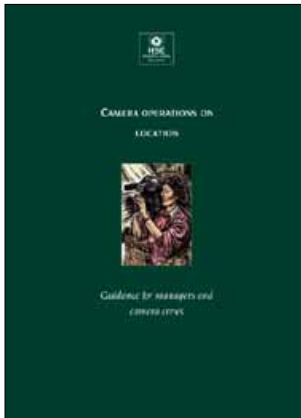


# Camera operations on location

Guidance for managers and camera crews



**This is a free-to-download, web-friendly version of HSG169 (First edition, published 1997). This version has been adapted for online use from HSE's current printed version.**

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This publication is aimed at managers and camera crews and includes the following main areas: managing health and safety (eg risk assessment and decision-taking by editors, producers and resource managers); guidelines for safe systems of work (eg working in hazardous conditions, using electricity); and appendices covering a summary of relevant legislation, an aide memoire, a checklist for assignment planners, a risk assessment form and model, and an overview of various types of safety training.

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# Foreword

This guide has been produced by the Health and Safety Executive's Joint Advisory Committee for Broadcasting and Performing Arts with the aim of promoting good standards of health and safety practice. These guidelines are most likely to be relevant to news gathering, current affairs and factual programming although there may be applications over a wider field.

It is not intended here to repeat more general advice which can be found in a number of other HSE publications. Some of these are listed in the section *Further reading*.

# Introduction

1 There are special problems associated with all types of camera work carried out on location. Filming on location means that work is often done in the midst of changing circumstances. It is often carried out in adverse conditions. Cameramen and camerawomen may work alone or in crews which may be formed at short notice and with limited information available. The routine of the work may mean staying with the story, bringing the office and the workplace to unfamiliar surroundings.

2 While this guidance applies equally to camera operations anywhere in the world, the reader is advised that the Health and Safety at Work etc Act 1974, and similar legislation in Northern Ireland only applies to the United Kingdom.

3 It is not unusual to have situations where a number of employers are represented on location with self-employed people working alongside. Where there are shared undertakings co-operation within the team will be required and they will need to co-ordinate health and safety arrangements. It is important in these circumstances that self-employed workers recognise that they have equivalent duties to those of employers.

# Part 1 Managing health and safety

## Responsibility for risk assessment

4 Employers and self-employed people have a duty to identify the measures they need to take to ensure safety by carrying out suitable risk assessment. The detail contained in the risk assessment should be broadly proportionate to the risk.

### Assessment should be practical

- You should be systematic and ensure that all relevant risks are addressed without concentrating on trivial risks at the expense of more important ones. It is sometimes helpful to look at risk groups (like machinery, electrical, etc) or to take a step-by-step, or chronological approach.
- You should address what really happens rather than what you think happens. Actual practice may differ from instructions and this is often when risk increases. Non-routine operations can also be overlooked but need to be taken into account.
- You should identify all groups of workers who may be particularly at risk. This might include newly recruited staff, young or inexperienced workers.
- You should take into account existing preventive or precautionary measures.

(See *Appendix C* for memory aid for those carrying out risk assessment.)

## The editorial decision

5 Key people such as editors, news planners, researchers, journalists, producers and resource managers are often responsible for assigning camera crews to work schedules. It is at this early stage that decisions will be taken which may affect health and safety, for example, the level of skills and experience necessary, the size of the crew and whether continuous communication and control will be possible. Risk assessment is best undertaken at this stage. Where a contract crew is to carry out the work, the responsibilities of both 'client' and 'contractor' need to be made clear at the outset. Those responsible for assigning work need, therefore, to be given sufficient training and time to do this effectively, and have access to health and safety assistance where it is necessary.

6 The need to provide a suitable and effective communications network in order to pass information to the cameramen and camerawomen on the ground should also be considered at an early stage. Frequent two way exchanges of information may be required between base and location. This will be more important when less experienced personnel are involved. Any safety information passed on should be clear, legible/audible and delivered in such a way so as not to cause confusion.

**Assignors need to consider the following**

- Taking into account field or location work experience, who is to do the work?
- Who is responsible for what?
- Who is to take overall control?
- Is the contract clear on health and safety matters?
- What emergency procedures are necessary?
- How to manage change during a breaking story?
- Know their own limitations - identify training needs.

**Assignment**

7 Accidents occur when work is poorly planned. Health and safety issues connected with particular assignments should be considered at an early stage so that appropriate measures can be taken. A person such as a resource manager, assignment editor, producer or journalist needs to be identified to carry out the initial planning and give clear guidance about health and safety precautions. It is not acceptable to leave crews to discover new information which could affect their health and safety when they reach the location.

8 In all camera operations there needs to be a recognised chain of responsibility. Not everyone in the chain will be part of the actual location team but all those involved must be absolutely clear about their individual responsibilities.

9 These responsibilities will necessitate an appropriate degree of health and safety competence. This does not necessarily mean that a safety professional always needs to be involved but those managers who make assignment and scheduling decisions need to be aware of the implications for the health and safety of both employees and contractors and also have the authority to act accordingly. See *Appendix B* for guidance on the use of contractors.

**Planning stage**

- Give as much information as possible to camera crews at the assignment to enable precautionary measures to be adopted.
- Establish effective means of communication for further information.
- Agree arrangements for location support if these are needed.

(See *Appendix D* for a checklist for planners.)

10 Cameramen and camerawomen who are less experienced may lack confidence in turning away work and may either fail to recognise or feel less inclined to withdraw from situations which become difficult or dangerous. On the other hand, experienced crews may feel that they are expected to cope single-handedly in situations which are dangerous. Those who assign and plan work should bear this in mind when allocating time and scheduling work. Those who do the work should not be deterred from asking for further health and safety information.

11 There may be circumstances where lone working (single person operation) is inadvisable because the risks are too great. Where a single person crew has already been deployed and events have developed, coverage should be restricted to what can be done in safety until assistance arrives.

