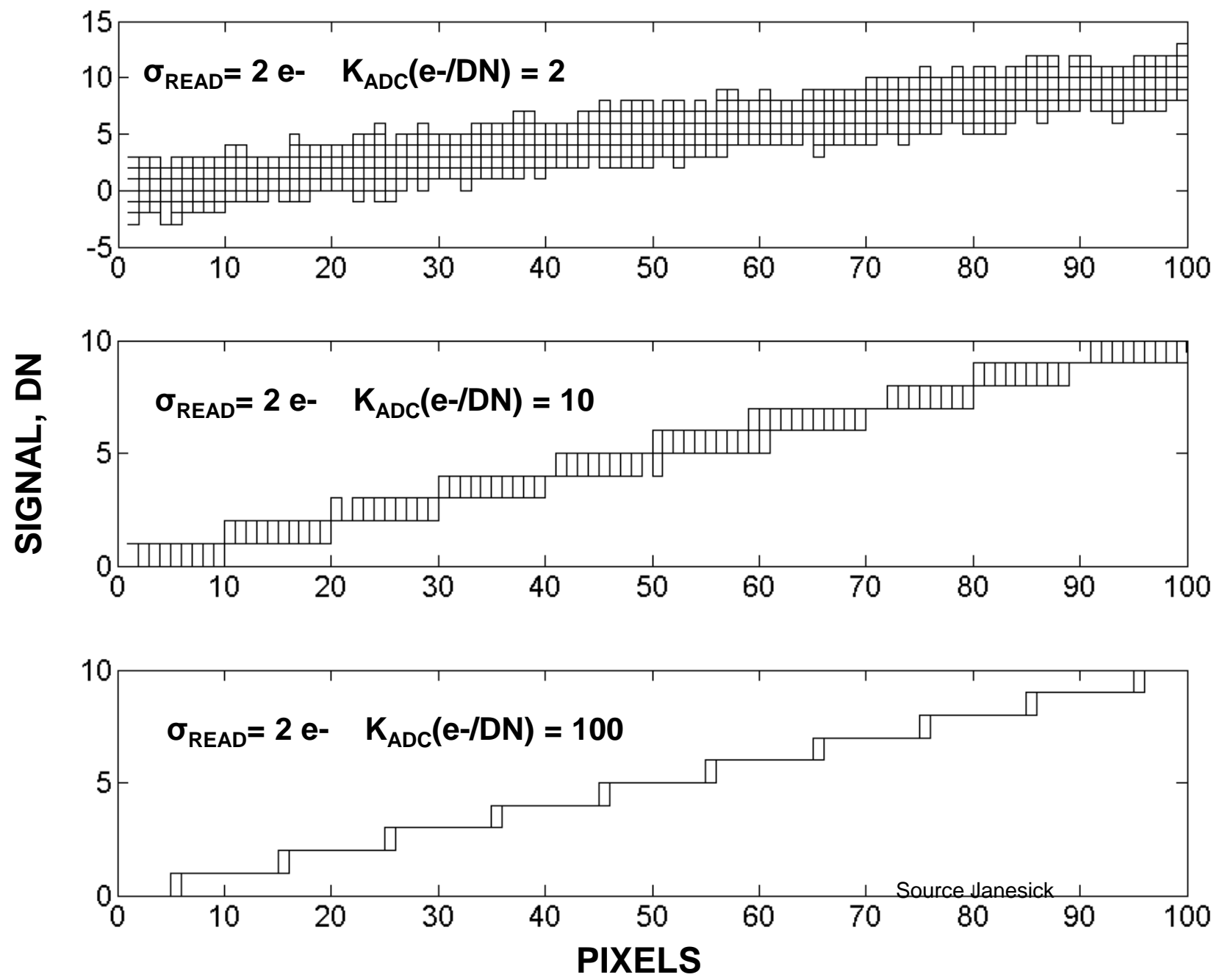


$K_{\text{ADC}}(\text{e-}/\text{DN}) = 100$



Source Janesick

READ NOISE = 2 e-



# ADC QUANTIZING NOISE

