AUSTRALASIAN
MARINE PILOTS INSTITUTE

POSITION STATEMENT

Title: Ethical Use of Pilotage Performance Data

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1. Preamble

> *"The use of historical navigation data recorded by ports is an increasingly widespread practice amongst the government bodies responsible for safety investigations around the world".*
>
> ANTONIO DI LIETO – "DILIGENT PILOTAGE – LESSONS LEARNED FROM THE JOLLY NERO" 2022

> *"Whatever way pilotage is conducted; it has to be able to withstand the scrutiny that is possible post occurrence with today's technology".*
>
> RAVI NIJJER – AMPI PILOTAGE & PORT LOGISTICS CONFERENCE 2019

1.1. It is recognised that in the age of digital information and big data, a vast amount of pilotage related data and information is available, that can be readily accessed and used for a wide range of purposes.

1.2. Data sources include those obtained from AIS, PPU, VDR, VTS, VHF, video and audio recordings and any other data sources associated with the planning, monitoring, and execution of acts of pilotage.

1.3. Pilotage performance data has the potential to provide valuable insight into pilotage operations and to assist in developing an organisations Pilotage Operations Quality Management System as well as aid in Training and Port Development.

1.4. Pilotage performance data when misused, also has the potential to instil fear, shame and mistrust within a pilotage group and become a source of psychosocial stress within a pilotage organisation.

1.5. AMPI promotes the concept of **Just Culture,** a concept related to systems thinking that emphasises that mistakes are generally a product of faulty organisational systems, procedures, and management culture, rather than solely brought about by the person or persons directly involved. In a **Just Culture**, after an incident, the question asked is, *"What went wrong?"* rather than *"Who caused the problem?"*

1.6. The ethical use of pilotage performance data means that such data must be carefully managed and within the framework of a **Just Culture** to ensure the full benefit of data analysis is achieved.

1.7. The aim of this paper is to provide guidance on how pilotage performance data can be used ethically and in a psychologically safe manner to enhance operational safety and efficiency as well as contribute to the protection of the marine environment for all acts of pilotage.

2. Position

2.1. This position paper is for the attention of pilotage regulators, port authorities, pilotage service providers and marine pilots.

2.2. The AMPI position on the ethical use of data is that parties involved in the provision, management or regulation of marine pilotage should develop policies which describe the use of pilotage performance data, providing a balance between the benefits of safety and accountability. The policy should be developed within the framework of a **Just Culture** and where judgements are made in context and with due regard for the circumstances and conditions at the time.

2.3. Policies should be jointly developed by pilots, pilotage service providers, port authorities and/ or regulators so that the perspectives and desired outcomes of all parties are considered and balanced.

2.4. Such policies should be drafted with the following in mind:

i. Policies should be in accordance with local legislation and regulations and with regards to confidentiality and privacy requirements.

ii. Policies should contain clear procedures for the means of analysing and reviewing the data. The use of data analysis tools must be underpinned by a robust safety management system and a **Just Culture**.

iii. The objectives for using pilotage performance data should be clearly defined so that all parties understand the purpose of the data collection.

iv. Performance criteria should be established by senior marine pilots and other stakeholders, based on historical performance of pilotage in the port. Performance criteria shall clearly define limits, safety margins and no-go areas that are jointly agreed and clearly communicated to all parties to the data use policy.

v. Review processes should be conducted in context, without undue reliance on the benefit of hindsight and with due regard for the circumstances and conditions present at the time the data was collected.

vi. Where reviews of pilotage performance data are carried out, these should include contributions by the pilots involved in generating the data (or their peers as nominated

by the pilotage service provider) as well as other appropriate stakeholders, to reach agreed safety outcomes and improvements.

vii. Where voice data is collected, review of such data should be for the purpose of incident investigation only. Where otherwise required, voice data recordings should only be reviewed with the express permission of the person(s) recorded and in accordance with local or federal legislation.

viii. Employment policies requiring pilots to waive their right to refuse the use of voice data for anything other than incident investigation are considered unethical.

ix. Policies should contain instructions on who may access pilotage performance data and to what extent. As far as possible, data used for trend analysis should be anonymised so that no individual pilot may be identified by the data.

2.5. It is recommended that organisations establish a Data Use Memorandum of Understanding (see Appendix 1.). Where such relationships exist, the MOU is to be made between the pilots and the organisation/ authority/ regulator.

Appendix 1 - Memorandum of Understanding Example

1. This Memorandum of Understanding (MOU) is made between:

   _____and_____

   and applies to the use of Pilotage Performance Data in pilotage operations in following port(s)/ regions:

   - *Port 1 / Region*
   - *Port 2 / Region*
   - ...

2. This MOU relates to the ethical use of pilotage performance data in the form of:
   - *Data source 1*
   - *Data source 2*
   - ...
3. Pilotage performance data gathered during pilotage operations in the port(s) listed in 1 above shall be only accessed by the following roles or persons:
   - *Person 1 – Role - Organisation*
   - *Person 2 – Role – Organisation*
   - ...
4. Pilotage performance data is collected and used for the following purposes:
   - *Purpose 1*
   - *Purpose 2*
   - ...
5. Performance Criteria – the following is agreed by all users:
   - System Parameters are defined in Table 1 *(see example table for suggested layout)*
   - *Criteria 1*
   - *Criteria 2*
   - ...
6. Incident Investigation Principles

   All parties to this MOU agree that incident investigations using pilotage performance data are carried out following Just Culture principles.
7. Data Anonymity

   All parties to this MOU agree that date used for risk assessment and reporting, and performance monitoring shall be anonymised.
8. This MOU is dated from *Date of commencement* and supersedes all previous Data Use Memoranda of Understanding.

System Parameters Table example

Movement Description (e.g. Inbound, Outbound)								
Location	**SOG**			**Swept Path**			**ROT**	
	Optimal	**Tagged**	**Outlier**	**Optimal**	**Tagged**	**Outlier**	**Optimal**	**Tagged**
Mud Flat Bend	7.0 – 11.0	> 11.0	>12.0	Within corridor	Within safety margin	> 50% of safety margin used	Port > 20° < 30°	Port < 20° > 30°