

# Mont St Michel to St Michaels Mount Safety Plan

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UK Maritime & Coastguard Agency, Falmouth	
UK MCA, Brixham	
OC 71 Sqn, RNAS Culdrose	
Project Liaison, France	
Coxswains	

## PREFACE

Members of the Mounts Bay Pilot Gig Club plan to complete a rowing challenge in 2012 between Mont St Michel in France and St Michaels Mount in Cornwall using a 6 oared Cornish Pilot Gig.

The aims of the challenge are:

- To raise awareness of the sport of gig rowing.
- To promote the Mounts Bay Pilot Gig Club.
- To establish a record for the row.
- To raise club funds.
- To potentially establish the row as an annual event.

In addition to the above aims it is hoped that the event will strengthen the historical and cultural bond between Cornwall, Brittany and Northern France.

I apologise to our French cousins for not translating the whole of this document but we do not have the linguistic skills to be able to do so without losing part of the context.

*Membres du plan Mounts Bay pilote Gig Club pour compléter un défi d'aviron en 2012 entre le Mont St Michel en France et St Michaels Mount, à Cornwall, à l'aide d'un 6 oared Cornish pilote Gig.*

*Les objectifs du défi sont :*

- *Sensibiliser le sport d'aviron.*
- *Promouvoir le pilote de la baie Mounts Gig Club.*
- *Pour établir un record pour la ligne.*
- *Pour lever des fonds de club.*
- *Potentiellement, établir la ligne comme un événement annuel.*

*En plus des objectifs ci-dessus, il faut espérer que l'événement permettra de renforcer le lien historique et culturel entre Cornwall, Bretagne et la France du Nord.*

*Je m'excuse de nos cousins français pour traduire ne pas l'intégralité de ce document, mais nous n'avons pas les compétences linguistiques pour être en mesure de le faire sans perdre une partie du contexte.*

David Elliott  
Chairman  
Mounts Bay Pilot Gig Club

## SECTION 1 - INTRODUCTION

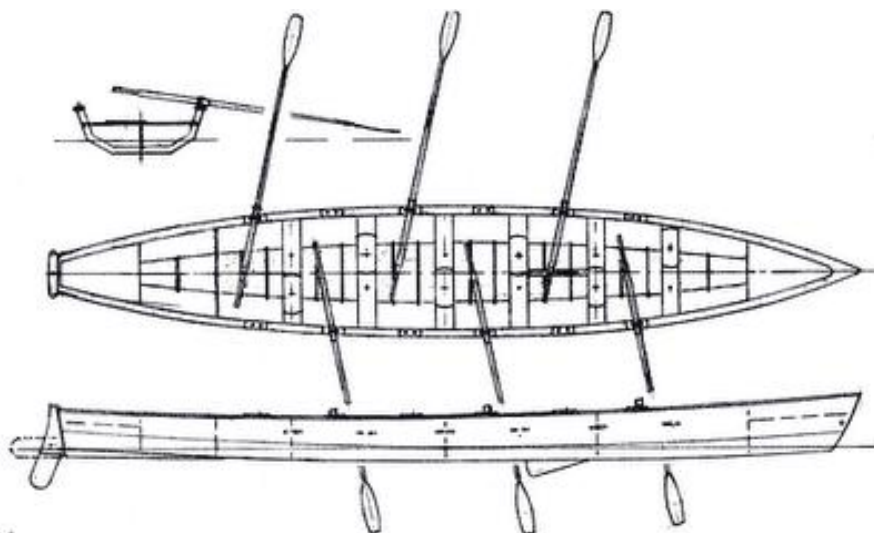
This Safety Plan details the timing, route and safety measures proposed for the row. The row of 183 nautical miles is expected to take approximately 36 hours and will be rowed by a crew of 8 and supported by 3 safety / escort vessels. It encompasses the arrangements for the management of health and safety for the event; the monitoring systems for checking that all aspects of the plan are being complied with and details relating to health and safety risks to those involved in, or affected by, the event.

The Safety Plan will be continuously reviewed and updated as the event planning develops, further design works is completed, further information becomes available and so forth.

### CORNISH PILOT GIG

The Cornish Pilot Gig is a 6 oared rowing boat unique to Cornwall and the Isles of Scilly; its history can be traced back to the 1790s when it was used to take a pilot out to the square riggers plying their trade around the Cornish Coast and along the Channel. There are also reports of them carrying contraband to Cornwall from Brittany.

Pilot gigs are built to withstand severely adverse weather conditions and are 32 feet long, not less than 4ft 9ins amidships and weigh not less than 7 cwt.



### Mounts Bay Pilot Gig Club

The club is affiliated to the Cornish Pilot Gig Association (CPGA) which, in turn, is affiliated to the Amateur Rowing Association. Mounts Bay Pilot Gig Club complies with the CPGA Water Safety Guidelines.

## OVERVIEW OF THE EVENT

### Departure Dates

Two windows of potential start dates have been identified as follows:

June 2<sup>nd</sup> to June 6<sup>th</sup> 2012 and July 2<sup>nd</sup> to July 5<sup>th</sup> 2012

These dates have been selected for the following reasons:

- Greatest likelihood of settled weather and low incidence of fog during this period
- Long daylight hours during June
- Dates coincide with high tides greater than 11 metres at Mont St Michel (required minimum height)
- Tidal conditions allow a daylight evening departure ensuring crossing of the main shipping lanes in daylight the following day and high likelihood of arriving at St Michaels Mont in daylight.

### Departure Time

The advice of mariners local to this area of Normandy have been sought which revealed that tides in the area change quickly and that there are some 14 metres between high and low water marks. Following local advice departure will be timed for high tide at Mont St Michel to avoid the strong flood tides close to the Mont and to make best use of the strong ebb tides further offshore. A morning high tide departure has been ruled out as it would probably result in crossing the main shipping lanes during darkness.

For each of the possible start dates, the departure times would be:

June 2 <sup>nd</sup>	18:25 (HW 11.47m)
June 3 <sup>rd</sup>	19:14 (HW 12.09m)
June 4 <sup>th</sup>	20:01 (HW 12.50m)
June 5 <sup>th</sup>	20:46 (HW 12.64m)
June 6 <sup>th</sup>	21:31 (HW 12.51m)
July 2 <sup>nd</sup>	19:00 (HW 11.56m)
July 3 <sup>rd</sup>	19:49 (HW 12.08m)
July 4 <sup>th</sup>	20:35 (HW 12.40m)
July 5 <sup>th</sup>	21:18 (HW 12.47m)

### Departure Conditions

UK maritime forecasts will be monitored for the whole route together with local maritime forecasts for the Baie du Mont St Michel ahead of the first potential start date. Local advice on departure conditions will be provided by Ian Wood who operates a local sea kayak business in Normandy (<http://www.seakayak-fr.com>).

