

**SPAWAR Office of Polar Programs
Polar Operations Branch**

SPAWAR



***Systems Center
Charleston***

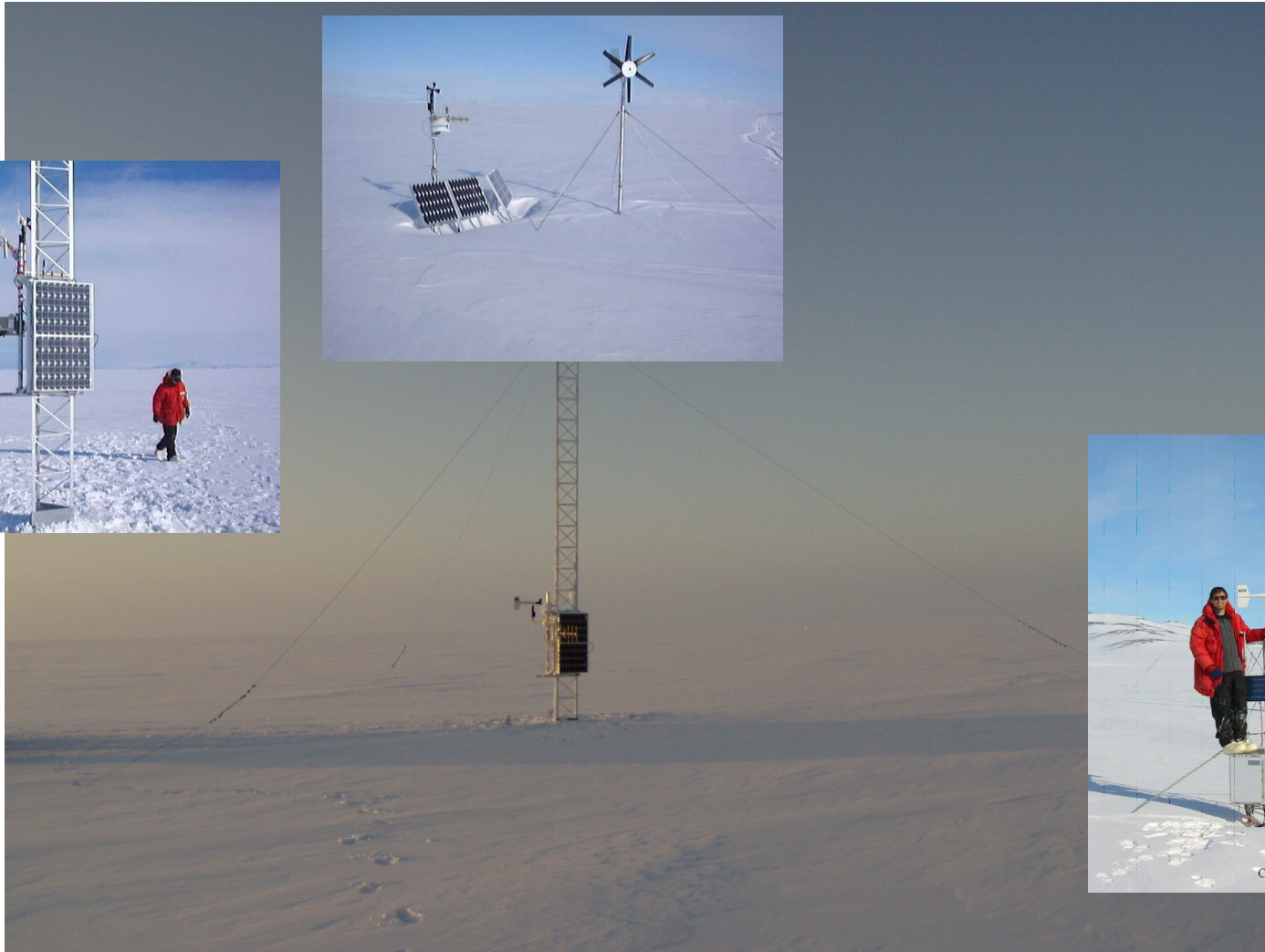
Operational Sensors

Arthur Cayette



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Operational AWS

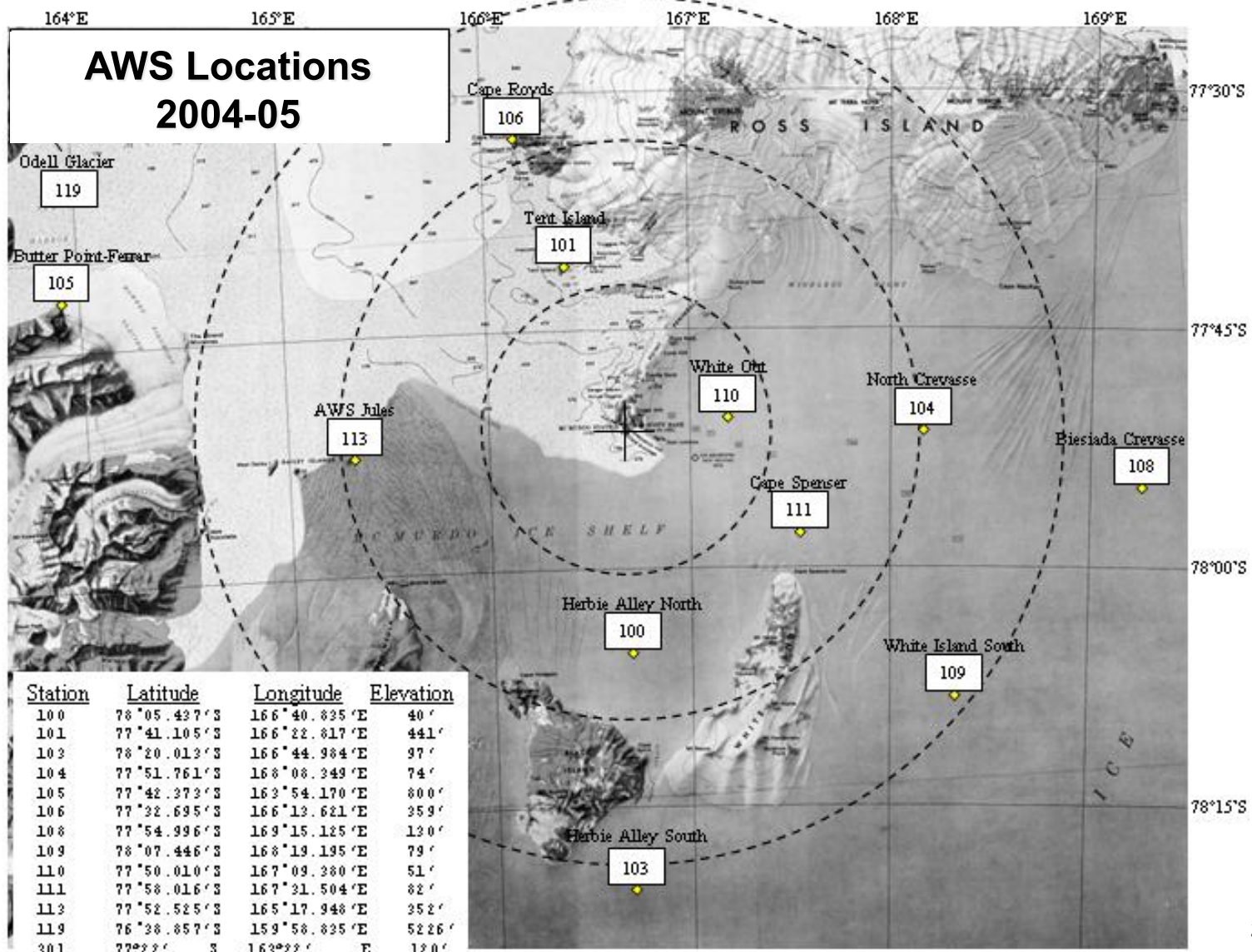


