

Minimal Impact Caving Code: the existing Code and a revision are provided for members' comparison and comments

Note: Rauleigh Webb is gratefully acknowledged for his initiative in preparing the first MICC over ten years ago and having it accepted. It is now time for review and consideration of a new draft. The ASF Executive has prepared this revision for circulation to members. Please send comments on this review to Deb Hunter (debhunter8@bigpond.com) by 2 December 2009 so that a final draft can be prepared for the consideration of the ASF Council, 2 January 2010. Revision changes and additions are given in green highlight. Please comment in a different highlight colour or in a separate document.

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<p>necessary to reduce their impact on caves.</p> <p>To those of you who have just become Australian Speleological Federation (Inc) (ASF) members it is important that you understand that a MICC IS necessary because cavers are one of the major sources of damage to caves. Read the MICC carefully and apply it to all of your caving - it will not completely stop cavers damaging caves but it will certainly reduce their impact on the cave environment. This MICC was devised by cavers FOR CAVES - please assist the Caves of Australia by using these simple MIC techniques.</p> <p>This MICC should be used in conjunction with the ASF Code of Ethics.</p>	<p>necessary to reduce their impact on caves.</p> <p>To those of you who have just become Australian Speleological Federation (Inc) (ASF) members or who are entering caves in ANY other capacity it is important that you understand that a MICC is necessary to minimise the impact of ALL CAVE USERS on caves. Read the MICC carefully and apply it to all of your activities in caves - it will not completely stop cave users damaging caves but it will certainly reduce their impact on the cave environment. This MICC was devised by cavers FOR CAVES - please assist the Caves of Australia by using these simple MIC techniques.</p> <p>This MICC should be used in conjunction with the ASF Code of Ethics, the ASF Code for Scientific Investigation in Caves and Karst, the ASF Minimal Impact Rescue Code and the ASF Risk Management Guidelines.</p>
<p>General</p> <p>This code is divided into two sections. One relating to the exploration of a newly discovered cave or section of cave and the other relating to general cave visitation.</p> <p>The following practices may fall into both sections and may be modified depending on the type of cave being visited. It should be stated that we are discussing here a code which will ensure that cavers have a minimal impact on the cave they are visiting. In many instances the practices may not apply as the impact that cavers have, may be minuscule, compared to the impact of flooding of the entire cave, for example. These practices are generally intended to apply in caves where cavers are likely to have a detrimental impact on the cave purely by entering the cave.</p> <p>In-cave marking refers to the use of a variety of materials to define tracks,</p>	<p>General</p> <p>This code is divided into two sections: one relating to general cave visits and the other relating to the exploration of a newly discovered cave or section of cave.</p> <p>The following practices may fall into both sections and may be modified depending on the type of cave being visited. It should be stated that we are discussing here a code which will ensure that cavers have a minimal impact on the cave they are visiting. It is acknowledged that certain caves or sections of them have different degrees of vulnerability to caver impact e.g. some MICC practices may not necessarily apply to rocky stream passages that carry high energy floodwaters. However, there are many caves or sections of them where the presence of cavers may have a substantial impact simply by entering the cave or section. Generally, these minimal impact practices are designed to be applied when visiting the</p>

<p>routes and barricades in a cave. These measures should be taken to protect sensitive areas, confine caver foot damage, make cavers aware that a sensitive (it may be an unobvious cave animals' territory) area exists.</p>	<p>majority of caves.</p> <p>In-cave marking refers to the use of a variety of materials to define tracks, routes and "no go" areas in a cave. These measures should be taken to protect sensitive areas, confine caver foot damage and make cavers aware that a sensitive area exists. Any in-cave marking must be undertaken in accordance with any applicable legislation and regulations.</p>
<p>THERE ARE NO EXCEPTIONS TO THIS CODE - SURVEYORS, PHOTOGRAPHERS, SCIENTISTS, EXPLORER'S ETC ARE ALL SUBJECT TO THIS CODE.</p>	<p>THERE ARE NO EXCEPTIONS TO THIS CODE! SURVEYORS, PHOTOGRAPHERS, SCIENTISTS, EXPLORERS, CAVE GUIDES, RANGERS, RESCUE PERSONNEL, COMMERCIAL OPERATORS, SCOUT, CHURCH AND SOCIAL GROUPS ETC ARE ALL SUBJECT TO THIS CODE.</p>
<p><u>General Cave Visitation</u></p> <ol style="list-style-type: none"> Remember <u>EVERY</u> caving trip has an impact. Is this trip into this cave necessary? If it is just for recreation, is there another cave that is less vulnerable to damage that can be visited? Make this assessment depending on the purpose of your visit, the size and experience of the proposed party, and IF THE TRIP IS LIKELY to damage the cave. Where possible the party leader should have visited the cave previously and hence should be aware of sensitive features of the cave, the best anchor points, and generally reduce the need for unnecessary exploration. Cave slowly. You will see and enjoy more, and there will be less chance of damage to the cave and to yourself. This especially applies when you are tired and exiting a cave. 	<p><u>General Cave Visits</u></p> <ol style="list-style-type: none"> Remember <u>EVERY</u> caving trip has an impact! Is this trip into this cave necessary? If it is just for recreation, is there another cave that is less vulnerable to damage that can be visited? Make this assessment depending on the purpose of your visit, the size and experience of the proposed party, and IF THE TRIP IS LIKELY to damage the cave. Available information to assist minimal impact exploration, such as the cave's sensitive features and the best anchor points, should be sought out prior to visiting a cave and made known to everyone on the trip. All party members share responsibility to avoid exploration and practices that may compromise the cave's values. Cave slowly. You will see and enjoy more, and there will be less chance of damage to the cave and to yourself! This especially applies when you are tired and exiting a cave.