A go / no go decision will be made by the Team Captain on the following criteria:

- Maximum forecast sea state for the route of Beaufort Force 3.
- Local conditions taking into account wind direction and tides not likely to increase the sea state beyond BF 3.

1-2 days prior to each departure window, Ian Wood will carry out a GPS survey of the tidal channel between Mont St Michel and the low water mark to identify the departure route for the gig.

### Weather forecast

The weather will be forecast by Club Member Lt Cdr Wendy Wheatley RNR who is a Meteorologist at RNAS Culdrose, she will also advise on sea states.

She will commence forecasting 10 days before the first proposed departure date and from five days before that date the prevailing weather conditions will be able to be forecast in greater detail. She will provide updates every evening which will be sent to the Team Captain by email. During the crossing the weather conditions will be relayed to the team by satellite telephone.

### Beaufort Scale and Sea States

Specifications and equivalent speeds									
Beaufort wind scale	Mean Wind Speed		Limits of wind speed		Wind descriptive terms	Probable wave height in metres*	Probable maximum wave height in metres*	Seastate	Sea descriptive terms
	Knots	ms <sup>-1</sup>	Knots	ms <sup>-1</sup>					
<b>0</b>	0	0	<1	<1	Calm	-	-	<b>0</b>	Calm (glassy)
<b>1</b>	2	1	1-3	1-2	Light air	0.1	0.1	<b>1</b>	Calm (rippled)
<b>2</b>	5	3	4-6	2-3	Light breeze	0.2	0.3	<b>2</b>	Smooth (wavelets)
<b>3</b>	9	5	7-10	4-5	Gentle breeze	0.6	1.0	<b>3</b>	Slight
<b>4</b>	13	7	11-16	6-8	Moderate breeze	1.0	1.5	<b>3-4</b>	Slight-Moderate
<b>5</b>	19	10	17-21	9-11	Fresh breeze	2.0	2.5	<b>4</b>	Moderate
<b>6</b>	24	12	22-27	11-14	Strong breeze	3.0	4.0	<b>5</b>	Rough

<b>7</b>	30	15	28-33	14-17	Near gale	4.0	5.5	<b>5-6</b>	Rough-Very rough
<b>8</b>	37	19	34-40	17-21	Gale	5.5	7.5	<b>6-7</b>	Very rough-High
<b>9</b>	44	23	41-47	21-24	Severe gale	7.0	10.0	<b>7</b>	High
<b>10</b>	52	27	48-55	25-28	Storm	9.0	12.5	<b>8</b>	Very High
<b>11</b>	60	31	56-63	29-32	Violent storm	11.5	16.0	<b>8</b>	Very High
<b>12</b>	-	-	64+	33+	Hurricane	14+	-	<b>9</b>	Phenomenal

## Visibility

The minimum visibility required at the commencement of the crossing will be 1 kilometre.

## Conditions on passage

The tidal streams for the first part of the row are roughly parallel to the course line, with strong rates for the first 12 -14 hours of rowing.

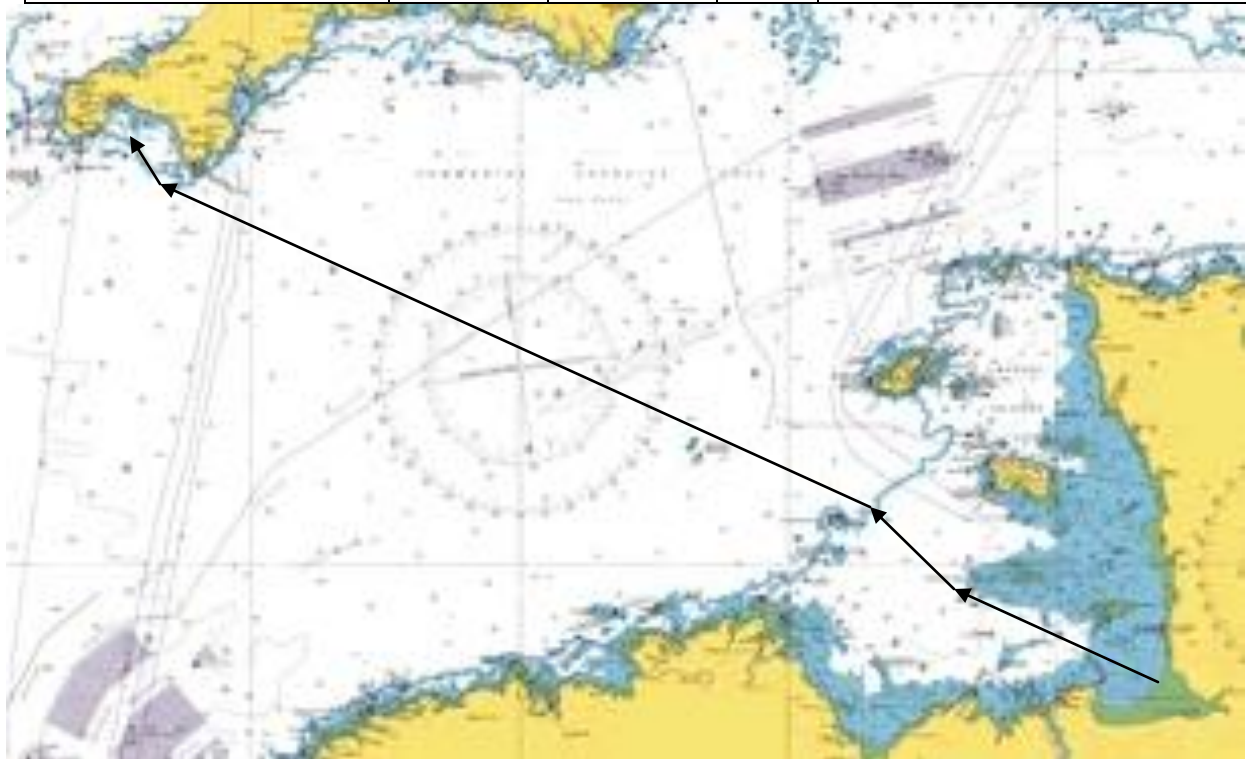
By departing at high tide the crew will experience east going sets inshore where they are weakest. This would then give them a full 6 hours of the strongest west going tides offshore before clearing the French coastal waters north of Plateau des Roches Douvres (see tide charts below).

