

NEWSLETTER OF THE TASMANIAN CAVERNEERING CLUB

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FORWARD PROGRAMME

Sat., 13 Dec. Wolf Hole, Hastings - cave diving in Lake
Pluto with S&R squad.
Kubla Khan, Mole Creek - the Bill Tomalin
annual photographic pilgrimage
Sat., 20 Dec. Junee Ridge, Maydena - further pushing of
"15 seconds" pot and/or stream sink "under the
log". See Stuart Nicholas or Chris Davies
27 to 31 Dec. North East Ridge, Mt. Anne - SRT trip to
Keller's Cellar as well as general exploration
of surrounding area. See Stuart Nicholas or
Andrew Briggs.
Wed. 07 Jan. Informal meet at 7 Rupert Avenue. Visiting
cavers welcome as are locals!
Wed., 21 Jan. Committee meeting at 7 Rupert Avenue, 8 p.m.
Wed., 04 Feb. General meeting at 7 Rupert Avenue, 8 p.m.
Bring your holiday slides and so on. Visitors
welcome!
Wed., 18 Feb. Committee meeting at 7 Rupert Avenue, 8 p.m.
Other trips on in
the near future: Chairman (down stream push), Cauldron Pot
(tourist trip), Niagara Pot (also for tour-
isting), Trapdoor &/or Growling, pots on the
slip.

EDITORIAL

Further to the November editorial, a motion to the effect that
T.C.C. members threaten to withdraw their services for search and
rescue should the proposed outdoor insurance scheme be introduced
was unanimously passed at the December general meeting.

On a lighter note, summer is here with hopefully lower stream and
sump levels especially in Growling Swallet. What lies beyond the
pool found two or three years ago? We won't know until we have a
look!

Safe caving, have a Merry Christmas and a Happy New Year. The
Spiel will be back in February as I hope you will be too.....
remember, if you drink, don't drive, and if you cave, stay alive!

CLUB NEWS

- Congratulations to Greg Kerfoot who was voted in as a senior member at the last meeting. Greg has been around the caving scene for some time now but seems to have been successful in avoiding the dreaded voting ceremony!
- There is still one copy of "Karst in China" available from Therese Greenhill for the bargain price of \$12. This book gives some idea of typical Chinese karst features together with the inevitable propaganda. Definitely a must for the ardent speleologist.
- The French film screening attracted a small but enthusiastic crowd who were treated to four films, three old black and white plus one new one in colour. This film was obviously made to give a general view of the modern caving scene in France which it succeeded in doing. S.R.T., underground camps, sump diving, underground artificial climbing as well as normal caving techniques were featured. A couple of nights after our showing, the colour film was also shown to a canoe club meeting with the idea of attracting some new members.
- Still on the subject of films and such-like things, Albert recently acquired a 45 min. video tape of the last Australian expedition to Niugini. This tape apparently features exploration of Atea Kananda, the longest known cave in the Southern Hemisphere at 30.5 km. Currently, we have not been able to arrange the necessary VCR but when we do, the show will be on. Bring some money along as well as yourself to assist in financing the next expedition in 1982.
- On the subject of money, Ian Lewis of the Cave Diving Association of Australia has for sale copies of his book "Cave Diving in Australia" at the cheapo price of \$6.50 + 50¢ post (\$6 ea. for 5 or more). A well written book, it is a must for anyone even remotely interested in this potentially hazardous but exciting sport. Write to Ian at P.O. Box 460, North Adelaide, S.A., 5006.
- Ex-member and hard caver from way back, Phil Robinson, is now the proud father of a son who, rumour has it, was born complete with trog-lamp for caving and friction boots for climbing! Congratulations Phil and Jenny - a T.C.C. membership form will arrive shortly.
- Word has it that there will be an invasion of mainland cavers in the New Year. Apparently, quite a few are coming here straight after Cave Convict to do their own private "field trips". A note to anyone coming here - our caves tend to be wetter, colder and harder than most on the North Island, so be warned.
- Anyone chasing gear of any type - climbing, caving, walking and so on - is advised to buy it from Melbourne or Sydney as prices are considerably lower and the range much greater than is available here.
- Note: There will be NO Speleo Spiel in January but an informal (aren't they all?) meet will still occur as per usual, i.e. the first Wednesday, at 7 Rupert Avenue.

SURVEY DATA REDUCTION PROGRAM FOR HP-41C CALCULATORS

by Stuart Nicholas

The advent of small advanced scientific calculators and subsequently, keystroke programmable calculators during the last decade has greatly reduced the drudgery of plotting up a cave survey. Those few of us with access to computing facilities have a greater advantage still, particularly with regard to data storage, retrieval and outputting of hard copy. However, it probably will not be long before most clubs have at least one member with a "home computer" which will, no doubt, see use in the early hours by groups of grubby cavers.

