



20th IALA Conference 2023 Rio de Janeiro - Brazil

Concrete concepts in a virtual environment Moving VTS training 'online'

**Jillian Carson-Jackson, FNI, FRIN
Immediate Past President,
The Nautical Institute**



Concrete concepts in a virtual environment – moving VTS training ‘online’

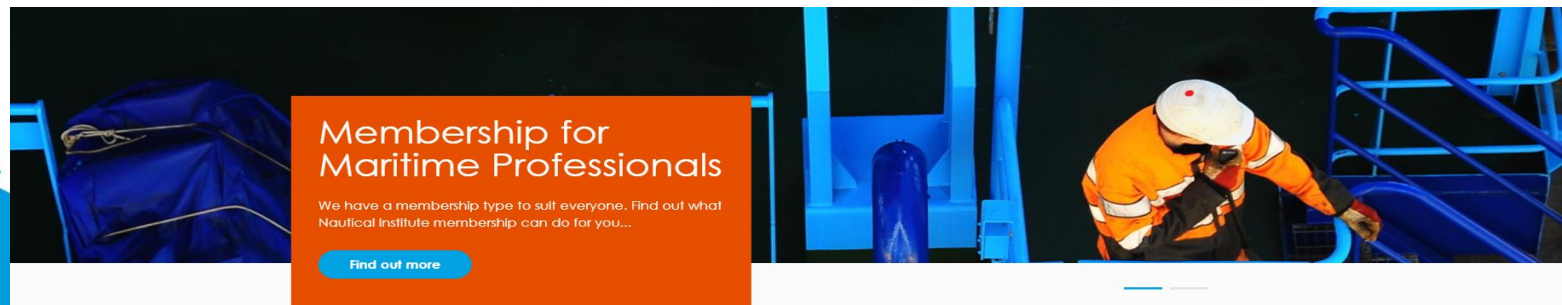
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The Nautical Institute

- A global body for Maritime Professionals
- Maritime publications – by maritime professionals, for maritime professionals:
 - ‘Seaways’, the ‘Navigator’,
 - Maritime books and guides
- Accreditation maritime training and services – including VTS Training
- Consultative status at IMO
- Active in sister organisations

*9,000+ members
120 countries
70 branches!*

- Free student membership
- Members access free training, resources, and more!



Overview



**Developments
in Technology**

Next Steps

**Challenges facing
MET during COVID**

**Putting VTS Training
Online**

MET during a Pandemic – Challenges and Opportunities




Challenges facing MET during COVID



VTS OJT Zeebrugge, February 2021, with physical barriers (photo courtesy of Stefaan Priem)

- Health and safety
- Reduced capacity
- Travel restrictions
- Distancing
- Closures
- Audits / Accreditation
- Availability – trainers / facilitators

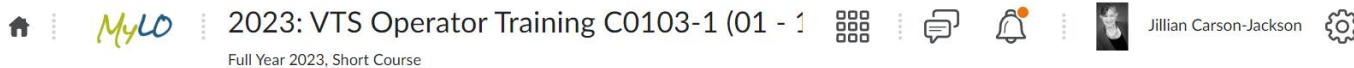


Developments in Technology to support online training



Beyond 'traditional' training

- Learning Management Systems
- Virtual and online learning platforms
- Online / cloud-based simulations
- Augmented & Virtual Reality
- Remote Assessment



