Even Maxis Capsize

Narrative

One of the entrants for the 2000 Atlantic Rally for Cruisers (ARC) from Las Palmas to St Lucia was the 24m ex-Whitbread maxi sloop, *Creightons Naturally.* She is now operated commercially for corporate entertainment, as well as providing more adventurous passages for paying guests. The passage to the start of the ARC from the United Kingdom offered such an experience to a number of paying guests.

According to the brochure, her original departure date was 1 November but, in the event, she left the Hamble River 2 days later with a crew of 18th. The aim was to arrive in adequate time for the start of the rally on 19th. November. She never made it.

Three days later, this thoroughly tested and capable craft capsized in bad weather while crossing the Bay of Biscay. The decision was taken to abandon her, and a few hours later search and rescue helicopters successfully rescued all on board. Some of the crew were injured.

In 2000, *Creightons Naturally* was being used to provide both maxi sailing, and adventure training opportunities, to individual and corporate clients. She had a permanent crew of six and, in November 2000, she was skippered by a 35 year old man holding a RYA Yachtmasters' Ocean certificate. He had accumulated some 12,000 miles on board *Creightons*, most of it as mate, and had been with the boat since 1999. He had been the skipper since September 2000.

The rest of the permanent crew had a variety of experience and qualifications. The passage crew, known as paying guests, mustered a range of experience from extensive to total novice. Some made only a nominal contribution towards the cost of their food, since they were there to strengthen the professional crew on board. They were all aware of the potential challenge they might face for an open sea passage at that time of the year.

Creightons Naturally had been surveyed for a Small Commercial Vessel Certificate in October 1995, and this was due for renewal by 6 November 2000. On sailing, neither owner nor skipper had realised it

was about to expire. The yacht was surveyed annually by the MCA for the Passenger Vessel Certificate she carries.

With the corporate season behind her, she spent the month of October at a marina on the Hamble, being prepared for her voyage. Much needed to be done, including resealing a cracked diesel tank and, at the last moment, repairing the engine. There were also problems with the external communications systems, which required remedial work. MAIB inspectors were told that several deck hatches were known to leak, including one situated immediately above the navigators' station, were water had been entering electrical equipment, and which had been repaired.

The plan had been to embark the guests at Ocean Village, Southampton, on 1 November and sail the following day.

In the event, the yacht was not ready for sea at the expected time, and it was necessary to transport the guests from Southampton to Swanwick, where they found the crew fully occupied making last minute preparations.

The joining guests were mainly left on their own devices in the hours prior to departure. There were no introductory of pre-sailing safety briefs, although the skipper talked to each crewmember individually to assess their sailing experience and strength to enable him to allocate crew to the separate watches.

A tide delayed departure, and *Creightons Naturally* finally departed at 0230 on 3 November. In order to embark fuel, the skipper planned to stop briefly at the fuelling pontoon at Port Hamble. However, a combination of weather, and tidal conditions, prevented her from doing so, and the decision was taken to press on westwards to Weymouth to top up with fuel.

She made Weymouth safely, but the refuelling process was interrupted when diesel started to pour into part of the accommodation. The fuelling cap to the diesel tanks had been disconnected during the pre-sailing preparations in the Hamble, and had never been replaced. The resultant mess and smell of diesel were not welcome.

Fully filled, *Creightons Naturrally* finally set off at about 1400 and made good progress towards Ushant and the Bay of Biscay to follow a passage plan prepared by the skipper. The forecast for Biscay was west or northwesterly 6 or 7 decreasing to 4 or 5 with thunder and showers.

The sailing conditions were good, and the skipper felt that in view of the predicted weather he would be best placed to make adequate ground to the south, and avoid any developing depressions. He judged they would pass well to the north. As they adjusted to the routine of sea watches, both the crew and the guests began to settle in and enjoy the passage, even though the latter were never informed of the planned track, the expected weather or the conditions they might expect.

By dawn the following day, the wind was blowing a steady north-westerly 5, only to ease as Ushant was passed at around midday. The skies had cleared, the sun was shining and, by sunset, the wind had dropped to 9 knots from the west-southwest. As darkness fell the wind began to back and increase and by the early hours of 5 November it was blowing from the south 4 to 5. The forecast issued at 2100 on the 4th had predicted southerly 4 increasing 6 to gale 8.

