

# Mapping the gaps on a shallow tropical reef

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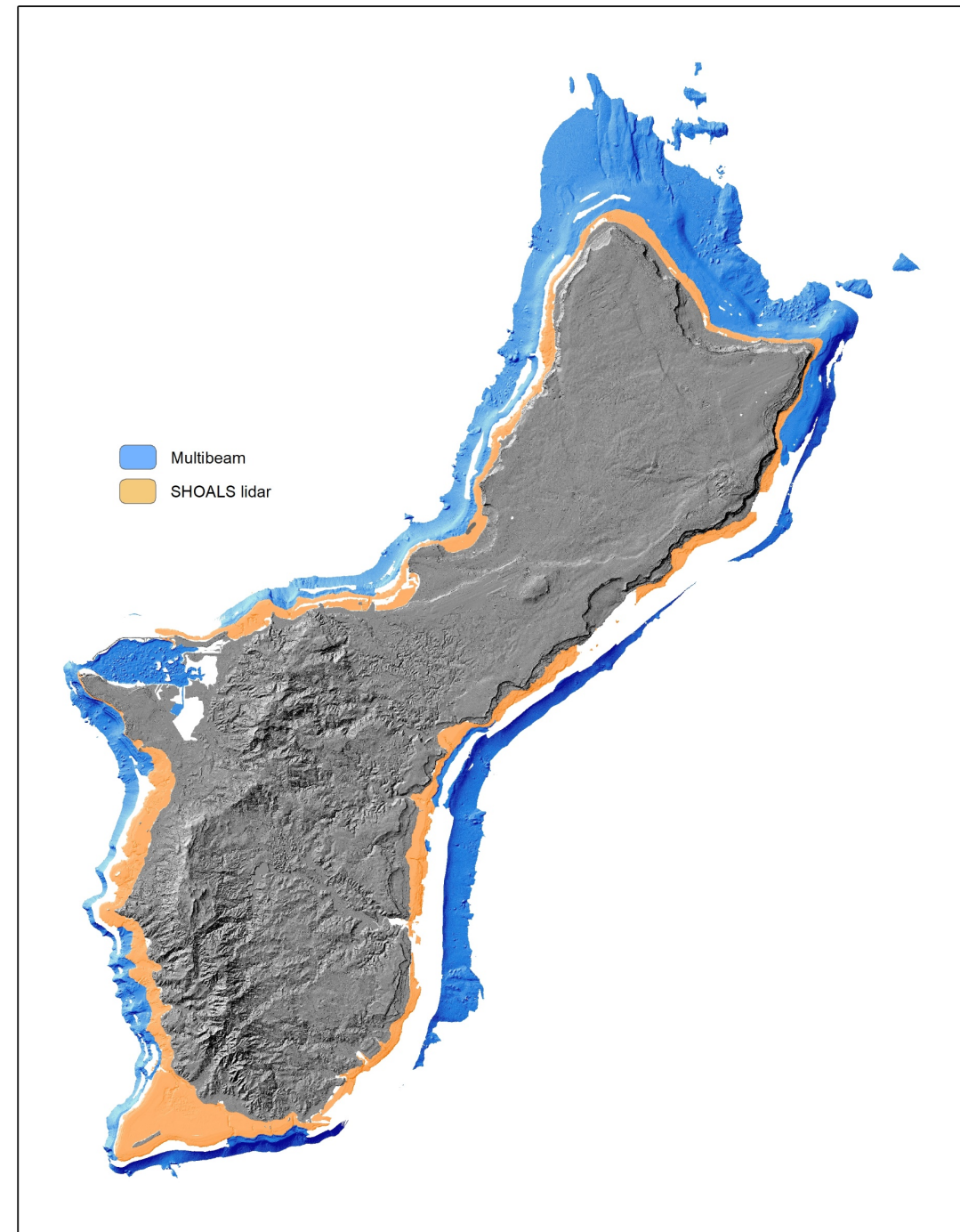
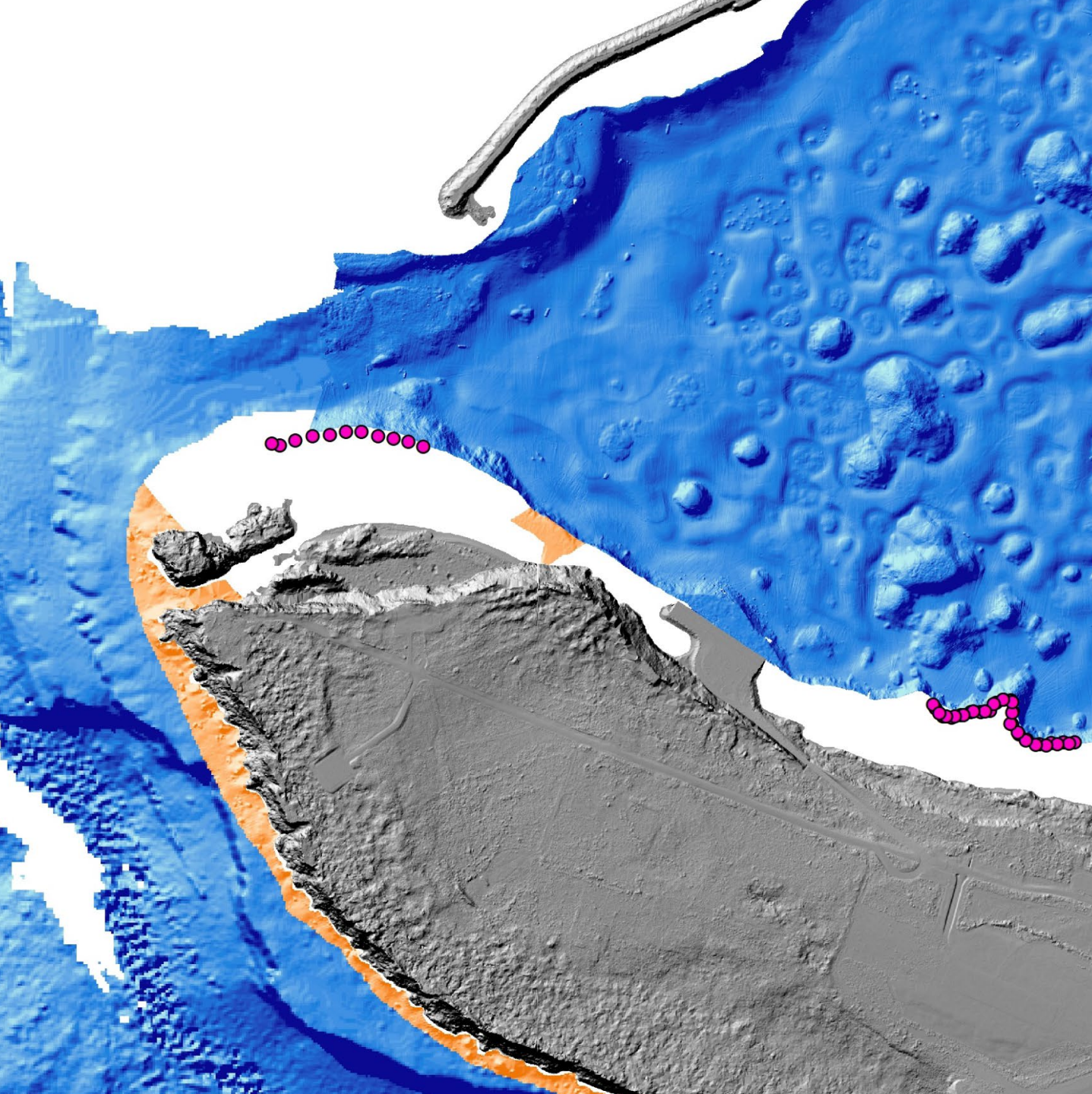




