

# THE ICC HAS DISTRIBUTED MORE THAN 23 TERABYTES OF DIGITAL CARTOGRAPHY FREE OF CHARGE

**A**s announced in the ICC Newsletter No. 17, in February 2003 the ICC began to circulate its digital base cartography free of charge. The only charge applied is for the distribution medium and tests.

**“BY 31 OCTOBER 2003,  
EIGHT MONTHS AFTER  
FREE CIRCULATION  
OF THE DIGITAL  
BASE CARTOGRAPHY  
WAS BEGUN, 2,932 ORDERS  
HAD BEEN MET”**

By 31 October 2003, 2,932 orders had been met, a considerable increase on the 443 orders attended to during the same period of 2002.

The number of files distributed by the end of October 2003 was 352,265, and these contained a total of 23,540,618 Mb.

These products can be obtained at the ICC's distribution and customer service points.

Cartography	Number of sheets (files) distributed (31 October 2003)	MB
Topographic database 1:250 000 v.3, vector	54	135
Topographic database 1:50 000 v.3, vector	236	110,798
Topographic map 1:10 000 v.1, raster	21,986	1,429,090
Topographic database 1:5 000 v.2, raster	138,560	9,006,400
Digital orthoimages 1:25 000 v.3, color, raster	16,106	1,207,950
Digital orthoimages 1:25 000 v.3, IRC, raster	4,082	306,150
Digital orthoimages 1:5 000 v.3, color, raster	84,021	8,402,100
Digital orthoimages 1:5 000 v.2, b/w, raster	87,051	3,046,785
Administrative boundaries 1:250 000, vector	46	460
Terrain elevation models	123	30,750
<b>Total</b>	<b>352,265</b>	<b>23,540,618</b>

## SUMMARY

The ICC has distributed more than 23 terabytes of digital cartography free of charge

Technical assistance for computerization of the Association de Sauvegarde de la Médina of Tunis

Corporate geographic information system and document management system for the ATM

Fluvial navigation map of the Ebro 1:100 000 guide

ALUDEX. Evaluation of catastrophic avalanches by means of a dendroclimatic and nivometeorological study

Official gazetteer of Catalonia

PARAMOUNT project. Closing session

ICA award for the ICC

2003-2004 course agenda

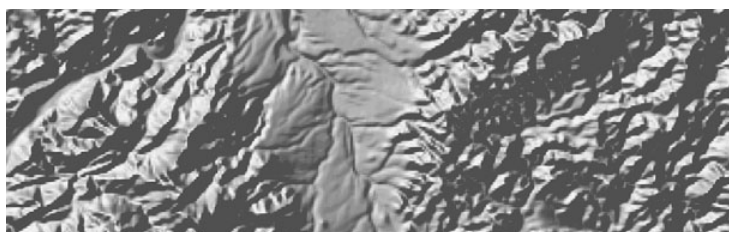
Free samples at the ICC web site

Agreement with the RACC to facilitate road mobility

This newsletter is a free publication available in Catalan, Spanish and English.

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 Generalitat de Catalunya  
Institut Cartogràfic de Catalunya



## TECHNICAL ASSISTANCE FOR COMPUTERIZATION OF THE ASSOCIATION DE SAUVEGARDE DE LA MÉDINA OF TUNIS

Within the framework of the IV Spanish-Tunisian Mixed Commission for Cultural, Educational, Scientific and Technical Cooperation, held in Barcelona on 25 November 2000, it was agreed to continue collaborative action to preserve cultural and natural heritage.

Based on this, in July 2003, the Association de Sauvegarde de la Médina of Tunis (association for protection, ASM), the Agencia Española de Cooperación Internacional (Spanish International Cooperation Agency, AEI) and the ICC signed a technological agreement, the aim of which is to support the preservation of the architectural and cultural heritage of the historic center of the city of Tunis.

The initiatives established in the pro-

gram, which are planned for completion in July 2004, are:

- Computerization of the cartography of the area to be protected and managed, through the incorporation of a geographic information system.
- Computerization of the study office, through the provision of suitable computer equipment.
- Computerization of the topographic archive of the Association, through the introduction of a cartographic document management system.
- Training of the ASM's staff in the use of computer equipment and applications.
- Deployment of a pilot project to validate the correct operation of the products developed.

## CORPORATE GEOGRAPHIC INFORMATION SYSTEM AND DOCUMENT MANAGEMENT SYSTEM FOR THE ATM

The Autoritat del Transport Metropolità (Metropolitan Transport Authority, ATM), whose area of operation is the metropolitan area of Barcelona extended to the outer limits of the FGC and RENFE suburban train service networks, is responsible for infrastructure planning, coordination of services offered by public and private operators, management of financing of the transport system by the Administrative bodies, management of contracts with operators, establishment of the fares policy, implementation of infrastructure projects, and the definition and promotion of a single image for the system.

