

Annex I: Arctic Ship Traffic Data (ASTD) Cooperative Agreement

As approved by SAOs in NYC on 6 April 2017

AN ARCTIC COUNCIL FRAMEWORK FOR COOPERATIVE ACTION ON ARCTIC SHIP TRAFFIC DATA SHARING

1. PARTICIPANTS: Any Arctic State is eligible to be a Participant in this Arctic Council Framework for Cooperative Action on Arctic Ship Traffic Data Sharing (“ASTD Framework”).
2. REFERENCES: The Protection of the Arctic Marine Environment Working Group’s [Work Plan 2015-2017](#), the [Arctic Marine Shipping Assessment Report \(2009\)](#), the [Arctic Ocean Review Final Report \(2013\)](#), and the [Arctic Marine Strategic Plan 2015-2025](#).
3. PURPOSE: The purpose of this ASTD Framework is to describe and define the general conditions for the intended sharing of Arctic Shipping Data among the Participants.
 - 3.1. BACKGROUND: The Arctic Ship Traffic Data (ASTD) Project is an initiative of the Arctic Council’s Working Group on the Protection of the Arctic Marine Environment (PAME) and is based in part on the Arctic Marine Shipping Assessment Report (AMSA 2009) and its 2005 shipping database. The purpose of the ASTD Project is to collect information about shipping activity in the Arctic (“Data”) from the Participants to use for traffic trend analyses and related purposes under the realm of the Arctic Council. Project objectives are to develop a long-term, sustainable collection of Arctic shipping activity information consisting of a Data repository that includes ship traffic and related information provided by the Participants and a web application/tool to extract information from the repository, allowing for periodic trend analyses.
 - 3.2. DATA TO BE SHARED: Each Participant intends to provide the Data which it deems to be relevant to this ASTD Framework to the Data repository specified in section 3.1 and to make this Data available to all the other Participants using the technical data exchange network (“the Network”) that is created under this ASTD Framework. It is anticipated that the Data will typically include, but not be limited to, Automatic Identification System (“AIS”) vessel tracking information from SOLAS vessels and other vessels carrying AIS transponders, port arrival/departure information and other pertinent ship traffic data as decided by the Participants. The Data may be provided in real time, from historical data registries, or from aggregated statistical data sources as decided by the Participants, but not presented in real time. The Participants intend to share the Data on a regular basis.
 - 3.3. OWNERSHIP OF DATA: The Participants intend to share the data

described in section 3.2 with each other without limitation so long as used within the scope of the ASTD Project. Nothing in this ASTD Framework is intended to affect any right, title or ownership interest in and to the Data that each Participant may have under its domestic law, nor is it intended to prevent a Participant from sharing the Data it provides under this ASTD Framework with any other entity under whatever terms and conditions it may deem appropriate. Each Participant intends to ensure that any Data it provides under this ASTD Framework does not infringe upon any patent, trademark, copyright or other intellectual property ownership rights and interests.

3.4. USE OF SHARED DATA: Any Data that the Participants make available under this ASTD Framework is intended to be used for purposes of Arctic Council work and for the benefit of the Arctic States including: (i) protection of the marine environment; (ii) safety of navigation, maritime safety and security; (iii) vessel traffic services; (iv) port state control; (v) marine planning; (vi) search and rescue; (vii) accident investigation; (viii) pilotage; and (ix) customs surveillance. The Participants do not intend there to be any commercial use of the data under this ASTD Framework

3.5. ACCESS TO SHARED DATA: The Participants intend that Data is to be accessed and shared only as provided in Attachment One and pursuant to a signed Form for a Standard Arrangement on Access to and Use of ASTD Data (refer to Attachment One). To the extent that any Participant is required by law to make the Data available for any purpose not described in this ASTD Framework and Attachment One, that Participant intends to notify the PAME International Secretariat and all other Participants prior to any such disclosure and to provide reasonable opportunity for other Participants to indicate whether their Data should be withheld from disclosure. Whenever a notification occurs, the Participants intend for the PAME International Secretariat to arrange for the withholding of such Data. Any such disclosure is to take place only in accordance with a signed "data sharing arrangement," in form comparable to the one attached hereto as Attachment Two.

