



**Discreet, secure, and economical**  
Innovative fire protection for the hotel industry

# Safety for employees and guests

The topic of safety in the competitive hotel industry is becoming more and more a decisive criterion concerning numbers of guests and market share. Whether small privately owned inns, prestigious mid-sized hotels, hotels for exhibitions and trade fairs, or large hotel chains — safety plays an important role everywhere. For quite some time, this has concerned more than simply the fulfillment of the rising intensification of fire protection regulations. The internationalization of the guest structures\*, which has been increasing since 2004, does not only lead to the adaptation of higher international safety standards, it is also instigating, for example, a change of the standards in modern alarm systems.

\* Source: German National Tourist Board, Incoming — Tourism Germany, Edition 2006.



## Thinking responsibly and economically

Even for the sake of their own business interests, many hoteliers place emphasis on reliable fire precautions that protect from comprehensive consequential losses. Greater numbers of visitors and ever more complex technical equipment increase the risk of fire in hotels and inns. Today, hotel operators counter this with effective, customized, and economical solutions.

## Winning fire protection systems by ESSER

For more than 30 years, competence, innovation, and consistent market and customer orientation have shaped the successful development of the ESSER brand. The extensive product program of the market leader in the field of fire detection technology contains single, individually integrable system services. Thus a custom-made total fire protection concept can be planned and realized with products optimally synchronized to each other for any demand.

## Hoteliers put great value on safety

### Efficient and goal-oriented: Speech alarm with IQ8Alarm

The loss of orientation for guests who are usually not familiar with the building is regarded as a major problem in connection with the implementation of fire protection solutions in hotels. The hotel guests are almost exclusively dependent on technical fire precautions and the controlled evacuation through rescue teams. Thus the security concept of every hotel should include the ability to evacuate floor-by-floor.

Emergency alarm systems with prerecorded instructions provide an orderly evacuation and offer additional security for guests and employees. Through purposeful, clear instructions, reaction times are reduced up until the beginning of an arranged evacuation via the predefined and marked emergency exits. Taking an international public into account, the announcements can occur in several languages and can be played in the entire building or only in certain areas, depending on the situation.

### Avoid false alarms – reduce costs

The lowest possible false alarm rate of the installed fire protection system is another essential aspect for hotel operators. Almost half of all rescue actions in Germany is due to false alarms. In order to avoid this effort and the resulting costs, detectors should be employed which can reliably distinguish fire smoke from disturbance variables. For example, the O<sup>2</sup>T detector recognizes vapor as a false variable via the refined examination and evaluation of different smoke particles.

### Economic and secure

Fire protection in hotels is always tied to economical aspects as well. The innovative esserbus®-PLus technology is currently the most secure and economical form of alarm signaling. Its principle is simple: All system components are on a loop. Additional connection modules and separate voltage supplies are not necessary, which reduces costs involved in assembly and installation.

### Design and safety are not mutually exclusive

Architecture, equipment, and design must also frequently be taken into account when planning and installing emergency alarm systems. There are numerous possibilities in order to fulfill even extraordinary design wishes, for example color adaptations of the fire detector cases. In heritage-protected rooms or rooms used on a temporary basis, such as exhibitions or company events, it can be



“It was decisive for us that the rate of false alarms be kept as low as possible in order to avoid the otherwise resulting emergency measures. That’s why the only smoke detectors which come into consideration for us are those which can distinguish fire smoke from other kinds of smoke, for example such as those used for shows or special effects.”

**Thomas Leffelsender**  
Fire detection representative PhantasiaLand,  
Brühl, Germany  
[www.phantasiaLand.de](http://www.phantasiaLand.de)



“These days, a well-thought-out security concept is part of the standard high-quality features of a hotel.”

**Ante Gaspar**  
Fire prevention representative  
The Ritz-Carlton, Berlin, Germany  
[www.ritzcarlton.com/en/properties/Berlin](http://www.ritzcarlton.com/en/properties/Berlin)



“In our hotel, we place great value on exclusive ambience and extraordinary design. That’s why we selected detectors for our historical knights hall which were color-coordinated in order to guarantee the discreetness of the installation.”