### Remember

- Knowledge of, and information about, the working environment may be very limited at the outset. All foreseeable situations should be considered.
- Circumstances can change very rapidly during the course of work. It may be necessary to reassess the situation as the story breaks.
- The employees of different organisations and small or single person crews often work alongside each other. The Management of Health and Safety at Work Regulations (MHSWR) require co-operation and co-ordination of any work.
- The nature of this work means that individuals may be prepared to take risks with themselves and others to obtain a story. This needs to be actively discouraged where possible.

### Risk assessment guidelines

12 Work of cameramen and camerawomen can range from routine low risk work, to work in highly hazardous areas. The results of risk assessment will therefore range from a simple verbal summary to a detailed list of significant findings and precautionary measures. Training in structured risk assessment is important for those who have assessment responsibilities. At times, circumstances and pressures of work might act against carefully considered risk assessment. Regular assessment meetings would reduce this possibility. An assessment form can be used with great effect as a guide to a structured assessment. An example of a practical assessment form is attached at *Appendix E*.

13 The law does not require that details of all risk assessments be set down in writing. The Approved Code of Practice (ACOP) associated with the Management of Health and Safety at Work Regulations 1992 recommends that only the significant findings of risk assessment should be recorded when the employer has five or more employees.

14 Where a 'generic' or 'model' risk assessment is available for particular types of work, this can be adapted to local circumstances. These 'model' or 'generic' assessments tackle risks in broad terms and include types of risk which might generally be encountered, along with the appropriate action.

15 Where complex work is to be carried out which will involve significant risks it may be advisable to prepare 'method statements', ie commit to paper how the job should be done, including such things as individual responsibilities, timings, cues, sequences, etc. This will assist in establishing clear, unambiguous instructions for all those involved. If changes are subsequently made, these need to be flagged up in both the risk assessment and method statement.

### Identifying hazards and assessing risks

- Easy to use guides are available from broadcasters on common hazards. These would be useful to contractors as well as employees.
- Simple proformas have been developed by the major employers to assist hazard identification and risk assessment.
- Look at the job as a whole, not particular hazards in isolation from each other.
- If there are *any* changes, re-assess.
- Consider the experience of the crew for the type of shoot and consider whether any training or support may be necessary.



### ***Pre-production planning***

16 When undertaking a production or an assignment, it is important that all those involved with camera operations understand the need to have effective arrangements for health and safety. These should be discussed at the planning stage, before work begins.

17 Certain types of work, particularly in news and current affairs, is unpredictable. The nature of the work in this field may mean that work which begins fairly routinely may develop into something which involves much greater risk. In these situations, any risk assessment should be revised as the work progresses and as more information becomes available.

18 There are a number of stages which would be common in the production process.

#### **Typical planning stages**

- 1 Selection of story.
- 2 Research, planning, design and script outline.
- 3 Recce where this is feasible.
- 4 Allocation of crew and technical resources.
- 5 Risk assessment.
- 6 Implement the control measures.
- 7 Consultation with safety reps, crew and others affected where appropriate.
- 8 Communication of the outcome of assessment and arrangements for the work.
- 9 Review any changes made and revisit the risk assessment.

### ***High risk assignments***

19 Whenever any assignment is high risk, examples of which might be riots, war zone work and covering natural disasters, it may be necessary to co-operate with other workers involved in developing and co-ordinating measures found to be necessary by the risk assessment including emergency contingency plans. All camera crews should be familiar with emergency plans, if possible, well in advance of an assignment.

#### **Know:**

- the way in and the way out of an area (access/exits);
- alternative means of escape from an area;
- the system for communications with other people (eg fixers) - it may be necessary to have a radio link as well as a visual link;
- arrangements for contingency planning to be co-ordinated through key personnel, eg person in charge at an incident control point (ICP);
- what is necessary for personal protective equipment - training in its use, possible restrictions of movement and the effect on the individual.

20 It is important that the health and safety precautions adopted prior to the work commencing on location, are revisited to ensure that they remain relevant. For crews working on short notice assignments, this may be the first real opportunity to assess site risks at first hand which could affect these precautions.

21 It is important that crews can appreciate that further risk assessment at the location may necessitate alterations to plans. It is important that they should have

sufficient knowledge and understanding of health and safety matters relating to their work to be able to identify hazards and assess risks. The judgements made by crews on location, about the risks involved there, need to be respected. The very nature of location shooting means that the cameramen and camerawomen may well be in the best position to make a more accurate risk assessment.

#### **On location assessment**

- Check to see that everyone knows their responsibilities.
- Check that risk assessments have been done.
- Ensure that precautions for health and safety and any other necessary control measures are in place.
- Ensure that the risk assessment is revised during rapidly developing or changing circumstances.
- Have the significant findings of risk assessments been recorded?
- Risk assessment should take account of problems that might arise from sharing the workplace.

### **Scheduling**

#### **Short notice assignments**

'It is commonplace for stories, particularly in news gathering, to be mounted at short notice, or in uncertain circumstances. It will be necessary in these cases to make a general assessment of the risks involved in carrying out the assignment and to review this as the situation develops. There is a difference between work which appears out of the blue, and activities which you expect to occur but are not sure where or when. It should be possible to identify most of the risks in advance. If the risks are such that it is necessary to consult with others, assignment schedules should allow for this.' **Quote – unattributed.**

22 The crew needs to be given basic information, before arriving at the site, sufficient to deal with the expected situation. A crew that is well briefed about such things as the nature of the story, the technical requirements, the exact location, the quickest route and parking availability at or near the location, will perform better than one that has had to rush there with only a vague idea of what they will find.

23 The following considerations will help before crews are committed at short notice:

- obtain information about the place where the events are happening;
- provide any up-dates of information. If significant risks are identified work should only progress after a revised risk assessment has determined what additional measures or information is required;
- camera crews should be sufficiently experienced to be able to appraise the risks that might arise;
- the training needs of camera crews will need to be assessed;
- camera crews should know their limitations;
- access to and exits from the location should be considered.

#### **Capabilities and training**

24 Persons selected for an assignment should be competent for the job in hand, whether they are employees or contractors (see *Appendix B* for guidance on the use of contractors).