4. ROLES OF THE PARTICIPANTS AND THE PAME INTERNATIONAL SECRETARIAT:

4.1 Each Participant intends to:

- 4.1.1 Obtain whatever authorizations and approvals are necessary to participate in this ASTD Framework and in the Network.
- 4.1.2 Restrict its use and distribution of the Data it receives from the Network in accordance with any and all distribution and restriction policies that may be required by the Participant that provides the source data.

- 4.1.3 Pay its annual pro rata share, distributed evenly among the Participants, of the costs necessary to create, manage, administer and operate the Network. In the event that entities other than Participants make contributions to the costs of constructing, managing, administering and operating the network, each Participant's annual pro rata share will be proportionately reduced by deducting the total amount contributed by these entities in a given calendar year from the total amount that the Participants collectively would otherwise have been asked to contribute that year, and calculating a reduced pro rata share. The PAME International Secretariat will make this calculation. Each Participant's reduced annual pro rata share will be paid in the calendar year following the year in which the contributions from entities other than Participants were received.
 - 4.1.4 Timely remit those funds necessary to construct, manage, administer and operate the Network, as described in Attachment Three, hereto, to the PAME International Secretariat.
 - 4.1.5 Take all actions necessary to ensure the accuracy and integrity of the Data it submits under this ASTD Framework.
 - 4.1.6 Honor all guidelines and reasonable restrictions imposed by the Network Manager with respect to use of the Network. The Network Manager is the Norwegian Coastal Administration.
 - 4.1.7 Abide by all of the provisions of this ASTD Framework for as long as it is a Participant.
- 4.2 The Participants intend the PAME International Secretariat to:
- 4.2.1 provide administrative support for and oversight of this ASTD Framework and the associated technical data exchange that occurs under this ASTD Framework;
 - 4.2.2 administer access to the Network in collaboration with the Network Manager as described in Attachment One; and
 - 4.2.3 receive financial contributions made under section 4.1.4 and transfer those contributions to the Network Manager to cover the costs of constructing, managing, administering and operating the Network.
5. POINTS OF CONTACT:
- 5.1. Each Participant intends to designate one or more "Contact Persons" for purposes of this ASTD Framework and the Network. A list of Contact Persons is shown in Attachment Four, hereto.
 - 5.2. The Participants intend the PAME International Secretariat to maintain an accurate and up-to-date list of names and contact details for Contact Persons.

- 5.3. Any change intended to be made by a Participant to its designated Contact Person(s) is to be submitted to the PAME International Secretariat at the following e-mail: pame@pame.is. The Participants request that the PAME International Secretariat timely notify all Participants of any changes to the list of Contact Persons.
6. OTHER PROVISIONS:
 - 6.1. PRIVACY: The Participants intend to treat any Data submitted to the Network that contains Personally Identifiable Information or otherwise raises any privacy concerns in accordance with their respective national privacy laws.
 - 6.2. REVIEW: The Participants intend to review this ASTD Framework at each PAME Working Group annual fall meeting (PAME-II), or at any other occasion as decided by consensus of the Participants.
 - 6.3. ENTIRE ASTD FRAMEWORK: The Participants intend that this ASTD Framework embodies their entire understanding regarding the ASTD Framework's subject matter.
 - 6.4. INTERNATIONAL LAW: This ASTD Framework represents political commitments of the Arctic States. The Participants do not intend this ASTD Framework to be binding under international law.
7. REVISION/UPDATING: The Participants intend that any modifications or revisions to this ASTD Framework are to be done only by mutual written understanding of the Participants.
8. Nothing in this ASTD Framework precludes the Participants from deciding at a later date to modify or revise it to allow Permanent Participants and Arctic Council Observers to participate in and contribute to this data sharing project at a more in-depth level than the access options described in Attachment Two.
9. PARTICIPATION: Any Arctic State may become a Participant by notifying the PAME International Secretariat in writing and providing a Point of Contact as described in paragraph 3.5.
10. DISCONTINUATION: Any Participant may discontinue its participation in the ASTD Framework by providing at least 30 days prior written notice to all of the other Participants. Discontinuation by a Participant does not affect the ongoing operation of the ASTD Framework. Participants intend for discontinuation of the ASTD Framework to occur only when the Participants mutually decide in writing to do so.

