

# Future MCS Options

## The choices shaping up are the following:

- 1) Keep Langseth operating as is —not likely and/or desirable
- 2) Opt to modify another global ship and put a temporary most likely smaller system as Glosten has shown in their report. *This is always a fallback option but unattractive scientifically.*
- 3) Opt to use only industry and buy what they can afford for \$12-13M or less if possible. WHAT IS POSSIBLE ASSUMING THE FOLLOWING ?

Assuming the following : ~2 MCS 2D Long Offset only (no OBS) /year

OR 1 small 3D or 1 2D with OBS/ year which average out to be about same project cost to NSF assuming reasonably large # of OBS 40-50 or more.

Also assume you would do this in alternating years with two 2D projects one year and a single 3D or large 2D/OBS the next.

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- 2M for Permitting, Contracting, Mammal Observers, etc. and Overhead Costs
  - 1M for auxiliary measurements as add ons.
  - 9-10M available for XX days of 2D with mob/demob/standby/ —Could they get 60-70 days of 2D shooting + 20 days of transit/mob/demob??
  - 10M available for XX days for 3D or a large 2D/OBS program— Could they get one small 3D — 30-40 days or one 2D/OBS + transit/mob/demob ? This assumes NSF provides OBS as part of project for 2D/OBS.
  - Is this budget reasonable and could you find the ship resources to do it with industry on regular ongoing basis?? Is there any savings to be had in this and still do projects on an annual basis.
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- 4) Keep Langseth alive by finding at least \$3M or more/year from other sources or users that would absorb 25 or more % of NSF annual budget. This would be ideal scenario and probably keep Langseth sailing but you need a combination of probably MOU's with other countries (essentially a multi-client academic model) where everyone chips in for data collected, for berths on vessel, or actual charters/ ship barterers.