Benefits & Challenges of Technology in Training

Online Learning Platforms

- Flexibility
- Support
- Usability
- Collaboration

- Access
- Bandwidth
- Security

Cloud based Sim

- Existing tech
- Real-world systems
- location / time-zone independent

- System set up
- Digital Intelligence
- Bandwidth
- Security

Augmented / Virtual Reality

- Immersive
- Engage with content
- Focus scenarios
- Collaboration

- AR / VR tools
- Digital Intelligence
- Bandwidth
- Security

Remote Assessment

- Focus - training taxonomy
- Timely feedback
- Valid
- Repeatable

- Invigilation tools
- Assessment Rubrics
- Bandwidth
- Security

Benefits

Requires

Benefits & Challenges of Technology in Training

Online Learning Platforms

Features

- Flexibility
- Support
- Usability
- Collaboration

Required

- Access
- Bandwidth
- Security

Cloud based Sim

- Existing tech
- Real-world systems
- location independent

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Augmented / Virtual Reality

- Immersive
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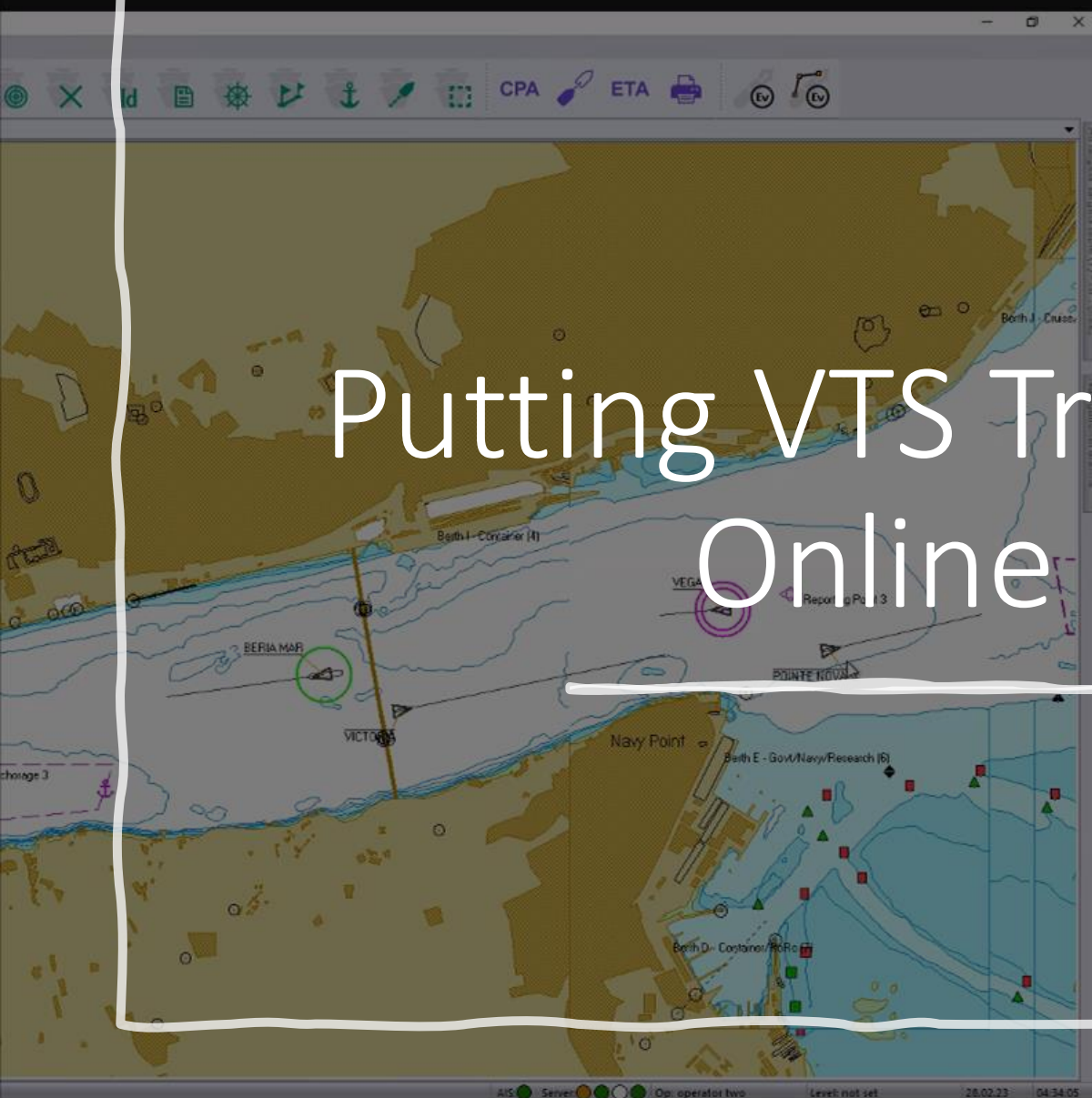
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Putting VTS Training Online



Making online learning STICK

- Sequence
- Technology
- Interaction
- Content
- Knowledge transfer



What do you think will be the challenges of learning 'online'?

body language cues
internet connection lack of tech savvy
audio technology connectivity
flexibility time lag time zone distraction network issues
isolated fatigue time zone kids maintaining focus
pets distractions ergonomics
comfort zone fear of interrupting
working at home lack of movement