Study site: Guam

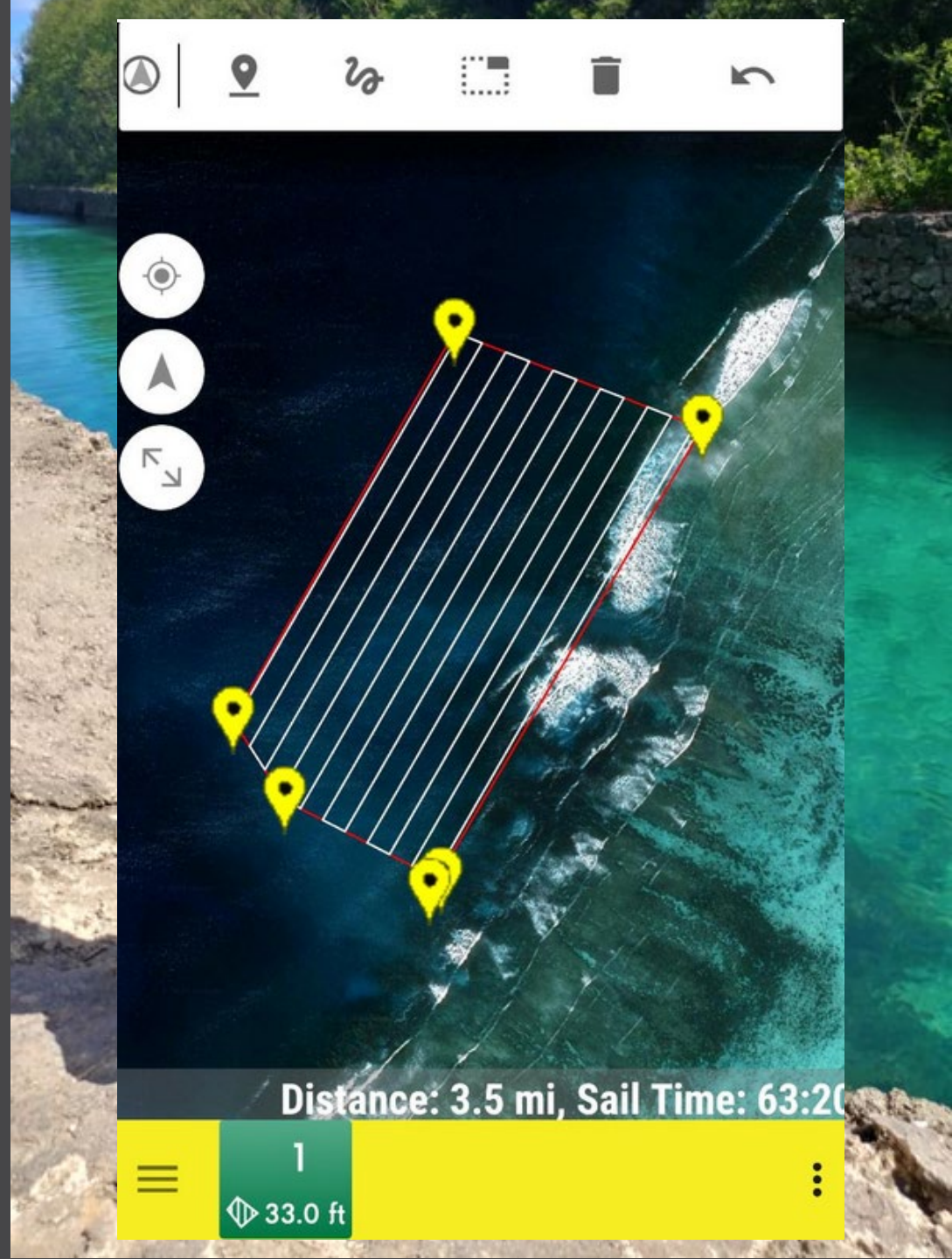
Objective: Characterize fish spawning aggregation sites

Nearshore bathymetry exists but gaps!



# Unmanned Surface Robot

- Surfbee (1.6 m x 0.6 m, 6kg)
- Sidescan sonar (Lowrance Elite-5 Ti)
- ~8,000 USD
  