It also referred to an Atlantic low 998 moving steadily eastward, expected Sole 968 by 1800 on 5 November. The barometer at 2000 was logged as 1013.5mb. She pressed on.

Conditions on 5 November slowly deteriorated. The skipper considered his options and took the decision to remain at sea. He contemplated seeking shelter somewhere in Brittany, but rejected this in view of the dangers involved in closing a lee shore in bad weather. He was in a well-found and tested boat, and was confident of its ability to withstand the severest of weather.

He was also aware that he had to make Las Palmas in time to prepare for the start of the ARC, and for some of the paying guests to fly home. In addition he never forgot that one of the main thrusts of the *Creightons* ethos, so strongly advocated by the owner, was 'adventure'. Rough weather provided it.

The broadcast surface analysis for midday on 5 November and received on board, showed a complex situation in the vicinity of the yacht, with two cold fronts forming what was likely to be a secondary depression.

The close spacing of the isobars also indicated the likelihood of high winds in the order of force 8 to 9.

By sunset, sail had been shortened to the main with three reefs and the No. 3 genoa. The headsail was later taken in. The wind had veered to the south-southwest, and by midnight had gone round to the northwest 7 to 9. It was a dark night and the seas had begun to build. When the skies were clear there was adequate natural light to at least be aware of the sea- state and its direction, but when a number of line squalls came through the visibility dropped dramatically. The skipper remained on deck as the wind increased and the seas built up.

By the early hours of 6 November conditions had deteriorated further. From midnight the skipper and mate remained on watch to handle the situation, while the paying guests remained below. One or two people were suffering from seasickness. The sea-state became confused, and when squalls hit the boat it was very dark indeed.

The skipper was uneasy with the amount of sail he was carrying, but judged it too dangerous to lower the main and hoist the tri-sail. His selected course of action was to run down sea. This gave the impression of relatively comfortable sailing, but the conditions were such that a preventer could not be rigged safely.

At an indeterminate time (account differ), but possibly short after 0100, *Creightons Naturally* gibed and her mainsail blew out. She was now running in a south-south-easterly direction under bear poles before the seas. An attempt was made to secure the main. Meanwhile the crew was trying to start the engine but it was thwarted by water in the fuel system. Seawater had contaminated the fuel tanks from down flooding through the fuel vents in the sail pit.

The generator was started but this, too, failed after a few minutes. And then the instrument lights failed. The skipper on the helm had no idea in which direction he was pointing and had to rely on feel as he attempted to maintain his downwind heading.

At about 0530 *Creightons Naturally* broached and was knocked down to starboard to an angle judged to be somewhere between 90° and 130°. One account suggested it might have been as much as 160°. Several people were injured, including the skipper when he was thrown against

the wheel. The conditions below were chaotic; most people were thrown from their bunks and a number of heavy items, which had not been properly secured, broke loose including the kedge anchor, the spare mainsail, tools and a range of domestic items. Diesel from the earlier spill made the decks slippery and added to the strength and sense of chaos.

Accounts of what happened next vary, and no two versions agree, but it appears the skipper was completely exhausted and stunned by what had happened. Injured when he was thrown against the wheel, he played relatively little part in the events that followed. The last thing he did before coming below was to activate the EPIRB. A decision to initiate a "Mayday" was taken relatively soon after the knockdown.

The professional permanent crew down below, meanwhile, demonstrated complete composure. Despite his apparent conditions, the skipper was able to restore sufficient 12v power to enable, among other things, the VHF radio to function. It was then manned by one of the permanent crew, who having been on board for 3 months, was sufficiently familiar with the radio and radio procedures, to be responsible for textbook handling of the "Mayday" transmission, and dealing with other shipping and the helicopters.

The decision to initiate the "Mayday", and abandon the vessel once rescue became possible, appears to have been based on a number of factors: the lack of power, the blown out main, a continuing forecast of bad weather, the damaged steering, injuries, the loss of a liferaft and pushpit-mounted lifebelts, the state of the skipper and the general chaos below.

