



9 March 2018

Dear BSSMC member,

Agenda item 7 - Annual report of incidents and accidents recorded by the BSS Office and occurring between 1 Jan – 31 Dec 2017 [Doc E1, BSSMC #94]

This is a report of incidents and accidents for the calendar year 1 Jan – 31 Dec 2017 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 in trends 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, collision sinking, man-overboard and other incidents linked to boat use causing, or capable of causing injury.

1.2 – The role of the BSSMC 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 BSSMC meetings. Members are requested to come to the forthcoming BSSMC 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. Likewise, incidents happening in the Cardiff Harbour Authority waters on the landward side of the sea locks are considered as 'inland waterways'. The Authority is a member of AINA.

Other enclosed tidal waters, examples include Lake Lothing (Suffolk), Poole Harbour, Medway Estuary, Tidal River Trent, Strangford Loch, River Clyde - are considered coastal waters in this report as any controlling body has no current or previous membership of AINA or implementation of the BSS.

3.0 Summary

3.1 – This annual review is based on 200 reports obtained by February 2018 of 204 incidents (counting the further affected boats) during 2017 on inland and coastal waters.

The BSS has gathered details of 159 incidents on all inland waterways (canals, lakes, lochs, rivers and inland hard standing sites) and 41 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. Brief details of coastal incidents are in table A7 below.

3.2 – Of the inland incidents recorded are not on Association of Inland Navigation Authority (AINA) member waterways although two are on a lake with direct access to Canal & River Trust waterways.

3.3 – For 2017 on inland waterways, there were no fatal incidents from fire or CO. There are reports three fatalities linked to people falling from boats. We have also recorded that 23 people received hospital treatment in events linked to fire, sinkings, capsizes, man-overboard, grounding; stranding and personal injury on inland waterways. There is also a record of a boat death from CO on Jersey.

3.4 Fatalities and injurious incidents

3.4.1 - A boat owner has died from CO poisoning on a boat in a coastal marina on Jersey. The source of the CO was one of two Volvo Penta 4.2L petrol engines c/w out-drives that were being run to test the engine prior to a visit by potential purchasers. The stern deck canopy was down with only the back-flap rolled up, and the cockpit filled up with CO within minutes as light wind blew in the exhaust fumes back inside the boat. The owner was found unresponsive on the boat with the engine still running, and doctors later found 68% carbon monoxide in his blood. Note that as the States of Jersey is not in the UK, this incident is not recorded in the incident table figures.

3.4.2 – 56-year-old male was reported missing after not returning after a trip aboard a small vessel on Loch Awe, Argyll & Bute, Scotland.

3.4.3 – A woman died from drowning in a boating incident on Lough Erne, County Fermanagh. It is understood that the 35-year-old mother was aboard a hire boat with her husband and two children. Police received a 999 call at about 01:15 BST on Thursday from her husband who said his wife had fallen overboard the boat moored near Devenish Island. This incident is currently subject of a murder case.

3.4.4 – In November, a 60-year-old man died in hospital after being rescued from falling into the River Aire when a boat he was working on capsized. The man was working aboard with another colleague who was given hospital treatment

3.4.5 – In January, in North East England, a narrowboat was 100% damaged by fire when the burning of card or papers got out of control. The boat was a domicile with two people aboard. The navigation authority report detailed the potential environmental effects of the fire-fighting foam. It also noted that the *boat owner has been advised and is making arrangements to move the boat*, but no mention was made as to occupants/victims, so one possible inference it this boat was being lived aboard by people who were not the owners. The fire service report obtained by the BSS advised that one of two occupants was taken to hospital, overcome by toxic fumes, but injuries appear slight.

3.4.4 – January – A liveaboard owner was taken to hospital with smoke inhalation and minor burns after fire involving the use of a solid fuel stove. Little further information was contained in the reports.

3.4.6 – January – A liveaboard owner slipped on black ice and fell into water after trying to move his generator. The appliance fell into the water hitting the owner as it fell. The owner went to hospital for treatment to head injuries and a broken finger.

3.4.7 – April - River boater male (60-70 yrs) suffered an injury to his leg and was taken to hospital and released the same day. From initial reports, it is suggested that the vessel was being refuelled after running for approximately 30 minutes, the owner then restarted the engine and the explosion occurred. The owner has run the engines checking where they OK after a winter lay-up. He then attempted to fill the starboard engine. The assumption is due to the hot engine fumes escaped into the bilges and when the engines were restarted again the fumes ignited.

