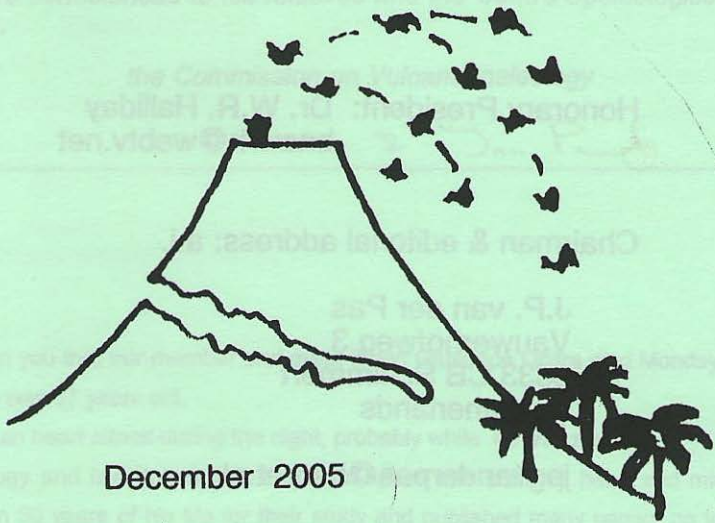


International Union of Speleology  
Union Internationale de Spéléologie

*Commission on Volcanic Caves*



December 2005

**46**

*The Newsletter is send free to members  
of the Commission, and others who are  
interested in lava-tube caves.  
It is not possible to subscribe - but news  
and information is always appreciated ....*

Honorary President: Dr. W.R. Halliday  
bnawrh@webtv.net

Chairman & editorial address: a.i.

J.P. van der Pas  
Vauwerhofweg 3  
6333 CB Schimmert  
Netherlands

jpgvanderpas@hetnet.nl



**GIUSEPPE LICITRA**  
**1938 - 5 September 2005**

*We lost again a monument of Vulcanospeleology. Below the message which arrived from Nicola Barone, with a description of the works of Guiseppe. I think little can be added to this. I think most of us have met him in person, certainly at 'his' last symposium in Catania 1999.*

*Sincere condolences to his relatives and the Centro Speleologico Etneo,*

*the Commission on Vulcanospeleology*

*2 Jan Paul*

I regret to inform you that our member and great friend Giuseppe Licitra died Monday 5<sup>th</sup> of September . He was 67 years old.

The cause was an heart attack during the night, probably while he was sleeping.

Volcanospeleology and lava tubes had a special space into both his heart and mind. He spent more than 30 years of his life for their study and published many papers on journals and conference proceedings. Giuseppe Licitra formulated also an interesting theory on the formation of lava tubes. According to this theory, lava flowing inside tubes erodes the ground in such a way that the floor of the tube is the surface of the last lava flow during the active phase of the eruption instead that the material left after lava drain and its subsequent cooling.

Giuseppe Licitra provided a notable contribution to the development of Volcanospeleology. He organized in Catania, together with other speleologists , in 1975, 1983 and 1999, three International Symposia with the participation of many important scientists and researchers coming from many countries.

Nicola Barone  
Centro Speleologico Etneo  
Via Cagliari, 15  
95127 Catania - ITALY

re: Previous page  
Nicola sent also the following message to inform us  
that the work/connection of Guiseppe will be continued:

I also inform you about the person which has been chosen by "Centro Speleologico Etneo" as a worthy substitute of Giuseppe M.Licitra into the International Volcanospeleology Committee of U.I.S.

This person is Dr. Rosa Anna Corsaro. She is a member of Centro Speleologico Etneo and works as a Researcher at the National Institute for Geophysics and Volcanology in Catania. From now, you can address her all communications concerning the commission activities.

**Dr. Rosa Anna Corsaro**

**Istituto Nazionale di Geofisica e Vulcanologia - Sezione di Catania**

**Piazza Roma, 2**

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**Fax: +39 095 435801**

**e-mail: [corsaro@ct.ingv.it](mailto:corsaro@ct.ingv.it)**

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**The commission member of Japan, Dr. Honda, sent the following information on current work in Japan:**

Thanks for your letter of Commission on Volcanic Caves. It is always a great pleasure to see the Newsletter.

I am very interested in the 12th International Symposium on Volcanospeleology to be held in Mexico.