<p>4. If there are beginners on a trip, make sure that they are close to an experienced caver, so that the experienced caver can help them when required, e.g. in difficult sections. Ensure that the party caves at the pace of the slowest caver.</p> <p>5. Keep your party size small - 4 is a good party size.</p> <p>6. Cave as a team - help each other through the cave. Don't split up unless impact is reduced by doing so.</p>	<p>4. If there are beginners on a trip, make sure that they are "buddied" with an experienced caver to help them as required in MIC practices and in difficult sections. Ensure that the party caves at the pace of the slowest caver.</p> <p>5. Understand the possible consequences of a rescue. In the event of a rescue, human life takes priority over conservation of the cave environment, so cave users must aim to avoid the need for a rescue and hence the risk of damage to the cave environment during a rescue. Be prepared to consider changing plans or aborting a trip should any party member have trouble coping or other problems arise while caving.</p> <p>6. In case of incident, "self-rescue" should be attempted where possible before making a call-out for assistance. Call-out rescues should be conducted by experienced, trained rescue cavers who understand MIRC practices (ASF Minimal Impact Rescue Code, MIRC). However, damage to the cave may still occur during rescue. Emergency personnel from other organisations who may be unfamiliar with MIRC usually attend or conduct cave rescues and may unintentionally cause unnecessary damage to the cave, even if trained rescue cavers are present. Further, intentional damage to the cave may be warranted in order to make the rescue possible or hasten it. Such decisions should be made by a MIRC aware participant, if present. Cave Search and Rescue Exercise parties should include at least one member of ASF or other person demonstrably familiar with the ASF MIRC.</p> <p>7. Keep your party size small - 4 is a good party size.</p>
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7. Constantly watch your head placement AND that of your party members. Let them know before they are likely to do any damage.
8. Keep caving packs as small as possible or don't use them in sensitive caves or extensions.
9. Ensure that party members don't wander about the cave unnecessarily.
10. Stay on all marked or obvious paths. If no paths are marked or none is obvious - define ONE!
11. Learn to recognise cave deposits or features that may be damaged by walking or crawling on them.

Examples are:-

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| Drip Holes | Stream Sediments |
| Paleo soils | Soil Cones |
| Crusts | Flowstone |
| Cave Pearls | Asphodilites |
| Bone material | Potential Archaeological sites |
| Cave Fauna | Coffee & Cream |
| Tree Roots | |

8. Cave as a team - help each other through the cave. Don't split up unless impact is reduced by doing so.
9. Constantly watch your head placement AND that of your party members. Let them know before they are likely to do any damage.
10. Keep caving packs as small as possible or don't use them in sensitive caves or extensions.
11. Ensure that party members don't wander about the cave unnecessarily.
12. Stay on all marked or obvious paths. If no paths are marked or none is obvious - define ONE! In river caves, the lowest impact route may be the streamway. Note that permission for marking must be obtained first if legislation or regulations apply.
13. Learn to recognise cave deposits or features that may be damaged by touching or walking or crawling on them.

Examples are:-

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| ▪ Drip holes | ▪ Tree roots |
| ▪ Soil/sand cones | ▪ Moonmilk |
| ▪ Cave fauna | ▪ Flowstone |
| ▪ Crusts | ▪ Cave pearls and pisolites |
| ▪ Stream passage sediments | ▪ Aboriginal art |
| ▪ Bone material | ▪ Potential archaeological sites |
| ▪ Paleo soils or undisturbed sediments | |

12. Take care in the placement of hands and feet throughout a cave.
13. Wash your caving overalls and boots regularly so that the spread of bacteria and fungi are minimised.
14. If a site is obviously being degraded examine the site carefully to determine if an alternative route is possible. Any alternative route **MUST not cause the same or greater degradation** than the currently used route. If an alternative is available suggest the alternative route to the appropriate management authority and report the degradation.
15. Carry in-cave marking materials while caving and restore any missing markers. Tape off sensitive areas you believe are being damaged and report the damage to the appropriate management authority.
16. If it is necessary to walk on flowstone in a cave remove any muddied boots and or clothing before proceeding **OR DON'T PROCEED!** Sometimes it is better to assess the situation and return at a later date with the appropriate equipment.
17. Treat the cave biota with respect, watch out for them, and avoid damaging them and their "traps", webs, etc. Also avoid directly