3.4.8 - April – A lifeboat attended a boat grounded on an inland tidal water. Two female crew members had left the vessel and become stuck in the mud. The lifeboat recovered them both, but in the process one of the females sustained a serious leg injury. All four crew of the vessel were then transferred to shore and met by were met by coastguard, ambulance and police teams.

3.4.9 - April – HM Coastguard Lowestoft & Southwold assisted East of England Ambulance with the extraction a male who had a dislocated knee on board a boat on the Broads.

3.4.10 - April - A man has been taken to hospital after a house boat fire. The hull of the 18m x 6m house boat was on fire and three fire engines attended the scene. A man in his 50s was treated by ambulance crews for the effects of smoke inhalation. He was then taken to hospital for further treatment.

3.4.11 - May - A young couple were rescued from Lough Neagh after the 17ft speedboat in which they were travelling sunk, leaving them clinging to its sides. It is understood the boat may have earlier hit something, cracking the hull and had started to take on water. The couple called the Coastguard who alerted L. Neagh units as well the SAR helicopter. The pair were in the water for almost 20 minutes and had to be taken to hospital for treatment of mild hypothermia.

3.4.12 May - two elderly couples hired a day boat. One of the men fell off the back of the boat and entangled his right arm in the propeller and sustained serious injury. He was rescued by his companion and his wife gave first aid until the paramedic arrived and his subsequent air-lift to hospital.

3.4.13 - May – a boater, obvious to witnesses under the influence of alcohol, was seen trying to turn his boat near a lock. He stepped off the stern of his boat as it approached the towpath, then tried to re-board while the boat was still moving. He lost his balance and hit his head on the boat controls as he fell. He opened a large cut on his head. The local waterway team got the boat to the towpath and a MOP called for an ambulance. The paramedic assessed the injury as requiring hospital treatment in, but the boater refused to go in the ambulance, so the paramedic called for police assistance.

3.4.14 - May – Firefighters attended a fire in the stern of a 15 metre long narrowboat - two hose reels were used to extinguish the fire which is believed to have been started by an unattended candle. The boat suffered 70 per cent severe fire damage - an ambulance was requested for one occupant of the boat suffering with smoke inhalation.

3.4.15 July - a man has been injured after a gas explosion blew the roof off a privately-owned pleasure boat in N Ireland. A nearby boater and former firefighter said I saw the boat on fire, there was a guy hanging on the inside. *“He was conscious and had burns. I assessed that he was talking. At this stage I said he had to come out of there, I pulled him out and got him to the end of the jetty. I got him in the car and took him to the hospital. He was complaining about a pain in his arm, he told me he went to light the gas ring and it just went bang.”*

3.4.16 - Aug – A woman, believed to be in her 70s fell from the stern deck of a typical Broads' cruiser hire boat with a forward helm. The boat was coming into moor with the current, when strong winds and tidal flows, pivoted the boat rapidly around its bow which was being held by a mooring line.



The stern of the same model of hire craft

It swung around and hit an adjacent moored boat. It is suspected that the impact with the moored boat caused her to lose her balance and fall. The propeller caused serious leg injuries and she was taken to hospital by air ambulance.

3.4.17 - August - a wooden craft sank in a harbour after a forceful gas explosion in the galley of the boat. Media reports described the scene "*There was broken wood and shard of glass all over the floor for 10 metres around.*" The occupants were rescued by a former doctor who was eating nearby. The rescuer described the man as very disorientated and was covered in blood from a head wound. Later reports described the male boat owner as quite badly burnt and with staples in his head, leaving him unable to work for some time. The ignition occurred as the female victim ex-changed gas cylinders on the roof while her husband lit the stove in the galley directly underneath. The boat was issued a BSS certificate in 2015 and had a bubble leak detector fitted in the gas system.

3.4.18 - August - a boater was undoing the ropes on a hire boat to make room for another boat at the tunnel moorings, but while he was loosening off the rope, the boat moved and one of his fingers on the right hand got stuck from the knuckle upwards and got partially ripped. The boater was taken to hospital and an operation was successful in saving his finger.