For the remainder of the open sea row, tidal streams will be generally weaker until approaching The Lizard where the potential for overfalls will require a wide berth to be given.

## Route

Waypoint	Latitude	Longitude	Dist to go (NM)	Remarks
Pontorson River Barrage	48 36.0'N	1 31.0'W	183	Departure from seaward of the Pontorson river barrage at HW guided by escort kayaks
South west of Tombelaine	48 39.0'N	1 33.0'W	180	Escort kayaks depart once gig clear of shallows

2' north of Pierre de Herpin Lt	48 45.8'N	1 48.8'W	167	Rendezvous with support craft south of Iles Chausey
SW Minquiers buoy	48 53.0'N	2 20.0'W	145	Adjust course to keep well clear from Plateau des Minquiers
Plateau des Roches Douvres	49 08.0'N	2 47.0'W	122	Clear of coastal tidal streams, set course for Lizard
South of The Lizard	49 52.0'N	5 15.0'W	18	Distance off The Lizard dependent on tidal and sea conditions
St Michaels Mount	50 07.0'N	5 28.5'W	0	

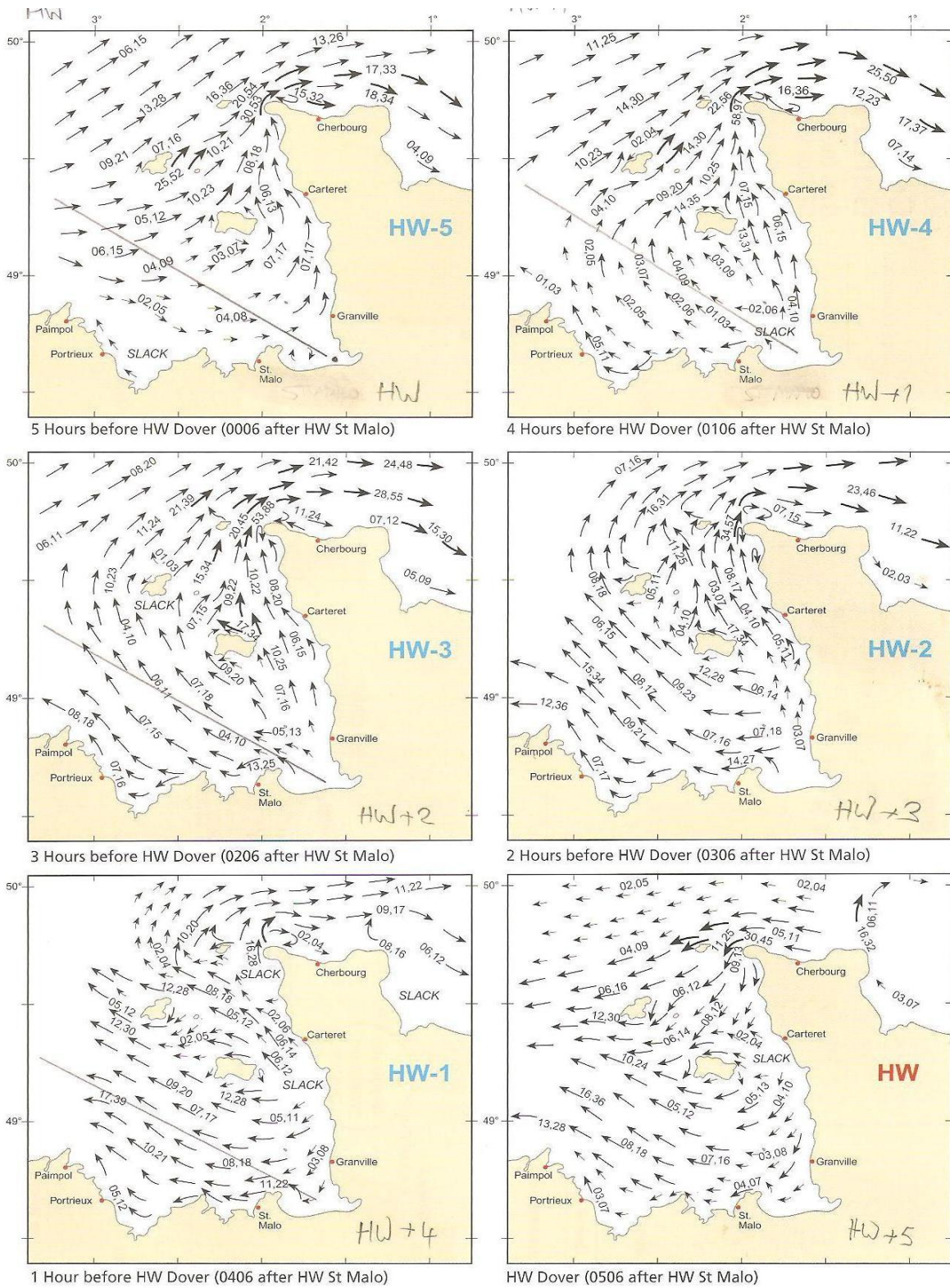


*Approximation of route*

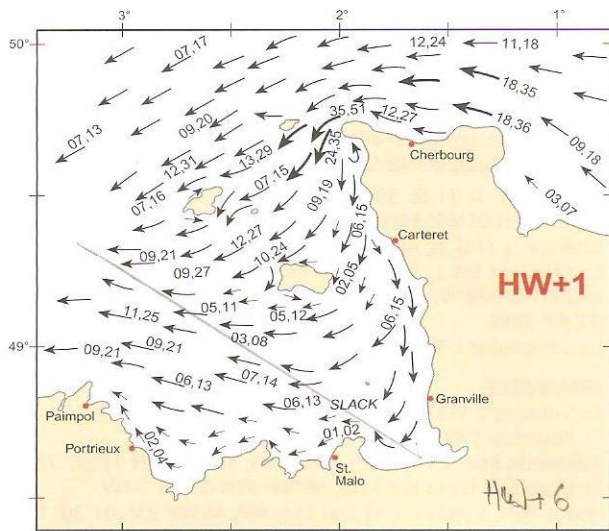
## **SHIPPING**

The UK Maritime and Coastal Agency in Falmouth will put out a call to all ships in the Channel on departure of the gig from France and will monitor them throughout the event.

