

Opportunity Title: Anticipating potential high-traffic regions within the Arctic Ocean

Opportunity Reference Code: IC-16-13

Organization Office of the Director of National Intelligence (ODNI)

Reference Code IC-16-13

How to Apply **Create and release your Profile on Zintellect** – Postdoctoral applicants must create an account and complete a profile in the on-line application system. **Please note: your resume/CV may not exceed 2 pages.**

Complete your application – Enter the rest of the information required for the IC Postdoc Program Research Opportunity. The application itself contains detailed instructions for each one of these components: availability, citizenship, transcripts, dissertation abstract, publication and presentation plan, and information about your Research Advisor co-applicant.

Application Deadline 4/15/2016 6:00:00 PM Eastern Time Zone

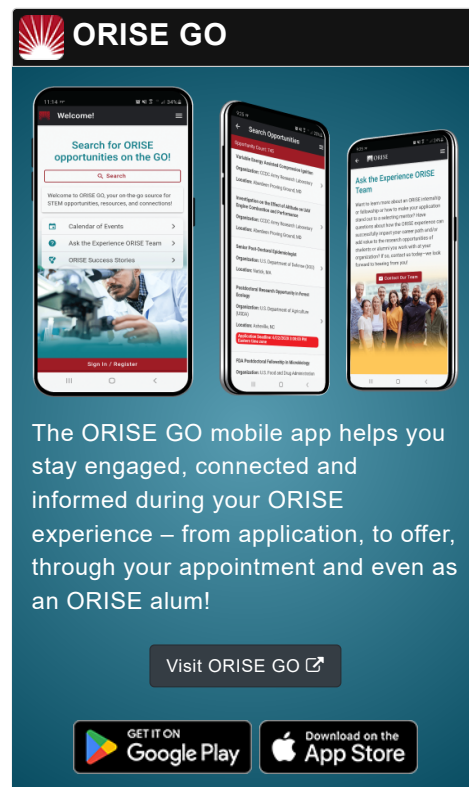
Description Climate models predict decreasing sea ice in the Arctic Ocean in the coming decades. This is expected to result in expanded opportunities for non-icebreaking ships seeking to use the new open water for shipping, natural resource extraction (including fishing), research, and other activities. These increases in Arctic ship traffic will be driven by more than the changes in accessibility. Ship traffic is expected to be driven by economic incentives, social behaviors, and changing infrastructure, while being modulated by significant costs and risks. The goal of this effort is to improve the understanding of the drivers and regulators of changing Arctic vessel traffic on a regional scale and to enable predictive modeling of certain vessel traffic pattern changes in the Arctic.

Example Approaches

Proposals may be focused on geopolitical, socio-economic, or physical environment aspects of the changing Arctic Ocean and Arctic coastal land masses.

A successful proposal could address one or more questions related to the following topics:

- How might international agreements or individual state policies affect potential resource extraction or fisheries?
- Given current assessments of energy resources, how likely is resource extraction in the near future given costs of operations, value of the resources, and projected market supply, demand, and pricing?
- What is the best approach for determining a predictive geospatial relationship among physical environmental changes and behavior probabilities based on economic incentives?

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**Eligibility
Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
 - **Business** (11 )
 - **Chemistry and Materials Sciences** (12 )
 - **Communications and Graphics Design** (6 )
 - **Computer, Information, and Data Sciences** (16 )
 - **Earth and Geosciences** (21 )
 - **Engineering** (27 )
 - **Environmental and Marine Sciences** (14 )
 - **Life Health and Medical Sciences** (45 )
 - **Mathematics and Statistics** (10 )
 - **Other Non-Science & Engineering** (13 )
 - **Physics** (16 )
 - **Science & Engineering-related** (1 )
 - **Social and Behavioral Sciences** (28 )