



11 August 2016

Dear BSSMC member,

Combined Reports in lieu of meeting BSSMC #89

A series of PDF documents contain reports in lieu of meeting #89 of BSSMC.

In general, those areas of activity covered in the attached reports are left to stand-alone. The following activity reports are attached:

A1, BSS Managers report – Updates and Outcomes

B1, Report from BSSAC Chair

- Tenanted boats - update
- Hire Boat Code development update
- BSS Hire boat requirements changes update -
- The 'Trusted Messenger' initiative update
- Examiner Development Strategy launch
- Review the BSS Examiner Conditions of Registration launch proposal
- BSSMC User Group Rep vacancy

D1, Quarterly report of recorded incidents

See BSSAC Chairs report

E1, Report from the BSSTC Chair

- BSS Risk Management Process improvements update
- Electrical issues and BSS Examiner 230V ac 'Safe Isolation Procedure' update
- Hire boat Residual Current Device assessment project update
- Comparing LPG tightness testing methods project update
- BS EN ISO 9094 revision now published

F1, Quarterly BSS Quality Management Activity Report

Provides some additional detail concerning planned activity in support of the Examiner Development Strategy initiative. It also confirms the investment in the Salesforce App that will allow examiners to record BSS examinations in real time (or immediately an internet signal is achieved).

BSS Secretariat

11 August 2016



11 August 2016

Dear BSSMC Member

BSS Manager's Report – updates and outcomes [Doc A1, BSSMC #89]

This BSS Manager's report highlights/identifies for members the significant initiatives, issues or outcomes that have arisen since the last BSSMC meeting. There are two actions on you, one concerning agreeing to the review of the BSS Examiner Conditions of Registration.

BSS staffing -The BSS Quality and Technical Manager has very recently reduced his days per week to two, as part of his rundown to retirement. The BSS Business & Technical Manager commenced in the role from early April and is performing well, albeit is still coming up to speed.

The delayed recruitment coupled with the planned rundown continues to have a knock-on effect on BSS technical, risk management and quality initiatives and delivery is dependent on an increased use of consultants. This requires careful management as the BSS income for the year is predicted to be £50K less than last year because of the cyclical nature of BSS Certification sales.

BSS Hire Boat Requirements Changes – These are now signed-off complete with agreed Examination Checking Procedures (ECPs). The marine trade is aware of the changes coming in from April 2017. A further promotion of the changes including enhanced information based upon training material for BSS Examiners is to be published on the BSS website shortly, supported by a BSS media release. BSSTC are to endorse training material.

Hire Boat Code – BSS continue to support the stability testing element. There remain actions to address in order to achieve full confidence in the ability of hire operators to self-assess the stability of their fleets. BSS has sufficient budget to complete this task but any further and associated web facility development fees could not be accommodated in the current plan.

The slippage in the development of the Hire Boat Code development, consultation and implementation will have implications for three of the BSS hire boat requirements changes but committee sign-off of these included an optional approach in the event the Hire Boat Code is not implemented or is delayed.

There is a need for the British Marine consultant to engage fully on this project to complete and underpin Appendix 3 concerning stability testing. The AINA-led group needs to re-engage on this project to drive the project to completion.

Incidents and accidents since the last BSSMC meeting – As you are aware, in June, on Wroxham Broad, a man, woman and dog in a recently purchased pre-owned inboard petrol engine motor cruiser died from carbon monoxide poisoning. The boat was moored. No

appliances were found running. Investigations are focussing on engine exhaust gases to be the likely source.

The BSS issued a media release in support of the promotion of CO safety awareness messages. This week the BSS has issued a supplementary media release following the issue by MAIB of a 'Safety Bulletin' warning of the dangers of carbon monoxide poisoning on boats.

<https://www.gov.uk/government/news/safety-bulletin-published-for-the-love-for-lydia-investigation>

The MAIB Safety Bulletin is their first statement following the double fatality. The BSS release is on the public site in the news release folder at the end of the link below. Note that MAIB referred to the fact that this was the third double fatality tragedy they had investigated in three years (the other two, one on Windermere 2013, the other aboard a fishing vessel at Whitby 2014):

<http://www.boatsafetyscheme.org/about-us/news-and-press-releases/news-releases/>

One of the key MAIB safety messages concerns the potential for canopies to allow poisonous gases to build up, quickly reaching fatal levels [take a look at the video on the MAIB web link provided]. This is a new safety message as far as I know and again points to CO alarms as being essential. The BSS position is more about not ignoring the smell exhaust fumes in your boat, know the causes of CO, know the symptoms, get an alarm.

It is certain that MAIB will now conduct a full investigation into the tragedy and it is likely that this will involve research into the behaviour of CO from engine exhausts with or without cockpit canopied being raised. The outcome of this research can be used by BSSTC to inform their risk review.

Notwithstanding the MAIB investigation, it is incumbent on us (BSS) and the navigation authorities together with all other organisations having an interest here (including British Marine & RYA) to drive forward safety improvements on this subject, and we know that influencing behaviour is critical to success.

We have the BSS Examiner 'Trusted Messenger' role coming through the development phase. Please give some thought as to how else we can co-ordinate safety activity. Remember that our last meeting the lack of safety information resource for those new to boating was exposed – can this gap be filled? Could all navigation authorities, marinas and boatyard, boat clubs support a poster campaign? Can RYA be persuaded to add CO safety to their Inland Waterway Helmsman's Course? Can the subject be added to any relevant CRT/EA/Broads Authority/ AINA agenda?