Cape Spencer AWS, 2004

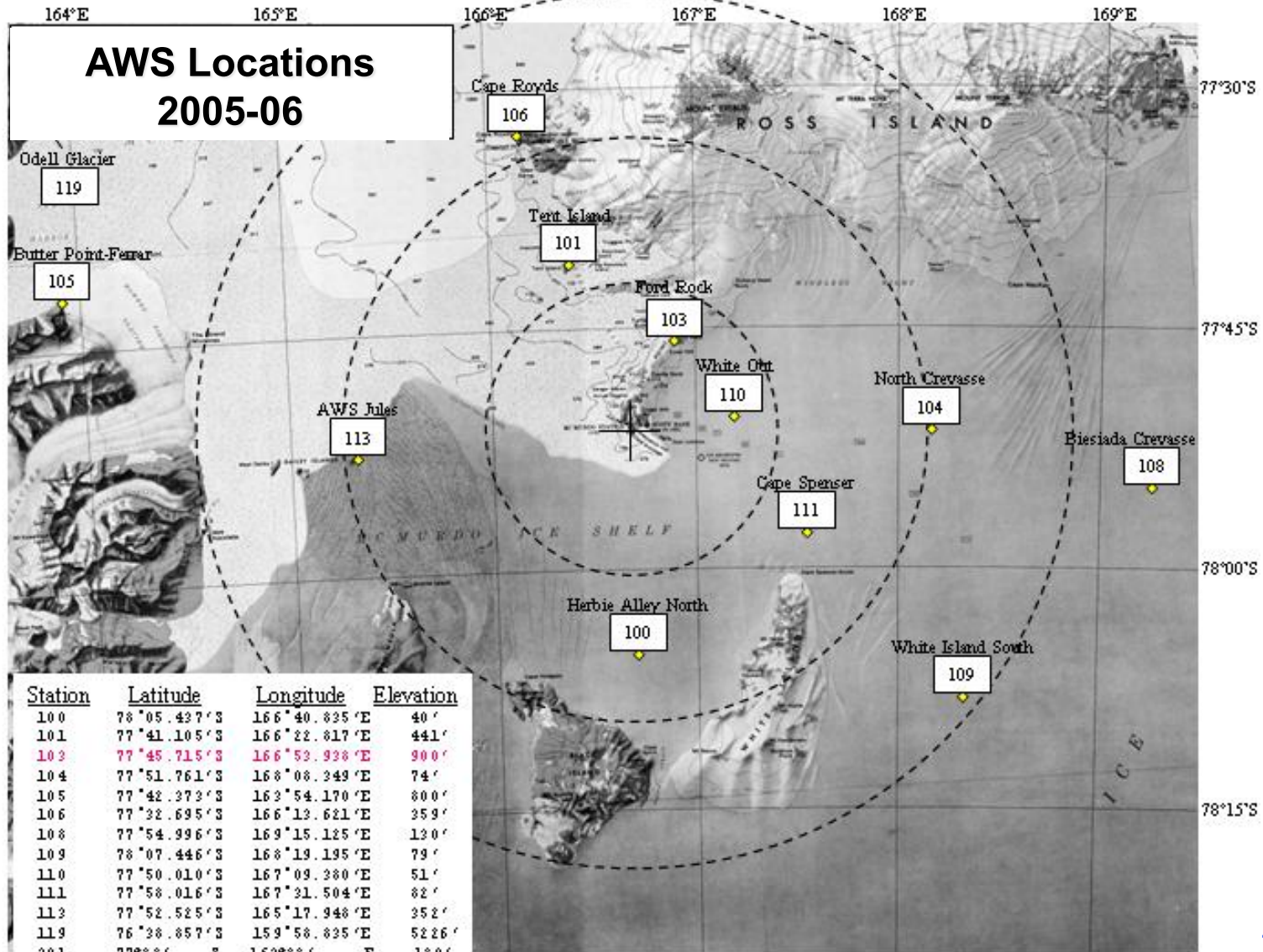


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AWS LOCATIONS 04-05



AWS LOCATIONS 05-06





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AWS Plans



SPAWAR Designed Coastal/Leatherwood Built
Mounted on Rohn or Glenn Martin Tower

- Pressure
- Winds (RM Young)
- Temp
- Humidity
- Optional - Visibility and Ceilometers available for 3 systems

Issues: Radio, aging batteries

Out year plans:

- Replace Field Ceilometers with cameras
- Low cost replacement solutions
- Wind power