25 The Management of Health and Safety at Work Regulations 1992 specifically require employers to take into account their employees' capabilities as regards

health and safety when giving them tasks to do. Employers need to make reasonable enquiries into the knowledge, experience and competence of the contractor. This does not exclude opportunities for progression through new experiences but it does need a managed approach, and perhaps training in some cases. It does mean that very careful consideration ought to be given to these matters when high risk situations are foreseeable.

### **Consultation with employees**

26 Employers must consult all employees on health and safety issues 'in good time', for example on:

- new measures;
- appointment of competent persons to advise on health and safety;
- health and safety information;
- health and safety training;
- new technologies.

27 Where trade unions are recognised this must be done through the representatives they appoint. Other employees must also be consulted, either directly or via their elected representatives.

28 The Safety Representatives and Safety Committees Regulations 1977 have been amended in this respect.

### **Reporting of injuries, diseases and dangerous occurrences**

29 The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR) requires that accidents and dangerous occurrences involving employees, self-employed persons or the general public, must be reported to the Health and Safety Executive. Further details and information can be obtained in the booklet *A guide to Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995*, see *Further reading*.

## Part 2 Guidelines for safe systems of work

30 The next section gives guidance on particular risks at work. This guidance is based upon knowledge and experience of safe ways of working which are recognised as good practice in the industry.

### Areas of public disorder



Areas which have a history of violence or disturbances should be treated with caution even at quiet times!

*'I was in an outside broadcast taxi to cover a riot, one of the mob removed the petrol cap and tried to push a flaming rag into the tank. I drove off quickly to safety.'* **Radio engineer**

31 The decision to assign production teams to areas of public disorder or civil disturbance will probably be taken by programme editors, in conjunction with a resource manager. Every effort should be made to supply those responsible for the deployment of staff with information about the nature of the trouble and its precise location so that a preliminary risk assessment can be made. Those involved in assigning staff should take full and very careful account of the experience of the personnel involved. It is clearly preferable to use experienced crews. Where those with less experience are deployed it is recommended that the crew has at least one member with relevant experience.

32 Areas which have a background or history of violence or disturbances should be treated with caution even at quiet times.

33 Crews should proceed to the outer edge of the disorder or disturbance where a further assessment of the situation should be made. More often than not, they will be guided by a producer, correspondent or reporter who will be able to obtain fresh information from the authorities (police, fire or army) in control.

34 Decisions as to whether to proceed or to remain on the periphery of the disturbance should then be made by the senior member of the team, based on their assessment of the situation and in consultation with other team members. Communications with senior editorial staff and the senior resource manager are important. Crews also need to keep in close contact with the emergency services or authorities on the spot for up-to-date information and whether to proceed.

35 Any member of the crew who is concerned about the situation or any specific safety aspect should be allowed to withdraw. Crew leaders faced with this situation will need to reconsider their ability to proceed with depleted resources.

#### **Tips**

- Meet at the edge of the disorder.
- Make a further assessment of the situation.
- Remain as inconspicuous as possible.
- Avoid conspicuous use of cameras or equipment.
- Withdraw if presence appears to be prolonging or intensifying a dangerous situation.
- Cease if subjects start to behave abnormally.
- Do not attempt an immediate reconstruction of an event or incident.
- Consider the advantages and disadvantages of using unmarked cars.
- Vehicles should meet at secure sites in close proximity to the location. They should not proceed without clearance from a person responsible for the assignment or by the authority in control.

#### **Chemical incidents**



Camerasman kitted out in personal protection suit and high specification respirator ready to cover a chemical incident

36 It is of vital importance to liaise with the emergency services in control of an incident. Details of the chemical, or other substance involved, hazardous properties and the type of release concerned will be essential for the risk assessment before arriving at the scene. Reliable information is the key to a safe presence at a chemical incident.

37 There should be sufficient information available for the person responsible for the assignment to make a preliminary risk assessment and to plan the assignment.

38 In most cases crews will not need to go so close to an incident that personal protection is necessary. However, a basic safety kit, carried by some crews, may be useful. Most of the kit fits into a hard hat. It comprises:

- hard hat;
- disposable coverall suit;
- disposable dust masks (general purpose);
- a pair of safety glasses or goggles;
- boots/shoes;
- disposable surgical gloves.

39 **Remember!** This kit will provide only limited basic protection. The need for personal protective equipment should have been identified as a consequence of risk assessment and specified accordingly (see paragraph 60).

#### Tips

- Make contact and follow the advice of the emergency services at the scene.
- Be aware of warning signs and symbols placed on vehicles, boundary fences and on buildings.
- There may be no obvious signs of the presence of gas or vapours.
- Always remain upwind of chemical spills and keep a safe distance.
- The wind direction can change very suddenly.
- If someone is exposed to a chemical, in most cases a thorough washing and dilution with water is the recommended treatment.
- Immediate assistance should be sought from the emergency services in cases of any respiratory problems.
- Crews should be aware of basic first aid.

#### Diving



A cameraman using a harness while working by water

40 All shoots involving diving operations in free water must be carried out in accordance with the Diving Operations at Work Regulations 1981. All operations will require at least three people, the diver, a buddy and a dive supervisor. The diving contractor must comply with the regulations relating to proximity of compression facilities and vessel to diver communications.

41 There is an exemption for the purposes of journalism if the dives do not exceed a depth of 50 metres and routine decompression time does not exceed 20 minutes. However, the Diving Regulations are likely to be amended in 1997. There will then be no general exemptions. The Regulations will become more flexible and goal setting. (The exemption referred to above will not cover the rigging and setting up of underwater equipment and sets. Anyone involved in this type of diving operation will have to comply fully with the Regulations.)

42 Duties of a diving contractor include:

- appointing diving supervisors;
- issuing diving rules;
- providing a diving operations log book;
- ensuring plant and equipment is appropriate for use.

43 Contractors must register with the Health and Safety Executive before they can start a diving operation.

### **Filming from the air**



Cameraman and pilot going through shot lists before flying

44 Aerial photography is usually carried out by a single operator due to space considerations in the aircraft. Broadcasting companies tend to know reputable aircraft operators who have experience of filming with single operators.



A pilot giving a cameraman a briefing about safety procedures before flying

45 The pilot should hold at least a commercial pilots licence. Private pilot licence holders are not allowed to fly for reward and should not normally be used for filming. The Civil Aviation Authority (CAA) will normally invoke an air exclusion zone around any major news incident.