3.4.19 - Sept – Two community support police officers have been praised as heroes after saving a man who fell into the River Hull. They had to drag a man to the side of the river earlier this afternoon. The man had been on a boat on the River Hull when he unexpectedly fell in. He received medical treatment at the local A&E hospital

3.4.20 - Nov – Local waterways team were assisting with mooring a yacht arriving in an inland waterways dock. On disembarking one of the crew slipped on pontoon on. Injured person had trainers on, and was carrying a large satchel at the time. Injured person was taken to hospital and a dislocated shoulder was confirmed. At the same time another crew member wearing smooth-soled shoes slipped on the pontoon and was taken to hospital for treatment of a broken wrist.

3.4.20 - Sept – a boating couple reported that they were following hirers in two boats who were struggling with the locks and so helped them through. A little later while tying up before the lock, the couple watched them go in the lock. Suddenly the couple heard screaming and the husband ran to lock, to find an elderly male hirer had fallen off the boat into the lock chamber. The rescuer secured the paddles and jumped on boats to stop the engines. Blue light services attended quickly and the man who had a pre-existing condition did not respond to treatment initially was taken to hospital. He was later released to continue the holiday the next day. The hirers said they had around 10 minutes tuition.

Hire & Passenger Craft Incidents

3.5 – Hire and small passenger craft – included in the list are seven collisions; five fire incidents; four lock sinkings; one other sinking related to weed-hatch; a stranding; and six person-over-board events. Table A8 sets out brief details.

The incidents list may provide some context for the forthcoming work to finalise the Hire Boat Requirements checking procedures including the new smoke alarms checks, designated crew areas/tiller arc, anti-slip surfaces and weed-hatch checks.

There have been three fires on inland hire craft (another in 2018 – for the next report) while in 2017 all these fires were noticed by the hirers, they were of a nature where the incident could have occurred unnoticed or while people were asleep. On one of the craft, the narrowboat was not fitted with any smoke alarms and had a potential escape issue too as one set of doors could only be locked on the outside.

Weed hatch fails have resulted in potentially dangerous sinkings. Two were on hire craft (unofficial) that had private BSS checks and so the weed hatch arrangements were not subject to scrutiny. The victims suffered health wise and lost property with no chance of insurance compensation.

Appliances and systems

3.6 – Force or blown air oil fired heaters: Two hire boats from the same operator had at different times of the year, fires caused by their heater units. There was also a fire on a coastal boat cause by a forced air oil-fired heater when its exhaust set fire to nearby plywood. Luckily the fires on the hire craft were small and quickly dealt with. However, they were on a remote tideway where disembarkation in a hurry could be extremely difficult.

Fires caused by exhausts setting alight to nearby combustible structures have featured in previous years and there are inquiries into incidents by bodies such as the Marine Accident Investigation Branch that offer greater detail as to design and maintenance issues relevant to this subject.

3.7 – Solid fuel stoves have been linked to seven incidents on inland and coastal boats. The details are sketchy, but indications point to a familiar pattern of construction, maintenance and use issues with examples of pyrolysis, flue maintenance and logs stowed too close to the appliance.

Not included in the report are several mentions on social media of CO alarm activations from stoves that have door issues (damaged rope seals, closing or broken glass), broken chambers / missing plates, damaged/deteriorated flue pipes/joints or blocked baffle plates and flues. More detail is provided in table A9 below

3.8 – There were eight flammable vapour incidents in inland and coastal boats. We are reasonably confident that LPG and petrol are about half and half of that total. In addition, there were three incidents attributed to LPG and a further three attributed to petrol.

Of these there was a serious incident at an inland waterway refuelling station that led to an investigation. One fire was caused during work on a carburettor that resulted in petrol in the sump. It ignited when the boat was tested with the filters on. Another was an uncontrolled petrol leak on an inland waterway from a fuel canister that fortunately did not ignite but resulted in attendance by HM Coast Guard and the fire service. Other incidents mention leaking gas cylinders, an outboard engine fire and an explosion after a petrol transfer using jiggle hose that happened when the 'bilge blower' was switched on. One report related to significant uncontrolled gas leak found during a BSS examination.