We, members of Volcanospeleological society of Japan, are now investigating a lava-cave and a pit-cave in Izu-Oshima, volcanic island located at 150 km from Tokyo. This lava-cave is recently found under a hornito formed at 1951 eruption. The lava cave starts from the crater rim and continues to the outer wall of the crater. So the lava-cave has clearly a flat floor part and an inclined floor part. Though the total length is not so large (about 35 m) for the moment, this lava-cave is interesting from the view point of its formation process. The pit-cave is formed at 1986 fissure eruption. The first survey was held in the beginning of this year. Its depth is 47 m and oval aperture width is from 46m to 35m, oval bottom width from 16m to 8m.

Later, I will send a more detailed information of these caves to your letter and finally I would like to present the survey result in Mexico.

By the way, I have changed the mail address and e-mail address:

New address: 3-14-5, Tsurumaki, Setagaya-ku, Tokyo, Japan.

New e-mail address: [tsutomuh@jx.ejnet.ne.jp](mailto:tsutomuh@jx.ejnet.ne.jp)

Best regards,

Tsutomu Honda

Member of Volcanospeleological Society of Japan

Dr. Rosa Anna Corsaro  
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Tokyo  
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e-mail: tsutomuh@jx.ejnet.ne.jp

Enclosed with this Newsletter (only the ones  
send to commission members) is the new  
address list. Just throw away older ones:  
there are several changes/updates.

## MISC. NEWS

### Compass Readings

via Bill Halliday an interesting article arrived concerning 'The Effects of Lava on Compass Readings', by Dale J. Green, technical note # 99 of the Salt Lake Grotto. 11 pages and 19 figures. Photocopies available from the editor of this newsletter.

### New Lavatubes on FUENTEVENTURA (Canary Islands)

David Brison mapped 2 small and 5 long lavatubes on Fuenteventura. Article in 'Lettre du Spéléo-club de Paris', # 234, April 2005.

### JAPAN

From first Takayoshi Katsumata and later Dr. Honda (see his report on another page) the news from Japan is the investigation of a cave found under a hornito. Best news, dr. Honda will have a lecture on this in Mexico symposium next year.

### ICELAND

Some notes from Chris Wood. He was in September in Iceland, and encountered deep snow in Laufbalavatn. Although during the Iceland 2002 symposium the weather was beautiful (in September!) I can confirm that several times in August I ran into snow in the interior. I was also on Iceland this year (but in July) and could not reach some of my destinations due to snow.

Chris introduces one of his fellow-Iceland-expedition-members: Ed Waters. Ed also hopes to be at Mexico 2006. See his address on another page.

### JORDAN DISCOVERIES - 2005

Prof. Kempe, Dr. Henschel, Prof. Ahmad Al-Malabeh, Mr. Fryhad & Abu Jusuf did some staggering discoveries in Jordan this year (Sept. 2005). One of the many discoveries is the Al-Fahda Cave with a length of 923 m. See the full report (edited by John Pint ..... ) on [www.saudicaves.com/j2005/index.htm](http://www.saudicaves.com/j2005/index.htm)

### MEXICO 2006 Symposium.

Do not forget to look at the recent update on [www.saudicaves.com](http://www.saudicaves.com)