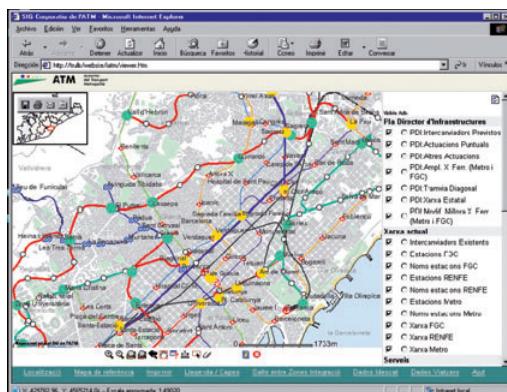
As an organization with responsibilities for territorial planning and management, the ATM has an ongoing need for advanced systems with which it may analyze geospatial information and manage the documentation that it generates. Therefore, at the end of the year 2000,

through a collaborative agreement with the ICC, a project was begun to implement a corporate Geographic Information System and Document Management System.

This system, which is already in operation, makes it easier for the ATM to maintain and use both the geographic information needed for management and planning tasks and the documents that it generates. Furthermore, the system is in communication with other systems, such as the SAE (System to Assist the Operation of the Bus Service), the SVV (Validation and Sales System) and the specific planning tool ATMax.

The ATM staff, in accordance with their profile and needs, access the system through the Intranet or specific, more complex applications.

**"THE CORPORATE DATABASE  
GUARANTEES THE HOMOGENEITY,  
UNIQUENESS, INTEGRITY  
AND SECURITY OF THE DATA  
OF THE SYSTEM"**



## FLUVIAL NAVIGATION

### *Fluvial navigation map of the Ebro 1:100 000 guide*

Institut per al Desenvolupament de les Comarques  
de l'Ebre and Institut Cartogràfic de Catalunya  
1st edition: Barcelona, November 2003

In November 2003 the for the *Fluvial navigation map of the Ebro 1:100 000* guide was published, a joint initiative undertaken by the Institut per al Desenvolupament de les Comarques de l'Ebre (development of the regions of the Ebro) and the ICC. The map had already been published in 2002.

This is a guide (published in Catalan, Spanish, English and French) which focuses on both the water and the land, in order that visitors on the river may discover the various local products to be found in each of the towns through which the Ebro passes, from Riba-roja d'Ebre to Deltebre.

As well as providing a description of the river and the areas closest to it, this guide makes reference to the Ebro region in general, including its nature reserves, areas of outstanding natural beauty, traditional festivities, gastronomy and accommodation.

All in all, visitors now have access to a map that offers detailed information for river navigation on the Ebro river in Catalonia and a guide full of suggestions for planning a stay in the Ebro region.

## RESEARCH

### ALUDEX. EVALUATION OF AVALANCHES BY MEANS OF AND NIVOMETEOROLOGICAL DATA

In order to assess avalanche hazard, it is necessary to have access to data on the intensity and frequency of the likely events.

The ALUDEX project, a collaboration between the ICC and the Department of Ecology of the Universitat de Barcelona, financed by the Ministerio de Ciencia y Tecnología (Spanish Ministry of Science and Technology) and the FEDER, is concerned with determining the frequency of avalanches.

In order to determine this frequency, methods with varying degrees of accuracy exist: survey of the local population, winter monitoring, location of the phenomenon with reference to nivometeorological data and dating by means of a dendrochronological study (frequency of avalanches determined by examination of tree rings). The first two methods have already been used by the ICC in order to produce the series *Mapa de zones d'allaus de Catalunya 1:25 000* (avalanche zones), but they are not sufficiently accurate due to the lack of precision of the survey and to the short period of available observations.



## MAP OF THE EBRO 1:100 000 GUIDE



**NEW**

## OFFICIAL GAZETTER OF CATALONIA

### Nomenclàtor oficial de Catalunya

Generalitat de Catalunya, Institut d'Estudis Catalans, Associació Catalana de Municipis i Comarques, Consell General d'Aran, Consorci per a la Normalització Lingüística, Federació de Municipis de Catalunya  
1st edition: Barcelona, September de 2003

The Parlament de Catalunya (parliament), in its Resolution 563/V of 1998, approved the preparation of official gazetter, whereby the official names of the basic toponymy of Catalonia would be collated and established, with the aim that this would serve as a standardized reference for the correct edition of all kinds of cartography, travel guides, signs and other products that provide information (see ICC Newsletter No. 10).

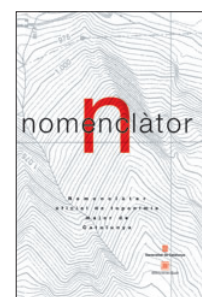
### **"THE GAZETTER HAS GIVEN OFFICIAL STATUS TO SOME 40,000 TOPONYMS"**

The Resolution cited the toponymic selection of the ICC as a noteworthy reference, in recognition of the task undertaken by the Institute to date of publicizing the toponymy of Catalonia. Since its creation in 1982, the ICC has sought to ensure the accuracy and correctness of its toponymy throughout its cartography and thereby preserve Catalan place names. Consequently, the toponymic database of Catalonia 1:50 000 has been the point of departure for the compilation of the Gazetteer.

