THE GENTLEMAN CAVER

UBSS

NEWSLETTER

NEW SERIES No 12 FEB 1980

EDITORIAL

When scouting for articles for this Newsletter I was suprised by the number of people who replied "but I havn't done much caving this term".What an extraordinary answer! And these friends of mine were quite sincere.They really did think that the sole purpose of Newsletter was to broadcast news.Of course news is an important component of any Newsletter but it should never be more than a component.

Newsletter is an informal vehicle of communication between members of UBSS. The rules are few and simple.All articles must be signed.The editor has the right to edit the contributions given to him.This leaves an awful lot of scope..... yes,even poetry! And as an editor I am learning to use less of the blue crayon. In this Newsletter my role has been little more than 'typist'.

All articles for the next Newsletter should be sent to me by the beginning of May.

Love

Charlie Self

FORTHCOMING EXPEDITIONS

Members will be gathering at the camp site behind the Helwith Bridge Inn, near Horton in Ribblesdale,for the traditional Easter caving meet in Yorkshire. The dates are fairly flexible over the bank holiday period,so anyone interested should contact Oliver Lloyd (Bristol 683229).

A small party is going to County Clare from 26.4.80 to 5.5.80,staying at 'Raheen' near Kilshanny.The trip is being organised by Charlie Self (Bristol 40774).

The summer expedition to Lisdoonvarna,County Clare,will be from the 11th to the 25th July,when it is hoped that a number of students may be able to take part..e have booked the cottage with the green roof near Lisdoonvarna which belongs to Joseph O'Loughlan.Anyone interested should contact Oliver Lloyd.

CHARLIE AND CLAIRE'S SONGBOOK : is still available,price £1 (£1.25 inc. p+p). Cheques should be made payable to Charlie Self.

CAVES OF COUNTY CLARE : we aim to take the book to the printers on 1st April.

SESSIONAL MEETINGS

Tuesday 19th February	Phil Chapman will be giving us a talk on cave biology, supplemented by some really tremendous slides of cave creepy crawlies.
Wednesday 5th March	ANNUAL GENERAL MEETING and election of committee and officers. Pete Smart will address the meeting.

Both meetings will be held in the Upper Lecture Theatre, Geography Dept. Time 8.15 pm.

AWAY MEETS

The Hom Secretary has given me various excuses for not organising any official club trips this term. The best was "unpredictability of the weather and / or cavers".

Trips will be arranged at short notice during our Tuesday evening sessions at 'Crockers'. There is a prospective Yorkshire meet in early March; a notice will appear in the Spelaeo Rooms about 2 weeks beforehand.

ANNUAL DINNER

SATURDAY 15th MARCH	8pm for dinner at 8.30pm
VENUE	'THE CORONATION ROOMS' 25 BERKELEY SQUARE (the back of Carwardines) CLIFTON (near Wills Memorial Building)
Cost	£6 (payable to UBSS)

Disco and Dancing included, a barrel of beer afterwards (as usual).

PUB MEETS

Tuesdays and Sundays	'Crockers' , Cotham Hill (Upper Lounge)
Friday (Term Time)	Students Union (Long Bar)
Friday (Vacation)	'Crockers'

A CHRONICLE OF NON-EVENTS

I left Bristol in 1968. I cannot call my caving career distinguished, even if I enjoyed myself. Indeed casting about I can claim to be one of the last UBSS members to fall foul of Swildons 40. That alone dates me.

I sold all my caving gear for a vast profit in Newcastle on Tyne, and promptly found myself sent to a school in Cumberland where a Wessex Cave Club member had everyone well organised. There is a rim of Carboniferous Limestone around the Lake District, but the fact that it's largely covered in glacial deposits and overlooked by the Fells get it ignored. However there's a fair number of fairly superficial systems with surface swallets, and at times a considerable amount of water. I soon found myself in the kind of grotty underground rabbit holes that only someone reared on Mendip appreciates. Wessex technique seemed to be to continue downwards head first until stuck, where upon "Sir" relied on a pupil to extract him. This situation was a cue for a conversation "About that homework". For water tracing we used salt titration - which does work with small streams. The real frustration was finding several large sinks on the River Caldew, and a big pressure rising about 4 miles downstream. Much digging, and searching revealed no access. Think how small the entrance is to LNRC. It's still unfound. Grid Ref on request.