The review the BSS Examiner Conditions of Registration (CoR) - The decision as to whether or not to review the CoR is for BSSMC to make and below I have set out the reasons identified in support of the need for review. BSSAC, at their recent meeting considered that there was not much obviously wrong with the CoR but did not object to the review and were interested to see how the justification for the review developed into any changed new clauses.

The intention is not to run a fundamental review. The initial view of CRT's legal department is that the CoR needs to be made fit for purpose in respect of the following:

- To assess whether criminal records checks processed through the Disclosure and Barring Service (DBS) should be/could be part of the examiner recruitment/retention process. Convictions of particular interest will include, some violent and sexual offences, offences related to supplying drugs, and offences relating to safeguarding children and vulnerable adults.
- To assess the feasibility of introducing a clause requiring disclosure of criminal convictions acquired since initial registration and assessing whether specific convictions (perhaps as listed above) would disallow re-registration.
- To introduce formal identity checks of BSS Examiners as part of the examiner recruitment/retention process.

- To introduce a clause requiring adherence to applicable Data Protection Act requirements.
- The BSS Office wish to update the CoR to replace all references to 'BSS Certificates' with 'BSS Certifications'.
- In addition, the BSS Office is keen that the CoR better reflects the enhanced customer service and safety role of examiners and does not by inference restrict its scope to examiners application of the BSS Examination Checking Procedures.

As the CoR is the primary document regulating the activities of BSS Examiners, it is appropriate that a five-year review should occur, provided there are some significant drivers for an update. It is submitted that the above reasons are significant drivers for review. [Link](#) to CoR PDF.

Note that as part of the CoR review the Procedure for the Investigation of Alleged Breaches of the CoR (BSSQA006) would be assessed for any need for an update. Note specifically that the final and independent appeals route is now with the Centre for Effective Dispute Resolution (CEDR), having moved from the Independent Dispute Resolution Service (IDRS).

To emphasise that this appeals facility can be used by examiners in circumstances where the BSS Management Committee (BSSMC) have determined a breach or breaches of the BSS Examiner Conditions of Registration and the examiner contests the findings or remedy.

Action - There is an action upon all BSSMC members to agree to the review taking place or otherwise comment. No comment by the end of August will be taken as agreement to the review taking place.

If the review goes ahead, it is envisaged that the outcomes/recommendations of the review would be presented at the scheduled November BSSAC meeting for discussion and to develop recommendations for BSSMC for their December meeting. Consultation on any proposed changes would be held with all examiners between January and March 2017.

BSS Manager

11 August 2016



11 August 2016

Dear BSSMC member,

Report from BSSAC Chair for BSSMC [Doc B1, BSSMC #89]

A meeting of BSSAC was held on 7 June. This report covers and updates the main agenda items.

At the meeting members welcomed Jed Ramsay the new AINA rep and observer Andrea Burrow, the new member of the BSS Office team.

The NABSE application to join BSSAC was unanimously agreed and 'full member' status also agreed. This was on the basis that a vacancy for an examiner body representative had arisen after IMarEST had stated their wish to relinquish their position on the committee.

a. Matters arising - Tenanted boats – BSSAC safety concerns have been previously expressed. There is an expectation that CRT London are to host a meeting about their near finalised revised strong enforcement stance concerning any boat where a landlord/tenant relationship is reasonably suspected and where the boat is currently licensed as a private vessel. It is anticipated that a user rep and an examiner rep together with the BSS Manager will be invited to attend in order to help CRT get the message across and for support with the policy.

At the proposed meeting the BSS can push for the subject to be widened to cover ongoing perceived risk issues and to have included in the debate those other bodies with an interest.

b. Hire Boat Code development – The BSS Manager updated members that BSS sponsored stability activity is as follows:

- i. minor and necessary changes to web facility following BETA testing are being assessed and will be reported on shortly to the AINA group.
- ii. a report looking into why the various boats failed BETA testing and comparing the results against prevailing ISO requirements and against the current BSS requirements is nearly complete.
- iii. BSS consultants re-visiting Appendix 3 to come up with a definitive list of things felt necessary for the BM consultant to address.

Since BSSAC last met the AINA/BM/MCA group leading the revision of the HBC met on 30 March to review the outcome of BETA testing, review the web-facility, finalise the revised draft of the Code and agree the consultation process. The group was appreciative of the stability test work and considered the web facility fit for purpose. BM identified the new consultant supporting the project but indicated that it may take to the end of May for his inputs to be achieved.

It was discussed that the Hire Boat Code can't be implemented from April 2017 and so there will now be a disconnection between the BSS hire boat requirements coming in from 1 April 2017 and the Hire

Boat Code coming in later – maybe a year later. Currently the plan is to train examiners to every aspect of the new BSS requirements, even those three that are dependent on hire boat code being implemented, and it would be simply explained to examiners not to apply them until the hire boat code was in place. Two of the three checks affected have an alternative application not dependent on the Codes implementation.