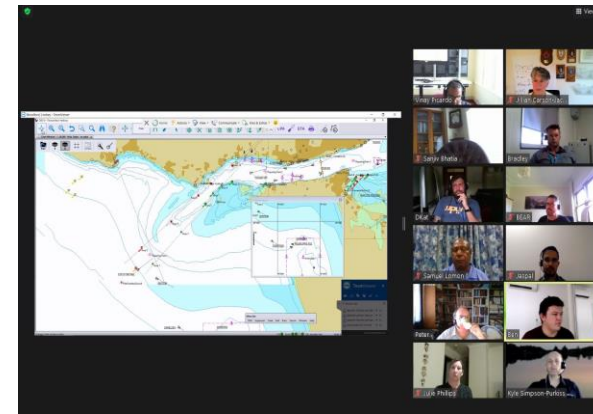
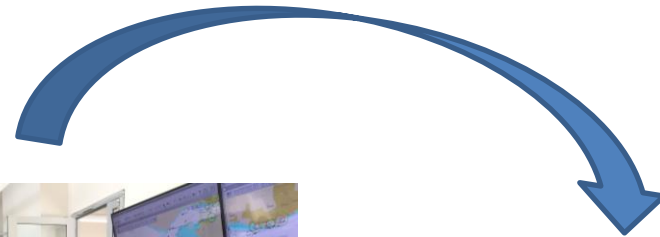
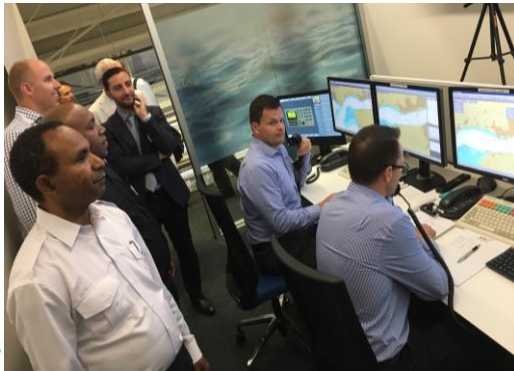
What do you think are the benefits of learning 'online'?

go right back home
sleep in my own bed
pets flexibility no tolls
no commute no travel no need to travel
learning in your environ use your own bathroom home life
no work clothes lowering emissions
work from home
tassie wet cold weathe
have a pc available

lowering emissions

Putting VTS Training Online

- Australian Maritime College, Search (AMCS)
- Pre-Pandemic - Delivery in the same physical space using LMS, Simulator
- Pivot to online in 2020
- Continuing online in 2023 – it works!



The Virtual VTS Simulation Centre



WÄRTSILÄ

Briefing Room

2 Sector VTS Centre

- 2 trainee VTSOs
- 1-2 Peer Monitors
- DST – Wartsila Naviharbour



VHF Radio

Simulation Control Room

- Sim Control Instructor
- 2 'ship feeders'



