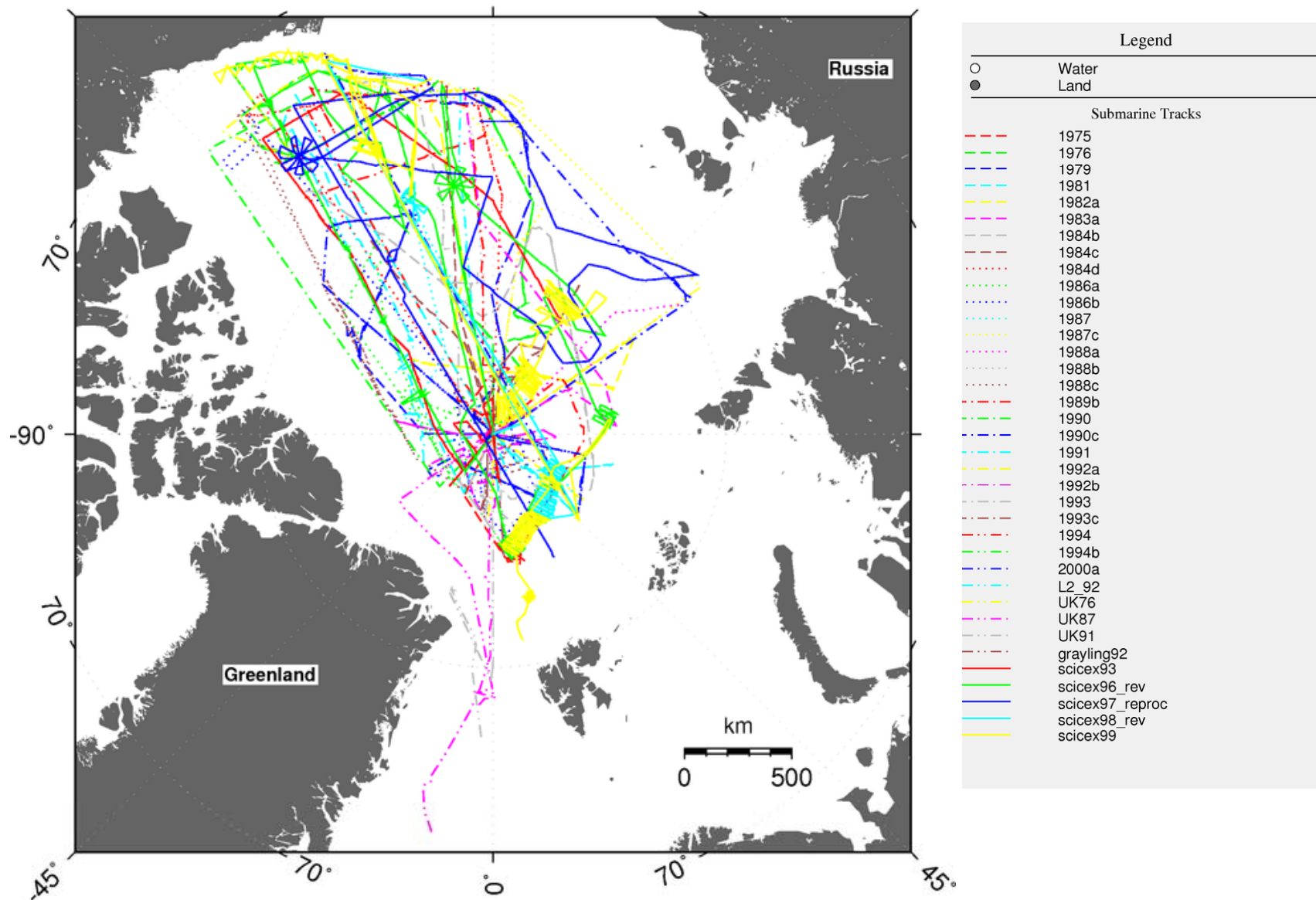