If the delay in implementation of the code was a year or eighteen months, a view will have to be taken as to whether to train examiners to the one item that is solely reliant upon the hire boat code implementation, namely the existence of a Crew Area safety sign.

c. BSS Hire boat requirements changes update - The task for BSSAC members was to review the current proposed versions of the new hire boat Examination Checking Procedures (ECPs) as signed off by BSSTC and to provide agreement or otherwise comment. Prior to the meeting members were provided with fourteen papers and as there had been a long gestation period they should be considered as final drafts unless there is a fundamental issue

Each paper was introduced in turn and accepted, including those with a slight alternative approach if the Hire Boat Code is not implemented as of 1 April 2017. Three minor queries or suggestions were recorded for presentation to BSSTC.

d) The 'Trusted Messenger' initiative - members heard that BSSMC unanimously approved the proposal and had provided delegated authority to meet with the examiner body reps to work out, as a sub-group to BSSAC, how the initiative can be achieved. The sub-group met in early April and that it was agreed to develop a checklist that would be ultimately part of the CO leaflet and would be addressed to the boat owner and would allow the owner to self-assess their own boats and their own safety behaviour.

The initiative will remain with the Sub-group but will arrive back at the full committee as a complete package. It is envisaged that the sub-group will have completed its task by the end of September.

At the recent BSSAC meeting it was clear that a significant minority of members believe the BSS should move a stage further and simply adopt an 'Advice' check for CO alarms on boats.

It was reported that the BSSTC risk review did not support this outcome at time, however recognising the strength of feeling it was accepted that the issue should move further and that this could be informed by the data to be collected from the plan for examiners to report whether or not a CO alarm is present and if there is an alarm present assess its independent certification, and also test its functionality by pressing the test button.

It was emphasised that the initiative is entirely about changing boater behaviour and encouraging them to learn about the hazards that are on their boats and to mitigate those hazards. The data collection aspect will allow us to understand whether there has been any degree of success concerning CO alarm take-up.

It was also emphasised that the responsibility for success does not rest solely with the Scheme, it's everybody's responsibility to try and change and alter behaviour; from member organisations, navigation authorities, fire and rescue personnel, anybody that has an interest. This is recognised by the new initiative.

e) The commencement of two important policy initiatives –

Examiner Development Strategy - members received a paper outlining the plan to review and refine the process used to ensure examiner consistency and covering the recruitment, training and assessment of new examiners, and in monitoring and re-training of existing examiners.

It was recognised that members will have a strong investment in the processes employed and members were invited to comment on the paper and contribute views at this early BSS Office review stage.

Review the BSS Examiner Conditions of Registration (CoR) – members were reminded that the decision whether or not to review the CoR is made by BSSMC. A document was circulated in advance of the meeting making the case for review largely on the basis of legal advice coming through the CRT legal team, in particular about the need to investigate the desirability to add controls concerning examiners convicted of serious criminal offences. Members were invited to make known any other reasons to review the CoR within two months. Members generally agreed that there was not much obviously wrong with the CoR as they stand but were interested to see where the legal opinion ended up.

f) BSSMC User Group Rep vacancy – the filling of the vacancy has been with BSSAC user reps since March. The aim is to have a rep in place by the time of the next BSSMC meeting on 15 December. The matter was left with user group reps to take forward outside of any BSSAC meeting.

g) The quarterly incident report - the two recent tiller-swing related hire boat incidents were highlighted, one of which came near to a drowning tragedy. The context was that this is a new risk identified during the Hirer Safety Review, a risk that not all quarters of the hire industry initially accepted. Emphasis was placed on the nine solid fuel stove incidents to date which equals last year's total and so more stove safety messages can be anticipated in time for the Autumn season.

BSS Secretariat

11 August 2017



11 August 2016

Dear BSSMC member,

Quarterly report of incidents and accidents recorded from 1 Jan – 1 Aug 2016
[Doc D1, BSSMC #89]

This is a report of incidents and accidents for the period 1 Jan – 1 Aug 2016 as recorded by the BSS Office.

1.0 Introduction

1.1 - The inferences drawn from reviewing incident reports are key to the effective planning of BSS activity to help address the risks presented by boats that have been inadequately constructed or maintained or inappropriately used.

Incident reports are used to help identify patterns of risk and any new risks not previously envisaged. The process employed relies on the receiving-of, or the gathering-in of, details of boating incidents including fire, carbon monoxide (CO) poisoning, capsizing and man-overboard.

1.2 – The role of the BSSAC is key in determining the precise activity of the BSS Office by helping prioritise the activity and helping determine any appropriate risk-management measures based upon input at BSSAC meetings. Members are requested to come to the forthcoming BSSAC meeting willing to comment on any need to plan activity or on planned activities, and help identify priorities.

2.0 The Incident and Accident Data

2.1 - The incident data used to populate this report is recorded by the BSS Office. The data includes incidents relating mostly to boats used on inland waterways. However, incidents of fire, explosion and CO on coastal boats are recorded where the craft may be of the type that could be used inland or where the systems aboard may be common to those on inland boats.

2.2 - The data cannot be considered as a complete record of incidents on any waters. Many minor incidents are not reported to any agency, let alone published. Where agencies, typically fire, ambulance or other health organisations have records of a boat related incidents, there are still likely to be only a minority of such records made public.