Telephone

Outside World / Port Team

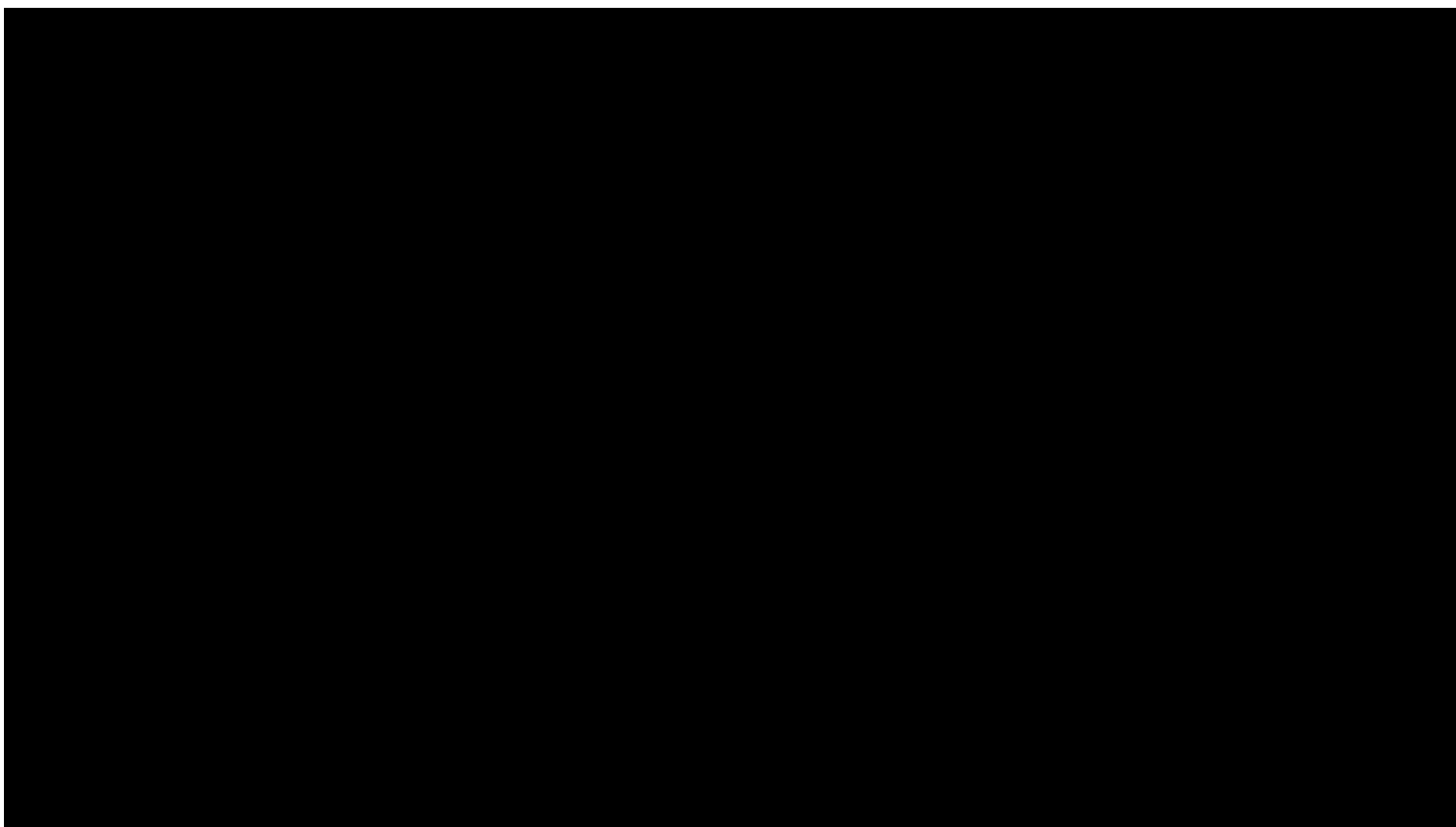
- Maritime Instructor
- 1-2 Students

In person

Whatsapp
(or similar)

VTS Expert Instructor

VTs Training online in action!



*“Very comprehensive and kept interesting for the entire workshop. [I] Struggled with the technology at first but got into the swing.”
(VTS Training participant)*

“We found the simulation component just as engaging as in person training and were very impressed with the standard of the overall product.” (VTS Provider)

Next Steps – Guidance on Remote Training for VTS

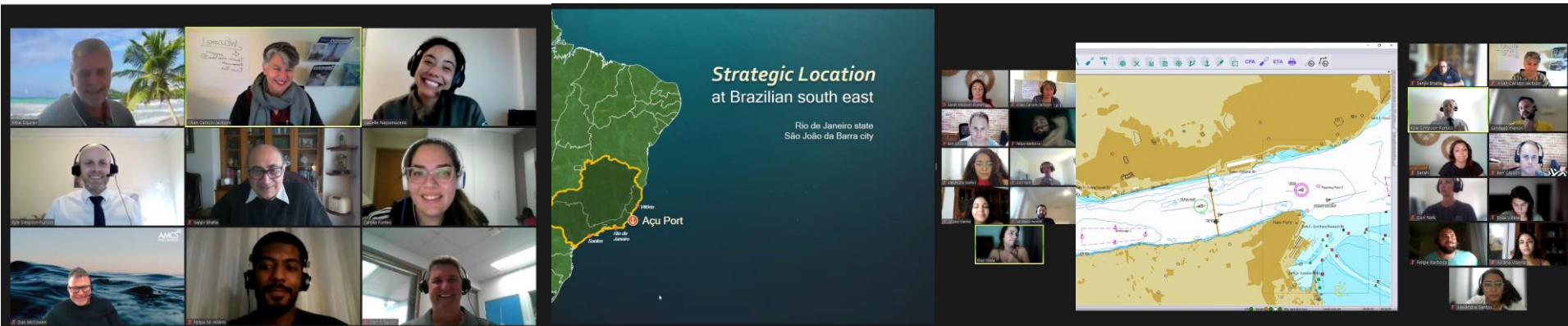
Developing guidance...

What we know

- Demand for sustainability continues / will increase
- Technology continues to develop
- Connectivity is increasing
- Digital intelligence is a core skill & growing
- VTS training online works

What we need to do

- Learn from the challenges of the pandemic
- Use technology to support our needs
- Provide guidance on how to make online learning **STICK**
- Continue to innovate while focusing on competence





“Perfection is not attainable, but if we chase perfection, we can catch excellence.”

- Vince Lombardi

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