Citizen Science at the North Pole

Alex Cowan & Lauren Farmer
Polar Tourism
Project Background

Arctic Ocean Floor

Murmansk

North Pole
Project Background
Immediate Results

Ship Observations of Conditions from IceWatch

Ice Watch has received observational reports of ice conditions from several cruises, some of which are summarized below and in Table 3. Data and maps of the cruise data can be accessed at: http://icewatch.gina.alaska.edu. We are expecting reports from the Polarstern and more Lance/N-ICE supply cruises at a later date. August through October we will be receiving further observations from the R/V Healy GEOTRACES campaign and the CCGS Louis S. St. Laurent JOIS cruise.

K/V Svalbard
Observations were recorded during supply cruises to support the R/V Lance during the N-ICE campaign, a drifting station set north of Svalbard. Only observations from the first cruise have been provided to date, however later cruise data will be provided once observers have processed it and completed quality control.

R/V Sikuliaq
Alice Orlich provided observations from the Sikuliaq ice trials cruise in the Bering Sea. Please note, only preliminary data has been provided and the full data set is not available online.

50 Let Pobedy
This is the first year we have received observations recorded by tourists. Tour leaders have been trained in observations and are in contact with sea ice experts, however it should be noted this is their first experience recording these observations. Two cruises, out of four planned for this summer, have reported conditions along a repeating cruise track.

- Roughly equal areas of first year and multi-year ice were encountered, within the central Arctic pack between Franz Josef Land and the North Pole.
- Preliminary reports from leg 3 are rotten ice, extensive towards ice edge at Franz Josef Land, and melt ponds freezing over.

Table 3. Summary of ice thickness, $z$, observed from ship’s bridge during each cruise. The thickness of one or two types of ice, first-year (FY) and multi-year (MY) are given.

<table>
<thead>
<tr>
<th>Ship</th>
<th>Dates</th>
<th>Region</th>
<th>Mean $z$ (cm)</th>
<th>Median $z$ (cm)</th>
<th>Type</th>
<th>Mean $z$ (cm)</th>
<th>Median $z$ (cm)</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>K/V Svalbard</td>
<td>2015/01/12-2015/01/17</td>
<td>N. Svalbard</td>
<td>90</td>
<td>90</td>
<td>FY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 Let Pobedy</td>
<td>2015/07/13-2015/07/26</td>
<td>To North Pole</td>
<td>163</td>
<td>160</td>
<td>MY</td>
<td>86</td>
<td>80</td>
<td>FY</td>
</tr>
<tr>
<td>50 Let Pobedy</td>
<td>2015/07/23-2015/07/26</td>
<td>To North Pole</td>
<td>172</td>
<td>160</td>
<td>MY</td>
<td>91</td>
<td>100</td>
<td>FY</td>
</tr>
</tbody>
</table>
Helicopter Operations
Team Debrief
What’s Next?
Partnering with Tour Operators
Partnering with Tour Operators

Association of Arctic Expedition Cruise Operators

AECO

aeco.no

International Association of Antarctica Tour Operators

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Thank You