2.3 – In the BSS records, where fire has spread from one boat to another each boat affected is counted as one record and cause is recorded as conflagration. This is a reference to one of the purposes of the Scheme to help prevent the spread of fire from happening. It is an indicator of the potential for such events.

2.4 – Where two or more boats collide in one event, it is counted as one incident.

2.5 – The tidal R. Thames from Grays to Richmond i.e. an area under Port of London Authority (PLA) control, commonly used by inland waterways craft, is for the purposes of BSS incident reports included in Non-BSS Inland waterways.

3.0 Summary

3.1 – This quarterly review is based on 100 reports obtained by 1 Aug 2016 of 102 incidents (counting the further affected boats) thus far in 2016 on inland and coastal waters.

The BSS has gathered details of 90 incidents on all inland waterways (canals, lakes, lochs, rivers and inland hard standing sites) and 12 on UK coastal waters including marinas, harbours, creeks and inlets. A more detailed breakdown of all inland waterway incidents collected is provided in Annex A attached. An outline of relevant coastal incidents appears in Table 7.

3.2 – One of the inland incidents recorded is not on Association of Inland Navigation Authority (AINA) member waterways.

3.3 – From 1 Jan to 1 Aug 2016, there are 47 reports of sinkings, capsizes, man-overboard grounding and personal injury events on all inland waters.

In July a female at the helm of a private narrowboat died when she went overboard. She was removing a coat or jacket and this got caught on part of the tiller. She lost balance and fell overboard. Her loose clothing got caught in the propeller and this held the lady in position under the boat underwater.

A private narrowboat was caught in lock, possibly by the closing gates. As the boat started to flood the male skipper went on to the boat and rescued his mother and dog. He then went back onto the boat to retrieve some personal items and valuables. He was unable to get out of the cabin as the vessel filled with water.

In July shortly after returning to his boat, a man fell from his moored boat and although a friend managed to recover the boater, the man died at the scene. It is likely that alcohol was a contributory factor.

A female hirer was taken to hospital along with her husband after the tiller arm knocked her off the deck of the hire boat while navigating on a river. Her husband jumped in to rescue her.

A male hirer was taken to hospital by air ambulance related to chest injuries received when the tiller arm on the hired narrowboat was swept round at force by currents on a canalised river navigation. He was also knocked into the water

A woman private boater was taken to hospital when she entered the water after the narrowboat she was crewing was taken through weir booms on a river navigation.

A report was made that a private boat collided into a passenger boat on a London canal and a passenger suffered head injuries serious enough to require a hospital admittance.

3.4 – In this reporting period there has been one fatality linked to fire on a live-aboard narrowboat. The fire is linked to an unattended hob.

3.5 – In June, a man, woman and dog in a recently purchased pre-owned inboard petrol engine motor cruiser died from carbon monoxide poisoning. The boat was moored. No appliances were found running. Investigations are focussing on the potential for engine exhaust gases to be the likely source.

An inquest this year for the death of a live-aboard boater from CO poisoning on a small motor cruiser in October 2015 found that the source of the gas is likely to have been exhaust fumes from the outboard motor re-entering the vessel.

3.6 – Hire Craft Incidents – There have been seven incidents on hire craft including one hotel boat advertised on Air BnB, (registered as non-hire annual craft). The boat was moored at the time of the fire incident but we have not been able to confirm if anyone was aboard – there is conflicting information as to the potential cause.

Other hire boat incidents include an over-firing solid fuel stove, a lock sinking, a grounding whilst being navigated under the influence of alcohol at night and a hire boat that got stranded on a weir boom.

The summary of hire boat incidents is provided in Table 8 below.

3.7 – There have been a number of serious fires this year and nine fires are associated with solid fuel stoves to date. This number of stove incidents exceeds last year's total. See 3.8 below.

A company employee removed a gas cooker from an inland charter boat and replaced it a short time later. The cooker was lit to test the appliance and an explosion occurred resulting in minor injuries to the staff member. This incident is believed to be subject of a Police enquiry.

An owner was injured in a fire caused by a paraffin heater on his narrowboat.

Several years ago there was a serious fire at sea in yacht when vapours from an adhesive were ignited by a fridge pilot light. This year a boat on the inland waterways suffered a flashover ignition when vapours from a carpet laying project ignited. Boat owners should be aware of the potential for problems related to spirits, glues, expanding foams and thinners in the enclosed cabin space.

3.8 – The number of solid fuel stove incidents has been recorded to date is nine. This is currently the most common identified cause of boat fires. Of these, three relate to installation issues and poor heat protection, three relate to use matters; one was down to poor maintenance and the remain two have not been classified because of the lack of detail.

3.9 – Including coastal incidents there have been three fires related to the use of candles. In one incident they were being used as heaters when the yacht keeled over as the tide dropped. In another incident they were being used during the day, likely for ambience and scent, and left unattended. The use of the candles in the third incident is unclear.

3.10 – We will review the information we obtain from the navigation authorities later in the year and report back to the navigation authorities as to any gaps and the overall data quality/usefulness.

3.11 The BSS Office has learnt from media coverage that the owner of the Welsh-based fishing vessel on which two crew members died from CO poisoning in Whitby harbour in January 2014 is being prosecuted by the MCA. It is not a manslaughter case; the two charges are being made under the Merchant Fishing Health and Safety at Work Regulations and The Merchant Shipping Act.