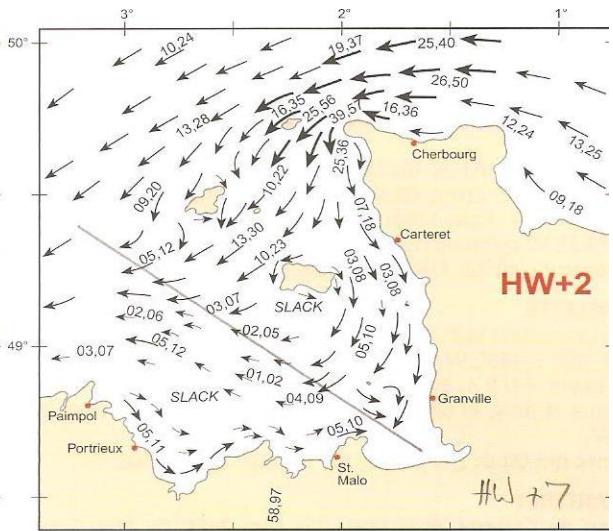
# Tidal Charts



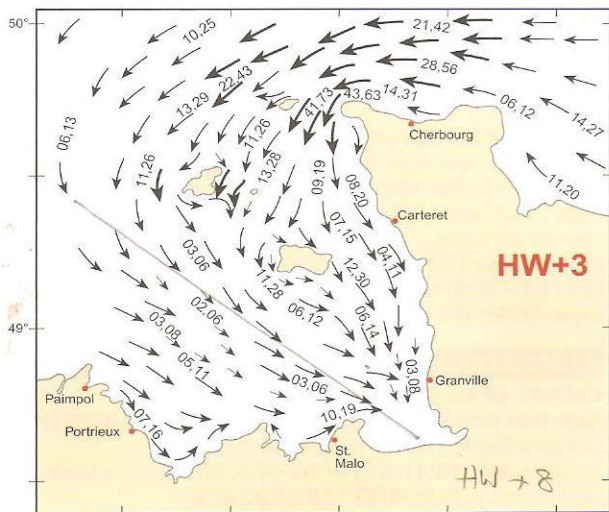
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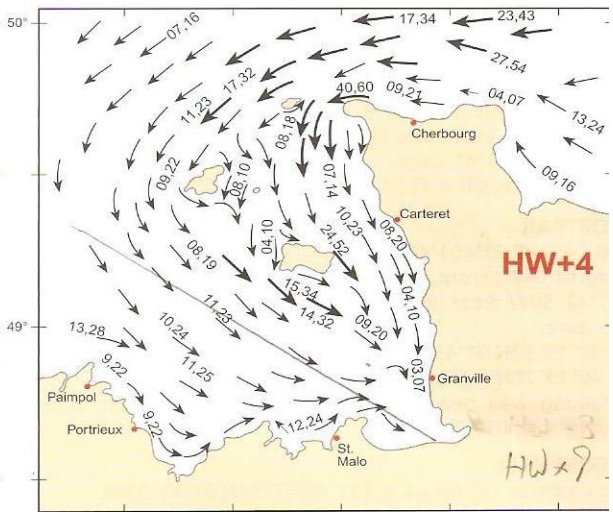
1 Hour after HW Dover (0554 before HW St Malo)



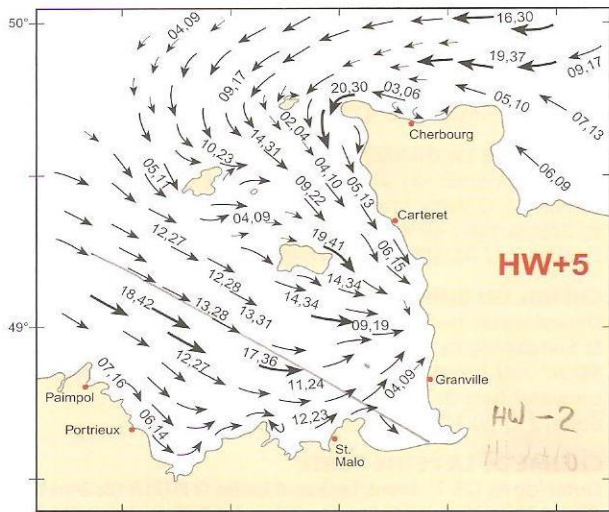
2 Hours after HW Dover (0454 before HW St Malo)



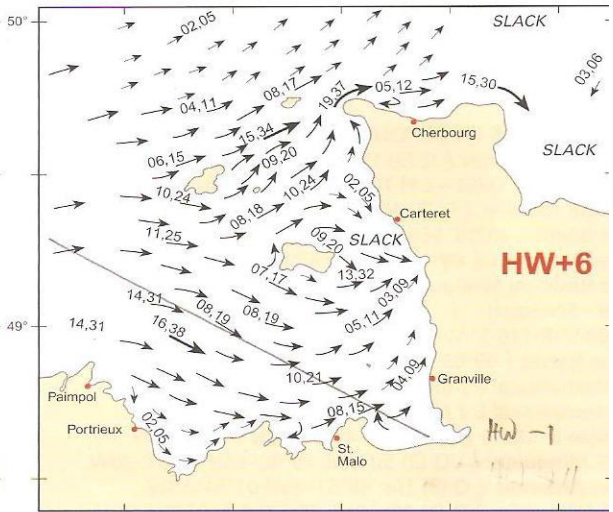
3 Hours after HW Dover (0354 before HW St Malo)



4 Hours after HW Dover (0254 before HW St Malo)



5 Hours after HW Dover (0154 before HW St Malo)



6 Hours after HW Dover (0054 before HW St Malo)

## **SECTION 2 – MANAGEMENT ARRANGEMENTS**

### **Organisation and Responsibilities**

#### **The organising Committee will:**

1. Ensure that this Health and Safety Plan is properly and effectively implemented.
2. Communicate and consult with participants and support crews on health and safety matters and ensure that everyone knows, clearly understand and accept their responsibilities under the Safety Plan and that they are equipped to play their part.
3. Establish and maintain clear lines of communication with UK and French Coastguards and other relevant agencies.
4. Ensure that all equipment is properly maintained and safe to use.
5. Ensure that appropriate personal protective equipment is provided and used as required by participants.
6. Ensure that all those fulfilling specific roles during the event are properly trained as necessary.
7. Ensure that all accidents, including those classified as dangerous occurrences, are promptly and fully investigated and action taken to prevent reoccurrence.
8. Liaise with the CPGA Association Safety Officer (CPGA ASO) as and when necessary.
9. Encourage, particularly by personal example, safety consciousness on the part of participants.

