DroneBasedReforestation Train & Test Metrics: Difficulty: 10, Task: 5 Entropy Tree Drop Count Recharge Energy Count Save Location Count Out of Energy Count Cumulative Distance Until Tree Drop 0.05 -0.05 -0.05 -0.05 -1.42 source source source source source source 9 1.40 ---- training training — training --- training training training 0.00 0.00 0.00 0.00 test test test <u>e</u> 0.65 ⋅ test test 1.38 -0.050.60 1.00 0.50 0.75 1.00 0.50 0.75 1.25 0.25 0.50 1.00 1.25 0.50 0.50 0.75 1.00 1.25 0.00 0.25 0.25 0.50 0.75 1.00 1.25 0.25 0.00 0.75 0.25 0.75 1.00 0.00 0.25 1e6 1e6 Step 1e6 1e6 Step 1e6 Step 1e6 Step Step **Cumulative Distance Reward** Cumulative Tree Drop Reward Cumulative Normalized Distance Until Tree Drop Cumulative Distance to Existing Trees Highest Point on Terrain Found **Episode Length** 420 0.05 0.05 0.05 source source source source source training training training training training 9 400 value 0.00 0.00 test test - test test training -0.05 · -0.050.50 0.75 0.75 1.00 1.25 1.00 0.25 0.50 0.75 1.00 0.25 0.50 0.75 1.00 1.25 0.25 0.50 0.75 1.00 1.25 0.25 0.50 0.75 1.00 1.25 1e6 1e6 1e6 Step 1e6 Step 1e6 1e6 Curiosity Value Estimate Extrinsic Value Estimate **Cumulative Reward Curiosity Reward** Extrinsic Reward Policy Loss 0.04 source source source υ 0.03· training training 04 Alue value 6.0 source <u>s</u> 20 test training training training test 0.50 0.75 1.00 0.25 0.50 0.75 1.00 1.25 0.50 0.75 1.00 1.25 0.25 0.50 0.75 1.00 1.25 0.00 0.25 0.50 0.75 1.00 0.00 0.25 0.25 0.50 0.75 1.00 0.25 0.00 0.00 1e6 1e6 Step 1e6 Step 1e6 Step 1e6 Step Step Step **Curiosity Forward Loss** Value Loss Learning Rate **Epsilon** Beta Curiosity Inverse Loss 0.20 source source source source source 1.0 υ 0.0002 training training training training training 0.15 0.002 <u>e</u> 0.5 test test test test training 0.0000 -1.00 0.25 0.75 1.00 0.25 1.00 0.00 0.25 0.50 1.00 0.00 0.75 0.00 0.50 0.00 0.50 0.00 0.25 0.50 1.00 0.50 0.75 0.25 1e6 1e6 1e6 1e6 1e6 Step 1e6