4. Key activity for 2018

4.1 - Enhancements to the incident recording system will be implement this year allowing for more rapid production of data and when needed interim report to support work on requirements, risk appreciation or advice giving. The new system will be live recording, with alerts and messaging linkage so as to enhance further information chases and data trails.

4.1.1 Provision on information from navigation authorities has been variable. It is occasionally outstanding, but there are still numerous examples where staff are clearly not appreciating the purpose or need for obtaining the right sets of information to be helpful to all colleagues across the sector.

4.2 - There is already a lot of activity within the BSS team focussing on risks related to carbon monoxide poisoning this includes the three environment monitoring projects, the interactive learning modules that then will support the Trusted Messenger project. At the time of writing this report, a news release will be produced taking up the experiences of the latest fatal incident in Jersey of a large petrol engine cruiser that has echoes of the fatal incidents at Cardiff and Wroxham as well as the non-lethal but major injury event on Windermere from the sports boat's petrol engine exhausts.

4.3 - On 20 February 2018 a solid fuel stove working group co-ordinated through BSSTC met. Members included stove manufacturers, accreditation body, chimney specialist, fitters, consultants, boat builders and boat users. They took a general view of where the issues of stove safety and environmental factors are and considered the evidence of the lethal and non-lethal stove incidents. It was two days after that a fatal fire on a residential narrowboat happened and it was confirmed that is related to the use of a solid fuel stove.

There will be more work on this subject during 2018. There has already been mini social media work support stove safety, not least prompted by the fatal fire, but also messages such as keeping ventilation clear from snow to avoid CO poisoning at a time when stove use was likely to be a pinnacle

Compiled and drafted by BSS Office

9 March 2018

Annex A – Total - 1 January to 31 Dec 2017 201 records Incidents

159 inland waterway incidents

41 coastal incidents

Table A1 <u>Basic statistics from the records</u>	<u>BSS</u>	<u>Non-BSS</u>
Number of incidents recorded	148	11
Fire/explosion (inc immediate risk of)	60	5
CO (including near incidents)	2	-
Pollution	3	-
Man Overboard	12	3
Personal Injury	10	1
Capsize 0, collision 11, grounding 0, stranding 11, sinking including lock hang-up 39,	61	2

*vessels included in multi-vessel incidents

Table A2 <u>When accidental fire happens</u>	<u>BSS (49)</u>	<u>Non-BSS (4)</u>
Moored / anchored / tethered	46	2
Approaching, traversing, departing Lock or Bridge	1	-
Underway/setting off	2	2
To Be Confirmed / unrecorded	-	-
Hard-standing / abandoned	-	-
Dry Dock/Construction	-	-

Table A3 <u>Use of vessels in all inland incidents</u>	<u>BSS waters Fire, CO & Pollution (65)</u>	<u>BSS waters 'MOB & Navigation' (83)</u>	<u>Non-BSS inland All incidents (11)</u>
Note: Navigation = all other inc Capsize, Sinking, Grounding etc			
Pleasure and leisure	21	31	6
Not recorded/not known	16	17	2
Intensive [residential and extended use)	23	12	-
Hire and passenger boat	3	17	1
Workboats / other commercial	2	6	2
Brokerage / renovation / under repair	-	-	-
Abandoned	-	-	-

Table A4 <u>Systems & causes: all fire, pollution & CO inland waters</u>	<u>Inland BSS (65)</u>	<u>Non-BSS (5)</u>
Deliberate Fire setting	11	
Conflagration	4	
Bullseyes	1	-
Electrical [all installations and systems]	7	-
Engine [installed] / engine room / exhaust / leaking fuel oil	-	2
Flammable vapour [type tbc)	7	-
Galley Accidents / Smoking / candles/ un-specified appliance	2	-
Gas escape / installed gas appliance	2	1
No information [TBC, not reported, not investigated & inconclusive]	20	1
Oil fired stoves and heaters [installed]	3	-

Other [inc machinery, welding, DIY, etc]	-	-
Petrol installed [leak, refuelling, detonation, etc]	2	-
Portable engines / outboards / generators	1	-
Portable items [lamps / heaters / stoves]	-	-
Solid fuel stoves	5	1

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>		
Explosion/fire, petrol, gas, fume ignition	-	8
Carbon Monoxide	-	-
MOB / Capsize/ collision	3	10
Other personal injuries	-	5

