MIZOPEX Unmanned Aircraft Project
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Marginal Ice Zone Observations and Processes Experiment

Goal: Assess Beaufort Sea ocean and ice variability during the 2013 melt season through multi-scale, multi-temporal, multi-sensor observations achieved using unmanned aircraft systems (pending FAA approvals) and in-situ measurements.

NASA UAS: update
UAF/Insitu ScanEagle: Flexibility + low altitude and long duration
CUMAV ("self deploying surface sensor"): low impact, "flying buoy"
Air-Deployed MicroBuoys (small, air-dropped buoys) with surface-to-air data relay.

http://ccar.colorado.edu/mizopex/index.html
MIZOPEX Aircraft Description & Planned Deployment Schedule

• **UPDATE: NASA SIERRA replaces Ikhana**
  – 20 ft wingspan, 55 knot cruise, 11-hour endurance
  – July 2013: 4 week deployment over Beaufort Sea
  – Used previously in Artic during CASIE (Svalbard)

• **AKUAF ScanEagle**
  – 10 ft wingspan, 50 knot cruise, long endurance
  – Split deployment: 2 weeks July, 2 weeks August, 2013

• **SDSS/Datahawk**
  – Hand-launched, expendable (1-2 weeks), short range

All deployments to be based in Deadhorse/Oliktok Point area

Chief Pilot Mark Sumich next to the SIERRA UAS on the ramp at Moffett Field, CA.