#### **Tips**

- Shoot lists need to be pre-planned and agreed with the pilot.
- The person responsible for the shoot should ensure that the permission of the CAA has been obtained where necessary.
- Pilots need to be thoroughly briefed before take off.
- All manoeuvres should be agreed before take off.
- Prior to the flight, single words of communication and simple signals need to be agreed between the pilot and cameraman/camerawoman or producer.
- The advice of the pilot about the safety of the shoot or any part of it is critical.
- The cameramen and camerawomen may need a suitable safety harness.
- Ensure that all equipment is properly secured.



## Mains lighting

*'I was examining some lighting equipment which had been hired during the making of a programme. I found it to be in a dangerous state and had it been used it is probable that an electric shock would have been sustained and at worst a fatality could have occurred.'* **Test engineer**

46 Many location crews now carry their own lighting. A safe system of working depends on a reliable method of allocation and assignment. The following is intended as a guidance for those involved in the allocation of crews.

47 Most crews have a mains kit containing three lightweight heads, the most common types are 800 W Redheads, 500 W Mizers or 300 W Satchler lightweight heads. Other types of lamps may be used but the same recommendations will apply. The main use of lighting is for set piece work indoors.

48 It is common in news gathering for the camera crews to provide lighting themselves. Typical items covered would be one or two handed interviews in private houses or offices, fixed position scenes with the presenter in vision or general views (GVs) needing a small amount of basic illumination. Adequate time and more specialist help may be needed where more advanced lighting arrangements are required.

49 Mains lighting units will add significantly to the equipment being handled. This should be considered both in the assignment arrangements and the manual handling assessment.

50 Mains lighting kits are top heavy and are liable to overturn. They need to be carefully placed and not left unattended. They should be barriered off when other persons who are not aware of these problems are likely to be in the vicinity, for example children or elderly people.

51 Lighting lamps are powerful and so can become very hot. They take time to cool down after being struck. Time allowed for an assignment should take into account these factors. Higher risks might arise if single person crews have to deal with mains lighting in situations where there is no assistance available.

### Risk assessment considerations

- Who is to provide the lighting?
- Has sufficient time been allowed for setting up and cooling down?
- Have arrangements been made to prevent lighting from accidentally overturning?
- Has sufficient information been given about the job, the facilities available, and backup (technical or otherwise)?
- Is the lighting required complex?
- Should a lighting specialist or other person be 'on call' or part of the team?
- Is additional help needed to move the equipment?
- Will environmental conditions dictate special arrangements, eg flammable, explosive or wet conditions?
- Do you need to co-ordinate work with other persons present?
- Will members of the public be present?



52 The lightweight three head set is intended to be a basic interview kit. It is expected that its main use will be indoors for set piece work. The kit is not designed for use in wet or damp conditions. Nor should these be used in protected supplies such as those in hospitals. In these cases a general supply (GS) may need to be used.

53 A useful checklist is provided at *Appendix F* for the safe use of main lighting systems.

#### **Tips – Placement of lamps**

- Adequate time should be allowed for the selection of suitable sites for the safe placement of lamps and for their setting up.
- Lamps should be placed so that they do not obstruct entrances, exits or passageways. They should be placed in such a way that there is no risk of them being knocked over.
- Stands should be sited on firm, level ground and set at a height to ensure maximum stability. Use portable sand bags to weigh stands down.
- Particular care should be taken when placing lamps so that any heat generated can do no danger nor cause a risk of fire.
- Cables should not run across thoroughfares unless they do not cause a tripping hazard or they are at a suitable height. Any cables which are flown (unsupported) must be securely tied off at a suitable height.
- If a lamp is knocked over it should be switched off, allowed to cool and not used again until it has been examined.



Crew using additional lighting for a roof top piece to camera

## Manual handling



A cameraman carrying his camera to a location

54 Camera operations on location require the lifting and carrying of heavy items of equipment. These include tripods, lights and batteries and even the camera itself is quite a heavy item. In news gathering operations the team will usually be a small one, possibly only a single person.

55 Manual handling may give rise to problems of the back, neck and shoulders and discomfort in the lower limbs from standing. Equipment often needs to be removed from the boot of the car, carried to the location, set up, used and then returned.

56 The person responsible for the assignment should take into consideration these factors when planning the shoot. Particular regard needs to be given to parking, the distance from the location, the time available, the number of people who will be able to help and the equipment required to do the job. Other considerations might be such things as the type of terrain and weather conditions, as these will effect manual handling. Fatigue will have an adverse effect and it will increase any risk.

57 An assessment of the risks in manual handling of equipment and other loads should be carried out to determine which risks can be avoided and how to control or reduce other risks. These activities may only require one assessment. Provided that there is no significant change to the proposed work, the conclusions of this assessment would hold for a range of work, ie a generic assessment.

58 The need for training may well be one outcome of assessment. Experienced cameramen and camerawomen may have developed good protective techniques and these need to be passed on to those who are less experienced.

### Tips – Good habits for manual handling

- Posture:
  - keep the back straight;
  - use the leg muscles to lift;
  - keep the load close to the body;
  - use a firm palm grip;
  - keep the elbows tucked into the body;
  - position feet to provide a stable base.
- Review the task, the load, the working environment and individual capacity.
- When loading vehicles, place heavy and most used items in the most convenient position for lifting into and out of the vehicle.
- Get help from another person if loads are particularly heavy, bulky, or have to be carried a long way.
- Use mechanical aids wherever possible.
- On shelving systems place light items on upper levels and heavy items at hip height or on the floor.

59 One solution to handling heavy loads is to split the load but this may mean that some valuable equipment has to be left unattended whilst the remainder is moved. The use of fold away trolleys may assist. The need for taking every piece of equipment needs to be carefully considered by crews against pressure from insurance companies who may prefer that equipment is protected against loss. In insurance terms, the cost of any resulting personal injury is likely to be far greater than the cost of replacement equipment.

