

## SCRA SAFETY BRIEF ISSUE 1

Summer 2016

Two capsized events have occurred recently involving rowing craft.

Below are extracts of an SCRA Incident Report Form and the second incident is a Marine Accident Investigation Branch Report on a Cornish Gig Incident. Clubs should consider the lessons to be learned from these incidents, and whether their own procedures should be reviewed.

### Incident 1: St Ayles Skiff Racing Incident

During a SCRA long distance race event a skiff capsized in open water – the crew was rescued and returned to shore. The skiff was also recovered with only very minor damage. This is the only incident that we are aware of where a St Ayles Skiff has capsized in open water (as opposed to when beaching) after thousands of outings by St Ayles skiffs.

Prevailing Conditions including Weather: On the day of the incident the wind was around 13-15mph NE in the morning and was forecast for 19-20mph in the middle of the day. The wind did increase as the day went on, as forecast. The significant wave height was very variable over the 3 mile course with no waves on the first mile and between 1.5 miles 2.5 miles the significant wave height was approximately 4 feet.

The tide and wind at the time of the incident were running against each other, with approximately 5 to 7 knots of tide against 20 mph of wind. The tidal race is assumed to be a significant factor. The skiffs were taking the majority of waves on the Port Side/Port Quarter. With areas of shallow water, banks and other local effects there were several areas of unpredictable water. Standing waves, breaking waves and "holes" were present. Temperature was around 10 degrees and light clouds. No rain.

Safety Equipment Used: Four rescue boats were present on the day for the event. These were mobilised for rescue. VHF's were in operation but were not used initially. This rescue boats were close enough to the event to not need them to communicate with the crews or with each other.

Skiffs were all prepared for the event, they all complied with the SCRA rules of racing and those in the skiffs were all wearing suitable PFDs. In the capsized boat all 5 people were wearing manual inflating lifejackets, of which 3 people inflated theirs. 1 out of 5 was a bumbag lifejacket which was inflated. The others did not inflate as they were confident with staying afloat holding onto the skiff/oar whilst the safety boat arrived on scene. A contributing factor to only 3 of the jackets being inflated could have been that the level of anxiety/panic was low in the crew as the incoming of safety boats was very rapid. The bumbag lifejacket was said to work well, it had been positioned on the front of the waist beforehand and then inflated before being donned.

The skiff capsized due to the following sequence of events:

The skiffs were heading generally into the waves (although the sea was confused, and some waves were coming from the port side). Two larger waves came from the port side, whilst the boat was going straight into a wave. The first wave broke over the port side and sent the crew off balance and added a significant amount of water into the skiff. Two of the crew gave estimates of "12" inches" of water and "several cubic metres" of water. The second wave hit the port side again resulting in the starboard gunwale going in the water causing down flooding to begin and cause a capsize.

The following are thought to have contributed to the capsize: Free surface effect of the water, Crew being misplaced by the first wave into an unbalanced position in the skiff resulting in the centre of gravity moving. stbd side water ingress due to down flooding angle being reached. Wave characteristics on the day caused by the wind against tide and shallows. Possibility of crabbing occurring when the angle of heel increased significantly.

The swift actions of the safety boats undoubtedly aided the positive outcome of the event. They were on scene and had the crew from the water before the other skiffs could come to assistance. The safety boat and drivers were able to take the crew ashore and then return to the upturned skiff, turn it over and then tow it ashore. The only damage to the skiff was to the rudder. Some items were lost which were not fixed to the boat, such as keys and phone.

The fact that the crews were racing impacted on the event in a negative and a positive way.

If the crews had not been racing, the capsize would probably not have occurred, as the crew would have proceeded by a different route, or turned back when the confused seas were first encountered. However the fact that crews were racing meant that safety boats were present, and able to remove the crew from the water very quickly. One skiff which was heading in the direction of the area which the first skiff capsized altered course and speed to reduce the possibility of incident.

#### Amendments to Procedures and Risk Assessments

Race organisers should ensure a proper risk assessment is carried out before races start with clear indicators for when the secondary plan or abandoning race is needed.

The racing rules state that race organisers shall provide sufficient numbers of suitable vessels to provide safety cover for the event and as a minimum there must be one safety launch and one umpires launch. If at any point in a race, due to an incident occurring, sufficient safety cover can no longer be provided, coxswains should be advised that the safety cover is no longer there and that they should take appropriate action (i.e. adjust speed, and course if required and go to a safe area).

The current rules require each person to use a "suitable personal flotation device" in this case 5 people entered the water un-expectedly. Clubs should consider what constitutes suitable PFD in the situations in which they find themselves. It is recognised that some

may not consider auto-inflation to be suitable due to the risks associated with being trapped under the boat. Others may consider that risk to be outweighed by others.