The program below was written for the Hewlett-Packard HP-41C alphanumeric programmable calculator. Although the alpha prompts and labels are to some extent cosmetic, they simplify data entry since the user can be certain he is keying in the correct measurement for any particular leg - important after a long trip! Based on the flow-charts published by Grimes (1977), the program is easy to use once keyed in, the prompts making it self explanatory.

User Instructions

1. Key in program and select USER mode.
2. Initialize: XEQ "SURVEY" - assign to a key if desired.
3. Set initial co-ordinates, if any, with routine B.
4. For backsights use routine A which sets flag 02. Running routine A a second time clears flag 02 before entering foresighted data.
5. For radiations, set flag 03. This is cleared after the one calculation and hence must be reset for further radiations.
6. Prompt "AZ?" is start of data input routine. Enter azimuth, press R/S, enter vertical angle ("VA?") - negative for angles below horizontal - press R/S and enter inclined distance ("d?").
7. Press R/S for "OK?" prompt. If data correct, press R/S for each calculated co-ordinate of station: X, Y, Z, ΣH and Σd . If entered data is incorrect label C will enable the data to be re-entered.
8. A review of the calculated data may be had via label J.
9. Press R/S again or GTO C for next leg.

*See overleaf for program details.

Registers

R00	Counter i	R09	di
R01	Xi	R10	Indirect address
R02	Yi	R11	} Not used here but may be used for initial co-ords.
R03	Zi	R12	
R04	ΣH	R13	
R05	Σd	R14	Xi rad
R06	Corrected Az	R15	Yi rad
R07	Hi	R16	Zi rad
R08	VAi		

Flags

- 02 set for backsight
03 set for radiation

01*LBL "SUR
VEY"

02 CLRG
03*LBL C
04 "AZ?"
05 PROMPT
06 FS? 02
07 XEQ 05
08 STO 06
09*LBL D
10 "VA?"
11 PROMPT
12 FS? 02
13 CHS
14 STO 08
15*LBL E
16 "B?"
17 PROMPT
18 ABS
19 STO 09
20 FC? 03
21 ST+ 05
22 "OK?"
23 PROMPT
24 CLA
25 RCL 08
26 RCL 09
27 P-R
28 STO 07
29 X<>Y
30 STO 16
31 RCL 06
32 RCL 07
33 P-R
34 STO 15
35 X<>Y
36 STO 14
37 FS? 03
38 GT0 06
39 RCL 07
40 ST+ 04
41 RCL 14
42 ST+ 01
43 RCL 15

44 ST+ 02
45 RCL 16
46 ST+ 03
47 1
48 ST+ 00
49*LBL J
50 .005
51 FS? 03
52 13.016
53 STO 10
54 FIX 0
55 "LEG NO
"
56 ARCL 00
57 AVIEW
58 PSE
59 CLA
60 FIX 4
61 "X="
62 XEQ 03
63 "Y="
64 XEQ 03
65 "Z="
66 XEQ 03
67 FS?C 03
68 GT0 C
69 "ZH="
70 XEQ 03
71 "Σd="
72 XEQ 03
73*LBL 03
74 ISG 10
75 GT0 02
76 GT0 C
77*LBL 02
78 ARCL IND
10
79 AVIEW
80 STOP
81 CLA
82 RTN
83*LBL A
84 FS?C 02

85 GT0 C
86 SF 02
87 GT0 C
88*LBL 05
89 100
90 -
91 0
92 X>Y?
93 XEQ 04
94 X<>Y
95 RTN
96*LBL B
97 "X0?"
98 PROMPT
99 STO 01
100 "Y0?"
101 PROMPT
102 STO 02
103 "Z0?"
104 PROMPT
105 STO 03
106 "ΣH?"
107 PROMPT
108 STO 04
109 "Σd?"
110 PROMPT
111 STO 05
112 GT0 C
113*LBL 04
114 X<>Y
115 360
116 +
117 X<>Y
118 RTN
119*LBL 06
120 RCL 01
121 ST+ 14
122 RCL 02
123 ST+ 15
124 RCL 03
125 ST+ 16
126 GT0 J
127 END

Survey Data Reduction Program (cont.)

Labels

A Sight direction set/clear routine
B Initial co-ord. input routine
C Az input
D VA input
E d input
J Calculated data display routine
02 } Display routine
03 }
04 } Az backsight correction
05 }
06 Radiation co-ord. calculation routine

Status

Size 016 - (or more - program easily fits into basic calculator configuration.

