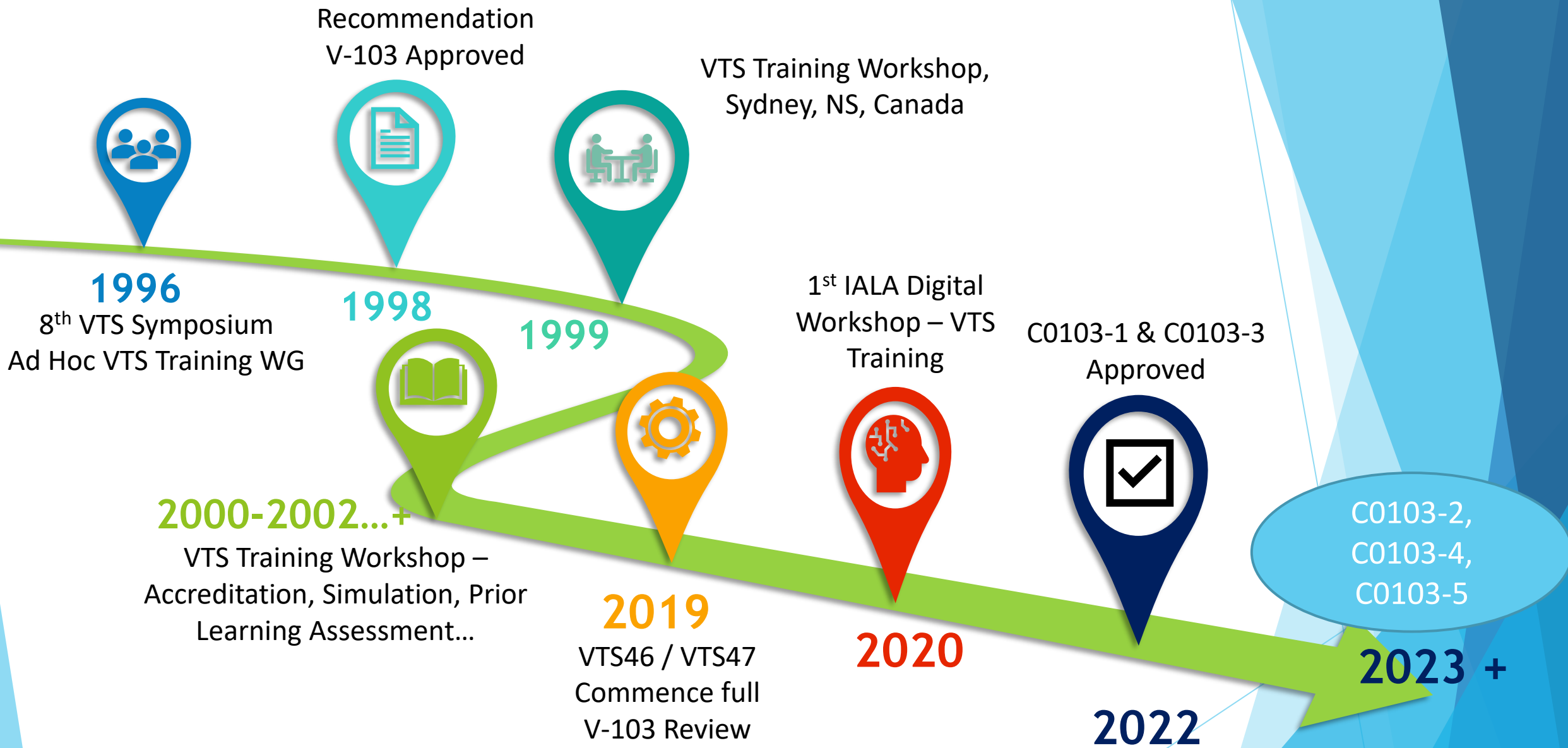


VTS Training

Introduction of C0103-1 and C0103-3



Building on success...