### Personal protective equipment



Cameraman wearing a respirator and disposable coverall suit

*'While making a current affairs programme, the opportunity arose to go on to an unsafe building site, we didn't have any safety helmets.'* **Reporter**

60 The need for personal protective equipment (PPE) and clothing needs to be identified at an early stage and specified where special arrangements are necessary. PPE must be properly selected for use. It must match the wearer and the job. The wearer must also be trained to appreciate how it should be fitted and used, and on its limitations and regular maintenance.

61 Where the risks to the job cannot be eliminated or controlled by other means, the use of personal protective equipment will have to be considered.

62 A safe system of work will depend on:

- the availability of personal protective equipment when it is needed;
- training in its use;
- co-operation of the camera crew in using it.

63 Additional equipment and clothing may be needed but will not necessarily be carried by the crew and will depend on the outcome of the risk assessment for a particular job. It is important that the user is properly trained in its use, particularly with equipment such as lifejackets, safety harnesses and respirators. Other items may include corporate suits such as a National Broadcasting Corporation of America (NBC) suit, waterproof clothing, body warmers or bullet proof vests.

64 Past experience has shown that there may be a 'macho' tendency among some crews, particularly those involved in news gathering. This has to be overcome and is best done by training, persuasion and example.

#### **Useful protective equipment**

- Hard hat.
- Disposable coverall suit.
- Disposable rubber gloves.
- Safety glasses or goggles.
- Ear plugs.
- Industrial gloves.
- Respirator for the appropriate contaminant, eg organic vapours, inorganic gases, acid gases and dusts.
- High visibility jacket or waistcoat.

#### **Other useful items**

- Torch or light stick (cyalume).
- Waterproof liner for equipment.

### **Stress**

65 The nature of location work, particularly in news gathering, will involve assignments where crews may experience distressing events. Anticipation of such experiences together with an appropriate level of support from trained counsellors will assist individuals in coping with the psychological trauma that may follow.

66 Broadcasting makes many demands on those involved, for example, unpredictable and long hours of work. It is important that rest periods or overnight stays close to the location are included when scheduling work, particularly where single person crews are involved. It should also form part of any risk assessment.

67 There is no single solution to the problem of work-related stress. However, as the Health and Safety Executive's publication *Stress at work: a guide for employers* makes clear, a great deal can be achieved by adopting a common-sense approach based on good two-way communication and management and sensible organisation of the workload. The guidance document also sets out details of the main causes and effects of work-related stress and a range of practical steps that employers may take to prevent harmful levels of stress developing in their organisations. It must be emphasised that where occupational stress poses a significant risk to health, employers have a general responsibility under health and safety law to take remedial action.

### ***Planning and scheduling to avoid undue stress***

68 The levels of concentration, physical and mental effort required to fulfil a task will vary greatly depending on the nature of the job, the environment in which it is undertaken and the skills of the individual concerned. Whether or not a particular duty is especially tiring or stressful will depend on a complex range of factors and those responsible for planning programme production schedules, as well as those who schedule crews directly, will need to consider various factors as part of the allocation process.

#### **Stress factors**

- Working long and unsociable hours.
- Assignment communications.
- Workload time and pressure.

#### **Stresses to be avoided**

- Frequent shift changes.
- Changing from night to day shifts without adequate time to recover.
- Poor communications leading to increased risks or unnecessary work.
- Inadequate provision for refreshment and toilet breaks.
- Driving long distances after lengthy periods of work.
- The length of the working day.
- The number of days scheduled along with the need for time off.
- Poor communications.
- Insufficient information about the work and the right equipment for the location.
- The need for complex or detailed information to be written down.
- The spoken word, *what* is said and *how* it is said.

69 Stress factors can be reduced by good team work with adequate two-way communication, not only on job information but also feedback on unrealistic scheduling. Arrangements may need to be in place to monitor both the planned and actual working patterns. Employees must be allowed, without fear or favour, to raise matters concerning unreasonable work schedules with their senior managers.

### **Tracking backwards**

70 The practice of tracking backwards is a significant risk for the lone worker. Cameramen and camerawomen cannot check where they are going or anticipate any difficulties behind themselves. Shots which commonly involve this potentially dangerous practice are the coverage of arrivals and departures, filming marches and processions. Unless assistance is available, an alternative means of obtaining the shot may need to be found.

### **Use of electricity**

71 The Electricity at Work Regulations 1989 will apply to electrical equipment being used, and to any electrical work carried out, during camera operations. By far the most common use of electricity on location by camera crews is in the use of lighting.

72 No one should carry out electrical work unless they have sufficient knowledge to prevent danger to themselves or others.

### Tips

- Regular visual checks of cables, plugs and equipment.
- Know how to check fuse ratings, earth and wiring connections inside a plug.
- Look for evident faults, eg overheated, discoloured or worn cables.
- Withdraw defective equipment from service, report it and clearly mark item as faulty.
- Check portable equipment subject to constant and heavy use more frequently. A combined inspection/test should be carried out at least once every 3 months.
- Keep records of inspections and tests.
- Use a protective device such as a residual current device\* (RCD).

*\* Note: RCDs need to be 'exercised' regularly; trip them using the test button on each occasion before taking the equipment they are protecting into use and install them as close as possible to the supply socket. Ensure RCDs are tested on a regular basis to ensure their tripping characteristics are satisfactory.*

### Violence



A camera operator, after carrying out a full risk assessment of the situation, in action in Bosnia, wearing high velocity body armour under a jacket

*'I decided to film some down and outs one evening, as I started, one of them lashed out with a knife cutting my arm, fortunately not badly.'* **Cameraman**

73 There needs to be clear guidelines at assignment briefings for dealing with violence if the assignment is likely to include work at demonstrations, riots, coverage in high crime areas, coverage of sports events, or court proceedings where violence might be anticipated.

74 Camera crews are particularly at risk, firstly because some people may not wish to be filmed; secondly, because crews will be carrying high value goods. The previous experiences and knowledge of crews will be invaluable in making an assessment of risk.

75 Crews should not allow themselves to be separated. The use of local guides and drivers may be considered, particularly when abroad, as local knowledge can significantly assist safety and completion of deadlines. Work done by 'guides' should be considered as part of the risk assessment.

