## AerialWildfireSuppression Train & Test Metrics: Difficulty: 4, Task: 7 Entropy Water Drop Water Pickup **Preparing Trees Extinguishing Trees Reward Preparing Trees Reward** 0.05 -0.05 2.00 -0.05 -0.05 0.05 source source source source source source — training training training training training 9<u>n</u> 1.75 Value Value Value Value 0.00 0.00 0.00 0.00 0.00 test — test test — test — test 1.50 -0.05 -0.05-0.05-0.050.0 1.5 1.5 1.5 0.5 0.5 0.5 1.5 1.0 0.5 1.5 1.0 1.5 0.0 1.0 0.0 1.0 0.0 0.5 1.0 0.0 0.5 0.0 1.0 1e6 1e6 Step 1e6 1e6 1e6 1e6 Step Step Step Step Step **Extinguishing Trees** Fire too Close to City Fire Out Crash Count Extrinsic Value Estimate **Episode Length** 0.05 0.05 0.05 source source source source source training training **Ψ** 2000 — training training 0.00 0.00 0.00 test test test test -0.05 --0.05 -0.050.0 0.5 1.0 1.5 0.0 1.5 0.5 1.5 0.0 1.5 0.0 1.0 0.0 0.5 1.0 1.5 0.0 0.5 1.5 Step 1e6 Step 1e6 Step 1e6 Step 1e6 Step 1e6 Step 1e6 Cumulative Reward Extrinsic Reward Policy Loss Value Loss Learning Rate Epsilon 100 -0.06 0.20 source source source Value Value \alpha \cdot training Value Value -Nalue - 0.15 source test - training 0.04 test test -100 -1000.0000 0.5 1.0 1.5 0.0 0.5 1.5 1.5 0.0 0.5 1.0 1.5 0.5 1.0 1.5 0.0 0.5 1.0 0.5 1.5 0.0 1e6 1e6 1e6 1e6 1e6 Step Step Step Step Step 1e6 Step Beta source 0.004 training 8 0.002 · test 0.000 1.0 0.5 1.5 0.0

Step

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