- Input from workshops, IALA meetings, Sister Organisations, Industrial Members and more
- IALA Register of Accredited VTS Training – 23 countries
- IALA Work Program – 2018-2022 included Review of VTS Training related documentation
 - R0103 and G1156 on the Recruitment, training and certification of VTS Personnel
 - G1014 - Accreditation and Approval Process for VTS Training
 - G1017 – Assessment for recognition of prior learning in VTS Training
 - Review of all model courses... Starting with V-103/1 and V-103/3



Ground rules and process for the review

- The current version provided a basis for the review;
- Requirements for qualification and training continue to be clearly defined
- Address options for different approaches, keeping consistency
- Start with overarching documents, and then model courses themselves
- V-103 split into two documents: R0103 and G1156
- Consider new naming convention for IALA Courses
- Use online tools for timely results



A holistic approach

- ▶ Course objectives
 - ▶ Recognise existing training - what to keep, what to change
 - ▶ In line with IMO Res. A.1158(32))
- ▶ Creating a model course format that is consistent
 - ▶ Supporting instructors for developing
 - ▶ Providing consistency for auditing
- ▶ Entry requirements - noting G1156
- ▶ Delivery of the model course with competence levels
 - ▶ Consistency in training
 - ▶ Assessment reflects content and competence levels

A detailed look at C0103-1

- ▶ Modules
- ▶ Competence Levels and Assessments
- ▶ Suggested timing (ranges)
- ▶ Implications for existing training programs



Element	Session Objective	Sub-element	Subject Elements	Level of Competence
3.1	VTS Environment			
3.1.1	Define the characteristics of the VTS area.	3.1.1.1	Area limits, boundaries, separation zones, shipping lanes and channels	3
		3.1.1.2	Prohibited or dangerous areas, anchorages and restricted areas	3
		3.1.1.3	Aids to Navigation	2
		3.1.1.4	Geographic, hydrographic, and environmental aspects	2
3.1.2	Identify measures to manage traffic in the VTS	3.1.2.1	Shipping routes and separation criteria (time and spatial separation)	3

Finding your way in the document

- ▶ Part A - Model course overview
 - ▶ Introduction
 - ▶ Purpose and Objective
 - ▶ Curriculum outline
 - ▶ Entry requirements and recognition of prior learning
 - ▶ Training staff, facilities, equipment
 - ▶ Delivery of the model course and assessment
- ▶ Part B - Modules (for each module)
 - ▶ Subject framework
 - ▶ Outline table
 - ▶ Detailed competence table

Subject Area	Recommended Competence Level	Recommended Hours	
		Presentations and Lectures	Exercises and Simulations
VTS environment		6 to 8 hrs	3 to 5 hrs
Characteristics of the VTS area	Level 2		
Measures to manage traffic in the VTS area	Level 2		
Developments that affect VTS environment	Level 2		
Principles of channel design	Level 1		
Procedures to mitigate risk	Level 3		
Principles of waterway and traffic management		4 to 6 hrs	6 to 8 hrs
Factors for the safe movements of ships	Level 4		
Procedures to maintain a safe and efficient waterway related to planning	Level 4		
Provision of Information		3 to 5 hrs	10 to 12 hrs
Timely and relevant information	Level 3		
Information to influence ship movements and assist with onboard decision making	Level 4		
Monitor and Manage Ship Traffic		3 to 5 hrs	10 to 12 hrs
Procedures to plan safe and efficient movement of ship traffic	Level 3		
Maintain a safe and efficient waterway	Level 2		
Water space allocation within VTS environment	Level 4		
Respond to unsafe situations		3 to 5 hrs	10 to 12 hrs
Considerations for developing unsafe situations	Level 4		
Respond to developing unsafe situations	Level 4		
	<i>Total time range</i>	<i>19 to 29 hrs</i>	<i>39 to 49 hrs</i>

Modules

Module	Existing V-103/1	Revised C0103-1
1	Language	Communication Coordination and interaction
2	Traffic Management	Legal Framework
3	Equipment	Provision of VTS
4	Nautical Knowledge	Nautical Knowledge
5	Communication Coordination	Equipment
6	VHF Radio	Human Factors
7	Personal Attributes	Emergency Situations
8	Emergency Situations	-----

