FIRE THREAT ASSESSMENT REPORT

Date: May 06, 2025

EXECUTIVE SUMMARY

This report presents the analysis of 5 fire simulation episodes covering a wildland area of approximately 384.0 square kilometers. The overall fire risk assessment level is HIGH.

Across all simulations, an average of 22536.6 cells were burnt per episode, with containment achieved after an average of 135.0 simulation steps. Fire suppression operations deployed an average of 47.0 helitack drops per episode.

KEY METRICS

Total Simulation Episodes:	5
Average Burnt Area:	22536.6 cells
Maximum Burnt Area:	34558 cells
Average Containment Time:	135.0 steps
Total Helitack Operations:	235
Average Operations per Episode:	47.0
Area per Helitack Operation:	463.2 cells/operation

RISK ASSESSMENT

Overall Risk Level: HIGH

The risk assessment is based on average burnt area, containment time, and operational efficiency. The HIGH risk level indicates that this area requires careful monitoring and increased preparedness during fire seasons. Pre-positioning of resources is recommended.

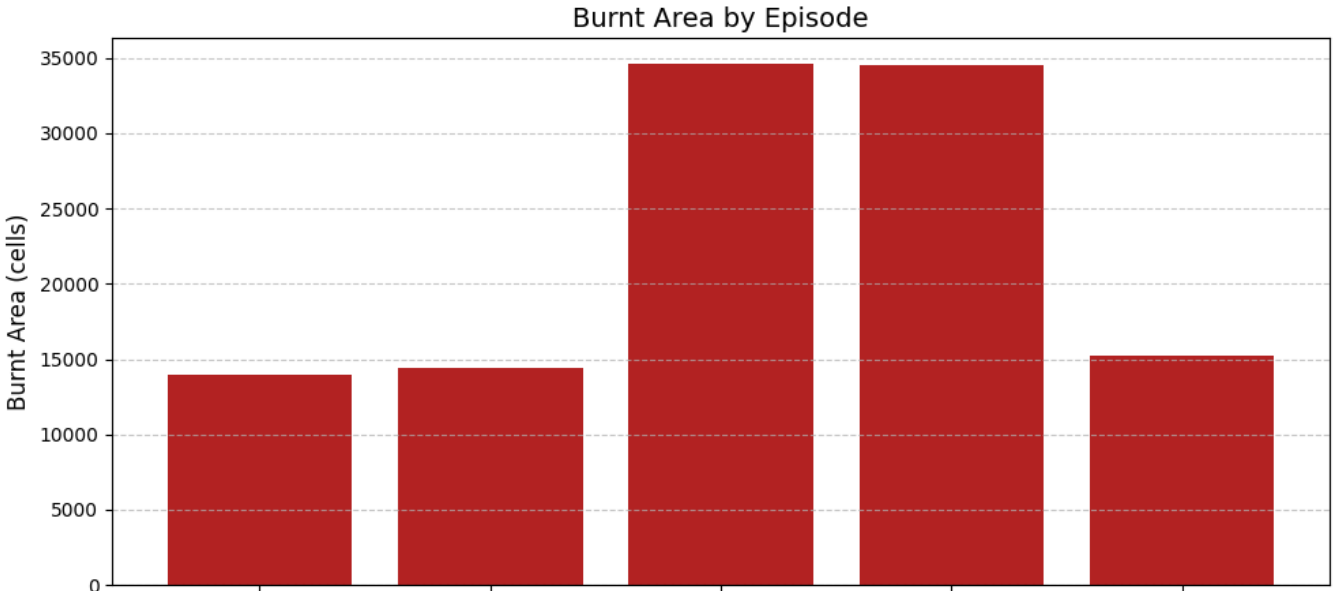
CRITICAL LOCATIONS

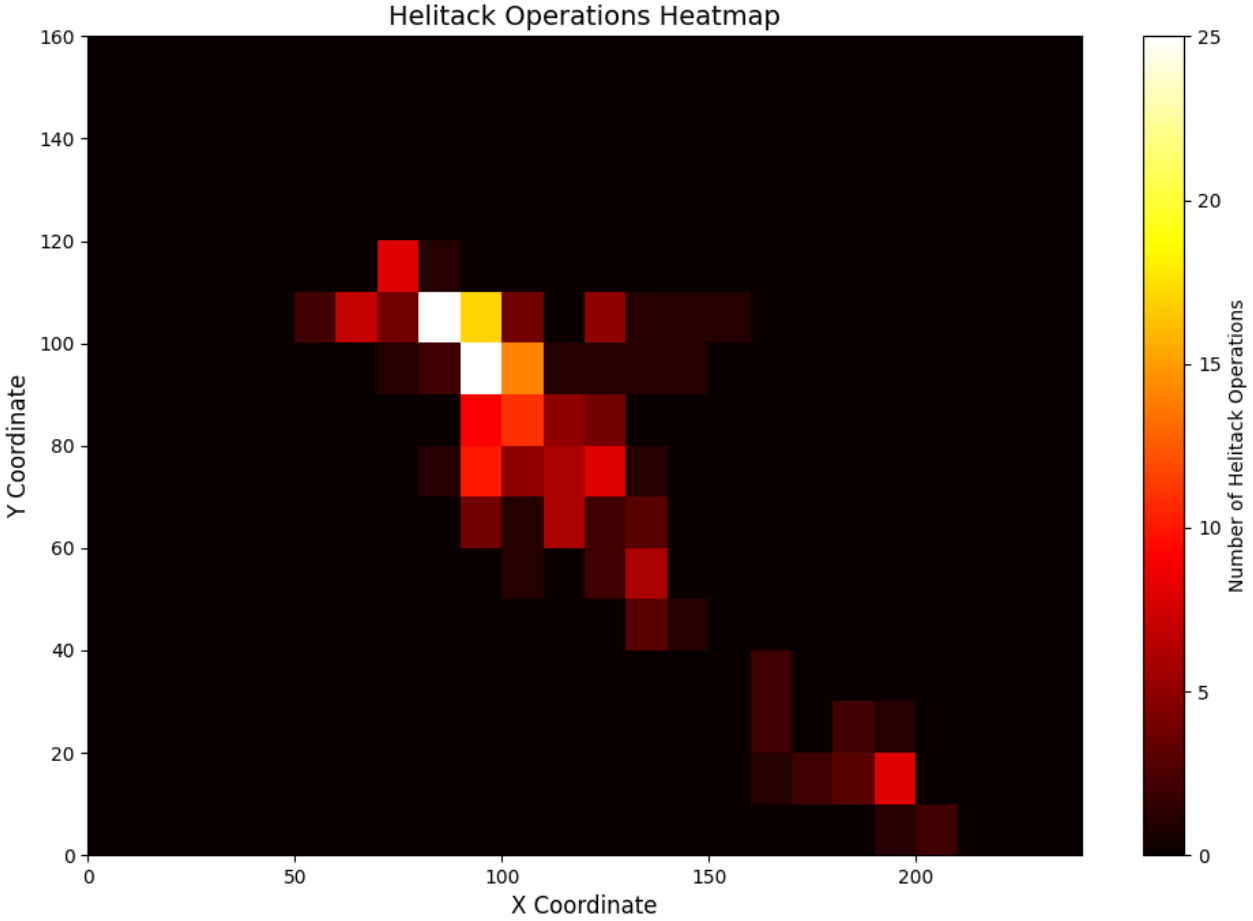
The following locations had the highest frequency of helitack operations, indicating hotspots that may require special attention for fire prevention and rapid response:

Rank	Grid (X,Y)	GPS Coordinates	Frequency	Risk Level