#### **The CPGA ASO will:**

1. Write, in conjunction with the Organising Committee, the Safety Plan for the event and ensure that all procedures contained within the document meet all statutory requirements and the satisfaction of the emergency services and other interested parties.
2. Undertake all requisite Risk Assessments and disseminate the results of such assessments to those persons who are affected by their contents.
3. Advise the Organising Committee of any changes to health and safety legislation affecting the event.

4. Liaise with all participants regarding health & safety issues and ensure that all comply with CPGA policy, procedures and statutory requirements.
6. Undertake accident investigations.
7. Review all policies, procedures and assessments as and when necessary.
8. Liaise with the CPGA ASO, HSE Inspectors, Environmental Health Officers and other public bodies.

**Participants will:**

1. Take care of their own health and safety.
2. Take care of the health and safety of others
3. Co-operate with their club committee
4. Not misuse or interfere with anything provided for health and safety purposes.

**Oarsmen & Coxswains**

1. All persons participating in rowing must be in good health.
2. Life preservers are to be worn at all times.
3. All persons must dress according to the prevailing weather conditions and carry spare clothing in the gig for use in inclement weather.
4. All persons in the gig are to be conversant in the signs and symptoms of hypothermia and the coping strategies.

**Coxswains (Team Captain shall be a Coxswain)**

1. The Coxswains shall be properly trained and authorized Mounts Bay Pilot Gig Club Coxswains.
2. Coxswains have a responsibility for crew safety at all times whilst they are in his or her charge.
3. Coxswains shall ensure that every member of the crew of which they have charge is aware of the appropriate safety procedures at all times.
4. Coxswains shall ensure that the whole crew, including themselves, are dressed suitably and adequately protected for the weather conditions they are likely to encounter.

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5. Coxswains are required to wear a life jacket (conforming to BS3595 standard) or buoyancy aid at all times.
6. Monitor the crew for signs of fatigue and hypothermia.
7. Coxswains shall be qualified first aiders.

### **Rowing Equipment**

1. All equipment for rowing shall be properly maintained to ensure that it is safe for its intended purpose and does not expose the user to danger.
2. Before embarkation the gig is to be checked to ensure that it is in a safe condition and that its moving parts are in working order
  - Check for leaks.
  - Check seals and bungs.
  - Check seats and stretchers for security.
  - Check rudder lines, steering mechanism and rudder to ensure that everything is secure and in good working order.
  - Check oars and pins for damage.

### **KEY CONTACTS**

#### **Organising Committee**

Club Chairman	David Elliott	Phone: 01736 360444 Email: <a href="mailto:dje@bennettsfuels.co.uk">dje@bennettsfuels.co.uk</a>
Club Captain	Gary Rich	Phone: 07841 379585 Email: <a href="mailto:grich@fire.cornwall.gove.uk">grich@fire.cornwall.gove.uk</a>
Club Coordinators	Russ Salter	Phone: 07792 415310 Email: <a href="mailto:russ.60@hotmail.com">russ.60@hotmail.com</a>
	Colin Campbell	Phone: 07748 701406 Email: <a href="mailto:colincampbell.kms@btinternet.com">colincampbell.kms@btinternet.com</a>
CPGA Safety Officer	Mike Waters	Phone: 01736 762888 07702 365681 Email: <a href="mailto:mike@safetyuk.co.uk">mike@safetyuk.co.uk</a>

## Emergency Contacts List

Contact	Number / VHF channel
Prefecture Maritime Cherbourg	to be confirmed
Falmouth Coastguard	to be confirmed
Brixham Coastguard	to be confirmed
Ian Wood (guide kayaks)	to be confirmed
Christopher Long (project liaison France)	to be confirmed
Russ Salter (project liaison UK)	to be confirmed

### **SAFETY CRAFT / SUPPORT VESSELS (To be confirmed)**

The MV Earnest operated by Rock Marine Services Ltd will be the primary safety craft with two French registered yachts as additional support / guide vessels.

Earnest is a 11 metre Red Bay Stormforce RIB and is MCA certified for 2 crew and 6 passengers.

Two 10 metre sailing yachts (**names to be confirmed**) based in Granville will be used as escorts and to provide additional capacity in case of emergency.

All vessels, including the gig, are fully compliant with all National and International navigational and licensing requirements.

### **MANNING**

Manning for the row will be as follows: **to be confirmed**

#### **Rowing Gig Taran**

Coxwain

7 rowers

#### **Safety Boat Earnest**

Skipper

Crew

2 rowing support crew

2 replacement rowers

### **Escort Yacht 1 (To be confirmed)**

Skipper  
Crew

### **Escort Yacht 2 (To be confirmed)**

Skipper  
Crew

The rowing gig will be manned by the permanent crew of 8 throughout the row. In case of illness or injury, one or more of the support crew / replacement rowers will be transferred to the gig (other than this, no crew transfers are planned during the row).

All members of the gig crew will be experienced adult members of the Mounts Bay Pilot Gig Club.

All persons in the gig are required to wear life preservers at all times.

The Safety boat Earnest will be used to transfer food, water equipment and clothing to the rowing gig as required.

Escort yachts 1 and 2 will be used in rotation as lead boat giving the gig coxswain a visual steering reference.

### **ROW METHODOLOGY**

The following summarises the planned methodology:

1. Depart from the Pontorson River barrage using sea kayakers with local knowledge to navigate the tidal channel until past Tombelaine island.
2. Continue the row to a point south of Isles Chausey where the gig will be joined by the three support vessels which will have departed from Granville Harbour.
3. One of the escort yachts will take up position ahead of the gig and use GPS to maintain the required track. It is anticipated that the two yachts will take it in turns to pilot the gig at 4 hour intervals.
4. The safety boat will maintain close visual contact and make periodical VHF safety broadcasts as required.
5. All vessels including the gig will exhibit navigation lights and shapes and be fitted with radar reflectors. The safety boat will also be operating an AIS transponders.
6. Communications between the vessels will be by VHF radio with the safety boat responsible for supplying the rowing gig with recharged batteries and other replacement equipment.