ASTD FRAMEWORK - ATTACHMENT ONE

Sample Form for a Standard Arrangement on Access to and use of ASTD Data

(Refer to paragraph 3.5 of the ASTD Framework)

I. BACKGROUND:

This document outlines the exchange of ship traffic Data in the Arctic through the Arctic Council Ship Traffic Database (ASTD). The ASTD builds on the Havbase platform which is operated by the Norwegian Coastal Administration (NCA) and is compatible with other systems such as the Arctic Spatial Data Infrastructure (Arctic-SDI) platform and the Arctic biodiversity data service. The Data from the ASTD (herewithin referred to as the “System”) will be shared by and among the Arctic States and other entities as set forth in this Attachment and the *Arctic Council ASTD Framework for Cooperative Action on Arctic Ship Traffic Data Sharing (ASTD Framework)*.

The Data will be accessed through the Havbase system which will be adapted and “tailor made” to meet the requirements and needs of the ASTD. Data will be stored on secure and dedicated servers as part of the Network described in the ASTD Framework, for which the NCA is the Network Manager. The ASTD expert group members in coordination with the PAME Shipping Expert Group Co-Chairs and with the concurrence of the PAME Heads of Delegations will decide which users will gain access, and the type of access granted. The PAME International Secretariat will act as administrator for user access.

II. USER ACCESS LEVELS:

There are four access levels to the System as defined in the table below. The Arctic States intend that the PAME International Secretariat will act as the administrator in close collaboration with the Norwegian Coastal Administrations’ Havbase team.

USERS AND ACCESS LEVELS
LEVEL 1: Arctic States that are current on their annual <i>pro rata</i> share financial contributions.
LEVEL 1 access means access to all data in the database for analysis under the auspices of the Arctic Council. The data will include: <ul style="list-style-type: none">✓ UTC timestamp of position report✓ Vessel identity; Maritime Mobility Service Identity (MMSI) number and International Maritime Organization (IMO) ship identification number✓ Latitude and longitude✓ Speed over ground✓ Course over ground✓ Detailed Ship type for each ship sailing, 49 ship types included✓ Emission data for each ship✓ Tonnage,✓ Size✓ Engine data,✓ Tank volumes, and

✓ Anticipated main fuel types

LEVEL 1 data may be accessed only by means of a request to the PAME International Secretariat.

To allow each Participant to withhold Data it has provided under this ASTD Framework as described in section 3.5, the PAME International Secretariat will notify all Participants of each LEVEL 1 request before distributing any data. If a Participant does not object to the inclusion of its Data in what has been requested within 28 calendar days after notification by the PAME International Secretariat, the PAME International Secretariat will download and transmit the requested data once the requester signs a Data Sharing Arrangement (Attachment Two).

If within 28 calendar days after notification by the PAME International Secretariat of a LEVEL 1 request a Participant objects to the inclusion of its Data in what has been requested, its Data will not be included in the requested data, which will be downloaded and transmitted by the PAME International Secretariat as described above.

LEVEL 2: Arctic States that are current on their annual *pro rata* share financial contributions.

LEVEL 2 provides access to the same data as is available under LEVEL 1 *except* that vessel identity data (MMSI, IMO ship identification number and ship name) is not included.

The distinction between LEVEL 1 and LEVEL 2 Access is that under LEVEL 2 Access, the Arctic State receives a username and password from the PAME International Secretariat to access the database directly.

To allow each Participant to withhold Data it has provided under this ASTD Framework as described in section 3.5, the PAME International Secretariat will notify all Participants of each LEVEL 2 request before providing the requestor with a username and password. If a Participant does not object to the inclusion of its Data in a LEVEL 2 request within 28 days after notification by the PAME International Secretariat, the PAME International Secretariat will provide the requestor with a username and password to access the database once the requester signs a Data Sharing Arrangement (Attachment Two).

If within 28 days after notification by the PAME International Secretariat of a LEVEL 2 request a Participant objects to the inclusion of its Data in what has been requested, its Data will not be included in what the requestor will be able to access after signing a Data Sharing Arrangement (Attachment Two) and receiving a username and password from the PAME International Secretariat.