Before going to live in Ireland I achieved one ambition by getting my husband down a cave without paying - but we'd gone to Smoo (Dumess) to achieve this.

If anyone wants off the beaten track of tourist ridden carbide dumps, then they could do worse than South Fermanagh. Geologically the limestone is the northern part of the Sligo Syncline. There's too much surface clay for the kind of classic karst you find on the Burren, but the caves are spectacular if wet, with a big fall, long pitches, and the need for boat trips in the through routes. Queen's University, Belfast are one of the few regular caving groups as this area is a bit "troubled" being near the border.

Co Clare, revisited in good weather is much more attractive than memories of a wet Geography field trip. The incidence of putrifying livestock down assorted holes is not for the fainthearted.

I've recently retumed to England, and this summer had my three small boys underground at Bontddu, Merionneth, the only working gold mine in the UK. Nobody had hysterics, and there was a distinct tendency to explore small dark openings. Future tendencies?

Isabel Gilpin (nee Aitken)

UBSS SHIRT - STUDENT TREASURER'S NOTE

Dear members, from your own experiences you will possibly know how tight the financial position is these days. I myself find it very difficult to make ends meet what with a bike and two voracious gerbils to support. It would therefore be appreciated that if when you come down to the Spelaeo Rooms to purchase a T-shirt (£2.30) or a sweat shirt (£4.60) from the wide selection in various colours and sizes now available, payment is made in cash to me rather than in the usual form of a cheque.

Yours Hopefully, Paul Harvey

FIRST FRESHERS' WEEKEND - 6th/7th October

Friday night saw a barrel of beer and a number of people moving Mendipwards, firstly to the hut, then to the Plume. Back at the hut after closing time Geoff produced several bottles of wine, which was moderately horrible, but fairly potent. Some of it, followed by washing up liquid, also flowed over the navel of a secretary (ugh!). By bedtime CJP was noticeably the worse for wear, and had to be persuaded that he'd be more comfortable in his sleeping bag rather than on it.

Saturday morning dawned bright and sunny and saw Kirsten arriving with a minibus full of freshers - did she tell them she'd never driven a minibus before? A little later some superb organisation by the secretaries had everyone who wanted to go caving and a few who didn't going down Swildons, or GB or Sludge Pit.

Anyway I went down Swildons with Geoff and four freshers (one of whom wasn't a fresher). We went as far as Sump One, two heroes went through, I didn't because it was much, much too cold. Evidently everyone enjoyed themselves. We got back to the hut to find that Wanda and Chris had been busy preparing an excellent cauldron-ful of stew, needless to say it didn't last long.

Then down to the Plume again, much alcohol was consumed, much singing was done and no-one got stuck in the squeeze. An added pleasure was the appearance of Charlie (and Claire - she's the typist and very cross because Charlie didn't mention her in the last newsletter)'s songbook. The UBSS choirboys (SAM, PB and CJP) put on a fairly impressive show of "songs not in the songbook" before succumbing to its pages. Further entertainment was provided by the Self family's repertoire of disguises .

After closing time we went back to the hut and the barrel was tapped. A little later the annual tournament between MJS and RAC took place, as usual! - Mick came off best and Bob was seen to disappear through the door. By about 3.30 am most people had crashed out on a bunk - for the lucky ones, or the floor. The floor proved to be an unfortunate place for some when a respected member of society (who shall remain anonymous) caused it to take on a new role, usually reserved for the trees outside.