76 It is recommended that single person crews are not deployed in areas of civil unrest or public disorder or where such problems are foreseeable. Crews should not be split unless the risk assessment confirms that it is safe to do so. In these situations the risk assessment should include consideration of the size, skill, mix and experience necessary for the crew.

77 Most crews from time to time cover hazardous assignments and disasters in the UK and abroad. While they have developed good defence mechanisms, care should be taken to assess their well-being before further re-assignment.



A reporter and cameraman filming in a hospital in Bosnia

#### Tips

- Meet the crews on their return from war zones, etc.
- Carry out a full debrief as soon as possible.
- Provide counselling and medical checks when these are appropriate.
- Keep up-to-date information on locations which are likely to cause problems.

#### Work at heights



When working at heights not only should the cameraman be properly clipped in but the equipment should too

*'We were making a programme in a shipyard and I was asked to get a "top shot" from the top of a crane. When I completed the shot I couldn't move, I froze and felt like jumping from the crane. Fortunately I was helped down to safety by the shipyard safety personnel.'* **Cameraman**

*'We were rigging an aerial on a sloping church roof which was plagued with pigeons. The surface was very slippery and neither of us had a safety harness.'*

**Two radio sound supervisors**

77 A significant proportion of serious accidents arise from work carried out at heights. Where this kind of work is done by cameramen or camerawomen, an adequate risk assessment should be properly conducted at the planning stage to identify any safety measures which may be necessary so that a safe place of work is provided, particularly as many camera crews will be unaware of potential hazards that surround them.

78 When a person has to work at a height, a safe workplace should be provided if at all possible. Harnesses and lifelines should not be considered as the primary safety requirement unless there are no reasonably practicable alternatives such as edge protection. Harnesses and lifelines will only limit the danger if a person falls.

79 Vantage points are often required for shoots, particularly at sports events. Improvised vantage points, such as drums or pallets, create additional risks to health and safety. The practice of using fork lift trucks to provide an elevated platform is especially dangerous and should not be carried out without a properly built cage for containment and proper control of any movement of the vehicle.

80 Where work is to taking place at a height consider:

- means of getting up to and down from the place of work must be safe;
- ladders must either be footed or secured;
- equipment should be transferred safely, ie slung over the shoulder or hoisted up separately;
- leave both hands free to hold on to ladders;
- use safety harnesses and equipment safety lines when working from articulated or telescopic hoists, or cherry pickers.

81 If a scaffold is to be used there are basic checks that camera crews can carry out on the spot to establish whether it is safe to use, but first obtain the permission of either the owner or person in charge before using it.



Carry equipment safely leaving both hands free to climb ladders



### Tips on the use of scaffolding

- The scaff tag labelling system will give the following useful information:
  - contact name and number of the scaffold contractor;
  - when the scaffold was erected and by whom;
  - when the scaffold is due for re-inspection.
- A scaff tag showing a green label clipped to the side of the scaffold normally means that it is complete. If there is a red scaff tag label this means that the scaffold is incomplete and no unauthorised persons are allowed on the structure.
- The absence of a scaff tag does not necessarily mean that scaffolding is unsafe but it should be treated with caution. *Check with the owner or person in charge.*
- Where a number of crews are to use a scaffold the owner/person in control should be advised of the combined weight of equipment and numbers of persons in advance of the work. A 'hand-over certificate' should then be available which will declare whether the scaffold is fit for use and specify the design loading.

82 Where specialist wire equipment is hired, the user instructions need to be followed. It may well be necessary for the hirer to provide an experienced operator.

### Working in confined spaces

83 Occasionally cameramen and camerawomen are requested to film news items or documentary pieces on personnel working in confined spaces such as sewers, drains, mines or in places where air movement is restricted.

84 These are dangerous environments where the air may be poisonous, flammable, explosive or oxygen deficient. There may be no apparent warning of danger - no smell, taste or irritation. Entry should be avoided wherever possible.

85 Where entry is necessary, a safe system of work should be used involving a permit-to-work system which specifies safe access and exit, testing of the atmosphere, purging/venting requirements and complete isolation of the space from further entry of hazardous substances. If the space cannot be purged then breathing apparatus will be required together with arrangements for rescue in the event of an emergency. Proper training is required for this type of work. Further information is contained in the guidance note entitled *Work in confined spaces*.

86 Work involving entry in confined spaces should be properly planned. Single person crews should not enter confined spaces without trained and experienced guides.

### Working on or near water



Location crew wearing life jackets while working on water

87 Dangers arise from restricted sight and hearing whilst concentrating on the shoot and the additional weight of equipment. The restricted ability of the lone workers to extricate themselves from difficulties should be taken into account. Very careful consideration needs to be given to use of single person camera crews in this kind of environment.

88 See section on *Mains lighting* for use of mains electricity near water or in damp conditions.

#### Consider the need for:

- a fully equipped rescue boat;
- instructions to remain seated in the boat to preserve stability; life jackets and harnesses for work by deep or fast flowing water, or by steep or sheer banks;
- extra care when working near locks or weirs;
- safety lines to secure equipment;
- Weils cards\*.

\* A health card carried for a specified period after possible exposure to contaminated water.

# Part 3 A user pack

## APPENDIX A

### Summary of legislation

- 1 This section may be a useful aid and reminder of things which need to be included in routine health and safety considerations.
- 2 Full details of the legislation can be found in the documents referred to at the end of this part.

#### ***The Health and Safety at Work etc Act 1974***

3 The Health and Safety at Work etc Act (HSW) 1974 places duties on employers, employees and the self-employed to ensure, so far as is reasonably practicable, the safety of people involved in work activities, and those who may be affected by work activities.

#### ***The Management of Health and Safety at Work Regulations 1992***

4 The Management of Health and Safety at Work Regulations (MHSWR) 1992 require employers and the self-employed to assess the risks arising from work activities in order to identify the measures which need to be taken to comply with relevant health and safety legislation, eliminating risks where possible and controlling those which remain.

5 The Regulations require that temporary workers (ie those who are employed under a fixed-term contract of employment) must be given certain information about health and safety before duties begin.