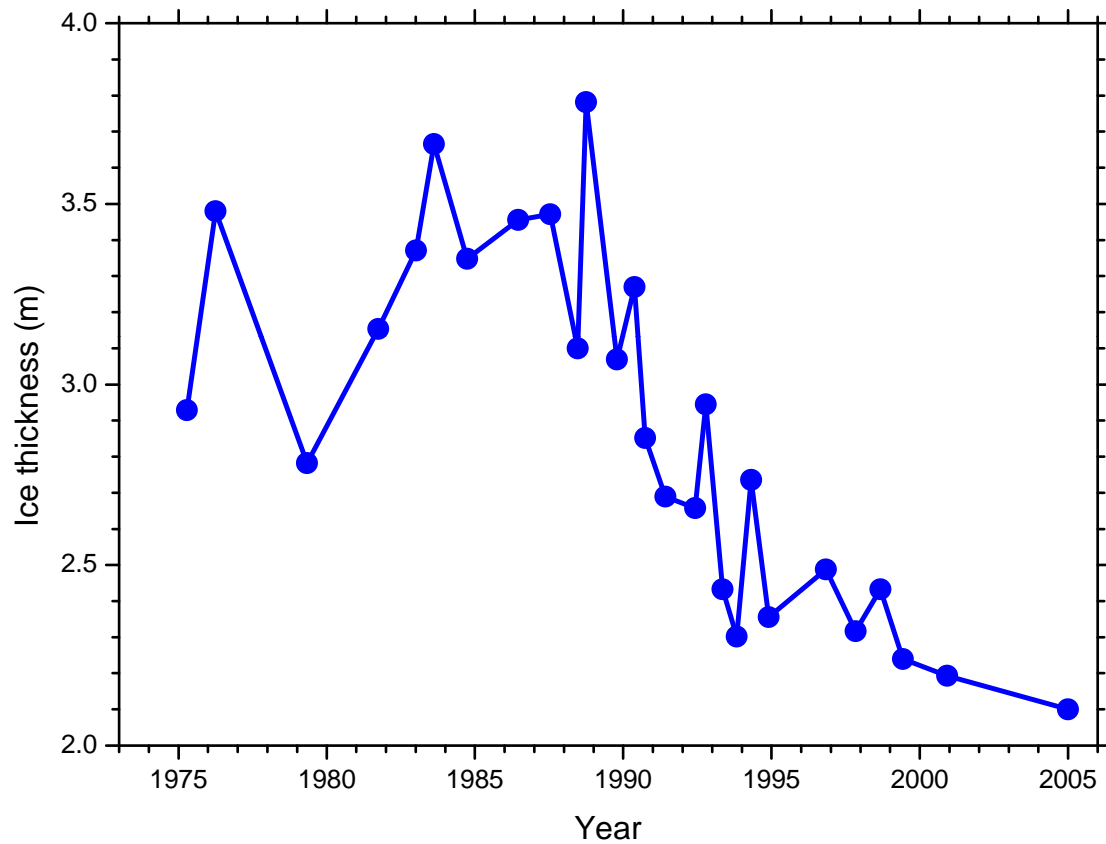


