RH + MV, 7 July 21

TAS Code of Practice Project Webinar, 5 July 21

Question and Answers

Question	Response
With the process I don't see any plan on how to gain adoption of the code of practice by Australian industry - simply releasing the plan (if we build it) does not gain adoption (they will come). Lloyds and DNV can leverage their insurance presence, whilst others can leverage their regulatory presence. How will you gain acceptance?	* We have relationships with many of the commercial operators of autonomous vessels in Australia and are actively seeking their input. We will seek to work with a few of these operators towards the end of the year to apply the draft Code to different vessel types, and then share the lessons learned. *Information on the Code is also being dispersed through the AAUS (Australian Association for Unmanned Systems), which is the primary representative body for autonomous systems in Australia. *We are also working closely with AMSA on the Code, and they can mention the Code to operators seeking certification *Ultimately the Code is voluntary
Can you please clarify AMSAs relationship with this TAS process? Specifically, is it anticipated AMSA will look to implement the recommendations arising from the exercise or rather inform their own process.	*We have an excellent relationship with AMSA. I (Rachel) worked at AMSA for 8 years, and am actually on extended leave to deliver the NASF-P project at TAS. We are holding a series of workshops and more targeted meetings with AMSA to ensure the Code aligns with their expectations, and they are comfortable integrating it into the regulatory framework to the degree possible. *Our intent is that operators can voluntarily comply with the Code, and provide evidence of same to AMSA as part of the application process, and this will indicate to AMSA that best practice has been/is being followed. *The Code is iterative, and could end up being integrated into the NSCV in the future.
While Defence may not be subject to civil regulation, there is still a need for a code of practice to help establish an approach to development of Defence vessels. How can Defence developmental practice be supported by this effort?	*We absolutely agree, and have a good working relationship with Warfare Innovation Navy and DST. We are supporting them with our work where possible. *The Code is intended to represent best practice, and so should be informative for Defence also.
Hi. Thank you for a fantastic presentation. Do any of the codes break out the difference between surface and subsurface operation? Is there any variance in what is considered to be a vessel in the autonomous space? The standards snapshot emphasise	*Only the LR Code addresses the issue of sub-surface vessels. The UK for MASS does not encompass sub-surface vessels, and the DNV Guidelines focus predominantly on surface vessels. However, the LR Code requirements are high level and perhaps we can provide more meaningful requirements on this issue in the Australian Code. *What is a 'vessel' is defined by Australian law, but we can establish tailored 'light touch' requirements for

COLREGs. Is the general inability to do this in existing underwater platforms addressed?	autonomous 'vessels' that are more appropriate categorised as marine equipment.
Is the code envisaged to cover MUMS or only remote/autonomous? *MUMS = crewed and uncrewed; manned and unmanned maritime systems. Important in the adoption of some classes of UVS, especially for Defence.*	*It is intended to cover both, in order to be relevant to the kinds of autonomous and remotely operated vessels entering the Australian fleet
Thanks for preso, are you undertaking any liaison with MNZ to generate a TT code?	*We have not liaised with MNZ as yet, but it is a good idea to do so. We will take this on board.
Require more granularity with size and weight. Vessel up to 2 metres, up to 5 metres, etc. Vessels which do not pose a threat to shipping or other boats should be exempt and have very basic rules.	*Noted. One of the goals of the Code is to identified requirements scaled with risk. What fits in each risk category, and the requirements that apply to each category, will be discussed at the workshops.
Given the emphasis on developing a code for sub-12m uncrewed maritime systems, what compromises is this introducing into the code for those developing systems larger than 12 m?	*The intent is to provide tailored requirements for smaller vessels, as well as appropriate requirements for larger vessels. *Having requirements tailored to smaller vessels should not compromise the requirements for larger vessels, which will be much closer to the requirements contained in the National Standard for Commercial Vessels and in the available Codes and Standards reviewed. *This 'categorisation' of vessels is similar to AMSA's current approach of treating smaller vessels operating close to shore, with only a small number of persons onboard, differently to higher risk vessels.
Is defining a robotic platform as marine equipment going to work if it is deployed from the shore and not launched from or housed on a larger commercial vessel?	* What fits in each risk category, and the requirements that apply to each category, will be discussed at the workshops. However, at this point we do not see 'launched from a parent vessel' as a necessary requirement for an object to be classified as 'marine equipment'.
"not capable of inflicting significant damage or causing significant safety risks" - but to what? Some of the ROV could still do a reasonable amount of damage and pose a safety risk if a recreational boat hits them. (more a comment that there is a need to set the context of the risk assessment).	*Agree. There will need to be some requirements that apply to even the lowest risk category – autonomous marine equipment. However, these requirements could be operationally focussed rather than design/construction/survey/testing requirements.

A point for discussion. The need for support vessels/operators etc defeats a primary driver for system autonomy. I suggest we need to work towards an approach in which low risk operations can be conducted independent from any human operator.	*Noted. What fits in each risk category, and the requirements that apply to each category, will be discussed at the workshops. We expect and welcome robust discussion at the workshops on the appropriate requirements.
At the moment we are doing autopilots for all types of vehicles, we are currently doing research activities. How do we currently operate within the current law?	*We can point you towards the AMSA website for the current requirements for commercial vessels which operate domestically. (https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels)
Can you share a list of the operators consulted during this process?	*Yes, we will be publishing a Stakeholder Consultation Report, which will include the list of consultation activities undertaken and a list of stakeholders consulted. (Comments made by stakeholders will not be individually identified).
How do you become an operator?	*We can point you towards the AMSA website for the current requirements for commercial vessels which operate domestically. (https://www.amsa.gov.au/vessels-operators/domestic-commercial-vessels)
Should we focus more on certifying the IT/control systems on the vessel, rather than surveying the physical vessel, as it is the IT/control systems which will have the greatest impact on safety outcomes?	*For smaller, lower risk vessels, yes we agree that we need to focus more on the control systems and how they are verified, than the physical attributes of the vessel. For larger vessels, including those which carry some crew (or even passengers in the future), surveying the physical vessel will remain important – although verifying the control systems will also be vital. These issues will be worked through at the workshops.