The factor that caused the most anxiety in the early stage of the post-knockdown phase was the lack of knowing if anyone had received either the EPIRB transmission or the "Mayday". In the event, and unknown to those onboard, the EPIRB transmission had been received. Once the VHF became operable, communications were established with a nearby Russian vessel that indicated it was on its way to render what assistance it could. This contact with the outside world lifted everyone's morale.

Although it became clear that those on board were in no imminent danger, and the craft itself was more or less watertight, it was accepted

there was no going back on the original decision to seek help. Early thoughts that a tow might be possible were dismissed, and following the loss of second liferaft, the SAR authorities were informed that a helicopter evacuation was required.

With two-way communications established, there was some discussion as to the best way to evacuate 18 people. Because of the range at which a helicopter would have to operate to carry out a rescue, and the time it could remain on station, it was eventually agreed that two aircraft would be needed, and that each would attempt to lift nine people from the liferafts. Priority would be given to evacuating the injured first, including the skipper.

The evacuation went well once an attempt to launch a liferaft forward, as advocated by the SAR helicopter crew, had been abandoned. A second vessel, a tanker, had also arrived on the scene and was providing a lee. The first helicopter successfully evacuated the first nine members of the crew, and the second aircraft arrived 15 minutes later.

Accounts of the evacuation demonstrated the difficulties involved in trying to launch, and then board, a liferaft in severe weather conditions. The 10-man liferafts were found to be very much heavier than expected, and the lack of suitable handles created unwelcome problems. Once launched, at last one of the liferafts inflicted upside down, but one of the crew jumped into the sea and was able to right it. The safety harness of a second person caught in the pushpit. One man, weighing 101 Kg jumped on to a liferaft from a height of 2.42m, tore the floor, and caused the raft to flood.

When reflecting on their experiences after the event, those who had received survival training commented on the stark differences between handling a liferaft in a swimming pool for training, and the conditions prevailing in a high sea state. They did, however, feel that this training and a modicum of understanding about what they could expect helped their self-confidence enormously.

Everyone agreed that the mate handled the evacuation very competently. He was ably assisted by one of the permanent crew who maintained the VHF communication link with the search and rescue aircraft. The mate had recently attended a RYA sea survival course.

All 18 souls on board were successfully evacuated, albeit to different landing site. Nine went to France, the others to Spain.

Creightons Naturally survived the storm and was eventually salvaged.

The Lessons

A large yacht capsized in severe sea conditions. The decision to abandon her was taken and everyone onboard survived a very harrowing experience, leading to a satisfactory conclusion. There are non-the less, some valuable lessons to be learned, and certain aspects will no doubt provide much food for thought and discussion in sailing circles.

The lessons fall into several distinct areas:

- **Readiness for sea;**
- **Planning and executing the passage;**
- **Leadership styles;**
- **Storm tactics;**
- **The decision to abandon ship; and**
- **The actual rescue.**

There is always a great temptation to criticise people for the way they handle an emergency and *Creightons Naturally* is unlike to be an exception. So that as many lessons as possible can be learned from this particular incident, some of the issues have been expanded to draw them out.

Readiness for sea

1. **Everyone who has ever planned a long-distance passage will recognise the seemingly impossible task of being ready on time. The success of any voyage will, ultimately, depend on how well**

the vessel and her crew is prepared. Planning what needs to be done, managing the workload, applying quality assurance checks, and delegating responsibility in a sensible way, demands managerial and organisational skills. A sense of humour helps. Failure in anyone of these areas will mean that something important will not be ready on time and will return to haunt skipper and crew at the most inconvenient moment.

2. **Not only must the vessel be prepared for sea, but also the crew. Failure to welcome newcomers properly, to show them where everything is, how to operate basic safety equipment and where to stow everything, will mean the skipper's greatest asset, his crew, will not be well-prepared for what lies ahead. An untried crew is always an unknown quantity and the more time spent getting to know them, and for them getting to know the skipper is time well spent. Time spent in a shakedown before undertaking the planned passage is time well spent.**

3. **A feature of the ARC is the meticulous program of briefings and safety checks made before departure. The passage to the start at Las Palmas is, if anything, even more of a challenge and demands the same high quality preparation.**

4. **Use a checklist for the safety brief to ensure nothing is omitted. The MAIB has notices time and time again that one of the most frequently made observations in small craft accident investigations is the number of times the crew was not briefed at the outset on safety procedures or where lifesaving equipment was stowed. Many people are left unaware how to use the lifesaving equipment and do not try on the lifejackets or harness.**