Competence levels & Assessments

Level	Knowledge and/or Attitude	Skill
Level 1 Work of a routine and predictable nature generally requiring supervision	Comprehension	Guided response
Level 2 More demanding range of work involving greater individual responsibility. Some complex/non-routine activities	Application	Autonomous response
Level 3 Skilled work involving a broad range of work activities. Mostly complex and non-routine	Analysis	Complex observable response
Level 4 Work that is often complex, technical and professional with a substantial degree of personal responsibility and autonomy	Synthesis	Adaptation
Level 5 Complex techniques across wide and often unpredicted variety of contexts. Professional/senior managerial work	Evaluation	Creation

Competence levels & Assessments

Level	Knowledge and/or Attitude	Skill	Verbs (examples)
Level 1 Work of a routine and predictable nature generally requiring supervision	Comprehension	Guided response	Arrange, define, list, locate, label, identify, select
Level 2 More demanding range of work involving greater individual responsibility. Some complex/non-routine activities	Application	Autonomous response	Comply (with), describe, display, give examples, recognise, operate, perform (an action), participate in
Level 3 Skilled work involving a broad range of work activities. Mostly complex and non-routine	Analysis	Complex observable response	Analyse, apply, categorise, classify, compare, differentiate, explain, justify, operate, solve
Level 4 Work that is often complex, technical and professional with a substantial degree of personal responsibility and autonomy	Synthesis	Adaptation	Adapt, construct (build), demonstrate, devise, evaluate, interpret, organize, plan, predict, resolve, respond to
Level 5 Complex techniques across wide and often unpredicted variety of contexts. Professional/senior managerial work	Evaluation	Creation	construct, compose, coordinate, create, criticise, draw conclusion, evaluate, formulate, improve, judge, modify, synthesize

Competence levels and assessment

3.1	VTS Environment			
3.1.1	Describe the characteristics of the VTS area.	3.1.1.1	Area limits, boundaries, separation zones, shipping lanes and channels	2
		3.1.1.2	Prohibited or dangerous areas, anchorages and restricted areas	2
		3.1.1.3	Aids to Navigation	2
		3.1.1.4	Geographic, hydrographic, and environmental aspects	2
3.1.2	Explain measures to manage traffic in the VTS area.	3.1.2.1	Shipping routes and separation criteria (time and spatial separation)	3
		3.1.2.2	Constraints (geographic, operational requirements, vessel types and characteristics, etc)	3

Level	Knowledge and/or Attitude	Skill	Verbs (examples)
Level 1 Work of a routine and predictable nature generally requiring supervision	Comprehension Understands facts and principles; interprets verbal/written material; interprets charts, graphs and illustrations; estimates future consequences implied in data; justifies methods and procedures	Guided response The early stages in learning a complex skill and includes imitation by repeating a demonstrated action using a multi-response approach (trial and error method) to identify an appropriate response	Arrange, define, list, locate, label, identify, select.
Level 2 More demanding range of work involving greater individual responsibility. Some complex/non-routine activities	Application Applies concepts and principles to new situations; applies laws and theories to practical situations; demonstrates correct usage of methods or procedures	Autonomous response The learned responses have become habitual, and the movement is performed with confidence and proficiency	Comply (with), describe, display, give examples, recognise, operate, perform (an action), participate in
Level 3 Skilled work involving a broad range of work activities. Mostly complex and non-routine	Analysis Recognises un-stated assumptions; recognises logical inconsistencies in reasoning; distinguishes between facts and inferences; evaluates the relevancy of data; analyses the organizational structure of work	Complex observable response The skilful performance of acts that involve complex movement patterns. Proficiency is demonstrated by quick, smooth, accurate performance. The accomplishment of acts at this level includes a highly co-ordinated automatic performance	Analyse, apply, categorise, classify, compare, differentiate, explain, justify, operate, solve.