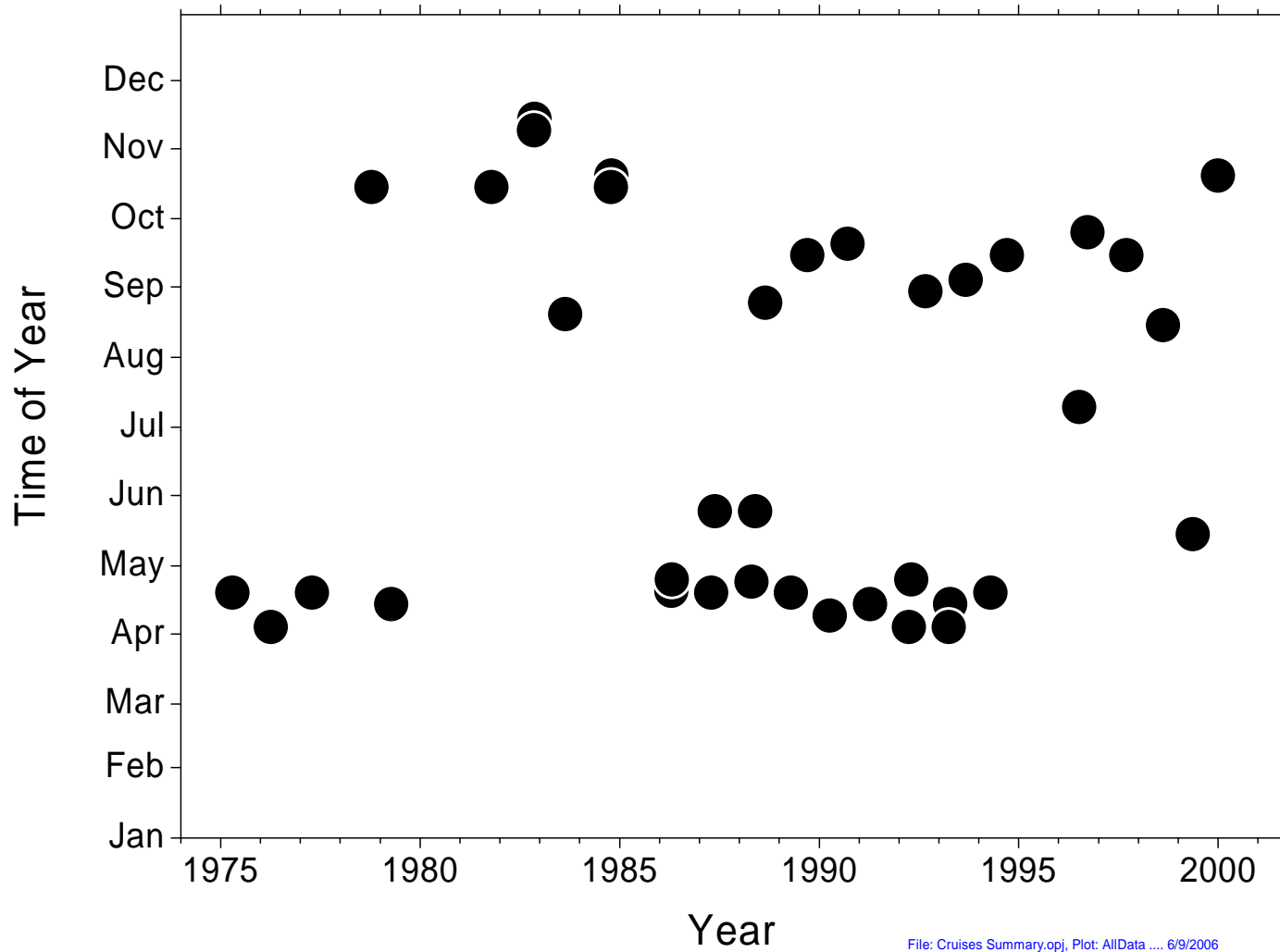
# NSIDC Archived Draft Data





File: sub thickness.opj ... Plot: Graph2 ... 6/28/2010

Time series of arctic sea ice thickness from submarine ice draft data (Rothrock et al., 2008)