- Speed 6km/h
- Long range radio ~ 10km
- Mission planning app



# Challenges

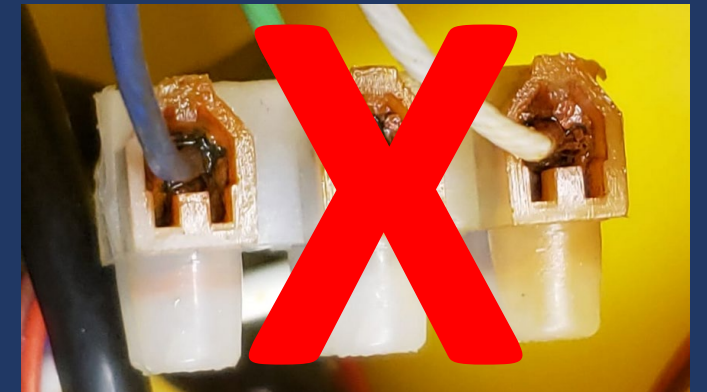
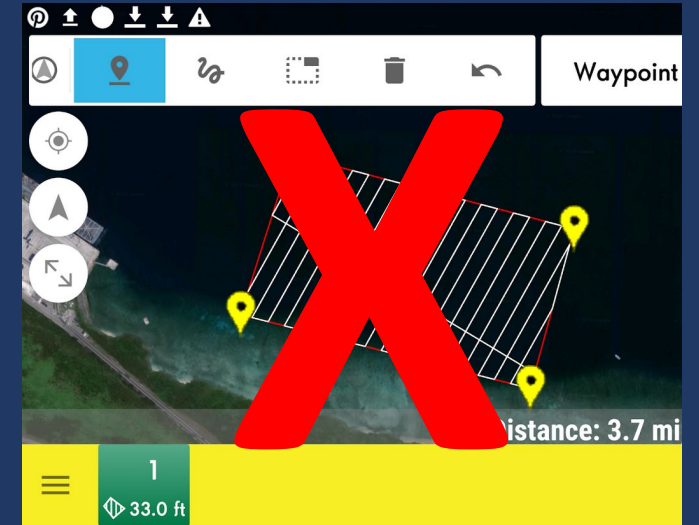
## Weather



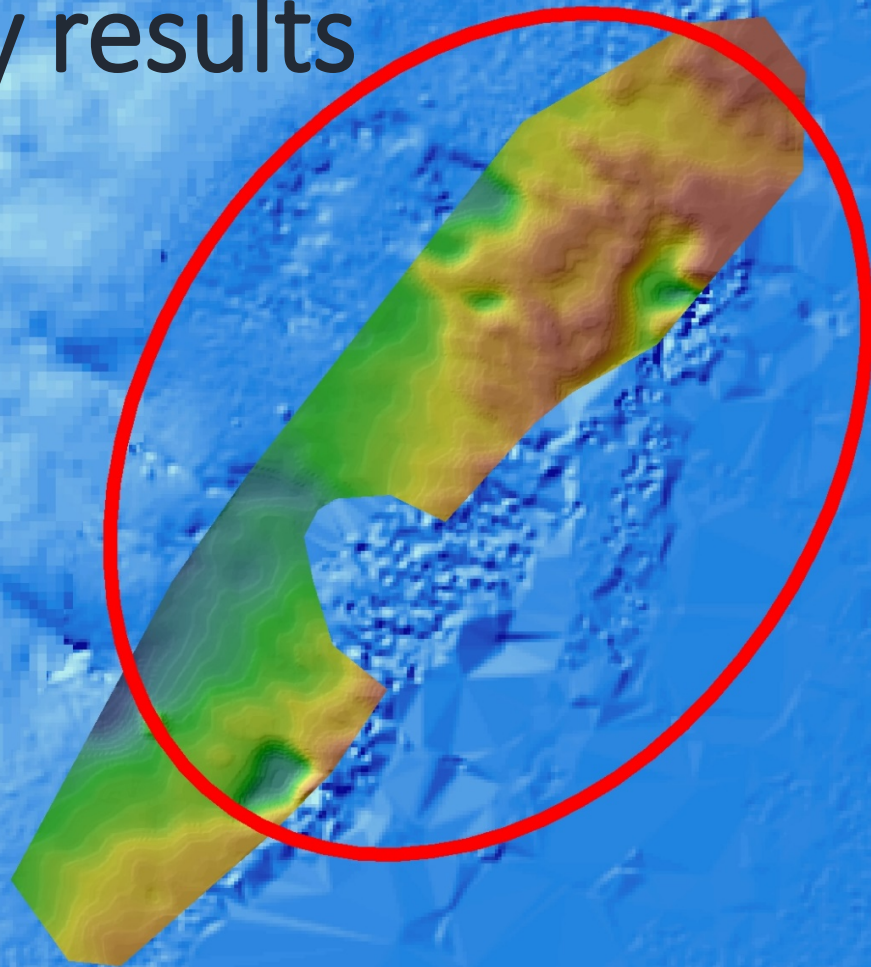
## Logistics



## Software/ hardware



# Preliminary results



## SUMMARY

- Expandable
- Good for smaller areas
- > Equipment has potential!

400 m