### QUESTION

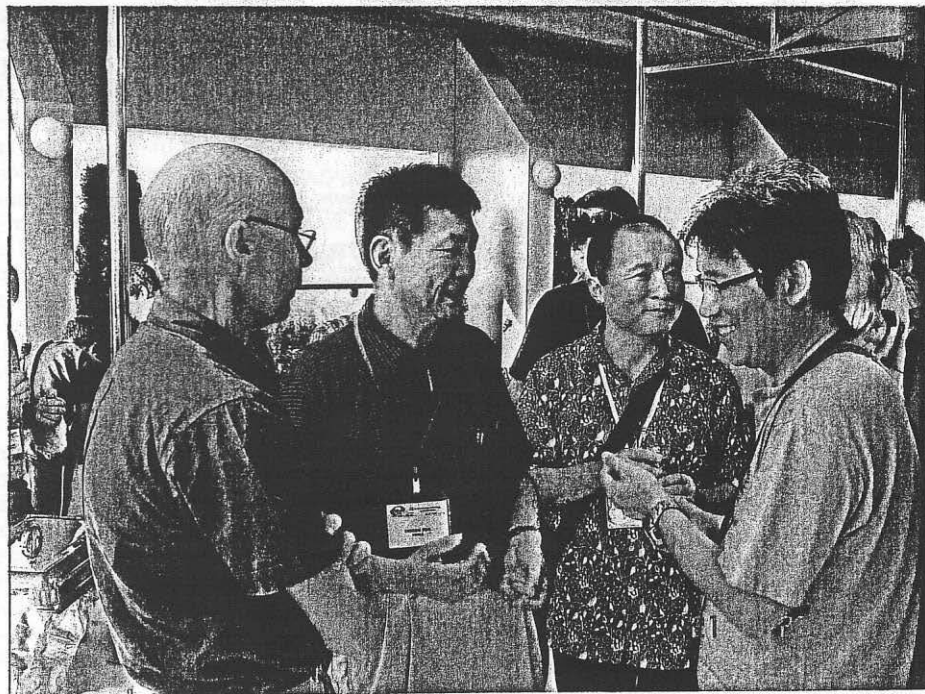
A Dutch cave-diver - Mrs. José de Veer - had a question for me: In some cave-dive manuals are not only the terms used as 'lava cave' and 'lava tubes', but also 'igneous caves'. Since igneous means 'fire' this would be a fire-cave. Apparently there is a difference in the books - but not clear. Can you give an explanation?

Answer by J.P.: well none of my humble books explains this. Anyone of the commission can give her a good answer?

[josedeveer@hetnet.nl](mailto:josedeveer@hetnet.nl)



*Discussion(s) during the U.I.S. Congress in Greece (2005).  
From left to right: Prof. Woo (Korea), J.P. van der Pas (NL), Prof.  
Son (Korea). Foto Herman de Swart.  
Below: same people (+ press) in different sequence.*



## VOLCANO for SALE

During the 'IX International Symposium on Vulcanospeleology' (Catania - Italy 1999) also the island of **Vulcano** was visited. According to a remark in a Dutch newspaper (Telegraaf, 8 Oct. '05) this island is now for sale. A certain Mr. Gustavo Conti, owner of a large part of the island including the volcano, offers this for sale. Already mentioned: orders of some Euro 10.000 are considered unacceptable.

## Vulkaan te koop

PORTO DI LEVANTE,  
zaterdag

De Italiaan Gustavo Conti biedt de vulkaan op het eiland Vulcano, voor de kust van Sicilië, te koop aan. Dit meldde de Britse krant *The Times*.

Zijn voorouders kochten een groot deel van het eiland, inclusief de vulkaan, van de Schot James Stevenson. Die vertrok voorgoed nadat hij een rotsblok, ter grootte van een bus op zich af had zien komen. Conti gaf aan 10.000 euro een lachertje te vinden. (ANP)

Abstract of a lecture held by Bill Halliday at the SLC 2005 (Geological Society of America Annual Meeting - Science Learning Colleages - Oct. 2005)

193-15 BTH 89 Halliday, William R.

### SEDIMENT DEPOSITION AND REWORKING IN LAVA TUBE CAVES

HALLIDAY, William R., Hawaii Speleological Survey, 6530 Cornwall Court, Nashville, TN 37205, williamrhalliday@mailstation.com.

Just as in karstic caves, sediments within lava tube caves may yield information on Holocene, Pleistocene, and perhaps some pre-Pleistocene events. Few have been studied in detail.

Except in arid regions (where thick deposits of air-transported spelean sediments may accumulate over long periods of time), sediment deposition in lava tube caves primarily occurs during flood pulses. Piracy of turbid surface streams is a less common factor. Perieruptive lahar and other mudflow deposits may be solitary and massive (e.g., Lava River Cave, OR and Ape Cave, WA), or successive, small volume events may produce and rework a succession of thinly layered deposits (e.g., Gremlin Cave, WA).

Depending on topographic settings, flood events unrelated to eruptions are known to deposit a spectrum ranging from large boulders (e.g., caves of the Honokaa area, HI) to fine-grained particulates morphologically resembling the commonly-observed clay fills of karstic caves.

Where flood waters cover the entrance of a lava tube cave (e.g., Turtle Cave, HI), backflooding may leave extensive backwater deposits.