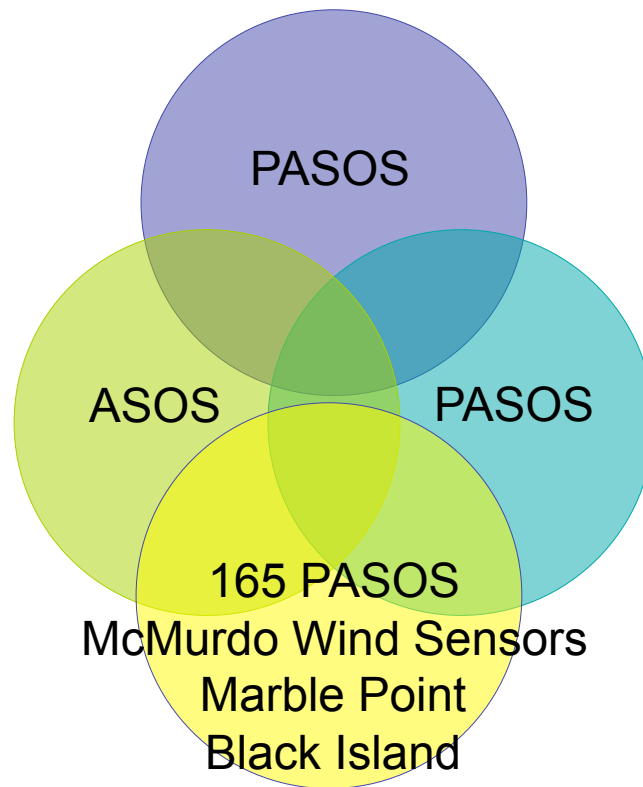


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Airfield Support Sensors



Ice Runway

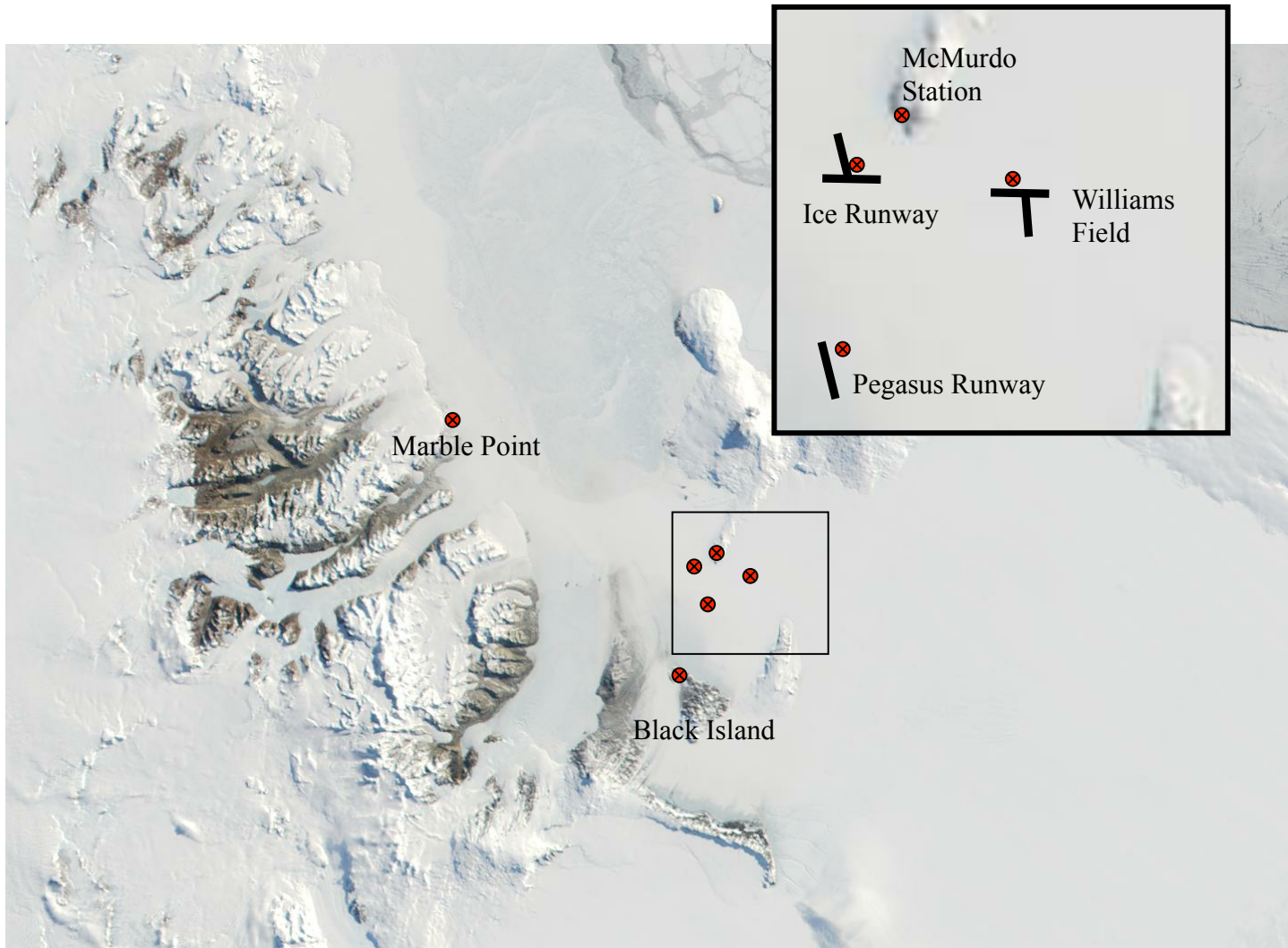


Pegasus

Williams Field

McMurdo

Locations



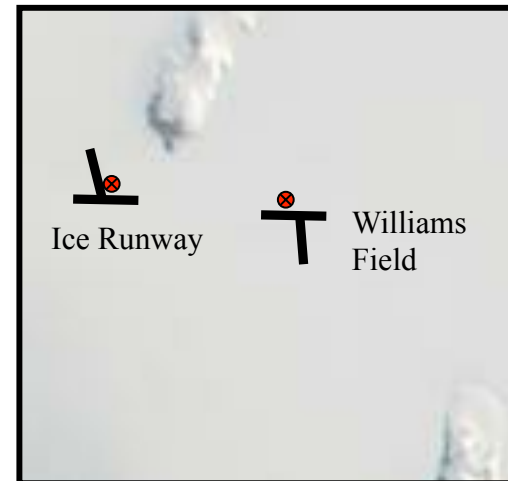
Ice Runway and Williams Field PASOS

PASOS Tower 70
PASOS Tower 71

SMI/AWI Fixed based system
Mounted on Tower (portability/power/heat)

- Pressure
- Winds (RM Young)
- Temp
- Humidity
- Visibility
- Clouds

Issues: Placement, age, non-AWOS certified



Pegasus ASOS



SMI/AWI ASOS Fixed based system
Mounted on sled/enclosure for portability/
power/heat

- Pressure
- Winds (RM Young)
- Temp
- Humidity
- Visibility
- Clouds



Issues: Age (MBL ASOS was recovered for
back-up)

McMurdo 165 PASOS



SMI/AWI Fixed based system
Mounted on Tower (portability/power/heat)

- Pressure
- Winds (RM Young)
- Temp
- Humidity

Augmented with standard 8" range gage
with nepher shield.