LEVEL 3: Arctic States that are not current on their full annual *pro rata* share financial contributions; Permanent Participants; Arctic Council Subsidiary Bodies; Arctic Council Observers that have made a financial contribution of an amount decided by PAME member governments to the administration, maintenance and operation of the Network.

LEVEL 3 access means access to the same data as is available under LEVEL 2 *except* that ship type information is aggregated into 13 ship types instead of 49 ship types.

The PAME International Secretariat will notify all Participants of each LEVEL 3 request. LEVEL 3 access may be granted only if there is consensus to do so among all Participants. If

no Participants objects to the LEVEL 3 request within 28 calendar days after notification by the PAME International Secretariat, the requestor will receive a username and password after it has signed a data sharing arrangement (Attachment Two)

A Participant may request LEVEL 3 access on behalf of an accredited academic institution or other recognized research entity under the terms and conditions described in the ASTD Framework and this section, the signing of a data sharing arrangement (Attachment Two), and the payment of a financial contribution by the academic institution or research entity in an amount to be decided by PAME.

LEVEL 4: General public, open viewing online.

Level 4 access means access that is available to the general public online. No data can be downloaded with Level 4 access; only limited high-level aggregated information is available for viewing.

ASTD FRAMEWORK - ATTACHMENT TWO
SAMPLE OF A DATA SHARING ARRANGEMENT

<u>Requester</u>	<u>Data Provider</u>
Agency Name:	Agency Name:
Data User:	Custodian:
Title:	Title:
Address:	Address:
Phone:	Phone:
E-mail:	E-mail:

I. PURPOSE

In this section, both signatories are to state in non-technical language the purpose(s) for which they are entering into the data sharing arrangement, i.e., how the Data will be used, what research or studies will be performed, or what the desired outcomes are perceived to be as a result of obtaining the Data. The Data may only be used for research and/or analytical purposes as stipulated in paragraph 3.4 of the ASTD Framework. As provided in paragraph 3.4 of the ASTD Framework, Participants do not intend there to be any commercial of the Data.

Any and all Data shared under this Arrangement is subject to all applicable requirements regarding privacy and confidentiality that are described herein.

II. PERIOD OF ARRANGEMENT

The period of arrangement extends from _____ to _____

III. JUSTIFICATION FOR ACCESS

In this section, the requestor provides justification under the terms and conditions of the ASTD Framework for access to the Data

IV. DESCRIPTION OF DATA

In this section, the signatories provide specific detailed information concerning the Data to be accessed or shared.

V. METHOD OF DATA ACCESS OR TRANSFER

In this section, a description of the method of Data access or transfer is provided.

VI. LOCATION OF MATCHED DATA AND CUSTODIAL RESPONSIBILITY

The signatories understand that one Agency/body will be designated as “Custodian” of the file(s) and will be responsible for the observance of all conditions for use and for establishment and maintenance of security protocols as specified in this arrangement to prevent unauthorized use. Where and how the Data will be stored and maintained will also be specified in this section.

Each signatory represents and warrants further that, except as specified in an attachment or except as authorized in writing, that such Data is not to be disclosed, released, revealed,

showed, sold, rented, leased, loaned, or otherwise have access granted to the Data covered by this arrangement to any person. Access to the Data covered by this arrangement is to be limited to the minimum number of individuals necessary to achieve the purpose(s) stated in this section and to those individuals on a need-to-know basis only.

However, any aggregated data products that are used for assessments, analysis and other relevant reports may be shared and should be accessible to Arctic States and the PAME International Secretariat for other usages.

Any use of Data from the Arctic Ship Traffic Database is to be referenced accordingly.

VII. CONFIDENTIALITY

The requestor commits to establishing appropriate administrative, technical, and physical safeguards to protect the confidentiality of the Data and to prevent unauthorized use of or access to it.

VIII. DISPOSITION OF LEVEL 1 DATA

The requestor and its agents are to destroy all confidential information associated with actual records as soon as the purpose(s) of the project have been accomplished and notify the PAME International Secretariat and its dedicated contact person. When the project is complete, the requester is to:

1. Destroy all hard copies containing confidential data;
2. Archive and store electronic data containing confidential information off line in a secure place, and delete all on line confidential data; and
3. Erase or maintain in a secured area all other data.