Potentially of special interest, Oregon's Mowich Cave recently was opened to initial geological reconnaissance. The entrance of this cave is at the base of a canyon-side 25+ m cliff where the cave was truncated by downcutting of the Clearwater River. This cave contains an extraordinary sequence of thin, complexly bedded sediments. These and other sediments of lava tube caves merit the same careful study as do those of karstic caves.



# Old Hawaii is revisited

BY BOBBY COMMAND  
WEST HAWAII TODAY  
bcommand@westhawaii.com

## HALLIDAY EDITS DUTTON'S JOURNAL FROM 1880S

**"Hawaiian Volcanoes."**  
By Clarence Edward Dutton.  
Edited by William R. Halliday.  
University of Hawaii Press.

*"Along the Kona road the vegetation becomes exquisitely beautiful ... For three days our journey lay through a country where every turn of the road opened visions of paradise." — Charles Edward Dutton*

In 1882 Yale graduate and a Union veteran of the Civil War veteran of the debacle at Fredricksburg Charles Edward Dutton arrived in Hawaii to conduct the U.S. Geological Survey's first comprehensive survey and study of volcanism in Hawaii.

Dutton, who had accompanied John Wesley Powell on his 1869 exploration of the Colorado River, was seemingly commissioned to provide an objective report on volcanism in the kingdom. Instead, Dutton produced a brilliant and exciting circle-island travelog which reveals a compelling word portrait of paradise.

It is republished by the University of Hawaii Press.

Dutton's work holds up well against similar works — notably "Six Months in the Sandwich Islands" by Isabella Bird and "Unless Haste is Made: A French Skeptic's Account of the Sandwich Islands" by Theodore-Adolphe Barrot. It was novelist Wallace Stegner who said Dutton wrote in a way that ordi-

nary people see.

But the purpose of Dutton's trip to Hawaii is somewhat ambiguous, and as it turned out, prompted congressional scrutiny. Even in the foreword, editor William R. Halliday poses the rhetorical question: "Was Dutton's assignment to Hawaii purely geological?"

An answer is sometimes hard to determine.

Dutton accurately describes the fire pit of Mokuauweoweo at the summit of Mauna Loa, but is stricken with the majesty of nature: "The wind blows with a keen, biting blast, from which there is no shelter. There is not an ounce of combustible material within twelve miles and the only food is that which we bring with us. The animals must cower and shiver, and howl piteously throughout the night ... But the sublimity of the desolation and the deep sense of solitude, half pleasing, half terrible, make the experience a fascinating one."

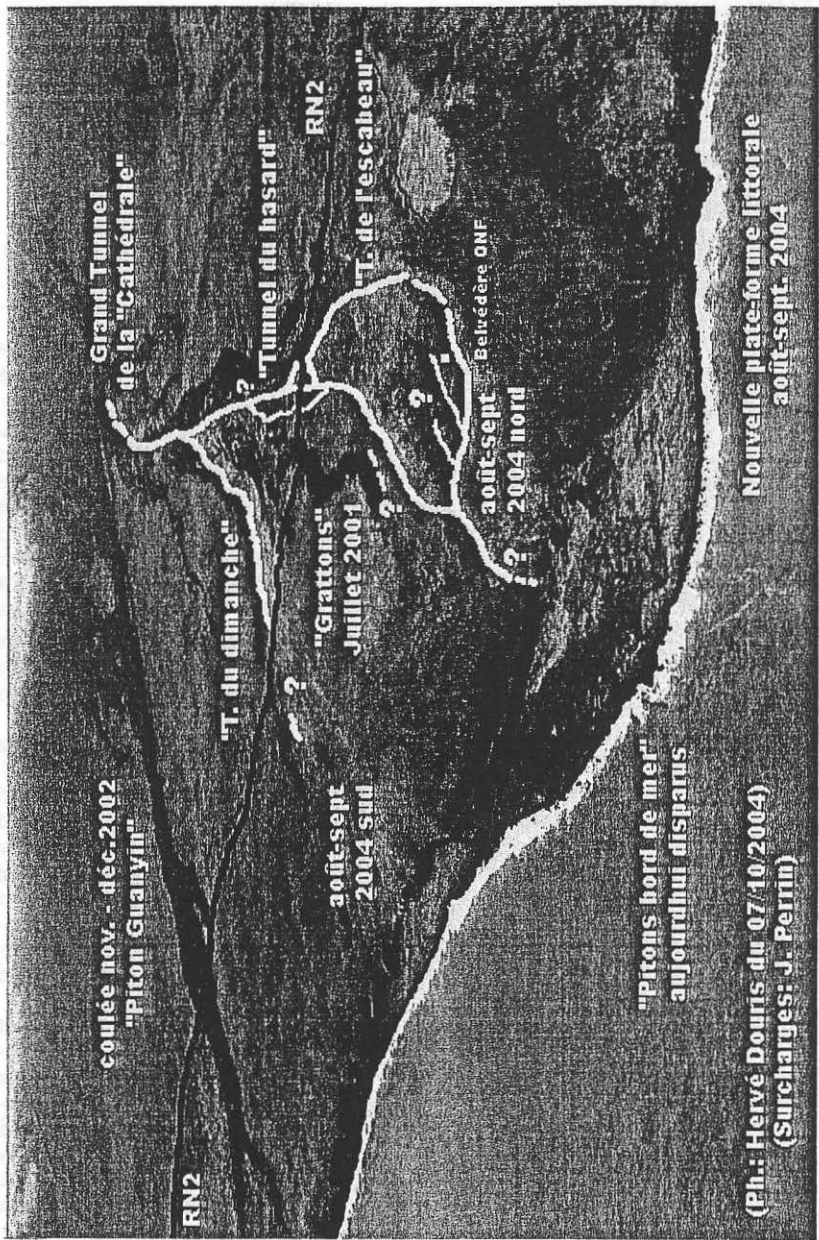
He speaks objectively of the dry and hot fields of Puna, interspersed with old lava flows, some covered with pili grass. But he also observes a small village in Puna where grass shacks are interspersed with western-style homes: "It is hard to say whether these structure built in civilized fashion improved the prospect or not." He also comments on the "sabbatarianism" of people who ridicule him for riding his pack train through their village on Sunday.

