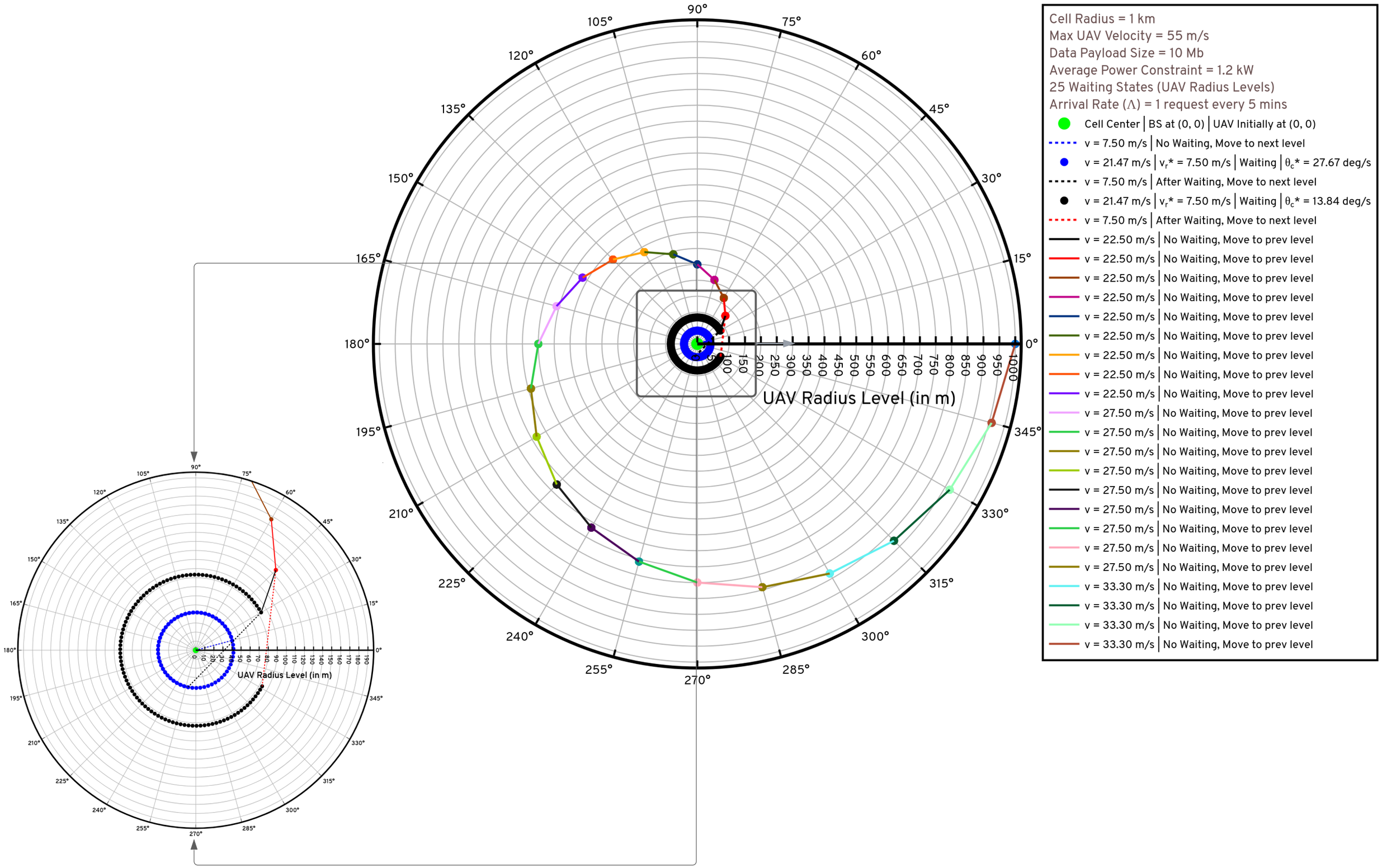
Cell Radius = 1 km
Max UAV Velocity = 55 m/s
Data Payload Size = 10 Mb
Average Power Constraint = 1.2 kW
25 Waiting States (UAV Radius Levels)
Arrival Rate (Λ) = 1 request every 5 mins
Cell Center | BS at (0, 0) | UAV Initially at (0, 0)
v = 7.50 m/s | No Waiting, Move to next level
v = 21.47 m/s | v_r* = 7.50 m/s | Waiting | θ_c* = 27.67 deg/s
v = 7.50 m/s | After Waiting, Move to next level
v = 21.47 m/s | v_r* = 7.50 m/s | Waiting | θ_c* = 13.84 deg/s
v = 7.50 m/s | After Waiting, Move to next level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 22.50 m/s | No Waiting, Move to prev level
v = 27.50 m/s | No Waiting, Move to prev level
v = 27.50 m/s | No Waiting, Move to prev level
v = 27.50 m/s | No Waiting, Move to prev level
v = 27.50 m/s | No Waiting, Move to prev level
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v = 27.50 m/s | No Waiting, Move to prev level
v = 27.50 m/s | No Waiting, Move to prev level
v = 27.50 m/s | No Waiting, Move to prev level
v = 33.30 m/s | No Waiting, Move to prev level
v = 33.30 m/s | No Waiting, Move to prev level
v = 33.30 m/s | No Waiting, Move to prev level
v = 33.30 m/s | No Waiting, Move to prev level
UAV Radius Level (in m)
UAV Radius Level (in m)