It is alleged that the boat owner failed to take all reasonable steps to ensure the vessel was operated in a safe manner.

According to the three counts, he also failed to check the galley cooker and grill, failed to ensure his crew was not exposed to carbon monoxide and failed to install a carbon monoxide detector which an inquest said could have saved the sailors' lives.

He is also accused of failing to identify the increased risk of carbon monoxide poisoning from the cooker due to its condition and failing to provide an alternative heat source for the crew to warm themselves. It is also claimed he failed to provide the fishermen with adequate instructions on using the cooking and heating equipment.

The charges are denied, and the man is bailed to appear at York Crown Court on 26 August. There could be implications for any operators of boats including navigation authorities and boats in commercial operation where work is carried out aboard.

Compiled and drafted by BBS Communications Manager, BSS Manager & BSS Technical Administrator

11 August 2016

Annex A – Total - 1 January to 1 August 2016 90 inland waterway incidents

Table A1 <u>Basic statistics from the records</u>	<u>BSS</u>	<u>Non-BSS</u>
Number of incidents recorded	89	1
Fire/explosion (inc immediate risk of)	38	1
CO (including near incidents)	2	-
Pollution	2	-
Man Overboard	7	-
Personal Injury	7	-
Capsize 0, collision 4, grounding 1, sinking inc lock hang-up 22 stranding 6,	33	-

*vessels included in multi-vessel incidents

Table A2 <u>When accidental fire happens</u>	<u>BSS (34)</u>	<u>Non-BSS (1)</u>
Moored / anchored / tethered	33	1
Approaching, traversing, departing Lock or Bridge	-	-
Underway/setting off	1	-
To Be Confirmed	-	-
Hard-standing / abandoned	1	-
Dry Dock/Construction	-	-

Table A3 <u>Use of vessels in all inland incidents</u>	<u>BSS waters</u> <u>Fire, CO &</u> <u>Pollution</u> (42)	<u>BSS waters</u> <u>'MOB &</u> <u>Navigation'</u> (47)	<u>Non-BSS inland</u> <u>All incidents</u> (1)
Note: Navigation = all other inc Capsize, Sinking, Grounding etc			
Pleasure and leisure	8	8	-
Not recorded/not known/TBC	22	26	1
Intensive [residential and extended use)	10	3	-
Hire and passenger boat	1	9	-
Workboats / other commercial	-	1	-

Brokerage / renovation / under repair	1	-	-
Abandoned	-	-	-

Table A4 <u>Systems & causes: all fire, pollution & CO inland waters</u>	<u>Inland BSS</u> (42)	<u>Non-BSS</u> (1)
Deliberate Fire setting	3	
Conflagration	2	
Bullseyes	0	
Electrical [all installations and systems]	4	
Engine [installed] / engine room / exhaust	2	
Flammable vapour [type tbc)	3	
Galley Accidents / Smoking / candles/ un-specified appliance	4	
Gas escape / installed gas appliance	3	
No information [TBC, not reported, not investigated & inconclusive]	10	1
Oil fired stoves and heaters [installed]	-	
Other [inc machinery, welding, DIY, etc]	2	
Petrol installed [leak, refuelling, detonation, etc]	-	
Portable engines / outboards / generators	-	
Portable items [lamps / heaters / stoves]	-	
Solid fuel stoves	9	

Table A5 <u>Serious incidents on all inland waterways</u> [Note: Major injury = person treated at hospital]	<u>Fatalities</u>	<u>Major injuries</u>
<u>Totals of boaters harmed</u>	6	12
Explosion/fire, petrol, gas, fume ignition	1	3
Carbon Monoxide	2	-

MOB/Capsize	3	4
Other personal injuries	-	5

Table A6 all inland waters							
<u>Trends in systems & causes: All fire, pollution & CO</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Totals	43	63	69	91	80	90	105
Deliberate Fire setting	3	11	12	11	11	25	27
Conflagration	2	11	3	3	5	5	5
Totals of accidental and original incidents	38	41	54	75	64	60	72
Bullseyes	0	0	0	0	0	1	2
Electrical [system / appliances]	4	7	8	15	15	17	8
Engine / engine room / exhaust	2	2	5	6	4	8	6
Flammable vapours (not yet identified)	3	4	3	3	2	3	2
Other domestic, galley, smoking, candles, etc	4	1	0	0	3	1	3
Gas escape / installed gas appliance	3	2	0	4	3	3	3
Not known [inconclusive / tbc to BSS]	11	15	27	28	21	13	23
Oil fired stoves and heaters [installed]	-	1	0	1	2	1	1
Other [inc machinery, welding, DIY, etc]	2	-	2	1	2	0	0
Petrol related – leaks, refuelling, etc	-	2	2	2	2	1	3
Portable engines / outboards / generators	-	-	2	2	0	1	5
Portable items [lpg, oil, BBQ, electric, etc]	-	-	0	2	0	4	2
Solid fuel stoves	9	7	5	13	10	7	15

Table A7 coastal incidents of relevance

Boat Type	Incident Type	Systems Involved	Status of Craft	Injuries
Yacht	Fire	Candles	Moored	0
Sailing vessel	Fire	Candles	Moored	0
Not Recorded	Fire	Electrical	Moored	0
Cruiser Wood	Fire	Electrical	Moored	0
Yacht GRP	Fire	Engine	Underway	1 major
Commercial	Fire	Engine Room	Underway	0
Tug	Fire	Exhaust	Moored	0
Dutch Barge	Personal Injury	Not Recorded	Moored	1 major