This review is from "West Hawaii Today" of 2 Oct. 2005. Availability of this book: see separate leaflet.

Descriptions of Kona almost 125 years ago are alone worth the price of the book. Dutton illustrates its natural wonder as well as infiltration even in 1882 of non-native species: "Nor does the vegetation ever become monotonous, for it is constantly changing in its habits and is full of variety ... The orange, the lemon, the banana, the mango, the citron now stand everywhere wild and uncared for, while the coffee and guava form thickets well-nigh impenetrable."

Dutton also notices remnants of the once thriving Kona agricultural field system: "The land appears to have been subdivided much more minutely than the lands ordinarily are in civilized countries ... The general aspect is that of a country once cultivated but long since left to solitude and overrun with untamed vegetation."

Halliday contends the end of the book was either left unfinished due to time constraints, or edited; Dutton, a strong anti-annexationist, may have laced his conclusions with sentiments that were not parallel to the strongest period of Republican rule in American history.



Grand Tunnel  
de la "Cathedrale"

RN2

"T. du hasard"

"T. de l'escabeau"

Beuvèrè ONF

août-sept  
2004 nord

"Grattons"  
Juillet 2001

août-sept  
2004 sud

"T. du dimanche"

coulée nov.-déc.2002  
"Piton Guanyin"

RN2

Nouvelle plate-forme littorale  
août-sept. 2004

"Pitons bord de mer"  
aujourd'hui disparus

(Ph.: Hervé Douris du 07/10/2004)  
(Surcharges: J. Perrin)

## Exploration and Discovery of new Lavatubes on the island of Réunion

In the previous Newsletter (# 45, p. 10) briefly these new tubes were mentioned.