5. **Check that all electrical equipment is functioning satisfactorily and that all pipe runs for water, waste, hydraulics and fuel have been connected correctly. Having diesel pouring into the accommodation spaces is not only a total pain, but very smelly and ultimately dangerous. It is also extremely difficult to eradicate completely.**

6. **Stow everything away carefully, and make sure it cannot break free in severe weather. The kedge anchor alone on *Creightons* weighed 57kg and was simply resting in a cradle: it could easily**

have killed someone. Deep lockers, with only gravity keeping stores in place, are fine - until the capsize! Of all the things that can make life difficult for the crew of a yacht in heavy weather, loose gear flying all over the place is guaranteed to be the most frustrating.

7. **Break out severe weather equipment and check it for both condition and accessibility. When did anyone last check the trisail and storm jib stowed in some musty locker? Is the stitching intact? Do the hanks move freely?**

Planning and execution of the passage

8. **Ensure you have plenty of time to reach your planned destination. The Bay of Biscay in November is notorious for bad weather, and a passage to the Canaty Islands involves having to cross the edge of the Continental Shelf. Plan on allowing several extra days for such a passage. This will ensure that any decision to do anything other than make for the chosen destination direct can be accommodated without incurring unnecessary risks.**

9 **The success of any passage depends on three key factors: the state of the boat and her equipment, the competence, experience, knowledge and leadership qualities of the skipper, and the crew. Don't expect a fresh and untried crew to settle in immediately. Plan the passage accordingly. It takes about 3 to 5 days for people to adjust to living onboard, and considerably longer to be familiar with all essential equipment. Do not expect a new crew to be in the same league as one that has been working together for some time. The skipper should keep the crew informed about the plans for the voyage and the expected weather conditions. They will be better motivated as a result.**

10. **Competent helmsmen are vital to safe sailing in bad weather. Do you have the number required and are you confident of their competence? If the answer is no, a change in the basic passage plan may well become necessary. The combination of a well-found yacht and a good skipper can be severely undermined if the crew lack the necessary experience and competence.**

11. Start taking weather forecasts several days in advance. Plan which forecasts you expect to read and when, and study all the available information on weather patterns.

12. Plan and prepare your bad weather sailing tactics. What do you propose to do if faced with a storm 3 days out and before the crew has completely settled down? Do you have the charts you may need for a diversion? Do you have warps available, a sea anchor or a drogue, and if so are you confident you know how to stream and to secure them?

13. Do not underestimate the seas that can develop in the vicinity of the Continental Shelf in the Bay of Biscay in bad weather. Cross-seas were forecast at the time of this accident, caused in part by the rapidly changing wind direction. Anticipate such conditions.

14. Check your barometer. It remains one of your best friends even if it doesn't tell you what to do. The crucial factor is the rate of change of pressure.

15. Maintain the ship's log up to date. This may not be easy, but experience shows that a record of what has happened can be invaluable.

Leadership style

16. Few things make such a demand on a yacht skipper as providing effective leadership in bad weather. He has one overriding priority: the safety of his craft and all on board her. His ability to provide it will almost certainly be the result of hard-won experience and careful study of how other skippers have responded to heavy weather conditions. To an inexperienced and possibly frightened crew, nothing breeds confidence quite so effective as demonstrable competence, cool judgement, decisive action and a smile.

17. The skipper, above all, must have the determination to survive no matter how bad the conditions. Fear, apprehension and a negative attitude convey themselves to others very rapidly and could contribute to a tragic, rather than a happy ending.

18. A yacht in bad weather makes great demands on a skipper. If he allows himself to become too tired he cannot give of his best. A skipper must rest no matter how great the temptation to keep going. Failure to do so could mean that when his experience, skill and knowledge is most needed, he may not be able to function as well as he would wish or his crew deserve.

Storm tactic

19. Never allow yourself to be over canvassed. Reduce sail early, while you still can, and before it become too dangerous for people to work on deck. Whenever in the cockpit or on deck, clip on and do so before leaving the cabin.

