

Safety in the field (with thanks to TCG Rich).

Reprinted, with a few amendments, from the Atlas 2000 Instruction Booklet

The guidelines below are intended to minimise the risk of an accident in the field and, in the event of an accident, to minimise further risk and subsequently to help others help you. Simple precautions need not interfere with recording; most are common sense, and may help save your life or that of someone else. Be aware of these points and adapt them to your local conditions.

1. It is always safer to go in pairs or groups than alone.

2. Footwear and clothing should be suitable for the season and general environment, especially in wilder areas:

- a) Waterproofs - Jackets, hoods, leggings. Bright colours make you conspicuous but some, especially yellow, attract flying insects.
- b) Warm clothing, including hats and gloves.
- c) Suitable footwear in good condition with a good tread (e.g. stout walking boots or shoes or Wellington boots). Spare laces may be useful.

3. Equipment: maps, compass, food and water, watch etc. are standard requirements. For more remote areas, a safety kit containing spare clothing (in waterproof bags), spare food (especially high energy biscuits, chocolate, sweets, etc.), whistle, torch with spare batteries, first aid and a survival bag are highly recommended. Suntan lotion, insect repellent and bite treatment may also be useful as would a GPS unit if available.

A basic first aid kit should contain:

- 2 triangular bandages
- 1 large pre-packed sterile dressing
- 1 6.25 cm wide crepe bandage
- 1 25 g packet sterilised cotton wool
- 12 adhesive wound dressings, assorted sizes
- 6 safety pins
- 1 tube antiseptic cream
- 1 tube antihistamine cream
- pencil and paper

4. Inoculation against tetanus is strongly recommended for anyone engaged in field work with a booster every 5 years. If you receive special medical treatment or have a medical condition it is advisable to carry details of your requirements and, where applicable, additional medicine.

5. Weather conditions should be checked in advance, particularly in coastal or mountain regions.

6. **Itinerary** details, estimated time of return and, if applicable, car registration number should be left back at 'base'. Include details of who should be informed and at what time in the event of non-return. If you change your plans through the day, inform your contact.

7. **Hazardous sites and conditions** such as mine workings, recently sprayed crops, heavy machinery, shooting parties and aggressive animals should be avoided. Take extra precautions when-visiting:

a) Rivers, streams and lakes. Be wary of unstable banks and flash floods. Check water depth, bottom condition and other hazards if wading. Avoid water in spate.

b) Bogs, swamps and soft sand. Be wary of saturated peat and of floating mats of vegetation which can close over a victim if breached. Cross a bog on the tussocks. Watch for uneven surfaces that can caused ankle injuries. If you find yourself sinking:

- i) lie flat on your back to spread weight and remove rucksack straps
- ii) use rucksack or survival bag for support
- iii) get your legs into a horizontal position if possible
- iv) turn onto your front and move back to firm ground using tussocks for support, pulling rucksack along by strap

8. **Roads and motorways:** a permit from the Department of Transport is needed for surveying motorways. The DoT safety instructions should be followed. On other roads wear high-visibility, reflective clothing. Do not work on roadsides in poor visibility. Park in a safe place off the road. Be wary of bends, hill crests, junctions, road works and narrow cuttings. Work in pairs — one recorder, one look-out.

9. **Railways** should not be surveyed without permission from British Rail. Their safety instructions should be followed exactly.

10. **Ministry of Defence land** should not be surveyed without MOD permission. Their safety instructions should be followed.

11. Coastal: tide tables are essential, and should be understood and adjusted for BST, GMT and local conditions.

Be wary of fast changing weather conditions (an onshore wind can accelerate the time and height of high tide), quicksand/mud (use a wading pole if necessary and cross soft mud with short rapid steps), and fast tides on flat terrain.

Make sure escape routes are clear — tidal creeks can fill very quickly even at the top of marshes. If working on an exposed rocky coast when a swell is prevalent, one member of the party should be checking for unusually large waves. Take particular care climbing down to beaches on steeply backed shores. Beware of the danger of falling rocks from cliffs. Be wary of unexploded mines and bombs, etc. Do not touch

but mark their position and tell the coastguard or military. A life jacket may be prudent.