File: Cruises Summary.opj, Plot: AllData .... 6/9/2006

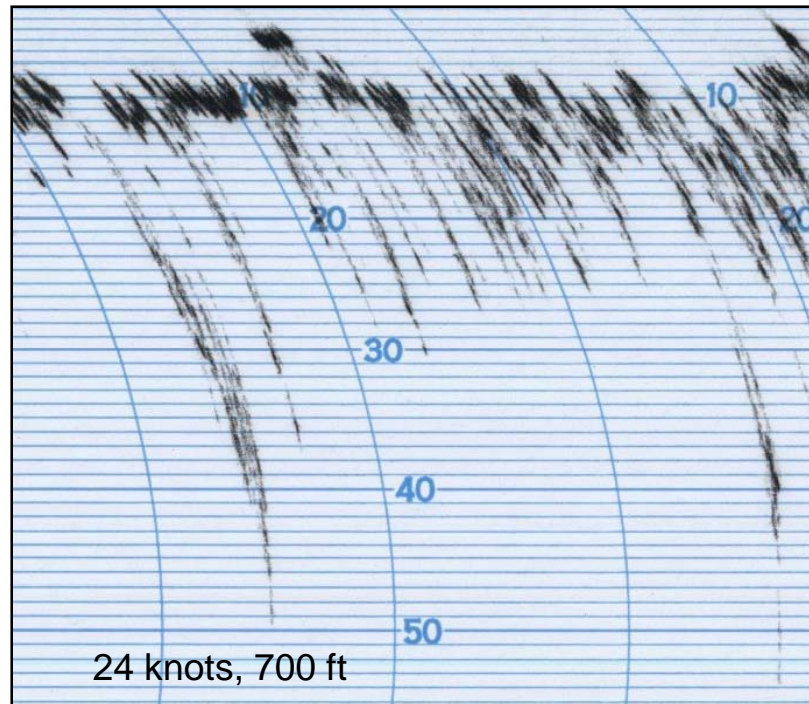
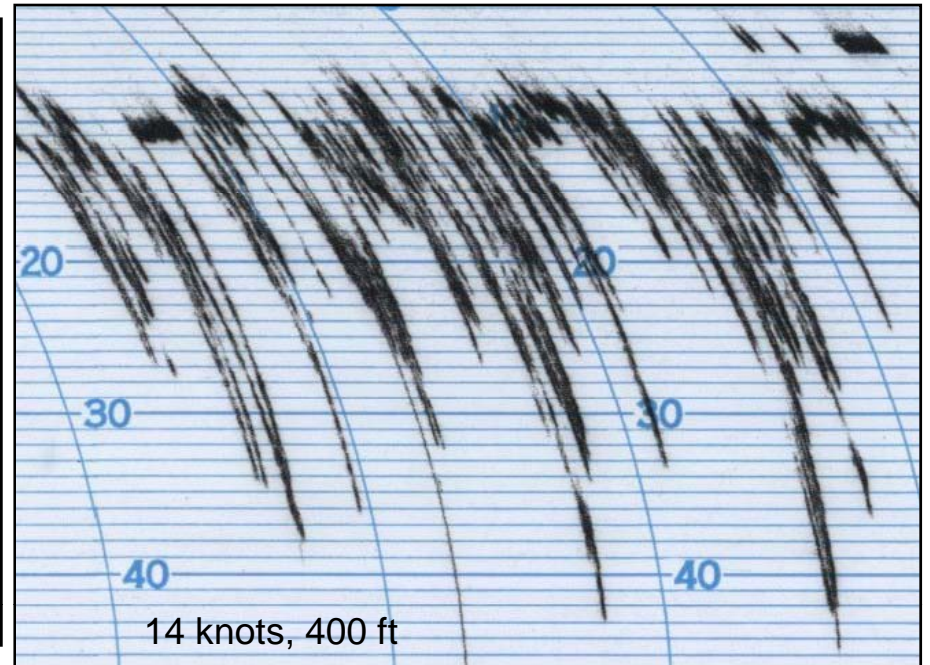
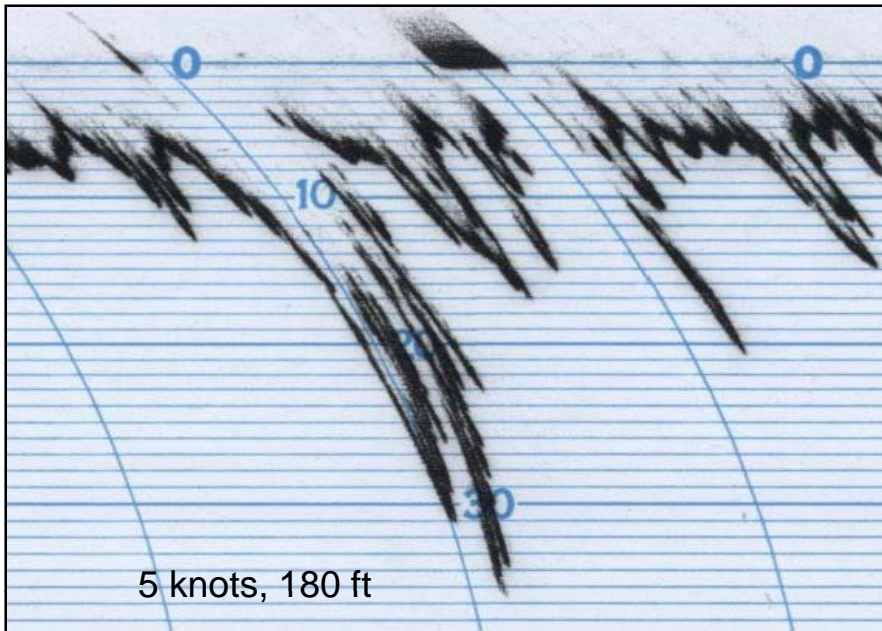
Archived cruises by month