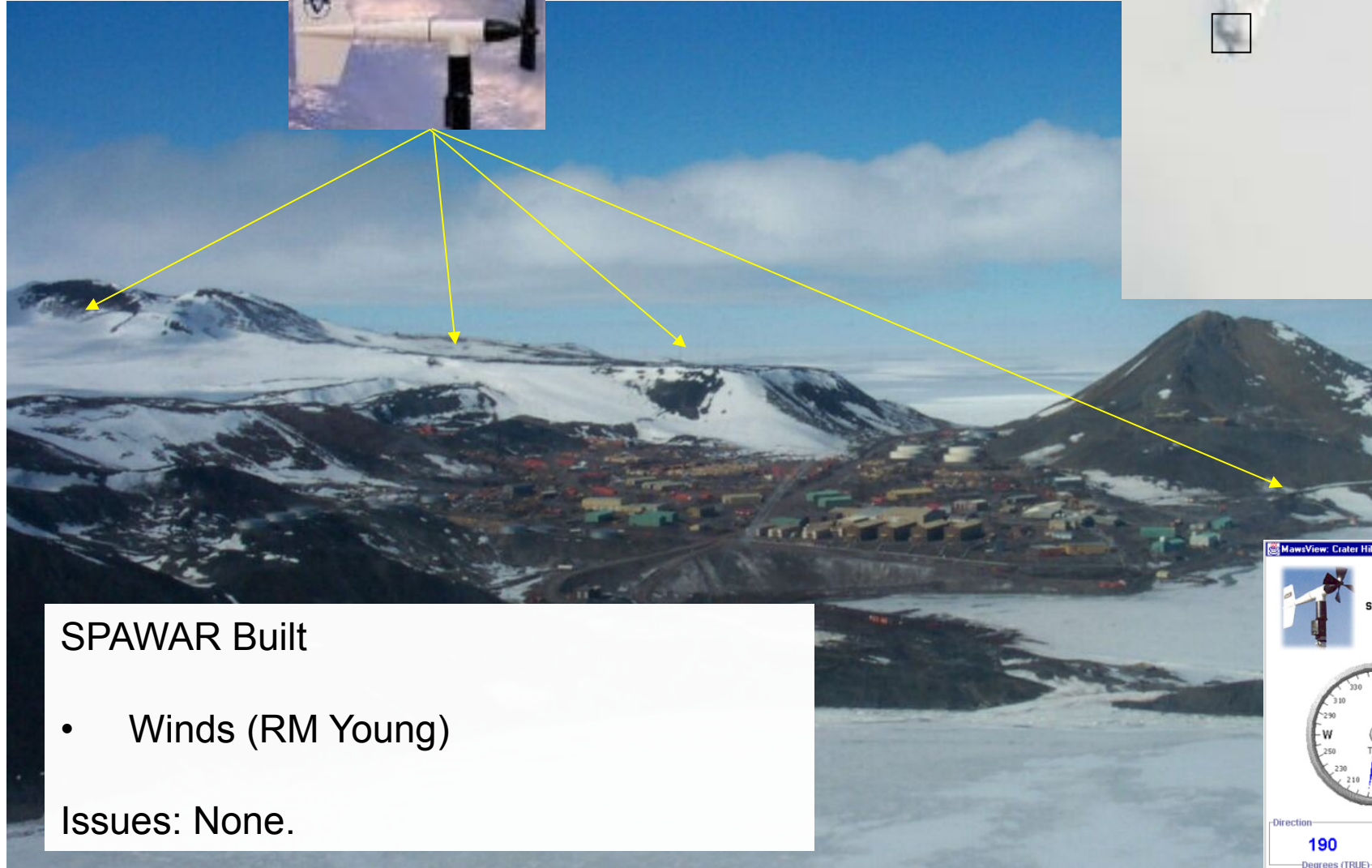
Issues: Location, age, non-operational/
non-science support.





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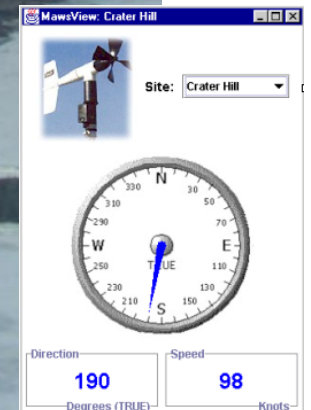
Wind Sensors / Helo Pad Support



SPAWAR Built

- Winds (RM Young)

Issues: None.