12. **Cliffs and crags** should be studied under the guidance of an experienced rock climber or mountaineer with appropriate equipment. Training is essential. Beware of falling or loose rocks, avoid cliffs in anything but fair weather.

13. **Upland areas:** take suitable clothing and safety kit (as above). Watch out for changing weather conditions and for symptoms of hypothermia (feeling cold, tired, listless, irritable, uncontrollable shivering, unreasonable behaviour, slowing of mental and physical response, stumbling/falling, dizziness, slurring speech, difficulty of vision, physical resistance to help, collapse, stupor or unconsciousness). Temperatures fall by about 1° for every 150 m of elevation.

Dehydration contributes to exhaustion and exposure; maintain calorie and fluid intake and minimise heat loss. Set off early to avoid being benighted. To lessen the danger from lightning, if caught in a storm, AVOID caves and rock crevices and stay in the open. Look for a broken rock scree in a safe situation away from the crest of a hill, and sit on a dry rucksack or rope with your knees up and hands in your lap. Do not support yourself on your hands or by leaning back — keep your points of contact with the ground as close and dry as possible.

14. **Inner cities:** be aware that in densely populated areas, a botanist with eyes on the ground is easy prey.

15. **Procedures in an emergency**

a) **GETTING LOST** Try to reconstruct your route. Study the map for landmarks and then hold your course with the compass until you reach an identifiable feature to locate yourself. Don't take short cuts or ford rivers.

b) **INTERNATIONAL DISTRESS CALLS** The Alpine distress call is 6 long, rapidly repeated whistle blasts/torch flashes repeated at one minute intervals until answered. An SOS call (...—...) is also likely to be understood.

c) **INJURIES** First aid as available. Pay particular attention to staunching blood flow and preventing hypothermia. Try to keep warm and dry and summon help immediately. If alone use the distress calls; if with colleagues send for help making sure the victim can be relocated.

d) **MISSING PERSONS** If a colleague is missing at time of rendezvous, commence a search of the itinerary route. Leave your own note to say you have started search. If no trace is found after an agreed period, inform police.

16. **Diseases.** For the interests of field recorders, here is some information on two diseases known to be contracted in the countryside.

WEIL'S DISEASE

Infective bacteria causing this disease are carried in the urine of rats and voles. The chance of contracting Weil's Disease is very low but it can be fatal. The following points should be noted:

1. Risks are greatest after periods of high water or flooding when rat runs are flushed out.
2. Holes in river banks suggest rat/vole activity — operate upstream of them.
3. Greater care should be taken in stagnant or slow moving water (cases have been associated with the rivers Lee, Chelmer, Stort and Taff).
4. Abrasions should be covered with waterproof plasters.
5. Wear Wellingtons in water to protect feet.
6. Prevent water contact with thin mucous membranes (e.g. eyes, nose, mouth).
7. Wash after contact with river water and before touching food.

If you have been at risk and develop flu-like symptoms (high temperature, chill feeling, pains in joints — especially calf muscles), tell you doctor immediately and mention Weil's Disease. An ELISA blood test can be carried out quickly at The Leptospirosis Reference Unit, Public Health Laboratory, County Hospital, Hereford HR1 2ER.

LYME DISEASE

This is a bacterial infection transmitted by infected ticks which attach to the skin and suck blood. The adult ticks live on sheep and deer and mice are thought to be the major reservoir of the bacteria. In 50–75% of cases the first symptom is a red rash around the tick bite, which expands and clears in the centre. When the rash fades, flu-like and meningitis-like symptoms occur, followed by more serious complaints of the disease affecting the heart and nervous system. Months or years later arthritis can affect the patient. Many long-term symptoms are similar to those of syphilis. The following points should be noted:

1. Prevent tick bites by tucking trousers into socks or by wearing boots.
2. After exposure to suspect habitats, examine yourself for ticks and remove any immediately, either with tweezers or by wiping with alcohol to loosen their grip and then brushing off. Carry alcohol or tweezers in your first aid kit.

If after a tick bite you develop a rash, flu-like symptoms or enlarged glands, tell your doctor and mention Lyme disease. A serological test can detect the disease, which can be treated with antibiotics.