Table A6 all inland waters <u>Trends in systems & causes:</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
<u>All fire & CO</u>							
Totals	69	92	63	69	91	80	90
Deliberate Fire setting	11	6	11	12	11	11	25
Conflagration	4	5	11	3	3	5	5
Totals of accidental and original incidents	54	81	41	54	75	64	60
Bullseyes	1	-	0	0	0	0	1
Electrical [system / appliances]	7	11	7	8	15	15	17
Engine / engine room / exhaust	2	13	2	5	6	4	8
Flammable vapours (not yet identified)	7	4	4	3	3	2	3
Other domestic, galley, smoking, candles, etc	2	5	1	0	0	3	1
Gas escape / installed gas appliance	3	4	2	0	4	3	3
Not known [inconclusive / tbc to BSS]	21	21	15	27	28	21	13
Oil fired stoves and heaters [installed]	3	1	1	0	1	2	1
Other [inc machinery, welding, DIY, etc]	0	1	-	2	1	2	0
Petrol related – leaks, refuelling, etc	2	2	2	2	2	2	1
Portable engines / outboards / generators	1	-	-	2	2	0	1
Portable items [lpg, oil, BBQ, electric, etc]	0	-	-	0	2	0	4
Solid fuel stoves	6	20	7	5	13	10	7

Table A7 coastal incidents of relevance (41)

Boat Type	Incident Type	Systems Involved	Injuries
Motor cruiser	Sinking	Exhaust	0
Fishing Vessel	Fire	Unrecorded	0
Fishing Vessel	Fire	Hot Work	0
Unreported	Fire	Smoking related	1
Former Rescue Boat	Fire	Deliberate	0
Barge	Fire	Solid Fuel Stove	3
Motor Cruiser	CO	Exhaust	1 (Fatal)
Motor Cruiser	Fire	Engine	0
Houseboat	Fire	Unrecorded	0
Motor cruiser	Fire	Engine	0
Motor Cruiser	Fire	Engine Electrical	0
Yacht	Capsize	Mooring error	1
Speedboat	Fire	Flammable Vapours	0
Speedboat	Fire	Conflagration	0
Fishing Vessel	Fire	Engine Room	0
Motor Cruiser	Fire	Unrecorded	0
Fishing Vessel	Explosion	Flammable Vapours	1
Catamaran	Fire	Deliberate	0
Fishing Vessel	Fire	Flammable vapours	0
Motor Cruiser	Fire	Engine Room	0
Fishing vessel	Fire	Unrecorded	0
Houseboat	Fire	Unrecorded	1
Motor Cruiser	Fire	Engine Room	0
Tender	Fire	Generator	0
Motor Cruiser	Fire	Conflagration	1
Yacht	Fire	Unrecorded	0
Motor Cruiser	Fire	Engine	0
Motor Cruiser	Fire	Unrecorded	0
Motor Cruiser	Fire	Unrecorded	0
Motor Cruiser	Fire	Electrical	0
Motor Cruiser	Fire	Flammable Vapours	2
Motor Cruiser	Fire	Deliberate	0
RIB	Fire	Flammable Vapours	0
Dive support vessel	Explosion	Pressure vessel fail	2
Yacht	Fire	Engine Room	0

Fishing Vessel	Fire	Unrecorded	0
Passenger Boat	Fire	Engine Room	0
Yacht	Fire	Oil Fired Heater Exhaust	0
Fishing Vessel Houseboat	Fire	Inconclusive	0
GRP Yacht	Personal Injury	Battery Vapours	1
Fishing Vessel	Fire	Engine Room	0

Table A8 additional information on hire, tenanted and passenger boat incidents 2017