Yacht GRP	Fire	Not Recorded	Underway	0
Fishing Vessel	Fire	Not Recorded	Abandoned	0
Cruiser GRP	Fire	Not Recorded	Underway	0
Not recorded	Fire	Not Recorded	Moored	0

Additional information Table 8 – Hire, tenanted and passenger boat incidents 2016 Jan - May

Month	Region	Risk	Brief description of events
2016-01	South West	Stranding	An all-male hired narrowboat navigating at night grounded on the canal bank. The crew were reported as suffering the affects of alcohol.
2016-03	South West	Personal injury	Hirer was hit into the water when the tiller arm hit him with force in the chest and cracked his ribs. The boat was negotiate a strong stream section of a canalised river. Warning signs were in place. He was taken to hospital by air-ambulance
2016-03	South West	MOB	The tiller of the narrowboat swung round and knocked the woman off the boat. The man then jumped into the flowing river to save her. Both were wearing life jackets and were swept along the waterway for about 50m before they were helped out by passing runners. The couple were taken to A&E suffering from shock and hypothermia.
2016-03	South West	Fire	An all-female party hired narrowboat nearly caught fire when the solid fuel stove began to over-fire and flames exited the chimney. A nearby liveaboard assisted and brought the stove back under control before a full-blown chimney fire started.
2016-04	West	Stranding	A crew of hirers were rescued from their vessel when it got caught up on a weir boom. No reports of injuries. Warning signs were in place.
2016-05	South West	Sinking	Two ladies, a gentleman, and their dogs were rescued from a hired narrowboat sunk in a lock
2016-06	Wales	Personal injury	A female hirer broke her leg disembarking from the boat at a lock.
2016-07	Midlands	Personal injury	Around midmorning an international tourist on a hire boat was seen to jump from the lock side into his boat below injuring his right leg. His injuries were superficial and the wounds were attended to by first-aiders. He was able to return to his boat unaided.
2016-06	Midlands	MOB	A trip boat was progressing along a tunnel. At approximately 500 meters from the one end it was passing pass a hired narrowboat. One of hireboat's crew was leaning out from the stern outside of the railings, inline with the oncoming passenger boat. The hirer slipped and fell into the water between the two boats as they passed. Because of rapid action taken by the passenger boat skipper, the MOB, who wasn't physically injured, was able recovered from the water onto the passenger boat using one of its buoys. The passenger boat reversed to allow the transfer of the hirer back to the narrowboat.
2016-06	Scotland	Explosion	Work was underway on the boat including to the gas cooker. An explosion occurred and an operative suffered burns to his face and body. He was airlifted to hospital.

Annex B The Role of the BSS Concerning Accident and Incident Data Collection

The BSS Office collects reports of UK recreational boat-related accidents and incidents from any source.

We are interested to establish causes and circumstances to help establish trends and inform BSS Office activity aimed at helping prevent re-occurrences. Our job is to react to trends, or identify new risks or predict potential risks, in an appropriate way. This involves working with stakeholder groups through the BSS Advisory and Technical Committees. The data collected feeds into current and future BSS activities associated with the key risk areas. The data is also used to support navigation authority input concerning their other activities such as the Hirer Safety Review.

We are not responsible for, and do not conduct investigations into accidents/incidents, but we may view fire reports or coroner's verdicts in order to inform our assessment. We may help the investigation of incidents by facilitating the return for testing of suspected faulty equipment to the manufacturer/ supplier. We also assist Navigation Authorities in their responsibilities in investigating incidents.

We may also test the experience of the 200+ independent BSS examiners by way of targeted surveys. Through partnerships, we may seek to influence relevant British and European standards-making activities.

In the event any accident or incident casts doubts about the issue of a BSS certificate, the BSS Office will seek to view the vessel in order to investigate any potential for an inconsistent examination.

This report has been generated by the interrogation of social media, blue light service web sites, news sites as well the use of search engines and RSS alerts. Information from the Maritime and Coastguard Agency, RNLI and the Marine Accident Investigation Branch and dealings with Coroners' Officers is also included. Discussions with navigation authority staff have generated further reports of accidents/incidents and a number of BSS examiners and others people from the marine trade have been helpful in reporting incidents or supplying greater detail. We also review key stakeholder statistics.



11 August 2016

Dear BSSMC member,

Report from BSSTC Chair for BSSMC [Doc E1, BSSMC #89]

A BSSTC meeting was held on 22 March 2016, the following items were moved forward.

An update is provided where appropriate:

a) Matters arising – BSS Risk Management Process – BSSTC Sub-group met on 21 March, minor refinements being moved forward; agreements included:

1. tidying up terms to ensure clarity, consistency and flow;
2. introducing a scoping stage whereby the type of risk issue and its level of priority is identified upfront;
3. firming up the draft flow diagram to act both as a checklist and issue scaling tool for BSS Office/BSSTC;
4. consider an enhanced role for fault-tree analysis assessments;
5. developing a way of grading the review outcome to describe where the extent of risk – risk characterisation;
6. delineating the outcomes between activity plans (i.e. engagement with partner organisations) and actions (i.e. new BSS requirements)
7. clarifying the respective roles of BSSTC/AC/MC in the implementation, communication, monitoring and review stage. Identify what triggers review or a periodic review;
8. planning to assess the overall approach against the latest standard;
9. re-working the RRAP on CO alarms on private craft against the refined process, on next BSSTC agenda;
10. running a gap analysis against the Broads Authority risk management process.