Recommended duration - ranges

Module Title	Recommended Duration in <u>Hours</u>	
	Presentations / Lectures	Exercises / Simulation
1. Communication Coordination and Interaction	17-29	37-52
2. Legal Framework	7-14	6-11
3. Provision of VTS	19-29	39-49
4. Nautical Knowledge	23-44	16-31
5. Equipment	8-15	3-6
6. Human Factors	5-10	3-6
7. Emergency Situations	7-12	8-13
<i>Total time range</i>	86-153	112-168

Making the link...
C0103-1 and C0103-3

Highlights of the C0103-3 review

- ▶ Alignment with the IALA model course program
- ▶ Module format
- ▶ Consistent approach
- ▶ Detailed competence tables
- ▶ Link to C0103-4 OJT Instructor



Alignment with C0103-1 model course

- ▶ Course objectives (lining up with IMO Res. A.1158(32))
- ▶ Consistent approach in course modules
- ▶ Alignment: ✓ Overlap: ✗
- ▶ Entry requirements
- ▶ Training staff
- ▶ Delivery of the model course with competence levels

Syllabus (2009) vs Modules (2022)

Module	Previous V-103/3 syllabus	Revised C0103-3 modules
1	Communication co-ordination/language	Communication
2	Local publications/regulations	Legal Framework
3	Traffic Management	Provision of VTS
4	Local knowledge	Local Knowledge
5	Equipment	Equipment
6	Personal attributes	Human Factors
7	Emergency situations	Emergency Situations

Competence levels and assessment

3.5	Daily Routines			
3.5.1	<i>Explain what daily routines are required and where the routines are detailed.</i>	3.5.1.1	Daily activities at the VTS such as compiling pertinent maritime information	2
		3.5.1.2	Time management and prioritizing tasks	3
		3.5.1.3	Dealing with high workload scenarios and multitasking	3
		3.5.1.4	Equipment / system checks	3
		3.5.1.5	Log keeping and the retention of logs	2
3.5.2	<i>Describe the information required for a watch handover.</i>	3.5.2.1	Information elements for an effective handover	3
3.5.3	<i>Demonstrate watch hand over procedures.</i>	3.5.3.1	Handover process such as when, how, method of documenting the handover	4

Level	Knowledge and/or Attitude	Skill	Verbs (examples)
Level 1 Work of a routine and predictable nature generally requiring supervision	Comprehension Understands facts and principles; interprets verbal/written material; interprets charts, graphs and illustrations; estimates future consequences implied in data; justifies methods and procedures	Guided response The early stages in learning a complex skill and includes imitation by repeating a demonstrated action using a multi-response approach (trial and error method) to identify an appropriate response	Arrange, define, list, locate, label, identify, select.
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Level 3 Skilled work involving a broad range of work activities. Mostly complex and non-routine	Analysis Recognises un-stated assumptions; recognises logical inconsistencies in reasoning; distinguishes between facts and inferences; evaluates the relevancy of data; analyses the organizational structure of work	Complex observable response The skilful performance of acts that involve complex movement patterns. Proficiency is demonstrated by quick, smooth, accurate performance. The accomplishment of acts at this level includes a highly co-ordinated automatic performance	Analyse, apply, categorise, classify, compare, differentiate, explain, justify, operate, solve.

Importance of OJT Instructor (C0103-4)

- ▶ OJT Instructor will be key in successful C0103-3
- ▶ Identify different roles in training staff
- ▶ Verb taxonomy
- ▶ Review of model course C0103-4 has already begun

Next Steps

- ▶ Continue review of IALA model course C0103-2 VTS supervisor training
- ▶ Continue review of IALA model course C0103-4 OJT instructor training
- ▶ Start review of IALA model course C0103-5 Revalidation process for VTS qualification and certification
- ▶ Future work program 2023-2027
 - ▶ Revision of IALA G1103 on Train the Trainer
 - ▶ Guideline for Remote training in VTS
 - ▶ Revision off IALA G1027 on Simulation in VTS training
 - ▶ ...



Questions?