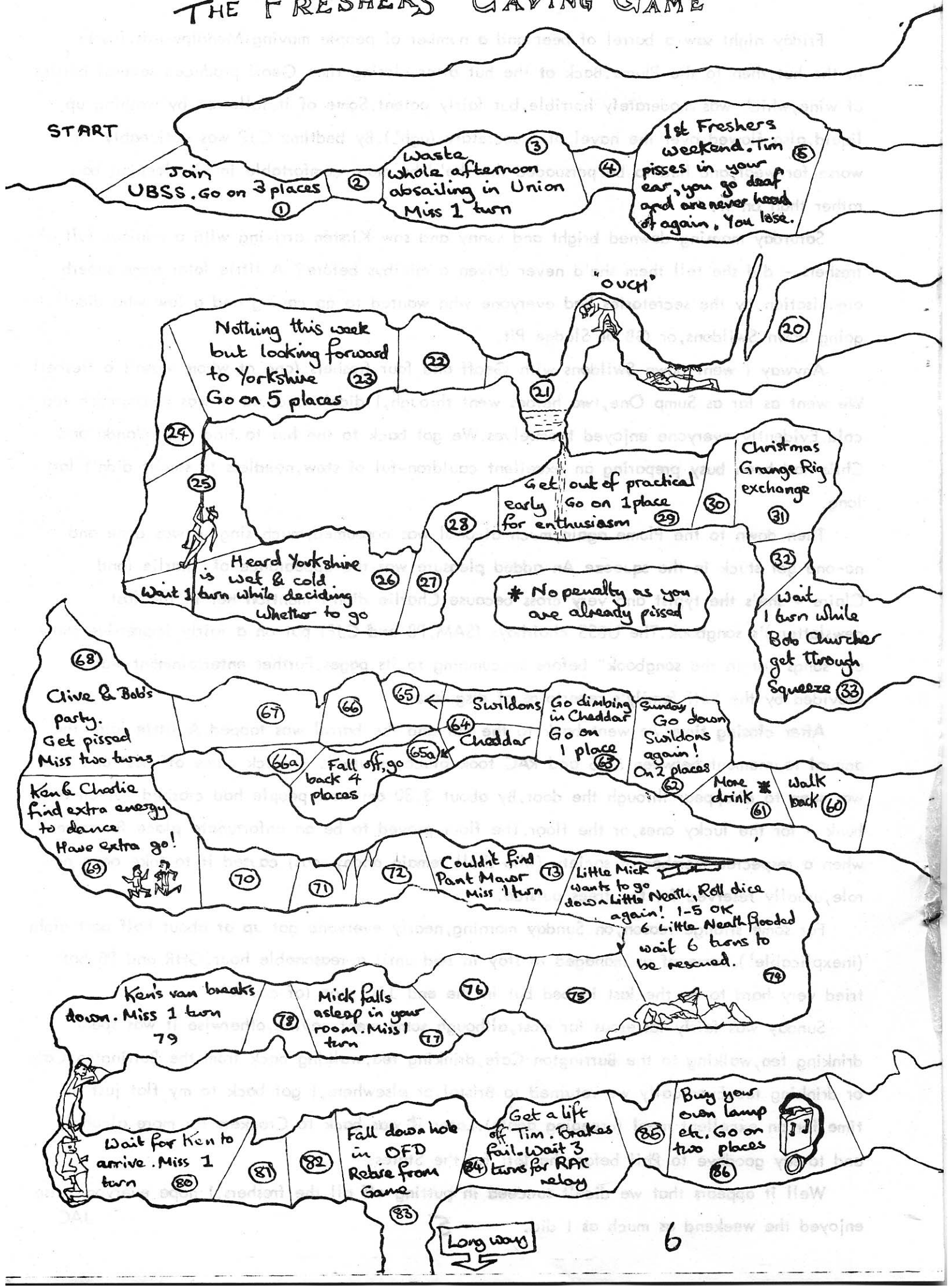
For some strange reason, on Sunday morning, nearly everyone got up at about half past eight (inexplicable!). Some of us managed to stay in bed until a reasonable hour. GHR and PB both tried very hard to be the last in bed but in the end JAC won (of course).

Sunday was fairly festerous for most, although some went caving, otherwise it was spent drinking tea, walking to the Burrington Cafe, drinking tea, walking back from the Burrington Cafe or drinking tea. Eventually we returned to Bristol, or elsewhere, I got back to my flat just in time for an excellent meal (creeping again). Later it was back to Crockers for more alcohol, and to say goodbye to Phil before he left for the States.

Well it appears that we didn't succeed in putting off all the freshers. I hope everyone else enjoyed the weekend as much as I did.