Update – RoSPA are to act in the competent adviser role in respect of the BSS Risk Management Process. A first draft revised draft is imminent to be shared with the sub-group.

b) BSS hire boat requirements changes – It was agreed that post-consultation versions of the changed hire boat requirements ECPs will arrive in batches with BSSTC for final and detailed review before arriving at BSSAC.

Update – BSSTC reviewed all 14 ECPs and consensus was reached on the versions to be presented to BSSAC. The papers arrived with BSSAC in time for their meeting on 7 June.

c) Electrical issues –

1. the BSSTC sub-group is to be formed soon to take forward the small by significant number of electrical issues and queries identified and that may affect some Examination Checking Procedures.
2. BSS Examiner 230V ac 'Safe Isolation Procedure' and the need for an ECP appendix. Members were critical of the approach of the draft Safe Isolation Procedure that required the owner/agent to be present at each examination to disconnect connected 230V ac supplies and reconnect at the end of the examination.

d) Hire boat Residual Current Device assessment project – At the time this report was constructed five Broads hire operators and several canal based have been visited and 36 boats tested. Of the craft tested, 3 failures have been found, a) a defective RCD (changed), b) a sticky RCD (exercised - OK); c) a Neutral / Earth fault on Inverter (warranty repair).

The testing regime to assure confidence in results concerning quasi/modified sine wave (floating earth) inverters is being agreed with the makers and the overseeing BSS consultant. The next phase will concentrate on small operators. It is anticipated that the project will be complete by mid – October.

e) Update on the project to compare LPG tightness testing methods – Three companies have been approached by the BSS consultant concerning the project - Alde UK, GasLow and GasFuse. The Alde "bubble tester" was the first to be tested and the operating characteristics established and the consultant has concluded that with a modified test procedure the "bubble tester" should continue to be considered as an effective test device for the purposes of the BSS. The GasLow testing is scheduled to be complete soon. GasFuse gauge testing will finalise around the same time. The consultant's findings and recommendations will initially be assessed by an overseeing consultant prior to arriving at BSSTC in time for the November meeting.

f) BS EN ISO 9094 revision now published – the revision of the small craft - Fire protection ISO has some notable successes instigated by BSS persuasion as listed below.

- added definitions and requirements for cooking appliances, solid fuel appliances and heating appliance installations;
- added requirements for fire protection for "domed " decklights;
- fire detection requirements for craft.

g) Survey of a sample of hire boats – a sample of hire boats having gas heater flue terminals in close proximity to entrance hatches are to be surveyed using CO data-logging equipment of a six month period.

BSS Secretariat

11 August 2016



11 August 2016

Dear BSSMC member,

Quarterly BSS Quality Management Activity Report [Doc F1, BSSMC #89]

This report lists planned quality management activity to allow the BSSAC/MC members to monitor progress against the plan. It also makes comment on any variances to the plan which are in support of continual improvements to the BSS 'Core Processes'

If members require detailed or supporting information about any of the projects, please contact the BSS Manager.

BSS Quality and Technical Manager

The base document for this report is *Appendix A - The Quality Management Improvement/Activity Plan for 2014 (& beyond)* of the *Quarterly BSS Quality Management Report [Doc J1, BSSAC #85]*.

Please note tasks marked as complete on previous report are removed from current listing below. Tasks added since the last meeting are marked NEW.

The headings in bold are drawn from the Navigation Authority Agreement.

The listing below relates to ongoing projects and issues.

Planned activity	Quarterly update against plan
1 - What the BSS does	
2. - BSS values and vision	
2.2 - Formulate a plan to promote the BSS to the Lake District and Loch Lomond (& others) and implement it. Includes the use of lobbyist consultant. Deliverables – business plan indicates plan to have all navigation authorities participating by end of 2018	The Lakes rejected the introduction of the BSS on its waters. BSSMC supports lobbyist approach at Govt. level to help change the position. Separately BSS Office is to seek support from CFOA and MCA.
3 - Ensuring effective and efficient decision making	