IX. RESOURCES

The types and number of personnel involved in the Data sharing project, the level of effort required, as well as any other non-personnel resources and material, which are required, are to be listed here.

X. NONCOMPLIANCE

Any noncompliance with this arrangement may result in immediate termination of this arrangement, immediate suspension of access to Data, and the automatic denial of any future requests to access Data. If access to Data is suspended, no refund or reimbursement will be made of any previous financial contribution.

XI. SIGNATURES

In witness whereof, the PAME Chair is designated to execute this arrangement effective with this signing for the period set forth in Article II.

(Name)

(Title)

(Date)

**ASTD FRAMEWORK - ATTACHMENT THREE
NETWORK COSTS**

ESTIMATED PRO-RATA SHARES

Currently estimated annual Network costs (denoted in U.S. dollars), including the voluntary annual *pro rata* share for each Participant’s financial contribution, and are set forth in the table below.

	Timeframe				
	Year 1	Year 2	Year 3	Year 4	Year X
Development costs:	134.000				
Annual running costs:		28.000	28.000	28.000	28.000
Total estimated annual costs:	134.000	28.000	28.000	28.000	28.000
<i>Estimated annual costs per Participant:</i>	<i>19.000</i>	<i>4.000</i>	<i>4.000</i>	<i>4.000</i>	<i>4.000</i>
<i>Total costs after 4 years of operation:</i>				<i>246.000</i>	
<p><i>*Norway’s yearly contribution is deducted accordingly as requested by Norwegian Coastal Administration, to simplify the cost sharing of the system. Norway has operated and developed Havbase for several years and will continue to maintain and improve the system which will benefit this project with continual and additional costs for Norway. However, Norway will pay its equal share of the costs as a member State of the Arctic Council but as a measure to simplify the paying procedure.</i></p>					

Annual Running Costs:

Running costs include administration, data storage, maintenance, operation, change and update of hardware and other related aspects. It will also cover license fees and upgrades to key software components when technology is outdated. Current estimated total annual running costs are \$28.000 USD.

ASTD FRAMEWORK - ATTACHMENT FOUR
DESIGNATED CONTACT PERSONS

Country	ASTD Designated Contact Persons	ASTD Designated Technical Experts
USA	Peter Oppenheimer Chief, International Section Office of General Counsel National Oceanic and Atmospheric Administration Peter.Oppenheimer@noaa.gov Tel: +1 202-482-0032	Brian Page US Coast Guard – Office of Communication and Sensors Capabilities (CG-7611) Robert.B.Page@uscg.mil
Norway	Anja Elisenberg Senior Adviser Ministry of Climate and Environment ae@kld.dep.no Tel: +47 22245806	Jon Arve Royset Senior Advisor Norwegian Coastal Administration jon.arve.royset@kystverket.no Tel: +47 37019760 Mobile: +47 90137505
Kingdom of Denmark	Pernille Palmelund Sørensen (SFS) Head of Section Danish Maritime Authority Maritime Regulation and Legal Affairs PS@dma.dk Tel: +45 72 19 63 12 Mobile: +45 91 37 63 12	Mads Bentzen Billesö Danish Maritime Authority MCB@dma.dk Tel: +45 9137 6329
Canada	Drummond Fraser Transport Canada drummond.fraser@tc.gc.ca	Patrice Côté Transport Canada Patrice.Cote@tc.gc.ca
Finland	Anita Makinen Finnish Transport Safety Agency anita.makinen@trafi.fi	Kaisu Heikonen Finnish Transport Agency kaisu.heikonen@fta.fi
Iceland	Helga Jónsdóttir Ministry for the Environment and Natural Resources helga.jonsdottir@uar.is	Greipur Gísli Sigurðsson Icelandic Road and Coastal Administration (IRCA) ggs@vegagerdin.is
Sweden	Jessica Nilsson Swedish Agency for Marine and Water Management jessica.nilsson@havochvatten.se	Johan Winell Swedish Maritime Administration johan.winell@sjofartsverket.se