

MexicoBeach-10-13-2018 Mission Data

Generated July 12, 2026 at 11:28

Example User — info@crasar.org

Disclaimer. Road damage class labels are generated by AI. Consider this when interpreting these labels, and verify all outputs before operational use. This report presents road damage assessment (RDA) results only.

1 Survey Summary

Model	RDA_UNet_v1_CCE_Full_NoAttention
Road lines assessed	351
Total road length assessed	15.68 km
Orthomosaics	10132018-MexicoBeach
Surveyed area	4.84 km ² (1,197 acres)
Ground resolution	1.96 cm/pixel
Coordinate system	EPSG:32616
Model run completed	2026-07-12 16:27 UTC
Capture location	29.9477° N, 85.4166° W

Road condition	Length (km)	Share
Road Line	6.32	40%
Partial	5.59	36%
Total	3.77	24%
Total	15.68	100%

Run provenance

Model checkpoint	model_patched.ckpt
Code version (git)	6aa700bace18
Software	Python 3.11.15, torch 2.1.2+cu121, pytorch-lightning 2.6.5, numpy 1.25.2, xgboost 2.1.1
Run window	2026-07-12 16:25 UTC – 2026-07-12 16:27 UTC

2 Capture Location

Approximate capture centroid: 29.9477° N, 85.4166° W. [Open in Google Maps.](#)

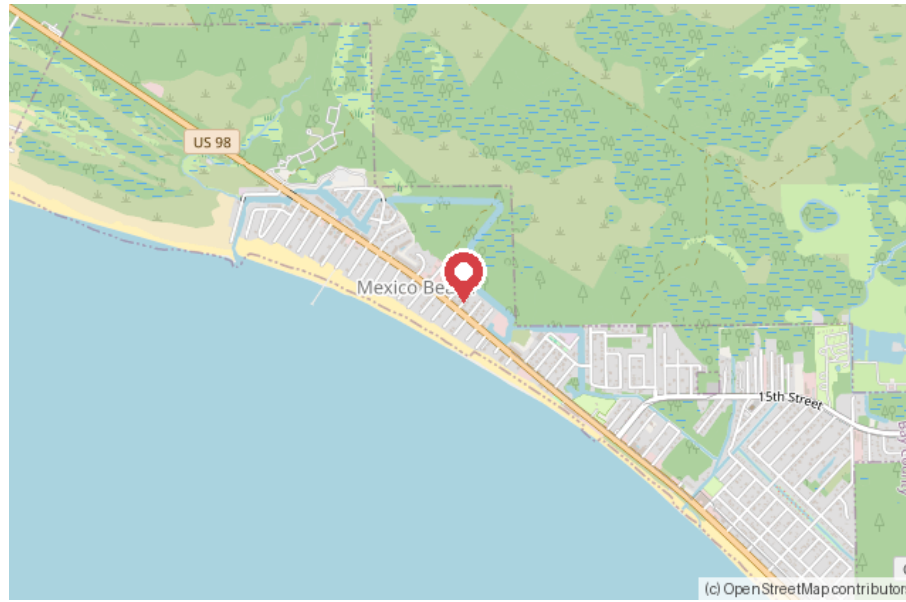


Figure 1. Approximate capture location; the marker sits at the survey centroid.

3 Orthomosaic Results and Label Distribution

The map below shows the predicted road damage labels in orthomosaic form. Here, **Road Line (passable)**, **Partial (partially blocked)**, **Total (fully blocked)**. The final figure shows the distribution of road length across the predicted labels.



Figure 2. Predicted road damage labels overlaid on the sUAS imagery.

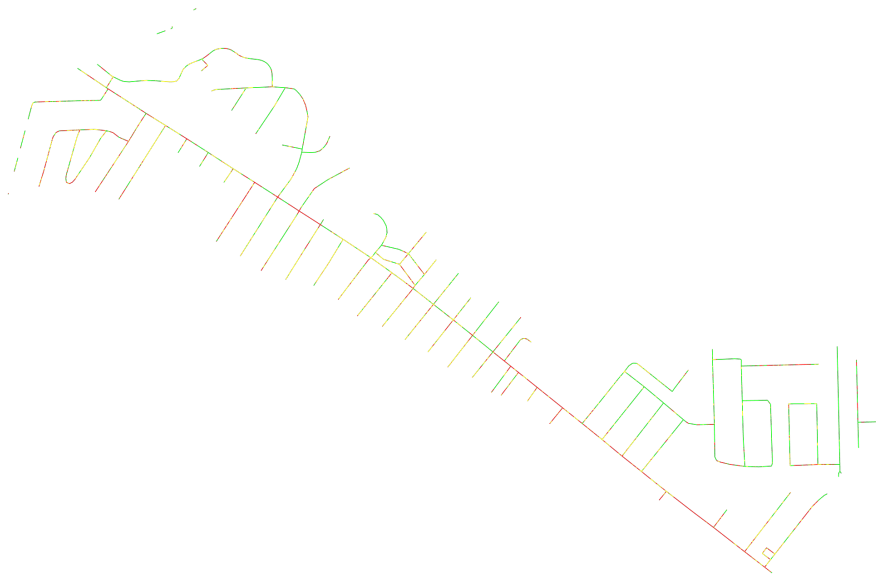


Figure 3. Predicted road damage labels.