### Learning Point

The St Ayles Skiff is inherently a very stable craft and as such we have become used to them being very safe to take to sea in. Breaking waves have more power in them than people realise. They are to be avoided, and areas of extreme confused sea, particularly in strong tide against wind conditions should be avoided. Where possible efforts should be made to reduce any water which has come into the boat over the sides. The free surface effect of this extra water sloshing about can reduce this stability.

As with most activities on the water, there are potential incidents particularly when sea conditions change or become less predictable. It is useful for rowers to assess conditions on any route they are planning to take and any area of shallows or mixing of salt/fresh water where unusual surface conditions may be encountered.

Even in race conditions, and particularly when novice or inexperienced coxes have the conn, consideration should be made of steering to the sea rather than aiming for the mark.

### Incident 2: Cornish Gig Incident

#### Extract from Marine Accident Investigation Branch Report

##### Narrative

It was a cold day when the seven crew of a Cornish rowing gig intended going to sea for some training. Before launching, the cox'n and crew discussed the weather and noted that a ground swell could develop outside the harbour for an hour either side of low water. All agreed that if the swell developed they would stay at sea until it subsided, and that this could mean being out in the cold for several hours.

At the end of the rowing practice the gig's crew rowed towards the harbour to assess the conditions and found that an onshore swell had indeed developed as expected. After aborted attempts to enter the harbour, the cox'n decided to hold the gig beyond the swell line until conditions improved.

Coincidentally, the local RNLI inshore lifeboat was also training in the area, and the two vessels' crews exchanged banter and discussed the conditions. The lifeboat cox'n offered to collect warm clothing for the gig crew to wear while they waited for the swell to subside, and also suggested that two of the gig's crew should be taken ashore to be replaced by stronger rowers. The lifeboat entered harbour and returned with two fresh rowers (one of them a seasoned gig cox'n), and all-in-one woollen suits and inflatable lifejackets for each of the gig's crew.

The two new rowers changed places with those leaving the gig, following which the seasoned cox'n who had just boarded decided to take control of the gig. The cox'n bowed to

what he believed to be the seasoned cox'n's greater experience and superior local knowledge, and ceded command of the craft to him without discussion. Similarly, the gig's crew were content with the change of cox'n and believed they would be in safe hands.

Following a discussion between the new cox'n and the lifeboat crew the decision was taken to attempt to enter harbour before the swell settled. Unfortunately the gap between swells was not long enough, and as the craft raced forward it broached and capsized when overtaken by a following wave. The occupants were thrown into the sea. Most of the inflatable lifejackets supplied by the lifeboat did their job by inflating and supporting their wearers. One lifejacket however did not automatically inflate and the weight of the wearer's waterlogged all-in-one suit quickly sapped his energy as he attempted to stay afloat while successive waves broke over him. The inshore lifeboat's crew saw the gig capsize and quickly rescued its occupants from the sea. However, with nine people on board the lifeboat did not have the manoeuvrability to enter harbour safely in the prevailing swell, so the cox'n had to hold the boat outside the swell line until further resources arrived to help take the traumatised gig crew ashore.

#### The Lessons

1. It was known that a ground swell regularly developed at the mouth of this harbour 1 hour either side of low water. There was, therefore, a risk of making a harbour entry in marginal conditions, or having a long cold wait. With hindsight, it is easy to see that a better decision would have been to delay the training until conditions were more favourable.
2. Having decided to proceed with the training session the gig's crew knew they could face a long wait at sea if the ground swell developed. They should therefore have taken appropriate extra clothing in case this occurred. While the all-in-one woollen suits supplied by the RNLI are good at retaining warmth, they are intended to be worn under dry suits; their fleece like construction acts like a sponge in water and, as was shown in this case, when waterlogged their weight can quickly sap the energy of an unsupported swimmer.
3. Many rowers choose not to wear PFDs as they perceive them to restrict their rowing. Given the conditions on the day it would have been sensible, as a minimum, to have stowed lifejackets on board. They could then have been donned before starting any potentially hazardous activity, such as attempting to enter harbour through a heavy swell.
4. The crew and original cox'n were content to delay their return to harbour until conditions were more benign, yet allowed a newly arrived forceful character to alter their decision. In this case, the potential gain of an earlier entry to harbour did not warrant the risk of attempting an entry through the prevailing swell. A more comprehensive discussion of the risks/ gains should have taken place, which would have enabled the original cox'n to make an informed decision about handing over command of the gig. Had such a discussion occurred, the outcome might well have been different.