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## SAFETY EQUIPMENT

### The Gig

The gig will be fitted with safety equipment to allow it to operate independently from the support vessels if required as follows:

Item	No	Notes
Lifejackets	8	150N auto inflate with light & whistle
Thermal protective aids	4	Basic hypothermia blankets
Iridium Phone	1	Satellite phone
Waterproof and floatable VHF handheld radio	2	With 2 spare batteries (charger on support boat)
Hand held GPS & spare batteries	1	
Magnetic hand held compass	1	Collision avoidance
Magnetic steering compass	1	Mounted & with light
Navigation light set	1	with spare batteries
Torch & LED headlight	2	
First aid kit	1	
Dry bags	2	
Flare set	1	2 x Red Parachute, 2 x Red Hand-held, 2 x Smoke , 2 white hand held flares for collision avoidance
Radar reflector	1	Cylindrical compact type
Towing painter	1	Nylon for stretch with shock absorber
Bilge pump	1	Easy baler 55 or similar
Buckets	2	Folding type

Man overboard throwing line & quoit	1	A grab line at least 15m (50ft) long with a large knot tied in one end to assist throwing (ideally a purpose made rescue/heaving line – “throw bag”).
Fog horn	1	Manual type
Replacement pins	24	
Sharp knife in carry sheath	1	
Spare bungs	2	
Repair materials		Canvas sheeting, rope, etc for repairing holes in the hull and other damage to maintain seaworthiness
Loud hailer	1	Tied to the boat, not the Coxswain

## The Safety Boats

Safety boats shall carry the following safety aids:

1. A bailer and, for inflatable rubber dinghies, a suitable pump and a spare valve.
2. A klaxon horn or similar warning device, capable of attracting attention over a distance of at least 200 metres.
3. A grab line at least 15 metres (50 feet) long with a large knot tied in one end to assist throwing. Ideally a purpose made rescue / heaving line throw bag.
4. Thermal / exposure blankets to reduce wind-chill and counteract hypothermia. Make use of proprietary items but not woollen blankets which only absorb moisture and do not then retain heat. In the heat absence of recognized equipment, polythene sheet cut to size of a commercially available exposure bag will provide the necessary level of heat retention until proper treatment can begin.
5. Life buoys / life jackets - these are essential when several people are in the water and the launch can attend to only one at a time.
6. A basic first aid kit.
7. A sharp knife with carry sheath.
8. An oar.

9. Simple handholds fixed to the side of a launch to give help to any persons being rescued, and provide self-help should the driver fall overboard.
10. Engine, cut-out lanyard device.
11. An anchor and line.
12. Buoyancy aids or life jackets shall be worn at all times. Life jackets which depend on oral inflation should be worn partly inflated; those which have auto inflation must be checked at intervals suggested by the manufactures.

## **FOOD**

The rowers will need to consume around 5000 calories per day

Main meals should be hot and heavy in complex carbohydrates such as potatoes, rice and pasta. In addition plenty of snacks should be available for both morale and calorie intake, these should include: dried fruits, chocolate bars, glucose drinks, sugared tea and coffee.

Under no circumstances is alcohol to be taken on board the gig, consumption of alcohol advances heat loss as well as impairs judgement.

## **SECTION 3 – ARRANGEMENTS**

### **TRAINING**

Prior to departure all members of the team will receive the following training:

- Emergency Procedures
- Safety issues
- Medical issues
- Nutrition
- Physical training

### **EMERGENCY PROCEDURES**

#### ***Man overboard***

The safety boat will be the primary recovery vessel for a man overboard and responsible for emergency communications with rescue authorities and other vessels.

#### ***Medical evacuation***

The safety boat will be the nominated vessel for any personnel transfers to and from the rowing gig. If one of the escort yachts is required to make a personnel transfer, this will be done via an inflatable tender.

In the case of a non-urgent medical evacuation, the casualty will be transferred to one of the support vessels for the remainder of the row.

In the event of a medical emergency requiring outside assistance, the safety boat will contact the French or UK coastguard using standard marine emergency procedures as appropriate and consider the possibility of transferring the casualty directly to shore using the safety boat.

#### **Adverse weather**

In the event of the row being abandoned due to adverse weather, the rowing gig will be taken under tow by one of the escort yachts while the crew is transferred using the safety boat to each of the support vessels. The gig will then be towed to a suitable port of refuge dependent on sea conditions and wind direction.

#### **Emergency Situations**

The following situations are deemed to be both reasonably foreseeable occurrences and within the scope of this Plan. In all cases, the first response is to raise the alarm.

## **Sinking**

This may be the gig or a safety boat. The vessel may be sinking due to a collision or some structural failure. Persons in the water are likely to range from one to eight people.

Actions should be:

- Raise the alarm
- Retrieve that casualties from the water
- Establish that all persons are accounted for
- Take casualties to agreed landing point for assessment, treatment or transfer
- Mark, make safe or otherwise retrieve the craft

## **Man Overboard**

Person falling from any craft into the water. Likely to be one individual but foreseeable that when assisting the recovery of man overboard another individual may fall in.

Actions should be:

- Raise the alarm
- Retrieve the casualty from the water
- Establish that all casualties are accounted for
- Take casualty to agreed landing point for assessment, treatment or transfer
- Review boat safety and supplement or withdraw as necessary

## **Fire Onboard Safety/Marshalling Launch**

Any craft with an engine is capable of catching fire.

Actions should be:

- Raise the alarm
- Use portable appliances to fight the fire
- If possible, make way to nearest access point
- Make preparations to abandon the craft
- Assign other boats to standby to lend assistance and possibly retrieve casualties from water

## **Mechanical malfunction on Safety/Marshalling Launch**

Any craft with an engine is capable of becoming disabled.

Actions should be:

- Raise the alarm
- Assign a suitable craft (with sufficient power and rope for towing) to assist disabled craft
- Progress may be halted if insufficient safety cover
- Tow disabled craft to nearest access point
- If resources permit, have second craft on standby to lend further assistance

### **Craft Grounding**

Whilst there is little risk for craft grounding during the row in the event that it does happen a quick response is vital.