JAC

THE FRESHERS CAVING GAME




10
2nd freshers weekend Stuck in Plume squeeze Miss 1 turn
11
Lamp goes out in GB Get lost, go back 1 place
12
13
Survive 2nd weekend Go on to Crockers
15
SQUEEZE
16
14
8
9
7
The morning after! Hungover miss 1 turn
6
18
CROCKERS
17
Stay for a drink miss two turns
Go back to KB's. Kicked out at 12.00. Go home, back 2 spaces.
19
Simpsons
38
Couldn't find entrance (KM, GL) Miss 1 turn
39
41
42
40
43
Lock yourself out of the car, miss 2 turns
36
Go on easy trip down Herron Pot
37
35
Decide to go back Out Christmas instead of exchange Go back 1
37(a)
Meet others
48
47
46
45
44
Geoff drives down Motorway Go on 2 places
50
51
52
53
Pretty hole
84
Swildons round trip Steph & Julian go on 2 places, freshers knackered miss 1 turn.
57
58
Your parents
Your 1st swim Go on two for bullshitting to
54
55
Go to the Plume instead of Caving, miss 1 turn
58
Got pissed/stuck in squeeze or lose your voice singing. You need another drink, Run back to hut. Go on 2 places
59
91
Prima-donna leads down Rhino Boosts KB's moral. Go to Ces's Party
90
92
93
Wookey Hole. Sat bat shit on fire. Miss 3 turns
94
Go hunting for Plastic inflatables! Shake again. 1,2,4,5,6, O.K. 3 - find 3rd. miss 1 turn while thinking what to do with it.
89
Enjoyed trip. Go on 3 places
88
Again Allowed
Bored Miss 1 turn
87
Hit by low flying table in Speolo room. Headache, miss 2 turns
95
Ces's Party
96
104
103
Wetsuit kit arrives. Miss 2 turns while making it
Look at survey. Near end of Game
102
101
100
Join Wessex Cavers. Go back to start!
105
End of 1st TERM
106
modify Chris's modifications. Have extra turn for cheek
99
98
97
Chris Peppers Birthday. Must sing for 1 turn
BOULDER CHOKE
M.M. Keen?!!! Caver!?
7

USING A BRITISH CARBIDE LAMP.

Carbide lamps have the evident advatages of freedom from electricity supplies and long running times without the need to carry a heavy cell. The hours of light available can be spectacularly increased by carrying a sealed polythene bottle of spare about the person (under the armpit is a successful place). These lights are also extremely reliable, and it requires artistry or extreme brutishness to put them permanently out of commission.

The extra bulk on the helmet can be awkward if it is a poor fit, but you soon learn to accommodate. The small 2" reflector is not much use; better use a 4" reflector for more usable light and some protection from wind and spray for the flame. Flame protectors (collars around the jet) will keep the flame in but block off a lot of light. If you are clumsy and persistently bang your head on the cave roof you will bend the reflector and the mounting bracket. The latter may break at the brazed joint so don't be clumsy or fit a precautionary jubillee clip around the head of the carbide and bracket.

It is wise to carry an accessory dry cell light for pressing moments. This is particularly important for SRT on pitches where help is often not near at hand and vision is vital. It is also wise to tie your helmet to you (remember you have no flex tied to your waist) and to tie your lamp to your helmet. I have watched laxness in all these precautions precipitate an awkward situation for a companion to an alarming one.

The carbide lamp generates acetylene from the controlled reaction of Calcium Carbide with cold water.

$$CaC_2 + 2H_2O \rightarrow Ca(OH)_2 + C_2H_2$$

The acetylene produced (colourless, sweetish in smell when pure and almost insoluble in water) is duckted to a jet at which it is burnt in air, incompletely, to give a luminous flame. (remember O level chemistry).

$$2C_2H_2 + 5O_2 \rightarrow 4CO_2 + 2H_2O + \text{Free Energy}$$

(for complete combustion)

The products of combustion are reasonably safe, even when incomplete though in very confined spaces it could be worth remembering that a pCO_2 greater than 5% is not good for you. The carbon in the luminous flame of incomplete combustion can be used and more often abused for marking rock. This flame is not as hot as obtained if oxygen is added (about 2200°C) but it is warm enough to burn the back of your hands in a crawl. Interestingly acetylene can ignite spontaneously and explode in the pressures obtainable within an 'ammo' box. Spare carbide should be kept dry.

