

# DSDI Discussion

## And the Future of LADI

Low Altitude Disaster Imagery Dataset  
V1.5 and beyond

# Known Difficulties with LADI v1

- Noisy labels
  - Crowdsourced annotation with non-expert annotators
- Class imbalance
  - Certain classes more prevalent in nature
  - Limited budget required focusing on certain event types
- High resolution images
  - Easier for classes that are large/widespread (e.g. flood, grass, trees) than small (e.g. vehicles, towers)

# Plans for LADI v1.5

- Incorporating community label improvements
  - DSDI evaluation set labels
  - DSDI submission enhancements
- Spatio-temporal data integration
  - Inclusion of additional GIS features based on image location
    - FEMA disaster declaration
    - OpenStreetMaps tags
    - Distances to AOI
- Improved documentation and tutorials
- Aiming for release Spring 2021

# Plans for LADI 2.0+

- Labels for additional disaster events
  - Beyond inland flooding/hurricanes
  - Wildfire, wind, earthquake damage
- Provide bounding boxes for subset of classes
  - Enabling object detection
  - Facilitate detection of smaller objects
- Potential focus on reduced label set
  - Sufficiently-represented classes
  - Highest-importance to disaster response
- Improved documentation and tutorials

# Discussion

Contribute to Google Doc

[https://docs.google.com/document/d/1eUKUsGKP2aUoI\\_NNmI9p83bvFDTf27R8j3-ik4hNdWo/edit](https://docs.google.com/document/d/1eUKUsGKP2aUoI_NNmI9p83bvFDTf27R8j3-ik4hNdWo/edit):

- LADI: Some teams reported noisy labels and annotated subsets of the dataset. How can we share annotations to improve the dataset?
- Any thoughts on enhancing the existing annotations?
- Testing data: What are your thoughts on the 2020 5 hour test data?
- Are the submission run types (training types) suitable? Is there any other submission information that could be helpful?
- Any feedback/suggestions for the DSDI task for 2021?

# Stay in touch!

Follow on GitHub:

- Organization: <https://github.com/LADI-Dataset/>
  - Dataset overview: <https://github.com/LADI-Dataset/ladi-overview>
  - Dataset tutorials (beta): <https://github.com/LADI-Dataset/ladi-tutorial>

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