Actions should be:

- Raise the alarm
- Assign a suitable craft (with sufficient power and rope for towing) to assist grounded craft
- Explore reasonable ways to lessen the weight of the craft with consideration to the wellbeing of the occupants
- Float or tow craft off the mud

## Risk Assessment for Mont St Michel to St Michael's Mount Challenge

### Risk Assessment Matrix

Severity of Outcome			
Probability of Accidents	Slightly harmful (Low)	Harmful (Medium)	Extremely harmful (High)
Highly unlikely (Low)	Trivial Risk	Tolerable Risk	Moderate Risk
Unlikely (Medium)	Tolerable Risk	Moderate Risk	Substantial Risk
Likely (High)	Moderate Risk	Substantial Risk	Intolerable Risk

### Risks and Actions

RISK LEVEL	ACTION AND TIMESCALE
Trivial	No action required.
Tolerable	No additional controls are required. Consideration may be given to a more effective solution or improvement.
Moderate	Efforts should be made to reduce the risk. Risk reduction measures should be implemented within a defined time period. Where the moderate risk is associated with harmful/serious consequences further assessment may be necessary to establish more precisely the likelihood of harm as a basis for determining the need for improved control measures.
Substantial	The activity should not be started until the risk has been reduced. Considerable resources may have to be allocated to reduce the risk. Where the risk involves activity already in progress, urgent action should be taken.
Intolerable	Activity should not be started or continued until the risk has been reduced. If it is not possible to reduce risk even with unlimited resources, activity has to remain prohibited.

**Persons at risk:** Gig crew, Support boat crew

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<b>Risk</b>	<b>Probability H / M / L</b>	<b>Severity H / M / L</b>	<b>Risk Level</b>	<b>Planned Action to Control Risk</b>
Collision	Low	Medium	Tolerable	Coastguards made aware of route Radar reflector fitted Navigation lights displayed Flares carried Safety boats
Damage and injury resulting from collision	Low	Medium	Tolerable	The Coxswain is responsible for ensuring that the gig is safe and prepared to the required standards Repair kit carried First aid kit carried
Capsize	Low	Medium	Tolerable	Life preservers worn Safety boats
Sudden bad weather causing unrowable and / or dangerous conditions	Medium	Medium	Moderate	Weather forecasts to be obtained prior to departure, gig will only put to sea if the conditions are favourable for the duration of the event (36 hours)
Collapse of rower (e.g. asthma attack)	Low	Medium	Tolerable	Crew to be fit prior to event Coxswain to summon Medical Aid by radio Transfer to safety boat
Exhaustion	Medium	Medium	Moderate	Crew to be fit and prepared Carb loading before setting off Maintain consumption of at least 5000 calories and snacks
Hypothermia	Low	High	Tolerable	Crews to be made aware of symptoms and coping strategy Appropriate clothing to be worn and extra carried in gig Flasks of hot drinks to be carried

## **HYPOTHERMIA AND OTHER MEDICAL CONDITIONS**

### **Hypothermia**

1. Avoidance must be the first consideration at all times. Hypothermia occurs when the whole body has been chilled to a much lower than normal temperature, i.e. below 35°C compared with the normal body temperature of 37°C.
2. Dress to beat the cold - Layers of clothing are more effective than one warm garment. The outer layer should be wind and waterproof.
3. Do not take or give alcohol in cold conditions. Alcohol accelerates heat loss as well as impairing judgment.
4. Be alert to the warning signs of cold both in yourself and others. Exposed arms, legs and head heighten the risk.
5. If a person has fallen into cold water their body will lose heat rapidly. To reduce heat loss keep clothes on except heavy coats or boots which may drag the person down.
6. Sudden immersion in cold water can have a shock effect which can disrupt normal breathing, reducing even a proficient swimmer to incompetence. Confusion and an inability to respond to simple instructions will become evident.
7. When Hypothermia is suspected, your aims must be to prevent the casualty losing more body heat and to re-warm the casualty.
8. Send for help. Hypothermia is a medical emergency whether the patient is conscious or unconscious.
9. If conscious the victim should be actively re-warmed under careful observation.
10. If unconscious the victim must be got to medical aid as soon as possible. Follow instructions given under the resuscitation section below, only if a qualified first aider.

### **Symptoms and signs of Hypothermia**

1. The following are the most usual symptoms and signs, but all may not be present:
  - Unexpected and unreasonable behaviour possibly accompanied by complaints of cold and tiredness.
  - Physical and mental lethargy with failure to understand a question or orders.
  - Slurring speech.

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- Violent outburst of unexpected energy and violent language, becoming uncooperative.
  - Failure of or abnormal in vision.
  - Twitching.
  - Lack of control of limbs, unsteadiness and complaining of numbness and cramp.
  - General shock with pallor and blueness of lips and nails.
  - Slow weak pulse, wheezing and coughing.
2. A very dangerous situation is still present when a person who has been in the water for some time is taken out. Further heat loss must be prevented. The victim should be protected against the wind and rain if possible. Re-warming can be carried out by:
- Wrapping the victim in a thermal/exposure blanket.
  - Others placing their warm bodies against the victim.
  - Giving hot drinks (if conscious)

## **Resuscitation**

1. Resuscitation should only be undertaken by qualified first aiders. To be effective resuscitation must be started immediately, even whilst the patient is in the water, otherwise irreversible damage or death will occur within a few minutes.
2. On finding a person requiring resuscitation:
- Establish there is no danger to yourself or the patient. If you see someone in difficulties in the water DO NOT go into the water after him. Remember there may be neck or back injuries requiring extra care when moving the patient.
  - Look for something to help pull him/her out e.g. oar, rope or clothing.
  - Lie down to prevent yourself from being pulled in.
  - If you cannot reach him/her, throw any floating object e.g. football, plastic bottle for him to hold on to, then fetch help.
  - If you are in a safety boat, carefully approach him/her if it is safe to do so.
  - **HAVING RESCUED THE VICTIM - SHOUT IMMEDIATELY FOR HELP.**

## **Assess the patient:**

1. **Responsiveness** - Establish responsiveness by shouting "ARE YOU ALRIGHT" loudly and gently shaking the shoulder.
2. **Breathing**
- Inspect the airway-remove blood, vomit, loose teeth or broken dentures but leave well fitting dentures in place.

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- Open the airway-the rescuer should place two fingers beneath the point of the patients chin, lift the jaw and at the same time place the palm of the other hand on the patient's forehead. Tilt the head well back by pressing on the forehead and the airway will open.
  - Check for breathing by placing your ear close to the patient's mouth, looking down along the line of the chest.
  - **Listen** for the sound of breathing.
  - **Feel** for air movement indicating breathing.
  - **Look** for rising and falling of the chest.
3. **Circulation** Check for the presence of a pulse by feeling for the carotid artery in the neck. The artery lies along each side of the voice box (larynx).
4. If the patient is unresponsive, not breathing with no pulse contact the emergency services immediately.