Fix - set by program (line 60)

Further notes

- (a) There is no compass correction routine in this program. However, this could be incorporated as a sub-routine after line 05 using a "look-up table" of known correction angles or a constant added/subtracted in the main routine if no calibration curve is available for the compass.
- (b) Changes are easily made to make full use of a printer which is a desirable peripheral to the HP-41C.
- (c) Copies of the program and further information can be obtained from the author.

References

Ellis, B.; 1976 - Surveying Caves. B.C.R.A., Somerset
Grimes, K.; 1977 - Reducing cave survey data with a hand calculator. ASF Newsletter, 75, 2.

F O R S A L E

Just the thing for Tassie's wet caves:-

NIKONOS 35mm underwater camera. 12 months old and in good condition; the deal includes a sealed light meter.

Bargain price - \$350

Contact Bob Dineen - Ph. 23 0561 Ext. 518 (W).

TRIP REPORTS

Junee-Florentine - Saturday, 06.12.80

Party: Stuart Nicholas, Chris Davies, Peter Shaw, Len Smith, Trevor Wailes, Mike March.

A return trip to Trapdoor Swallet had been planned to see if its promise could be improved on (see S.S. No. 160) but due to the rather unthoughtful logging operations, the road was well and truly blocked, so a discussion at Max's was held over coffee and the result was a bush walk out to the Chairman area to look for "15 second" pot, JF111.

The walk out was damp and we were expecting worse but it cleared into a rare beautiful day. At the Chairman, we rested, changed and had some refreshment before splitting up to look for the elusive slot, JF111.

After spending about 45 mins. without success but revealing some already numbered holes, we decided to check these holes out. These holes had been numbered by John Parker some time ago but as we discovered had never been entered. Here is a brief description of what was found.

JF123 - Deep Throat. Perhaps 50m W from the Chairman fireplace is a gully with a ridge at the far side. A small stream comes from a narrow slot (surface drainage) and falls down a 60° tube in which a ladder was used. The tube descends about 10m where a small side passage inlet was entered but closed down after 3m. The tube ends in a shallow sump with no visible way on, the water seems to filter away. The tube is constricted and would be difficult to extend. However, this is an important hole as it is the nearest available water source to the Chairman.

JF138. On the same ridge, 20m to the left of JF123, is a similar hole. A tree growing out across the entrance enables an easy ladder hang. 3m down is the floor of the open chamber with a slot down 6m into another chamber which looks promising but closes down in a narrowing rift. This second chamber has no shortage of mud - extension possibilities look grim.

JF123 (b). 3m to the left of JF123 (Deep Throat), is an excavated hole with a narrow entrance which descends possibly 13m to another narrow squeeze which has not been passed but is possible and opens up beyond. This cave is rift type with viable possibilities for extension by the slim, a ladder or rope is useful for the return to breathing space.

JF129 - Washout Cave. On the track out to the Chairman, just before the turn off onto the Settlement track, under the log bridge with the noticeable noisy stream. The stream enters a gentle sloping passage 1m high, one side solid rock the other earth with a pebbled floor. After 13m, the stream sinks into the floor but at the end of the passage a flood hole with a strong draught drops 3m to what looks like a stream rift passage, one small boulder bars the descent. Lack of time prevented further exploration but should be looked at again as the draught was significant.

JF100 30yds up the hill above the Chairman, significant depression looked at and pushed as far as possible but closes down. For further info. see S. Nicholas, P. Shaw or Mike March.

Len found The Slot, but it was decided to give it a miss as we couldn't afford the time or the ladder (past experience). Returning to the cars in bright sunlight, JF111 ("15 second" pot), was finally located and it really does rattle when rocks are introduced for about 15 seconds. After that length of time, the sound is so faint that they could be still falling. That's what we went to find and check out, but the entrance still needs some work doing on it as there is a large rock flake making access tight and difficult and it may take some years to remove with lump hammers. A return trip to this cave is planned for 20 Dec. - some manpower would be appreciated. The size of the boulders introduced to the entrance make this a DEFINITE GOER!

EX-ARMY BOOTS: SUITABLE FOR CAVING ARE BEING SOLD AT THE SALAMANCA SATURDAY MORNING MARKET BY A FAST TALKING POM WHO ALSO SELLS A FULL RANGE OF EX-ARMY CLOTHING. THEY'RE THE CHEAPEST IN TOWN AND HE WILL HAGGLE OVER THE PRICE - \$5 to \$10.