NSF Report

MLSOC, December 2013

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maintaining outlook,

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Many exciting scientific opportunities

OCE and MGS continue to recognize that marine seismic studies contribute in unique ways to new understanding of Earth Systems

Yes, there are notable challenges to managing these facilities, directly and within science programs that use them

- maintaining sufficient funds availability each field proposal cycle
  - minimize out-yr mortgaging
  - trim costs/improve efficiency of MGG-supported infrastructure-
    - (databases, community software, core repositories, OBSIP)
- environmental compliance
- scheduling in support-limited context

We are working to improve our process:

- once a yr field request guidance, OBSIP Management Office, coordinated decisions (Program, scheduling, environmental; potential projects 'outlook')

A few things relatively firm, now

IPS continues to have ship and technician funds for ~180 days of Langseth work per year (less if 3-D seismics planned for a given year)

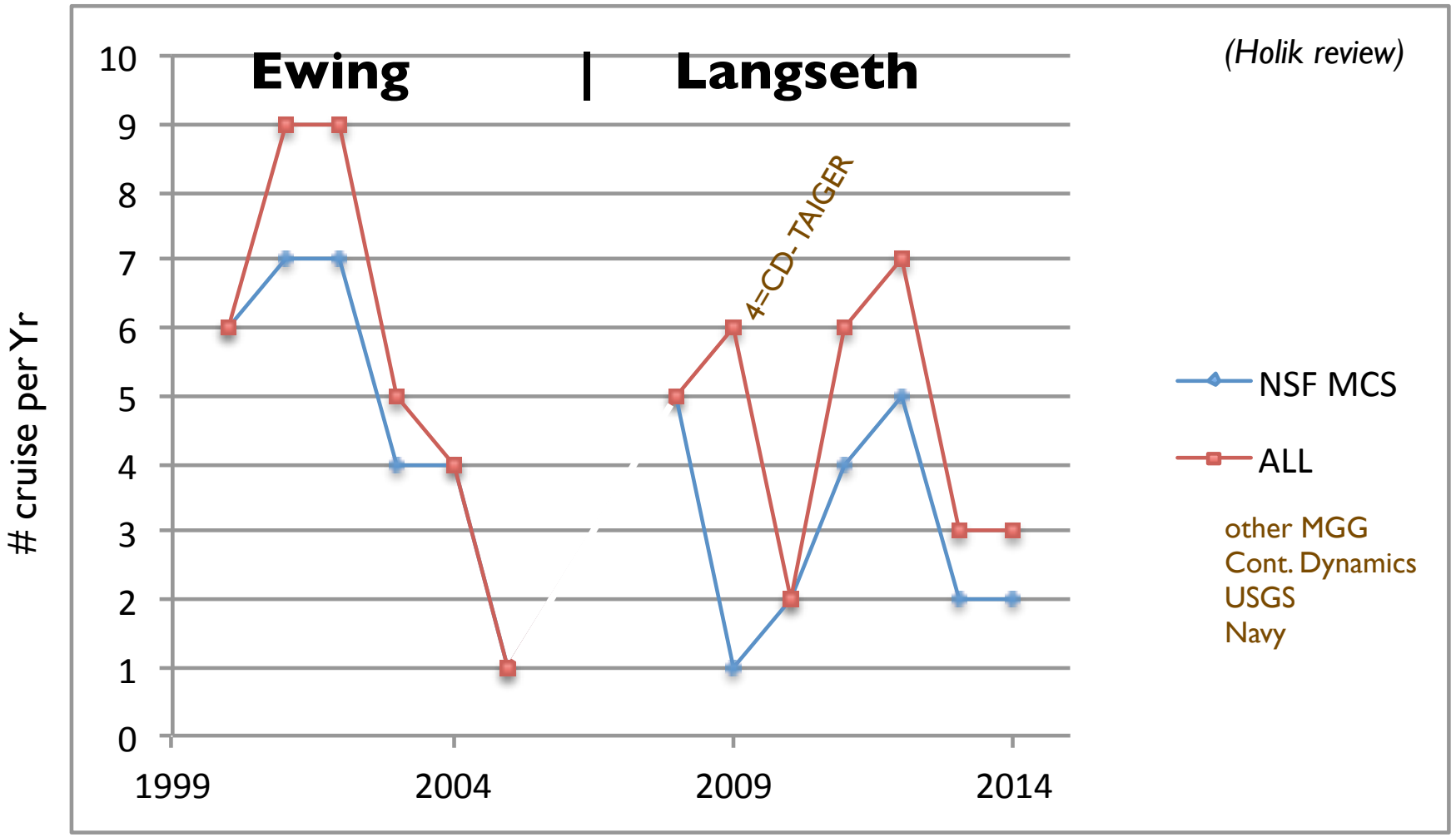
MGG/MARGINS has supported 50-150 days/yr on Langseth since 2008 *(Holik review)*

NSF-supported 2014 schedule appears on the low side of this average

Prospects for 2015- likely slimmer but subsequent year/two look like they could be strong

- combination of scientific readiness, region of highest priority projects, ongoing large geophysics-heavy projects
- 'outlook' regions currently in view
  - Additional Atlantic/Mediterranean region prospects
  - SW Pacific, Eastern Indian Ocean, Central & N Pacific

Seismic Ship Use



Recent MCS Funding
MGG (incl GeoPRISMS) 2008-2013

2042 Total # proposals

316 (15%) seismic proposals (MCS, OBS, hydrophone, onshore; anal & exp)

163 (8%) MCS proposals: 52% of seismic proposals; 82 projects

27-30% annual success rate (by # proposals, slightly lower PI rate)

24 (15%) 3-D MCS proposals

28 (17%) MCS + OBS refraction

24 (15%) portable or hi-res system

39 (24%) analysis of existing data

45 MCS PIs (4.2% of all 2008-2013 PIs)

Points to Consider

We are still learning about the strengths, challenges, and outcomes for Community Experiments

assessment is needed (planning process, acquisition, data provision, pace of analyses & number involved, impact of findings, publications)

just moving into post-acquisition phase for COAST (and Cascadia Initiative); Do have record for IRIS GSN/Passcal/DMC but does specific community matter?

Projects that can (sensibly) leverage other assets/funds could extend the scope of research that NSF supports

Multiple NSF programs have science objectives that can advance via use of MCS

- Marine Geology & Geophysics (MGG)
- Geodynamic Processes at Rifting and Subducting Margins (GeoPRISMS)
- Integrated Earth Systems (IES), Paleo Perspectives on Climate Change (P2C2)
- Polar Programs, Hazard SEES (Science, Engineering and Education for Sustainability)