6 Regulation 9 requires that where two or more employers share a workplace they should:

- co-operate with each other in order to enable them to comply with statutory provisions;
- take reasonable steps to co-ordinate measures taken to comply with statutory provisions;
- take reasonable steps to inform each other of the risks to health and safety arising out of their work.

7 Regulation 10 requires employers to provide information to the employers of other persons who are working in their undertaking. This information concerns:

- the risk to those persons arising out of the undertaking;
- the measures taken to comply with statutory provision.

#### ***The Electricity at Work Regulations 1989***

8 The Electricity at Work Regulations (EAW) 1989 require those in control of part, or all, of an electrical system to ensure that the system is safe when provided and used and that it is maintained in a safe condition.

9 The EAW Regulations should not be confused with BS 7671 (formally known as the IEE Regulations) which is a non-statutory code issued jointly by the Institution of Electrical Engineers and the British Standards Institution. BS 7671 deals with the safety of electrical installations.

***The Provision and Use of Work Equipment Regulations 1992***

10 The Provision and Use of Work Equipment Regulations 1992 place duties on employers and the self-employed, to ensure the provision of safe and suitable work equipment and to ensure its safe use.

***The Personal Protective Equipment Regulations 1992***

11 These Regulations place a duty on employers and self-employed persons to provide appropriate personal protective equipment if the risks to their health and safety cannot be adequately controlled by other means.

## APPENDIX B

### Use of contractors

1 Under the HSW Act, employers and self-employed people have primary responsibility for health and safety. The use of contractors does not free the person placing the contract from all responsibility for health and safety since the work being carried out is part of their undertaking. The employer still has a duty to take reasonably practicable steps to ensure that the work carried out by the contractor is not a risk to the health and safety of either their own employees or other persons who may be affected by that work, for example members of the public.

2 There is clearly some overlap of responsibility and it is important that steps are taken to define the rights and responsibilities of each party.

### Selecting contractors

3 Once the contract has been awarded it may be necessary to make more specific arrangements. These will include:

- the exchange of information as required by regulations 9 and 10 of the MHSW Regulations;
- co-ordination of measures taken by both parties to control the risks arising from their undertakings;
- clear definition of who has responsibility for health and safety;
- the control of any sub-contractors if these are allowed under the terms of the contract.

4 Contractors who are invited to carry out work should be aware of the specific health and safety standards you expect of them. Any specific health and safety requirements need to be included in any specifications. Evidence needs to be obtained of their ability to meet these standards. This could include things such as:

- the contractors safety policy, a written statement of safety policy is required where five or more people are employed and the arrangements for implementing these;
- any risk assessments, other assessments (eg COSHH) or method statements relating to the type of work to be carried out;
- the competence of those who will carry out the work.

5 Monitoring the performance of contractors is important, not only in terms of assessing compliance with the contract itself but also as a means by which the broadcaster can fulfil their duties under health and safety legislation.

### Monitoring of contractor performance

#### Consider:

- the need to check the contractors' work;
- the aspects of the work which can and will be checked and the performance standards required;
- who will carry out the monitoring and their competence to do so;
- arrangements for reporting and investigating accidents, dangerous occurrences, near misses, etc;
- arrangements for correcting any deficiencies that might be discovered.

6 A review of the performance of contractors needs to be carried out at intervals, for example when contracts become due for renewal. Also, if there are any significant changes during the period of the contract. Contractors on any approved list need to be reviewed periodically, particularly if there are any new services provided by the contractor.

### **Reviewing contractor performance**

**This review can include such things as:**

- the accident history during the contract;
- the results from monitoring that has been carried out;
- any changes in personnel or policy which might affect the contractors' competence.

## APPENDIX C

### Memory aid

1 The following checklist or memory aid may be useful, particularly if deciding whether or not to deploy single person crews and also for those single person crews who have to carry out risk assessments themselves. It is not exhaustive, nor will all points be relevant to particular situations.

#### *The working environment*

- Is the area or terrain of the shoot known to involve, or give rise to unusual risk?
- Will you be working on or near water?
- If the crew is to work from a height, is there protection against trips and falls?
- How will equipment be raised to the camera position?
- Is a trouble-free situation likely to remain so?
- Is the subject of the story likely to co-operate?
- Who is in charge of the production?
- Have the less predictable elements - children, animals, people who are intoxicated, people who are angry - been considered?
- Has the proximity of moving vehicles, machinery, etc, been considered?
- Is there a known history of unrest/theft/violence at the location?
- Have you arranged speedy means of communication in case of emergency?
- Has the filming of property been approved by the owner/occupier?

#### *Manual handling*

- What parking is available close to the location?
- Are the lifts working?
- Can handling aids be used?
- Is more equipment than is necessary being carried at one time?
- Is the travel from parking to location over difficult or badly lit terrain?

#### *Electricity*

- Can a single person crew properly deal with the complexity of the lighting?
- Can the assignment be adequately lit by one lamp?
- Is sufficient time available for rigging and cooling-down?
- Will the room be crowded?
- Will any highly flammable materials be present?
- Will disruption to a special supply, for example in a hospital, mean that specialist help is needed?
- Have arrangements been made to protect lamps from disturbance?

#### *Stress*

- Can the assignment, including travel, be safely completed in the time available?
- Has sufficient time been given for travelling to, from or between locations?
- Is the cameraman or camerawoman adequately trained for this type of assignment?
- Has the reporter been adequately trained in health and safety considerations?
- Can accurate information about the location, parking and other facilities be given before the cameraman or camerawoman leaves base.

## APPENDIX D

### Hazard checklist for assignment planners

*The order in which these appear does not reflect any particular priority.  
The list is simply a reminder to include in risk assessment considerations.*

- Means of access/exit;
- Use of aircraft/microlights;
- Use of balloons/parachutes;
- Use/presence of animals - wild/dangerous;
- Chemicals/pollutants/toxic substances;
- Derelict buildings/dangerous structures;
- Electricity;
- Explosives;
- Potential for falling objects;
- Fire/flammable material;
- Possibility of risk of infection;
- Use of lasers and other bright lights;
- Lifting appliances/gear;
- Presence of machinery;
- Noise;
- Presence of radiation - ionising/non-ionising/radio frequency/microwave;
- Stunts;
- Use of weapons;
- Work in particular weather (hot/cold), physical exertion and potential for changes in conditions.