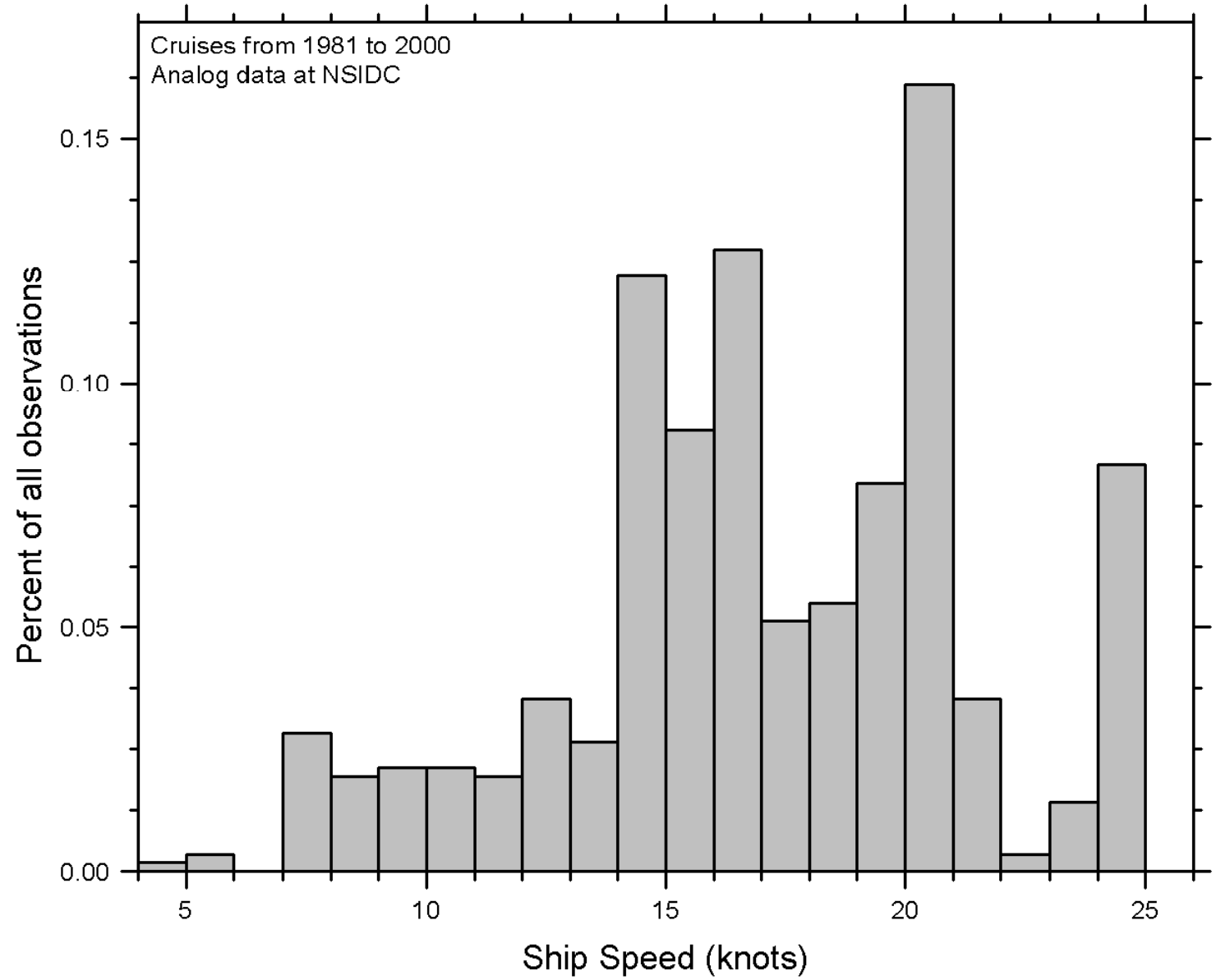
## **Ice Draft Data– Submarine to Archive**