### **Sunstroke (Hyperpyrexia)**

Sunstroke (hyperpyrexia) is the high fever and collapse due to failure of the heat regulation systems of the body. If the rectal temperature is over 42°C(108°F), irreversible brain damage can occur. The body's temperature can be raised as a result of the ambient temperature and is amplified by arduous physical activity such as rowing combined with failing to drink sufficiently. Heat stroke often occurs in children who have been outside on a really hot day and occurs more commonly in children with cystic fibrosis than other children.

#### Symptoms:

- headache
- general malaise
- nausea
- chest pain
- anxiety
- fatigue

#### Signs:

- hot dry flushed skin
- rapid pulse and respiratory rate

#### In severe cases:

- vomiting
- shock and circulatory collapse
- convulsions
- coma with pin-point pupils

#### First aid:

- tepid sponging or bathing
- cooling using a fan
- do **NOT** use ice baths, ice packs or cold air. This can cause vasoconstriction which reduces heat loss and can be fatal as shivering increases heat production
- adults: Rx two Aspirin 300mg tablets by mouth every 4hours
- **SEEK IMMEDIATE MEDICAL ATTENTION**

## Sunburn

Sunburn is the damaging effect on the skin of the ultraviolet (UV) light contained in sunlight. With too much exposure to UV light, skin overheats and becomes red and painful, and may later peel or blister.

Ultraviolet light causes changes in the surface and in the deeper layers of the skin. It reduces the stretchiness of the skin and can cause premature aging and wrinkling of the skin, as well as the formation of age spots. Deeper in the skin, it causes changes in the structure of cells, and increases the risk of skin cancers.

When skin is exposed to sunlight, it produces a pigment called melanin to help protect itself against ultraviolet light. This is what makes your skin go darker and is what you see as a suntan. It stops you burning so easily but doesn't prevent the other harmful effects of UV such as premature aging and cancer.

The less melanin you have, the less protected you are against the effects of UV light. If you have fair skin or red hair, or have not been in the sun much, you have less melanin so are more likely to burn quickly.

Sunburn doesn't just happen in hot weather - reflection of light off the water can also cause sunburn. Although a breeze, cloudy sky or swimming may make you feel cooler, the sunlight can still get through to damage your skin.

#### Symptoms:

Sunburnt skin is red and sore. It is warm to the touch, even after attempts to cool it with water or by moving into the shade. After a few days, the redness may fade into a tan, or in very fair people with little melanin pigment in the skin, it may just return to white. The skin may also flake or peel after a number of days. Dark skin can also burn and become damaged if exposed to enough UV light, although because it contains more pigment it can tolerate sunlight without burning for longer than paler skin.

Severe sunburn can cause blistering, swelling of the skin and fever. At the same time there may also be symptoms of heatstroke, such as dizziness, headaches, and nausea.

The symptoms of sunburn are not usually immediately obvious, and the worst pain occurs 6-48 hours after being in the sun.

Treatment:

- Avoid direct sunlight by covering up and staying in the shade, until the sunburn has healed.
- Cool the skin by sponging it with tepid (lukewarm) water or having a cool shower or bath.
- Drink plenty of fluids to replace the water lost through sweating in the sun, and to cool down. Don't drink alcohol because it will dehydrate you further.
- For mild sunburn, apply a moisturising lotion or a special aftersun cream from a pharmacy. Aftersun helps to cool the skin as well as moisturising and relieving the feeling of tightness. Calamine lotion can also be used to relieve itching and soreness.
- For adults, painkillers such as paracetamol or ibuprofen can help relieve pain and reduce swelling.

Severe burns may require special burn cream and burn dressings. Ask your pharmacist for advice; you may need to see your GP and have your burns dressed by a practice nurse. In very severe cases you may need treatment at your local Accident and Emergency Department.

## **Skin Cancer**

Skin cancer is common. There are three main kinds: basal cell carcinoma, often known as a rodent ulcer; squamous cell carcinoma; and; malignant melanoma. Fortunately, the commonest kind is the least dangerous, and the most dangerous kind, malignant melanoma, is the least common.

Skin cancer is very rare in children but is more common as people get older. The numbers of skin cancers rise with age because the main cause of all types of skin cancers is sunlight exposure. Sunlight contains ultraviolet light (UV), and this is what does the harm, particularly to the skin of babies and young children.

Symptoms:

- Rodent ulcer (basal cell carcinoma) is one of the commonest of all cancers and one of the least dangerous. It affects the skin, mainly in areas exposed to the sun, and especially on the nose and around the eyes.
- It is a slowly growing, raised-edged swelling with a dimple in the centre. Small blood vessels are often visible just below the surface. It hardly ever spreads to other parts of the body, although it can do so if neglected. It

can then cause a lot of tissue damage, especially by burrowing deep into the tissues (hence the name rodent ulcer).

Squamous cell carcinoma is a skin cancer also related to sunlight exposure. It starts as a small, firm, painless lump occurring most often on the lip, ear or back of the hand. It enlarges fairly rapidly and then will often break down in the centre to form a crater. This is called ulceration. It can spread to the lymph nodes and from there to various parts of the body. Be very suspicious of anything like this on your lip.

In the event of a suspicious swelling, raised mole or whatever consult your GP, The diagnosis of both rodent ulcer and squamous cell carcinoma is usually made by examination under the microscope of the tumour (lump) after it has been fully removed.

### **Hepatitis A (*Infectious Hepatitis*)**

Hepatitis A is a virus infection of the liver which can vary from a mild or inapparent illness to, rarely, a severe disabling disease lasting several months. Infection has been caused by swallowing water during water sports.

The incubation period varies from two to six months after swallowing the virus. The onset of the illness is abrupt, with loss of appetite, fever, nausea, and abdominal discomfort, following within a few days by jaundice. If you become ill at any time with these symptoms, call your doctor and tell him you participate in water sports.

### **Gastro-intestinal disturbance**

The commonest illness associated with water sports is mild gastro intestinal disturbance (tummy upset) which can occasionally lead to diarrhoea and vomiting. When this happens you are advised to consult a doctor. Flu like symptoms and mild respiratory symptoms may also occur, as may eye and ear symptoms. Those generally resolve rapidly without treatment.