The carbide lamp controls the flame by controlling the supply of acetylene via the water supply. Other variables are the state of the CaC_2 used and the packing within the lower container. If the carbide is white and powdery it is already spent; do not expect too much from it. The Calcium Carbide should roughly half fill the container though a higher fill can be made with larger lumps (with greater spacings). Larger pieces for industrial use' (grade 3 - 4) have an adequate surface area for generation yet decay more slowly in damp air.

The white powder (Calcium Hydroxide, which I shall call lime) produced by the generator reaction will tend to block the water supply to the unspent carbide (and if it passes the filter will block the jet) hence the problems of overfilling the lower container. Often' spent' carbide tipped away will contain many useful hard lumps of carbide. These should be rescued - they can be used and will make a foul stench if they are tipped into the damp cave enviroment (due to impurities). I have seen the resultant acetylene flash back to an onlooker's carbide lamp; the bang blew a few stones over and impressed the witnesses. At this point I should advise you that although scrutiny of the generator reaction reveals that the by-products can be lost without too much remorse in a limestone streamway they are nasty if left in a dry passage. This should not happen.

To round up the subject of filling the lower chamber I was once told that the less you put in the longer your lamp will last. This principle has a limited applicability.

Another variable to the reaction control is the water temperature. Hot water (or even at

body temperature) reacts quite violently and the acetylene back pressure can blow the water out of the upper chamber breather hole. This is an instructive reminder that the acetylene is only directed out through the jet by the back pressure of water in the upper chamber. It can also be unpleasant given the usual source of body temperature water underground.

The rate of drip supplied from the upper chamber is controlled with the rotating lever. A cone is tightened against the drip tube, blocking the exit. With use the dripper will run more freely and will need to be turned less to give the same flow rate. The system can be tightened by springing open the clip on the rotating lever to lift the cone harder against the dripper tube. When using this control a clockwise rotation will allow more water through but will also let more acetylene escape through the water chamber rather than the jet. (It bubbles through - remember it is almost insoluble in water) This is particularly true if the water level is low, providing a poor pressure head to prevent gas exit. The dripper should be adjusted to a position giving about a one inch flame. It is economical to vary the setting to allow water to the carbide then to close the unwanted exhaust route, intermittently, especially if a larger flame is wanted.

The filter between the carbide container and jet duct is vital. Loss or incompetence of this will allow lime powder to block the jet from behind and the flame will go out or dim dramatically, either spontaneously or following a sudden head movement.

The jet must be kept clean. It can be pulled out for cleaning (push fit) though it should be reinserted carefully - unless you have a spare the loss of the jet or damage to the pot tip is about the only likely problem that cannot be solved underground. The jet can be removed by twisting it, gripped between the gate and body (with its notch for the gate) of many makes of karabiner.

The jet may be blocked from behind (by lime) or by mud from in front or, commonly, by using a quarter inch flame through lack of carbide or not knowing how to restore it to satisfactory dimensions. This leads to sooting up of the jet. In these cases the symptomatic remedy lies in your prickers. It is to be remembered that once unscrewed the bunch of pricker wires can be pulled out from their handle to a length of about one inch. They can then be separated and used without violent kinking so that when they are pushed back into the handle thay will screw easily inside the holder. Failure to do this is stupid and ruins the prickers. It is safer to attach the prickers to the water filler cap hinge than the drip regulator handle from which they can be lost during vigorous adjustments.

The jet may also be blocked by water, especially after a sump (this may be avoided by placing the carbide inside your wetsuit for the dive). In this case the gas flow will blow water up against the jet, putting the flame out with a splutter. The answer is to suck the jet greedily.

A final point about jets is that they vary and individuals enlarge with use and pricking so that initially they may give a rather thin flame and eventually will be discarded when they give a large billowing sooty flame which blacks the reflector.

Careless people often lose the washer between the two chambers as they tip spent carbide away into an active streamway. Lack of a washer here allows the acetylene to escape and burn round the outside of the screw joint rendering the lamp useless and a little dangerous. If you do this (and please don't with a borrowed lamp) the rubber base protector to the lower chamber will make a workable substitute.

To recapitulate with general advice, clean the carbide lamp thoroughly (including behind the jet) and ensure the filter is in good condition before use. In use do not lose the filter or rubber washer while refilling the carbide chamber. Do not ruin the prickers by improper use. Remember that spent carbide will eat away the base of your lamp if left there for a few months.