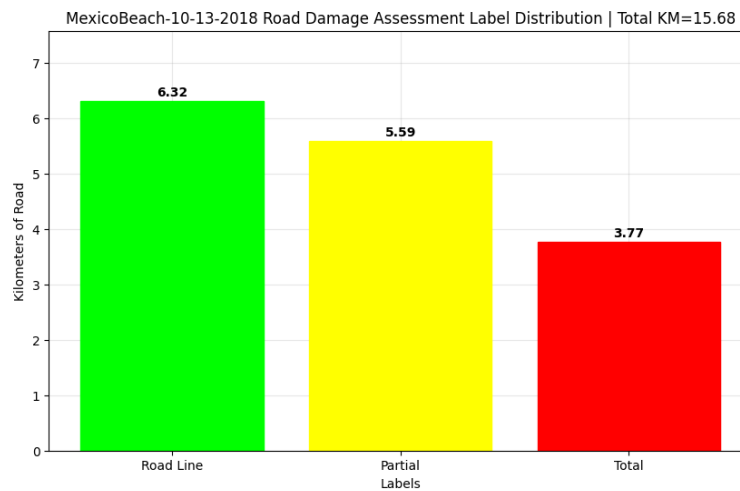


Figure 4. Distribution of predicted road length by label.

4 Confidence Histograms

Below are histograms of the confidences of the label predictions. Each figure is captioned with the associated label.

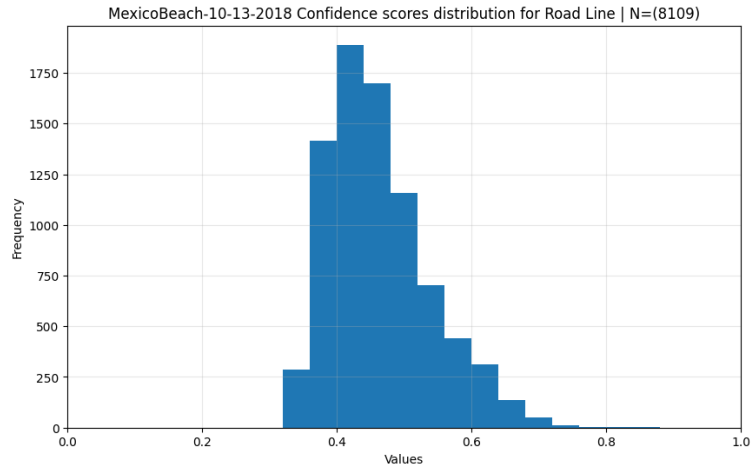


Figure 5. Confidence distribution for roads labeled 'Road Line'.

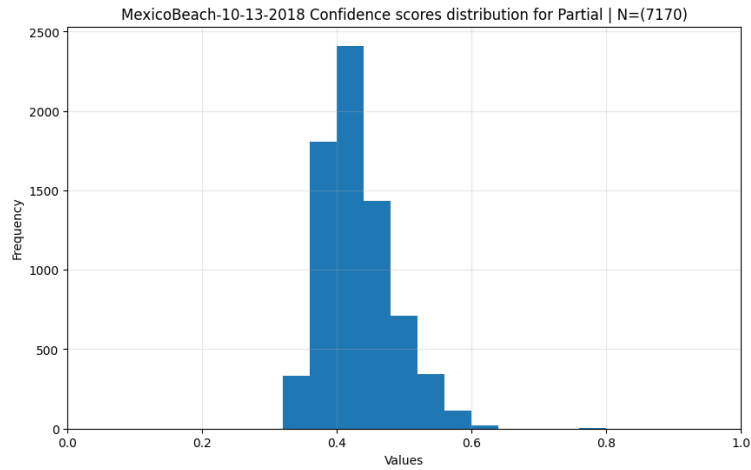


Figure 6. Confidence distribution for roads labeled 'Partial'.

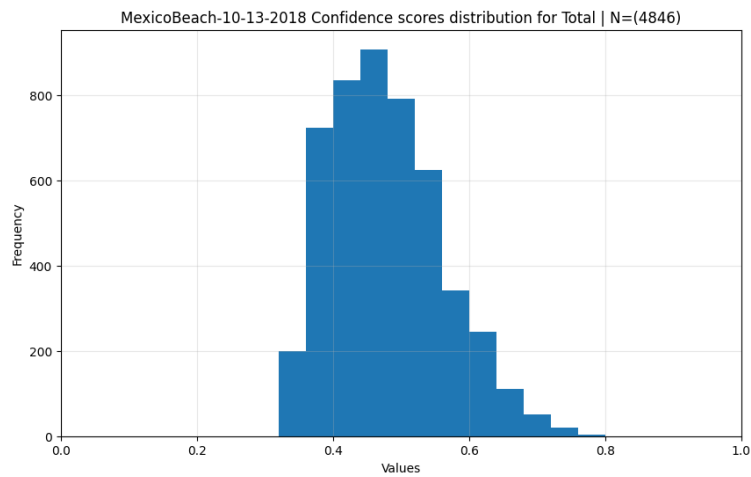


Figure 7. Confidence distribution for roads labeled 'Total'.