## APPENDIX E

### Example

#### *Risk assessment form*

**Programme:** NEWS GATHERING 'Hikers go missing in Glencoe'

**Location:** Glencoe, Scotland

**Date and duration:** 5-16 January 1993

**Transmission date and time:** 6 o'clock news item

### Please describe hazards and precautions in detail

#### Details of activity and hazards identified:

Filming in and around the Western Ridge of the 'Anoch Eagach, Glencoe'.

- 1 Transportation of equipment from the roadside to the lower slopes.
- 2 Working in extreme cold weather conditions.
- 3 Poor light, visibility.
- 4 Avalanche risk.
- 5 Filming in isolation (away from populous).
- 6 Transportation of equipment around the location.
- 7 Driving on poor road surfaces.

#### Precautions proposed:

- 1 All equipment will be man packable in rucksacks (waterproofing of equipment essential).
- 2 Consult news gathering guideline *Working in cold weather climates* with a particular view to selection of suitable cold weather clothing.
- 3 Liaise with local guide prior to departure for story. Take advice from guide whilst on the ground.
- 4 Liaise with Met Office regarding weather forecast.
- 5 Extra working lights required for area.
- 6 Carry day sacks for dry storage of ancillaries, etc (ordnance survey map in dry sack).
- 7 Ensure vehicle used for story is four wheel drive and has emergency provisions.
- 8 Liaise with local guide as to the nearest hospital service (consider whether or not they can facilitate area medi vac).
- 9 Liaise with local mountain rescue service as to intentions and proposed operational areas.
- 10 Ensure all crew are in radio communication, and that radio frequency chosen does not interfere with rescue services.
- 11 If possible use luminescent markers to identify route in from the roadside.
- 12 When appropriate consult a safety services professional, should additional complications arise.
- 13 Establish first aid requirements prior to deployment.
- 14 Obtain survival equipment pack from the safety equipment store.

**Signature of producer** ..... **Date:** .....  
**Room:** ..... **Building:** ..... **Ext:** .....

**DISTRIBUTION:** Line managers and news item participant

## APPENDIX F

### Tips for mains lighting safety checks

#### *Before use*

- Safety glass fitted and good.
- Visual check wiring, plugs and connectors on lamps.
- Fixtures secure.
- Stand operating correctly.

#### *Before connection*

- Visual check leads, sockets, etc.
- Check suitability for load and, including total load, where others are making use of the supply.
- A simple check using mains tester for polarity and earthing. If there is a problem do not use the supply, bring it to the attention of the person in charge.
- Do not use protected supplies such as those in hospitals - use a standard mains (GS) supply in these cases.

#### *Method of connection*

- Use 13 A plugs where possible or when necessary use proprietary connectors with other sockets. Standard domestic 13 A plugs are not suitable for use in wet conditions unless they are protected against water entry.
- Use RCD close to the socket and test before using the equipment it protects.
- The electrical power rating of the lighting system must not exceed the power rating of the cables and connections on the supply to it.

#### *Conditions of use*

- Only make use of kits as they were intended. Lightweight kits are not usually designed for damp, dirty or corrosive conditions.
- Remember weather conditions can change!
- Adequate time should be allowed for cooling before lights are struck and before lamp bulbs are changed.
- Dispose of bulbs carefully, according to type and condition.
- Lighting kits should be regularly examined and maintained according to use.

## Further reading

*Essentials of health and safety at work* HSE Books 1994 ISBN 0 7176 0716 X

*A guide to the Health and Safety at Work etc Act 1974* (5th ed) L1 HSE Books 1993 ISBN 0 7176 0441 1

*5 steps to risk assessment* IND(G)163L HSE Books 1994 (Priced packs also available, ISBN 0 7176 0904 9)

*Management of health and safety at work* Management of Health and Safety at Work Regulations 1992 Approved Code of Practice L21 HSE Books 1992 ISBN 0 7176 0412 8

*Workplace health, safety and welfare* Workplace Regulations 1992 Approved Code of Practice and guidance L24 HSE Books 1992 ISBN 0 7176 0413 6

*Workplace health, safety and welfare - a short guide* IND(G)244L HSE Books 1997 ISBN 0 7176 11328 3

*A Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations* L73 HSE Books 1996 ISBN 0 7176 1012 8

*Electrical safety and you* IND(G)231L HSE Books 1996 (Priced packs also available, ISBN 0 7176 1207 4)

*Electrical safety at places of entertainment* GS 50 HSE Books 1991 ISBN 0 11 885598 0 (Currently under revision)

*Electrical safety for entertainers* IND(G)247L HSE Books (Due to be published summer 1997)

*Electricity at work: safe working practices* HS(G)85 HSE Books 1993 ISBN 0 7176 0442 X (Currently under revision)

*Maintaining portable and transportable electrical equipment* HS(G)107 HSE Books 1994 ISBN 0 7176 0715 1 (Currently under revision)

HSE Video *Live wires: What to look for when inspecting portable electrical equipment* obtainable from CFL Vision, PO Box 35, Wetherby, West Yorkshire LS23 7EX Tel: 01937 541010

*Diving operations at work* Diving Operations at Work Regulations 1981 as amended by the Diving Operations at Work (amendment) Regulations 1990 L6 HSE Books 1981 ISBN 0 11 885599 9

*Safety representatives and safety committees* (3rd ed) L87 HSE Books 1996 ISBN 0 7176 1220 1

*Taking action on stress at work: A guide for employers* HS(G)116 HSE Books 1995 ISBN 0 7176 0733 X

*Entry into confined spaces* GS5 HSE Books 1991 ISBN 0 11 885668 5

## Further information

For information about health and safety ring HSE's Infoline Tel: 0845 345 0055  
Fax: 0845 408 9566 Textphone: 0845 408 9577 e-mail: [hse.infoline@natbrit.com](mailto:hse.infoline@natbrit.com) or  
write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG.

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at [www.opsi.gov.uk](http://www.opsi.gov.uk).