It is now time to consider the final events before getting a light. The water chamber must be filled (preferably with mud free water that will not block the dripper). If there are no suitably deep pools water may be transfered by mouth to the upper chamber. This has the merit of keeping the flint well clear of water.

Once the dripper is running and gas is supplied, the flame will ignite with a spark from the flint wheel. This wheel should be fitted the right way round - experiment and you will find that it throws a better spark one way than the other. Check the flint is not spent. It will not strike when wet, so if it is, blow on it and dry your thumb before striking (your hair is

often the dryest part of you). The chances of ignition are much improved by cupping your other hand over the reflector to trap a pocket of gas. It will ignite, often with a bang. Now remove your hand. Remember that the first gas to force through the jet will be displaced air. This doesn't smell and it won't burn. Next an air acetylene mix will come. This will burn with a blue flame. Finally the luminous flame will be seen.

Assuming the lamp is in good condition you will be all right for the first few minutes of the trip. Vary the water supply to maintain a decent flame whilst not allowing the gas to escape back through the water chamber.

Extrinsic problems will be due to contact extinction of the flame including by wind and water. This is often in your control, for example don't look up on wet climbs. Internal problems are usually due to a blocked jet, spent carbide or poor or non existant water supply. Just occasionally you may fail to screw the two chambers fully together; the lamp will burn round the middle, rapidly destroying the washer to exacerbate the problem.

If the jet is blocked the flame will be small or out. Onset is slow if an accumulation of soot is the cause but the more common block from behind is a sudden event, often concurrent with a rapid head movement. You should try pricking and if the problem is persistent remove the jet (karabiner) and clean behind with the prickers. If the block follows a dousing in water (water behind jet) the flame will bubble - the jet should be sucked. Persistent blocks may be 'lived with' rather than cleaned out, until a convenient stop can be made, by opening the dropper up while forcing a finger into the water filler hole. This will build up the gas pressure, and if the dropper is shut between 'boosts' a reasonable light may be obtained.

If you are out of carbide the flame will die slowly and show no improvement on refilling with water or 'boosting' with the finger as above (or of course by pricking). It may improve by shaking the lamp to free any unspent carbide from its lime coating. While you check the carbide level look first to see if the water dripper is blocked (no drips appear on opening the dropper handle despite water in the upper chamber). It can block with lime powder or with mud from the water used to fill the upper chamber. This is best freed by sucking and blowing over the lower end of the dropper tube.

A lamp running out of water shows charecteristic symptoms. The flame will die on opening the dropper up as acetylene escapes through the water chamber. This can be lived with for a time by 'finger boosting' down the filler hole as described above.

If you test your carbide lamp before use with just a couple of carbide chips and if the lamp is working freely the uneven gas supply generated by the variable contact of water with the carbide chips will make for a very irregular, bursting flame. This is no problem in use as a decent fill allows constant gas generation. If the carbide is nearly spent the lime powder waste acts as a wick providing a very constant water supply, unresponsive to changes in drip rate.

Do remember that a thorough cleaning between use and a test before use are very helpful with a lot of caving equipment. This is especially true of carbide lamps, and incidentally of diving valves.

Steve Perry

Post Script : Would the editor mention carrying a cigarette lighter as a back up to the often poor flint striker on the reflector - I forgot.

Gas cigarette lighters (cheap refillable or even cheaper disposable) are not a necessary accessory to the properly equipped carbide light caver. They are a luxury. They are easily carried (up the slieve of a tight-fitting wetsuit or in a pocket of grot kit) and as an added advatage can be used with one hand in the most awkward situations (ever tried relighting a carbide light while on a ladder pitch?). They are also easily dried by blowing on the flint, even after a sump.

And what of a back up light? Steve's reference to seeing an awkward situation suddenly become alarming is a very gentle reminder of one of my own faux pas. A back up light is

essential for any cave you are not prepared to find your way out from without a light. A dry cell system is good, but the cells must be kept dry or they will slowly discharge themselves over a period of a few hours. An 'Aquaflash' is ideal, but two cell lights are no longer manufactured and three cell lights are cumbersome. Wet cell bateries (NiFe, NiCad or Lead/Acid) are heavy and why carry a big battery and a carbide light? The choice of system is yours.

