

SOMA - Moon Boulder Detection Report

Generated on: 2025-06-26 18:55:16

Boulder Analysis Summary:

Boulder Detection Statistics Summary
Analysis Generated: 2025-06-26 18:55:08

DETECTION SUMMARY

Total Boulders Detected : 653
Large Boulders (>avg) : 161
Small Boulders (avg) : 492

SIZE DISTRIBUTION

Minimum Diameter : 4.12 m
Maximum Diameter : 1316.55 m
Average Diameter : 28.26 m
Median Diameter : 14.56 m
Standard Deviation : 60.88 m

AREA COVERAGE

Total Area Covered : 2307432.33 sq. meters
Average Boulder Area : 3533.59 sq. meters

DATA QUALITY

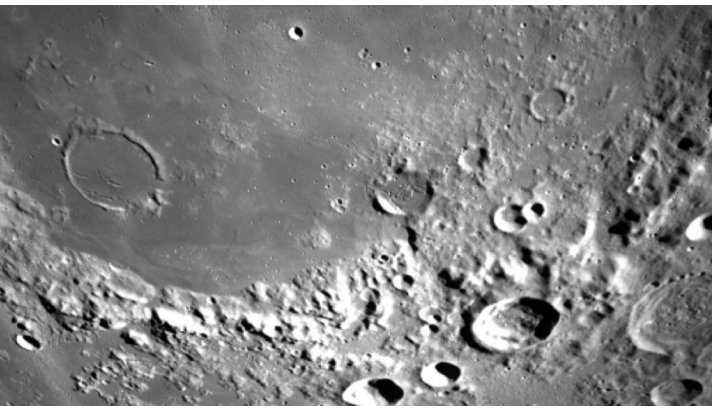
Data Source Column : Diameter (m)
Total Data Points : 653
Missing Values : 0

PERCENTILE DISTRIBUTION

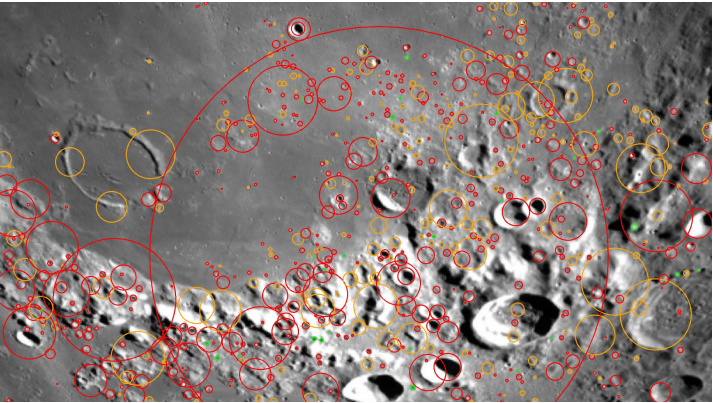
25th Percentile : 8.60 m
50th Percentile (Median) : 14.56 m
75th Percentile : 27.66 m
90th Percentile : 59.44 m
95th Percentile : 98.01 m

Generated by SOMA - Advanced Lunar Analysis System

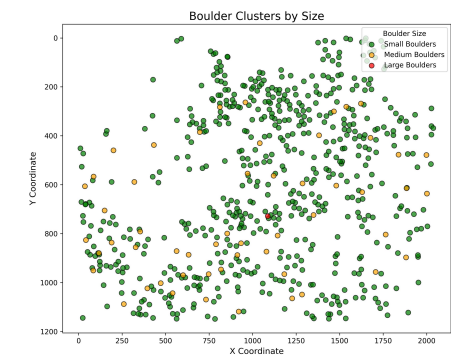
1. Original Image



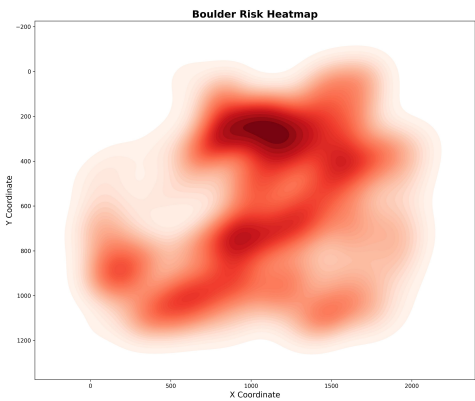
2. Detected Boulders



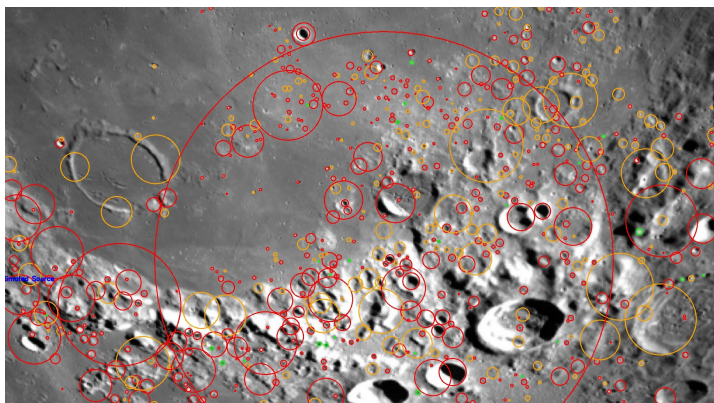
3. Boulder Clustering Analysis



4. Risk Assessment Heatmap



5. Source Point Analysis



Analysis Complete

This report contains comprehensive analysis of lunar boulder distribution, clustering patterns, risk assessment, and source point estimation.

All analysis performed using advanced computer vision and machine learning techniques.