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**Dynamic Turbulence Evolution during current ramp in ITER-like plasmas on DIII-D**[1] G.R. MCKEE, Z. YAN, U. Wisc.-Madison, C. HOLLAND, UCSD, R. BRAVENEC, Fourth State Research, T. LUCE, General Atomics — Low-wavenumber density fluctuations exhibit rapidly changing characteristics during the current ramp-up of ITER-like discharges that reflect a complex interaction between electron transport, safety factor (q), and $n_e$ and $T_e$ profiles. These measurements and analysis may help explain discrepancies between transport models and measurements during ramp-up. Measurements of the 2D fluctuation properties are obtained across the outer half-radius with Beam Emission Spectroscopy. Density fluctuations at rho=0.55 exhibit fluctuations that decrease in amplitude with time. Transient windows of suppressed fluctuations are observed during ramp-up, which correspond to low-order-rational q-surfaces that are associated with localized improved transport. At rho=0.82, a large amplitude burst of low-frequency turbulence occurs early in the current ramp. The amplitude profile of low-k fluctuations exhibits a strong reduction in turbulence with reduced $q_{95}$; thermal energy confinement likewise increases with decreasing $q_{95}$.

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