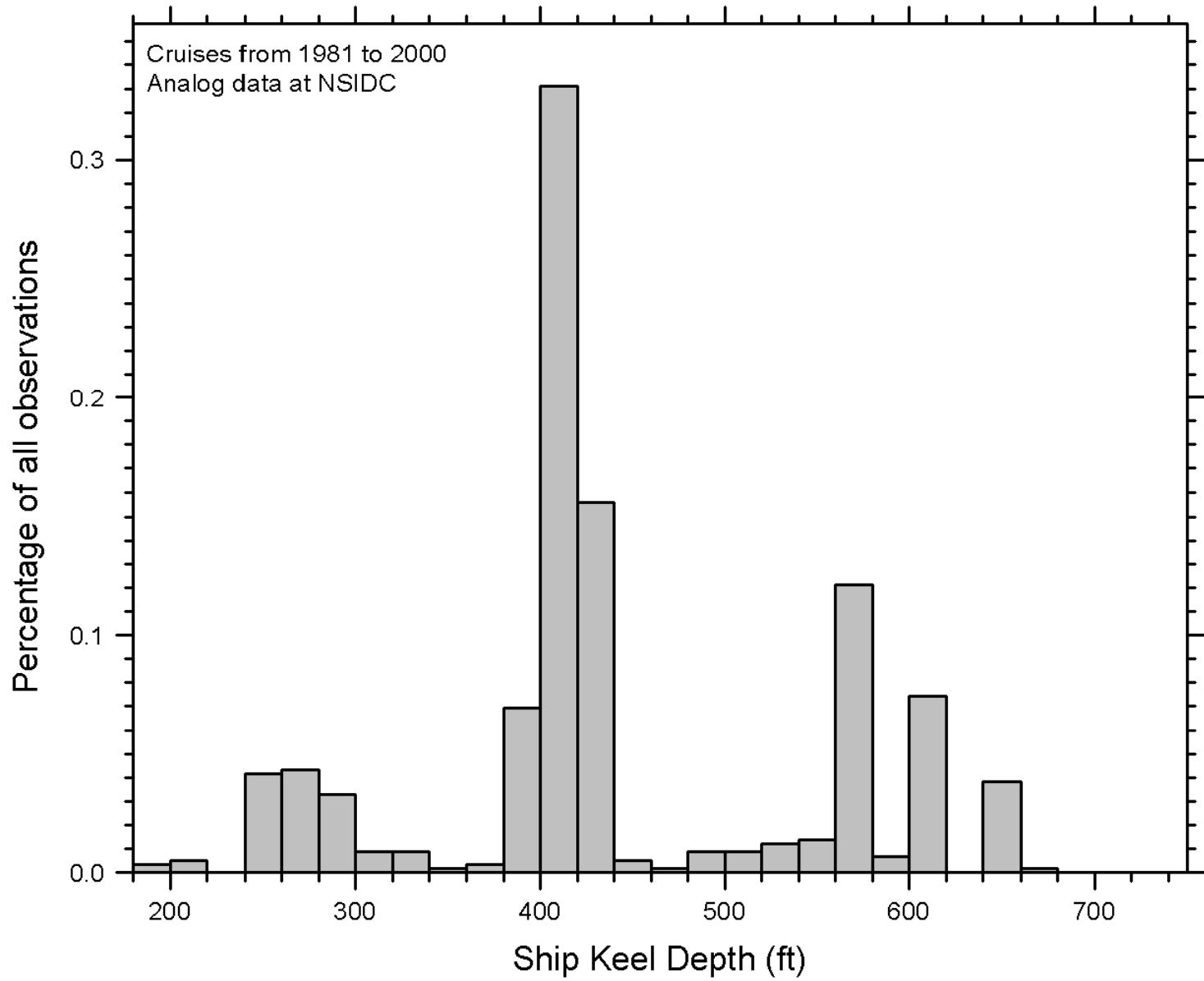
- **Digitize analog profile (OD-84 chart data)**
- **Remove spurious points**
- **Calibrate drafts to sea level**
- **Marry drafts to navigation**
- **Strip out maneuvers/course changes**
- **Generate statistics on segments**

**Ice draft data processing is labor intensive**

**Cost about \$50K per cruise**







## **ICEX - 2009**

- **2 racetrack patterns run at**
  - **180 ft/5 kt**
  - **440 ft/12 kt**
  - **650 ft/24 kt**
- **Wensnahan now funded to process and assess quality of data vs. depth/speed and process transit data**



## **Submarine Classes**

**688 - 25**

**688I – 23**

**Seawolf – 3**

**Virginia – just entering fleet**

## **Topsounder Types**

**OD - 84 (688) - compatible with DIPS**

**BSY-1/BSY-2 (688I & Seawolf)**

**Digital (Virginia & backfits)**

**IKA-PUMA (backfits)**

## **ICEX - 2009**

- **688I with new common digital Common Topsounder**
- **Currently no established way to strip topsounder data from data stream**

# Issues

- **Sustainable support for processing SCICEX SAM and non-SCICEX ice profile data**
- **Establish processing methodology for ice draft data collected by common digital system**