Month	Region	Risk	Brief description of events
17-01	SE Eng	Fire	Domicile and arts venue on a tideway caught fire linked to solid fuel stove
17-01	NW Eng	Sinking	Unofficial rented liveaboard boat sank. Owner had to go to hospital for hypothermia treatment. Poor hull condition likely cause
17-03	NW Eng.	Injury & Collision	A hire boat transiting a tunnel sustained damage to the 2 front corners of the hand rails, no one was injured on board.
17-04	N. Ireland	MOB	A lady went over the side of the hire cruiser that she was aboard with her family. She did not survive. Subject to an ongoing criminal case as to whether it was accidental or if she was attacked.
17-04	SE Eng	Sinking	A 'micro-share' liveaboard boat had just been collected by the new occupier and was progressing along a river when the weed hatch cover came loose and the boat sank rapidly. A private BSSC was current and the weed hatch check was not applied.
17-05	NW Eng	MOB	A hirer on a day hire craft fell off the stern of a day hire craft and sustain serious arm injuries from the propeller. He was airlifted to hospital.
17-05	E Anglia	Collision	Two hire boat collided and sustained so much damage both had to be taken off hire
17-05	W Eng.	Collision	A hired narrowboat struck a swing-bridge and blocked the canal.
17-05	NW Eng	Lock Sinking	A boat converted for wheelchair passengers and other disabled people was on self-drive hire
17-05	E Anglia	Fire	A forced air oil-fired heater caused a small fire in the back cabin of a hire craft that was transiting a tideway. The family of hirers were safely evacuated.
17-06	SE Eng	Collision	An electric powered GRP day boat with seating for 8 ppl had an allegedly rowdy, abusive and alcohol fuelled crew aboard that scraped two moored narrowboats, and refused to stop or acknowledge the damage.
17-07	NW Eng	Sinking	Unofficial rented liveaboard boat sank under the control by the tenant. It was alleged that the weed hatch was open. Note, reports also suggest it had also been driven into nearby moored craft. The tenant left the site and was not traced. The boat had a private BSSC and the weed hatch check would not have been applied.

17-07	SE Eng	Collision	A hirer decided not to use a back channel and did not take account of the lower arches on the bridge they needed to navigate through. The craft hit the bridge badly damaging the boat's superstructure. No injuries were reported.
17-07	Midlands	Fire	The power connection on the operator provided television began to get hot and smoke. The TV was not in use. The second means of escape could was only lockable on the outside. There was no smoke alarm
17-08	E Anglia	Collision MOB	The wind and tide caught the stern of a hire boat as the crew were mooring up. It pivoted completely round and hit an adjacent moored boat. The impact potentially caused a grandmother on the open rear deck to lose her balance and fall off into the river. She was seriously injured by the propeller.
17-08	NW Eng	Personal Injury	A hirer sustained serious finger injuries while undoing the ropes on the boat to make room for another craft on moorings at a popular site.
17-08	NW Eng	Collision	There was a heavy collision between a hire craft and a trip boat in service. No passengers sustained injuries
17-09	NW Eng	MOB	A tourist who spoke little English, fell off his hired boat at a waterpoint. He walked down the gunnels and his foot had slipped from the moored boat.
17-09	NE Eng	Lock Sinking	The baseplate at the bow got caught on a ledge as the boat started to descend, and though the crew realised what was wrong, by then the stem had got caught up in the paddle gear and they couldn't close it.
17-09	NE Eng	Lock Sinking	Two disabled people were trapped aboard a hire craft sunk in a lock and had to be brought to safety by firefighters. A MoP managed to stabilise the water levels and prevent complete inundation of the boat before the emergency services
17-09	SW Eng	Lock Sinking	A hire craft got caught on the top cill although it was saved from sinking by the hirers refilling the lock. It is possible that the users were under the influence of alcohol. Boat suffered damage to drive & steering gear
17-09	NW Eng	Lock Sinking	While a three-generation crew were transiting a lock in two boats, the grandfather fell off the rear deck of the cruiser stern boat. A bystander secured the paddles and stopped the boat engine. The elderly man was recovered from the water by the blue light services and was taken to hospital. The crew said that they have only had a few minutes training.
17-10	NE Eng	Stranding	Charity boats stuck on weir booms
17-10	E Anglia	Fire	A forced air oil-fired heater caused a small fire in the back cabin of a hire craft that was transiting a tideway. The fire was put out by the use of two extinguishers
17-10	S Eng	Fire	Three fire crews attended a moored 'Class V' passenger boat operating on a sheltered tideway.
17-11	E Anglia	MOB	An elderly man was boarding a passenger boat when he fell into the river. He was spotted immediately. It took four males to recover this man.