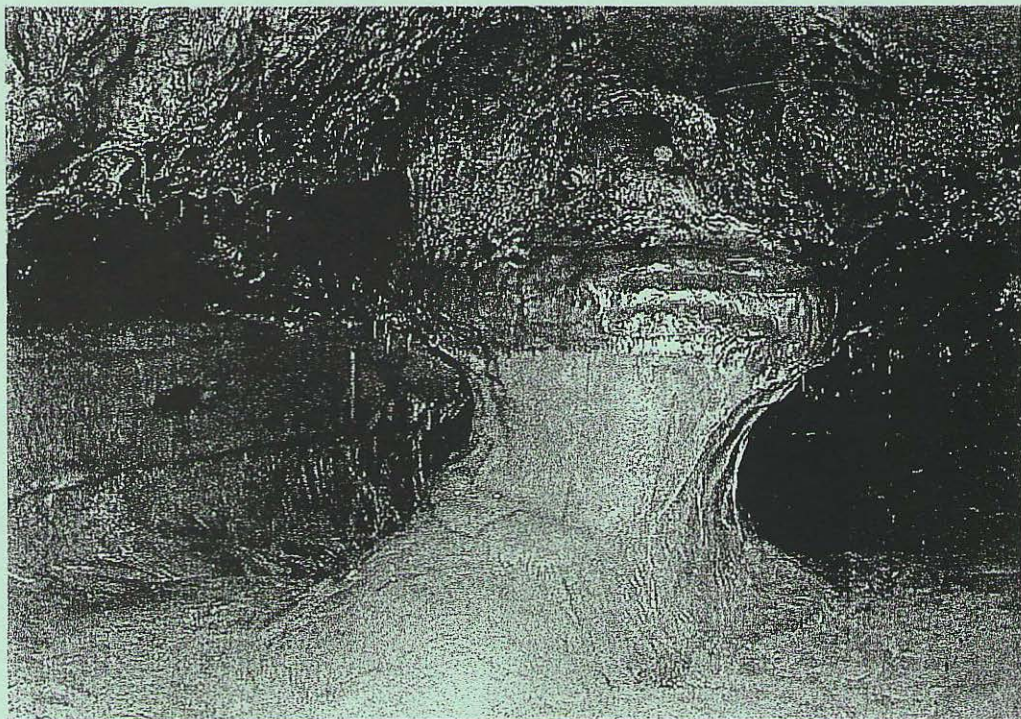
In a French publication, 'LAVE' # 116, September 2005, a 7 pages article described this tubes. 19 Pictures, several in color - a kind of red, but they show the 'Red Saloon'.

The article is written by Mr. Jean Perrin - vice president de CDDV, and their internet site is

[www.cddv.net](http://www.cddv.net)

Left: an overview of the area described in the article.

Below: B/W picture of the 'Red Saloon', first visited by Patrick Pegoud and Domingo Gonzalez early 2005, picture taken end August 2005 by J. Perrin.



*This Commission-statement was written-up (and based on former-ones) during the UIS-Congress in 1997.  
Of course it stands still as the basic-rule of the commission.  
However, sometimes it is difficult to maintain certain aspects.  
At this moment the Newsletter e.g. is also used as a hand-out at speleological meetings to promote the work done. People who supply very important information are more or less (sometimes temporarily) made member of the commission.*

## MISSION STATEMENT

### of the UIS Commission on Volcanic Caves

The Commission on Volcanic Caves is an integral unit of the International Union of Speleology and upholds the high standards of its parent organization. It meets during international congresses of speleology, during international and regional symposia and all appropriate occasions. It solicits and approves sites for such symposia, held to date in the USA (2x), USA-Hawaii, Italy (3x), Japan, Spain (Canary Islands) and Kenya.

The basic mission of the Commission is to advance the scientific exploration, study, and preservation of lava tube caves and related features in volcanic rock, throughout the world. It seeks to bring together all persons, organizations, and agencies with legitimate concerns with volcanic caves, their features, and their environments. Its members are leading vulcano-speleologists from each country or area with especially important lava tube caves or related figures. Members are expected to keep the Commission informed about progress and problems in vulcano-speleology and to disseminate vulcano-speleological information to other speleologists in their country or study area.

The Commission collects and disseminates information through its Newsletter, through sponsorship of internal symposia and conferences and through exchange visits, through meetings of its Chairman/President with individual Commission members and cooperators, and through data compilation in a world data base on lava tube caves at Arizona State University (USA). Currently this world data base contains information on more than 2000 lava tube caves in 40 countries. Further, the Commission provides reports and recommendations to national and regional organizations as the American Geological Institute. Its Newsletter is published at least two or three times each year. In addition to current information it contains reports and abstracts. It is archived at two U.S. Geological Survey libraries, in the UIS library (Switzerland) and is abstracted in Volcano Quarterly.

The Commission intends to continue and expand all current projects. Especially it intends to expand its cooperation (as requested by the UIS Committee during the XII-th International Congress of Speleology in Switzerland - 1997) with other Commissions and Working Groups of the International Union of Speleology and with national and regional speleological organizations working in the field of vulcano-speleology.