Marble Point

SPAWAR Designed Coastal system

- Pressure
- Winds (RM Young)
- Temp
- Humidity
- Visibility
- Clouds

Issues: Communication outages

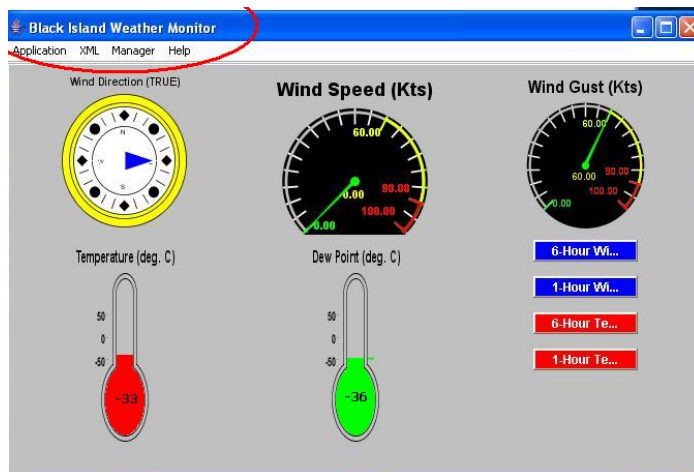


Black Island

SPAWAR Built system

- Winds (RM Young)
- Temp
- Humidity

Issues: None



Odell Glacier



SPAWAR Designed Coastal System

- Pressure
- Winds (RM Young)
- Temp
- Humidity
- Visibility
- Clouds



Remote Camera using Iridium ready for installation

Issues: Camp Closed

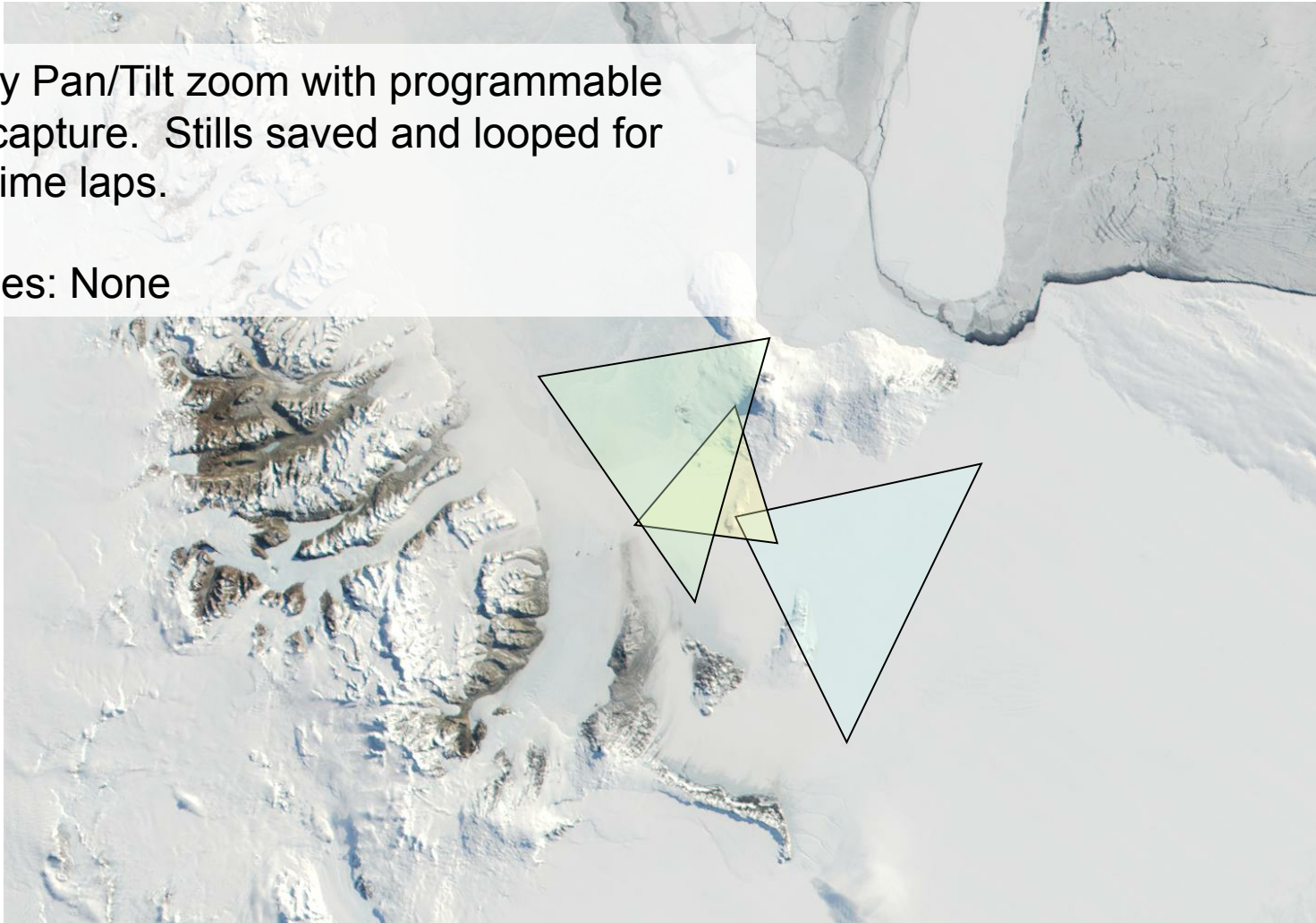


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Cameras

Sony Pan/Tilt zoom with programmable capture. Stills saved and looped for time laps.

Issues: None



Remote Camps



SPAWAR Designed Coastal System

- Pressure
- Winds (RM Young)
- Temp
- Humidity
- Optional – Visibility and clouds



Issues: LED issues in cold. PDA cable not long enough for field camps. Batteries/ power drops system during night hours early and late summer periods

Painting boxes black for increased internal temp, and increasing battery size.
Looking at possible heat strip for local display

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Web Site



<https://ats.spawar.navy.mil/aows>