14. Take care in the placement of hands and feet throughout a cave.
15. Wash your caving overalls and boots regularly so that the spread of bacteria and fungi are minimised. **Wash all caving gear before caving in a different caving region.**
16. If a site is obviously being degraded examine the site carefully to determine if an alternative route is possible. Any alternative route **MUST not cause the same or greater degradation** than the currently used route. If an alternative is available suggest the alternative route to the appropriate management authority and report the degradation.
17. Carry in-cave marking materials while caving and restore any missing markers. Tape off sensitive areas you believe are being damaged and report the damage to the appropriate management authority.
18. If it is necessary to walk on flowstone in a cave remove any muddied boots **and/or** clothing before proceeding **OR DON'T PROCEED!** Sometimes it is better to assess the situation and return at a later date with the appropriate equipment. **In some caves, a flowstone route may be defined in order to avoid the spread of clay/mud to clean flowstone sections. Suitable soft soled footwear and clean overalls must be worn in such caves.**
19. Treat the cave biota with respect, watch out for them, and avoid damaging them and their "traps", webs, etc. Also avoid directly lighting cave biota if possible.
20. If bone material is found on existing or proposed tracks it should be

<p>lighting cave biota if possible.</p> <p>18. If bone material is found on existing or proposed tracks it should be moved off the track to a safer location if at all possible. Collection should only be undertaken with appropriate permission.</p> <p>19. If you eat food in a cave ensure that small food fragments are not dropped as this may impact the cave biota. One way is to carry a plastic bag to eat over and catch the food fragments. This can then be folded up and removed from the cave.</p> <p>20. Ensure that all foreign matter is removed from caves. This includes human waste. If long trips are to be made into a cave ensure that containers for the removal of liquid and solid waste are included on the trip inventory.</p> <p>21. When rigging caves with artificial anchors, e.g. traces, tapes, rope etc, ensure that minimal damage occurs to the anchor site by protecting the site. For example protect frequently used anchors, e.g. trees, with carpet, packs, cloth, etc. Bolts should only be used where natural anchors are inappropriate.</p>	<p>photographed <i>in situ</i>, then moved off the track to a safer location if at all possible and if permissible under applicable legislation and regulations. Collection should only be undertaken with appropriate permission.</p> <p>21. If you eat food in a cave ensure that small food fragments are not dropped as this may impact the cave biota. One way is to carry a plastic bag to eat over and catch the food fragments. This can then be folded up and removed from the cave.</p> <p>22. Ensure that all foreign matter is removed from caves. This includes human waste. If long trips are to be made into a cave ensure that containers for the removal of liquid and solid waste are included on the trip pre-planning inventory.</p> <p>23. When rigging caves with artificial anchors, e.g. traces, tapes, rope etc, ensure that minimal damage occurs to the anchor site by protecting the site. For example, protect natural anchors and rub points e.g. trees and speleothems with carpet, packs, cloth, etc. Bolts should only be used where natural anchors are inappropriate or where their use will minimise cave user impact over time. Permission must be sought from the cave owner or management authority.</p> <p>24. It is best to regard severely impacted caves not as “sacrifice caves” where MICC practices are no longer necessary, but rather as more appropriate venues than less impacted caves for the instruction of inexperienced people in all aspects of caving practices. They provide opportunities for education on the nature and consequences of cave user impact.</p> <p>25. CAVE SOFTLY!</p>
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22. CAVE SOFTLY!

New Cave or Extension Explorations

1. The existing microbiology of the new cave, both fungi, bacteria, and a world of protozoa, will almost certainly be irreversibly contaminated on the first trip into the cave! If you consider cave microbiology has not been investigated in the area of this new cave, if cave microbiologists are available, then please consider including them on initial explorations so that they may collect uncontaminated samples.
2. **Do not enter the new area if you do not have the equipment required to undertake the minimal activities. Surveying equipment and in-cave markers.**
3. The minimal activity should be in-cave marking and surveying. Not purely exploration.
4. Ensure that all alternative routes are examined, by completing the cave survey, prior to crossing sensitive areas. It may not be necessary to enter some areas as they can be by-passed.
5. Having determined that a sensitive area is to be crossed it should ALWAYS be marked. Reduce future damage by defining a distinct, minimal width track.
6. Discuss in-cave marking within the party and ensure that all ideas are evaluated before marking is undertaken.

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5. Having determined that a sensitive area is to be crossed it should ALWAYS be marked. Reduce future damage by defining a distinct, minimal width track. **Where legislation or regulations apply, permission to mark must be obtained first, so do not cross until obtained.**

<p>7. CAVE SOFTLY!</p>	<p>6. Discuss in-cave marking within the party and ensure that all ideas are evaluated before marking is undertaken.</p> <p>7. CAVE SOFTLY!</p>
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