<p>3.1 - Introduce the use of a web-based tool to support committee members consider, deliberate and explore work topics and develop recommendations, monitor BSS performance against agreed targets/benchmarks; with increased timeliness and effectiveness. Deliverable – fully implemented by end of 2014</p>	<p>Behind schedule, project subcontracted and in its last completion phase.</p>
<p>3.4 - The Scheme's key processes and procedures are published the committee member's website and subject to periodic review by BSSAC. Deliverable – fully implemented by end of 2014.</p>	<p>Behind schedule, linked to 3.1 above. BSS Examiner CoR (BSSQA018) to be reviewed this year and maybe the Investigation Procedure (BSSQA006). Consistent Examinations Core Process to be reviewed as part of the introduction of the Examiner Development Strategy.</p>
<p>3.8 - Carry-out an EFQM quality management audit in order to benchmark the overall BSS quality management approach and to underpin a review of the BSS Quality Management Commitment and formulation of the Examiner Development Strategy.</p>	<p>Task completed in outline and shared with team May 2016. Search is underway for consultant in line with Examiner Development Strategy formulation.</p>
<p>4 - Delivering effective and efficient business planning</p>	
<p>4.1 Revised Business Plan V20/1 agreed and being acted upon for this FY</p>	<p>Task complete. Outcome presented to BSSMC for sign off May 2016</p>
<p>5.0 Agree business plan for 2016-17 FY</p>	<p>Plan submitted and agreed. F1 now inputted.</p>
<p>5 - The BSS Office performance objectives</p>	
<p>Develop the BSS Office resilience plan to counter the threat to the Scheme's continuity presented by the age profile of the team and any other threats.</p>	<p>Timing now with CRT internal resilience planning support + possible use of consultant. Action late 2016</p>
<p>5.2 Organise and deliver training and support for new staff member</p>	<p>Revised to April-Sep 2016 as new member revised recruitment timing. Plan implemented and ongoing Verbal update if required.</p>
<p>6 - Focussing on continual improvement the BSS Core Processes - Delivering Consistent BSS Examinations</p>	
<p>6.1 - Engage a Quality Management consultant to help deliver the BSS Examiner Development Strategy</p>	<p>Consultant being sought. Project underway and is the primary strategic objective for the new BSS Office team member. Team meeting complete plan underway and launch report</p>

	presented to the BSSAC May 2016
6.2 - As a prerequisite to the above bullet, carry out a self-audit the BSS Office against ISO 17020 and 17024	Outline report shared at team meet May including critique of ISO requirements.
6.3 linked to the bullet immediately above, use Salesforce as a primary delivery tool – for BSS examiner performance monitoring and for delivering e-learning. Deliverable – continuous improvement supported by the BSS Business Plan. Reportable measures and improvement targets include:- <ul style="list-style-type: none"> • Reduction by 50% number of examiners with no “No” results • All NQE's to have “perfect” examination reporting within 9 months of starting examinations • To have “boat details” updated on 80% of all reported examinations 	Focus now on examiner consistency and NQE (Newly Qualified Examiners) performance and support. Report complete awaiting input from new strategy for measurable and KPI 2016/17
<ul style="list-style-type: none"> • manage introduction of new single sign-on process 	Possible launch November 2016 in line with ECP changes resulting from changed hire boat requirements and CO ‘Trusted Messenger’ CO alarm recording programme
<ul style="list-style-type: none"> • complete automatic invoicing and payment process 	Programme restarted with new CRT members but slow going
<ul style="list-style-type: none"> • develop more targeted Salesforce reports to monitor examiner performance 	Ongoing. New team member to lead
<ul style="list-style-type: none"> • deliver electrical training for those examiners yet to attend. 	Completed on time and cost
<ul style="list-style-type: none"> • plan examiner LPG update training 	Proposed training schedule Spring 2017 On target contractor located
<ul style="list-style-type: none"> • As part of the implementation of the BSS Examiner Development Strategy, training provision at South Worcestershire College will be audited. 	Programme revised next course March 2017 Suitable contractor still to be sourced
<ul style="list-style-type: none"> • Short investigation into various Salesforce off-line products • Investigation complete. Project proposed and accepted • Contract placed, contracted started. • Examiner task team to be selected by end Feb 2016 	Revised programme started in Jan 2016. Contracts placed. Full examiner real time on/off line to be in place before FY 2016/17 Programme reviewed after new team member started
<ul style="list-style-type: none"> • BSS hire boat requirements - develop BSS examiner training, publications, road shows and new documentation during early 2015 	Implementation date now agreed as April 2017.

	Proposed training dates Feb/March 2017.
<ul style="list-style-type: none"> Identify examiners for next round of Field Assessments. Start Field Assessment process. 	Complete. Next programme being developed to start October 2016
7 - Focussing on continual improvement the BSS Core Processes - Minimising Risk Process	
7.1 - Salesforce will be developed to act as a primary delivery tool – for recording boat-related incidents Deliverable – continuous improvement supported by the BSS Business Plan – two-way upload/download of data between BSS and WAID databases by end of Summer 2014	Dual incident recording process in play. Meeting with WAID administrators planned to finalise the upload/download facility.
7.2 - additional data from examiners reporting the outcomes of BSS examinations on Salesforce, will inform the grading of risk and risk control initiatives such as planned press releases. Deliverable – continuous improvement	Examiner visits re started June 2016. Support still via email and telephone
7.3 - deliver training to BSS Office BSS staff to run reports and move forward on Salesforce usage – by Summer 2014. Revised Spring 2016	Now part of new members training. Extra resource will mean plan can start late July 2016
7.4 - deliver boater-safety research sponsorship projects planned involving CO and fire spread. Subject to detailed project plans being accepted. Support for Cranfield University boat CO research project is in the pipeline for 2015-2017	Cranfield University project ongoing and resourced
7.5 - support Hazardous Boat process for Environment Agency regional areas, by designing attending and delivering training. Target end 2014	Hazardous boat process under review. EA are engaged in the review.
9.0 BSS Risk Management Process improvements.	Programme slipped, new consultancy support in place. Expect delivery winter 2016

BSS Quality & Technical Manager

11 August 2016