1	(94,103)	34.085625, -118.460833	8 operations	Moderate
2	(88,103)	34.085625, -118.463333	7 operations	Moderate
3	(88,100)	34.087500, -118.463333	6 operations	Moderate

FIRE THREAT ASSESSMENT REPORT

FIRE ANALYSIS CHARTS





FIRE THREAT ASSESSMENT REPORT

RECOMMENDATIONS

Recommendation 1:
Increase monitoring in the identified critical areas, especially at coordinates 34.085625, -118.460833.

Recommendation 2:
Deploy additional resources during peak fire seasons based on the HIGH risk assessment.

Recommendation 3:
Implement preventative fire breaks in the most frequently affected regions.

Recommendation 4:
Optimize helitack response strategies based on the typical 135.0 step containment time.

Recommendation 5:
Conduct regular drills to ensure rapid deployment to the identified critical areas.

Recommendation 6:
Review and update fire prevention protocols based on the simulation findings.

CONCLUSION

The fire simulation analysis revealed a HIGH level of wildfire risk in the studied area. With an average burnt area of 22536.6 cells across 5 episodes, this region requires appropriate fire management strategies. The analysis identified 3 critical locations that serve as priority areas for preventative measures and rapid response planning.

By implementing the recommended actions, fire management authorities can enhance preparedness and reduce potential damage from wildfires in this region.