20. A seaworthy yacht can cope with virtually every type of wave except in extreme conditions. Even relatively small craft can cope with the large, but very long, sea of the deep Southern Ocean, but the shorter waves encountered when deep water gives way to shallow in the vicinity of a continental shelf, present a formidable challenge.

21. Seeking shelter might be the right solutions if the approach is straightforward and can be guaranteed to offer the quality of shelter sought. It is an attractive option if it can be reached before the onset of the bad weather but, if the severe conditions are already present, the choice may be fraught with danger if there is any uncertainty about one's navigation, or it involves having to cross a bar. A number of people have lost their lives by trying to seek shelter in bad weather. Many other have ridden it out at sea and have survived.

22. Given a choice, many experienced seamen will opt to stay at sea providing there is adequate sea room. Skippers will have their preferred solution for how to handle severe conditions based on personal and other people's experience.

23. Riding out bad weather can involve a variety of techniques, all of which require, in an ideal world, practice. Qualified skippers may not have a vast amount of extreme weather experience. Two basic

factors prevail. The bow is the most suitable part of a boat to face very heavy seas, and ample sea room is an enormous asset.

24. Heaving to with minimum sail set is appropriate in the early stages of a blow, or if the sea state is not too severe. It is not for use in very severe conditions with a high sea state.

25. A skipper should aim to place his vessel on a heading that will minimise a broach, capsize, knockdown or pitch-pole. A combination of storm jib and trisail might provide the means of achieving this until such time the wind and sea state become unmanageable.

26. If conditions are so severe that it becomes necessary to hand all sail, yachts manage to survive very satisfactorily under bare poles providing they do not lie beam to sea. Parachute sea anchors have proved to be very successful providing they are large enough, well secured to a secure part of the boat and the recommended length of parachute line is deployed. The length is debatable, but 120m has been used with success and the line must be protected against chafe where it leads outboard. One overwhelming advantage of a well-deployed parachute sea anchor is that it enables the crew to rest. Bad weather is very, very tiring.

27. And don't forget the crew. Having available food and hot drinks ready in thermos flasks can make all the difference.

Abandoning ship

28. Any decision to abandon ship, which results in everyone being rescued without further harm, must be judged a success.

29. There are no hard and fast rules about abandoning ship, but past experience shows that unless it is absolutely essential to do otherwise because the vessel is sinking rapidly, the best and safest solution is to remain on board. If there is no means of propulsion, evacuation may be necessary, especially if there are other factors present such as drifting on to a lee shore. In general terms, however, your craft is your best lifeboat.

30. If you do have major problems, do not hesitate to let people know about it. The rescue co-ordination centre watchkeepers can often provide valuable advice, and would always seek to have as much notice as possible. They will not criticise you for sending out a genuine "Pan Pan" or even "Mayday" when you first realise you are in trouble, but may find a delayed call very difficult to respond to in time.

31. VHF transmission on channel 16 can be used as a source for direction finding.

Rescue at sea

32. The value of attending a sea survival course cannot be sufficiently over-emphasised. *Creightons Naturally*'s skipper and mate had, and it stood them in good stead.

33. Launch liferafts to leeward and keep them away from any stanchions. Anticipate the liferaft being much heavier than expected, and ensure the painter is properly secured.

34. If at all possible, keep dry. The cold is just as likely to kill as drowning.

35. In severe conditions it is sensibel to clip your harness on to the liferaft painter when you are boarding. The wearing of lifejackets should be mandatory.

36. Try and avoid jumping on to a liferaft canopy feet-first. If you can't get on board by more conventional means, spread-eagle approach is better. The person underneath it might resent your sudden arrival, but you should at leas arrive, rather than go straight through.

37. If being rescued by a helicopter, never forget it will be burning valuable fuel all the time it is airborne. Don't keep it waiting unnecessarily.

38. Establish VHF communications early with the aircraft (or other rescue vehicle), but do not underestimate the noise a rescue helicopter makes when overhead.

Footnote

This in an unusually long report to appear in a *Safety Digest,* but every one of the lessons is worth learning, or relearning.

Lessons on the heavy weather tactics alone could fill several volumes of the *Safety Digest.* This article strays beyond the experiences of *Creightons Naturally,* but confines itself to some principles.

Above all, it aims to provoke discussion on how you would handle a similar situation.