The Gazetteer is composed of two large parts: firstly, the block of municipal sheets, with the cartography of the municipality, as a basic location tool, in addition to other complementary information. And secondly, the toponymic index: an alphabetical list of toponyms with typological and location data.

### **"THE WORK PUBLISHED COMPRISES 1,278 PAGES OF CARTOGRAPHY AND A 113-PAGE TOPONYMIC INDEX"**

The municipal maps (1:50 000, 1:60 000 and 1:70 000) are grouped according to the corresponding *comarca* (administrative division of Catalonia). Each of the 41 *comarques* is introduced with its respective map at 1:250 000 scale and a list of the municipalities located therein.



## CH AND DEVELOPMENT

## N OF CATASTROPHIC ANS OF A DENDROCLIMATIC LOGICAL STUDY

The last two of the four methods have not been developed to any great extent in the Pyrenees with respect to snow avalanches. Their application is of great interest, given the results obtained in related fields. In order to develop the methods proposed, work will mainly focus on the avalanches that occurred in February 1996. To date, this has been the most intense series of avalanches on record with

respect to the southern slopes of the Pyrenees. During that month a number of extraordinarily intense avalanches occurred, devastating forests and even inhabited areas.

This project represents an advance in determining the frequency of avalanches, and together with the studies of their degree of danger, it will provide more accurate knowledge of avalanche hazard.



## BRIEF NOTES

### ICA AWARD FOR THE ICC

On 10-16 August 2003 the 21st International Cartographic Conference (ICA/ACI) was held in Durban (South Africa).

As a result of a direct vote by those present, qualified cartographers of the ICA, the prize in the scientific maps category was awarded to the *European-Mediterranean Seismic Hazard Map 1:5 000 000* (a map published by the ICC in collaboration with the Swiss Seismological Service, the Institut Jaume Almera of the CSIC, the European Seismological Commission and the International Geological Correlation Program).

Our cartographic products have now received awards from the members of the ICA/ACI following a direct and secret ballot at the last six consecutive conferences held over a period of 10 years.

[www.icc.es/angles/preang.html](http://www.icc.es/angles/preang.html)

Congratulations!

### 2003-2004 COURSE AGENDA

For the 2003-2004 course the ICC has programmed various open days on cartography, geology, geographic information systems, seismology, avalanches, macro-media tools, internet, land registry and other related subjects, which will be held in the Assembly Hall of the ICC and are open to all persons who are interested.

For further information, please consult the ICC web site:

[www.icc.es/curs/home.html](http://www.icc.es/curs/home.html)

### FREE SAMPLES AT THE ICC WEB SITE

In the "Free samples" section of the ICC's web site, an application similar to Catalonia Sheet by Sheet has been introduced, which makes it possible to view and download fragments of up to 2048 x 2048 pixels of an orthophoto at scales of 1:5 000, 1:25 000 in color and 1:25 000 in infrared color. Location is performed with reference to the more than 50 000 toponyms in the Toponymic database of Catalonia 1:50 000.

[www.icc.es/download/samples.html](http://www.icc.es/download/samples.html)

### AGREEMENT WITH THE RACC TO FACILITATE ROAD MOBILITY

In July 2003 the ICC and the Reial Automòbil Club de Catalunya (royal automobile club, RACC) signed a framework agreement to elaborate and implement cartographic, technological and publishing projects, with the common aim of making tools to facilitate mobility available and providing society as a whole with better territorial information.

## PARAMOUNT PROJECT. CLOSING SESSION

On 24 July 2003 the PARAMOUNT international project (see ICC Newsletter No. 17) was officially presented in the Assembly Hall of the ICC.

The ICC has taken part in the PARAMOUNT project (Public Safety & Commercial Info-Mobility Applications & Services in the Mountains), financed by the European Union, as part of the program on Information Society Technologies, together with the other project participants: the company IfEN and AGIS, University of the Bundeswehr (Munich, Germany), and the rescue services from Bayern and Austria.

The aim of the project was to develop a satellite location system applied to mountainous areas, in order to improve information and user safety.

The session began with a speech delivered by the Director of the ICC, who welcomed those present and outlined a number of considerations relating to the impact on society of the application of new technologies designed to increase awareness of information and safety.

Following this, the experts on avalanches and geographic information systems at the ICC presented the results of the project: they spoke of the management and coordination of the project, the development of the software and the implementation of the system, the application of geographic information systems and the development of an application for graphic representation of the information that appears in the avalanche forecasting bulletin.

The session ended with a round table on "Prospects of an operational service", at which the technological and economic feasibility of this service was discussed by members of the organizations involved in the project: Bombers de la Generalitat de Catalunya (firefighters), Federació d'Entitats Excursionistes de Catalunya (hiking organizations), Federació Andorrana de Muntanyisme (mountaineering) and the mobile telephone company Vodafone.

This session was attended by 40 persons from the fields of mountaineering, safety, telecommunications and geographic information systems.



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