Table A9 – solid fuel stove incidents recorded in 2017

Incident No.	Month	Incident Type	Details
17-002	Jan	Fire	Former military craft converted to an art gallery and domicile was engulfed by flames which rapidly spread to two other boats. Emergency crews used 12 fire engines and an aerial platform to douse the blaze as teams cleared gas cylinders from neighbouring vessels. At least one person is believed to have been rescued but no injuries were reported following the fire, which was extremely fierce.
17-010	Jan	Fire	Firefighters wearing breathing apparatus used a hose reel to extinguish the fire and a high-pressure fan to clear smoke and reduce high CO levels detected by a gas monitor. The accidental fire involved an incorrectly maintained wood burning stove, which resulted in heat transfer through a chimney to timber cladding on the interior of the narrowboat.
17-017	Jan	Fire	Two fire engines attended a boat fire. Firefighters used two hose reels to extinguish the fire and one person was taken to hospital by paramedics. The cause of the fire is under investigation. HSA - Email trail indicates the owner has been involved in previous boats that have been on fire. Customer Ops team have place an oil spill boom around the sunk hull and plans are being made to remove the burnt out hull.
17-018	Jan	Fire	Three people have been treated for smoke inhalation after a fire broke out on a 100ft barge in a south-eastern museum. When they arrived the on-onboard crew had managed to put out the fire, but were suffering from the effects of breathing in smoke. Two fire engines were sent to the scene. A spokesman for the fire and rescue service said: "The barge is on the slip way on dry land and firefighters are using compressed air foam to ensure the fire is fully extinguished."
17-28	March	Fire	On arrival crews found the boat to be well alight. Two firefighters wearing breathing apparatus extinguished the flames using one hose reel jet. The watch manager, said the accidental blaze had caused a severe amount of damage. "The wooden boat has suffered pretty extensive damage as a result of the fire which we believe started because of a problem with its chimney flue," he said. "Although no-one was on board at the time, we are aware there were a lot of personal belongings on the boat when the fire started.
17-063	May	Fire	A CANAL boat has been completely gutted after a blaze tore through its cabin Two crews attended after reports of a boat being well alight at around 9.45am. The crews used breathing apparatus and a hose reel jet to extinguish the fire – which is believed to have been caused accidentally by logs igniting off the heat from a nearby log burner. Crews were on the scene for more than three hours.
17-179	Nov	Fire	A boat fire set light to a nearby motorbike on the towpath. The insurance assessor believes that the cause may have been the SFS

Table A10 – electrical incidents recorded in 2017

Incident No.	Month	Incident Type	Details
17-135	Aug	Fire	From social media: The helm was revving the engine a little to finish charging the leisure batteries then lots of smoke! The boaters had stopped cruising to find the travel pack was red hot and smoking
17-142	June	Fire	The boat arrived at its mooring at 11.30pm, once moored, the crew left the boat. By 01.45, the horn was blasting intermittently and so was the headlight flashing and then the fire broke out.
17-143	Sept	Fire	The new owner of a flybridge cruiser arrived at the harbour with one of the two engines not working. Once moored, the owner hooked up shore power and it didn't work. So the crew started the auxiliary generator and it burst into flames.
17-167	Feb	Fire	An imported sports cruiser converted to UK AC voltage 230-240 v. The fire may have started with a fault in the base of a kettle. It may have then fallen onto soft furnishings. The strength of the fire was restricted by the fire retardation treatment of the fabrics. However, the heat was enough to affect the resin in the FRP to make it extremely brittle and weak. There was no evidence seen of any smoke alarm.
17-176	Nov	Fire	Fire most likely started on one motor cruiser and then spread from one boat to another by radiated heat. The most probable cause was accidental electrical issue on a 1990s motor cruiser
17-186	Nov	Fire	The fire started the previous evening. Due to the construction of the boat foam insulation in between the inner and outer wood shell it was smouldering overnight. With a strong wind, the next morning it reignited and then had to be cut through to extinguish the fire. The main cause has been recorded as an electrical fault caused by an animal.
17-185	Dec	Personal Injury / Fire	Owner suffered from headache in the evening following discovering of a battery which was gassing off due to damage and charging rates. He was alerted to the issue by the CO alarm which activated and he thought his unwell feeling may have been linked to CO. having confirmed the battery as the issue, he removed the battery from the vessel to allow to cool.
17-199	July	Fire	Over-heating TV power supply on a hire craft [also in Table 8]

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 190 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.