Charlie Self

NEW YEAR'S EVE

The party out at Burrington took place as usual. There seems to have been an unbroken succession of these, since the hut was first built in 1919. Numbers were difficult to maintain during the war, so that in 1944 Bertie Crook found himself dining there alone. This year there were 22 of us and we demolished a 17½ lb. turkey (sorry, 8 Kg.)

Paul Esser Memorial Lecture, 1980

We have had a lot of trouble getting a lecturer this year. Our first choice was for a lady yachtsman. We wrote to Clare Francis, but she replied that she was busy filming. So in April we wrote to Dame Naomi James, but the reply we got in June from her agents was that she would still be in New Zealand. We then went for our second choice, Don Cameron and his hot-air balloon, and wrote to him in June. At the end of July he replied accepting the invitation, but after a couple of months showed every sign of wishing to free himself, even though the date had been fixed.

So I then had a long poolside chat with Tony Holmyard and we agreed not to press Cameron if, as seemed likely, he felt unable to tie himself down to a definite arrangement. I had other possibilities in mind which I told Tony about. So when Cameron returned from America at the end of October we broke it off with him.

I have now succeeded in getting a Lecturer. It will be Martyn Farr on the subject of Cave Diving and the date will be Wednesday 13th February 1980 at 8.15 pm. in the Tyndall Memorial Theatre, Dept. of Physics. The Vice-Chancellor has very kindly consented to take the chair.

Martyn Farr is an experienced lecturer and has a very nice quiet style and many lovely photographs which he takes himself. He has gone down well at several meetings that I have attended. He is one of our Ace cave-divers and has written a book about it called "The Darkness Beckons" which will be published in February.

Yours,

Oliver

Oliver C. Lloyd, M.D.

1979 - A REPORT ON CLUB ACTIVITIES or THE YEAR OF THE CYNIC

The year 1979 will be remembered for many things,Britain's first woman prime minister,the Ayatollah Khomeini,Graham Mullan caving,but first and foremost it will be remembered as the "Year of the Cynic".

Although the beginning of the year saw little or no activity in this field early autumn through to the end of the year can be regarded as one of those vintage periods so rare in this modern day and age.I refer of course to the truly remarkable performance of Mr K.S. Baker,indeed I will be a lucky man if I ever see anything to match the ability of this amazing charecter,at his peak in late November,to depress people.His collection of short stories,anecdotes and observations on life will be sadly missed this new decade which sees him tackling a new course in Reading and behaving in a manner which can only be described as cheerful.

Shamefully I have to report that 1979 saw that oldest of UBSS pastimes, festering,in sharp decline.Breakfast being cooked on some occasions at the ungodly hour of 9am on one notorious Sunday morning.I feel the main reason for this sorry state of affairs must be the departure of P. Buckberry Esq ,a master of the art,whose place seems destined to be unfilled for some considerable time due to the lack of suitably skilled applicants.

There have however been signs of a slight student revival this last term although the quality of these youngsters leaves something to be desired.Seven hours behind Michael Martin in Agen Allwed after he had consumed boiled eggs for breakfast is not a journey to be repeated and Mc Hale can best be likened to a rat in a drain from the way he continuously scurries in and out of the smallest holes imaginable.

Amongst the occasional cavers a number of that rare species,female troglodytes, have been observed.Admittedly Linda has no option,however Caroline relishes the thought of cold water,mud and beer,the essentials of any trip,and Clare is waiting for the cave with no squeezes to be discovered.

Several other faces have come and gone as have many institutions.There was John,the Goatchurch caver,who never did get off the floor on bonfire night,and Geoff,Ken's landlord,the man with the gold plated nife cell.Northumberland and Collingwood Roads have been replaced by Granby Hill and Waverly Road as the unofficial caving centres while the Spelaeo Rooms are again being used regardless of the danger of flying tackles.Parties at the hut have increased significantly in number which could have something to do with Geoff's beer.Let's hope there are many more of them and much more of it.

Finally thanks should be given to Ken for doing out the darkroom which is now the club's best posession.So why doesn't someone use the place?

Paul Harvey