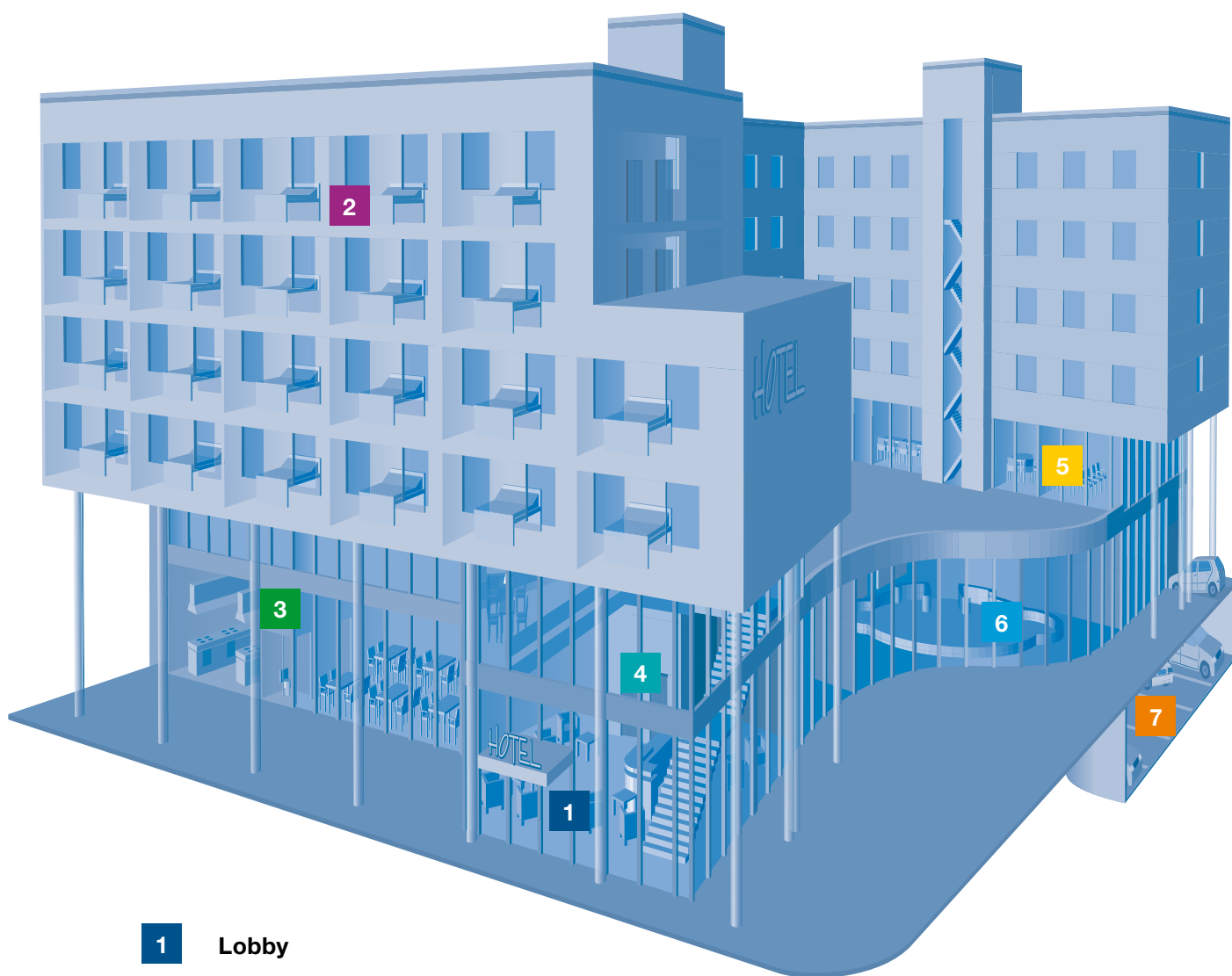
**Karsten Wierig**  
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a good idea to use modern radiocommunication such as **IQ8Wireless** instead of conventional cabling. The possibility of flexible, need-oriented replacement of the **IQ8** fire detectors saves costs and is particularly interesting for smaller hotels with restricted space.

### Simply keeping an overview

In many hotels, other security disciplines in addition to fire detection technology are also in use, for example intrusion protection and access control systems. The WINMAGplus hazard detection system networks the individual disciplines and packages all information under one user-friendly interface. In addition, information also from the housing technical services and parking area monitoring, as well as presence and reservation overviews, can be combined centrally at reception. For physically impaired persons, there is a possibility to be registered during check-in. Appropriate assistance can thus be given in emergency cases.

# Protection in every room



- 1** Lobby
- 2** Rooms
- 3** Shower and Wellness Area,  
Event Hall, Kitchen, Hotel Disco
- 4** Elevator
- 5** Conference Rooms  
(variable sizes)
- 6** Ballroom
- 7** Underground Car Park



# A suitable solution for every field of application

## 1 Lobby

In many hotels, further security-relevant systems are present in addition to the fire detection technology, the unified control and visualization of which is carried out by the superordinate WINMAGplus hazard management system. The most varied information from the fields of intruder detection technology, admission control, video technology, and emergency exit control are centrally managed at the reception, for example.

## 2 Rooms

Whereas three safety components were necessary for detection, alarm, and speech output, now a single detector fulfills all functions in a discreet housing. With an acoustic sounder, flasher, and speech output, the **IQ8Quad** detector facilitates synchronous alarm and evacuation if required. In hotels with an international public, a multilingual speech announcement function as offered by the O<sup>2</sup>T detector from the **IQ8Quad** series proves to be very useful.

## 3 Shower and wellness area, event hall, kitchen, hotel disco

Everywhere intense disturbance variables such as smoke and/or water vapor are to be expected, the **IQ8Quad** O<sup>2</sup>T detector reliably detects and is false-alarm-proof. It is therefore especially suitable for wellness areas, showers, kitchens, and event rooms with fog machines. Using two-angle technology, different particles are differentiated within the measuring chamber and false variables are reliably distinguished from fire identifiers.

## 4 Elevator

The elevator controls are connected to the fire alarm system and is controlled via the WINMAGplus hazard management system in order to give information on the current operating states and positions of all elevators at any time. In the case of fire, all elevators are brought to the ground floor by the automatic elevator control. Thus people are prevented from bringing themselves into life-threatening situations.

## 5 Conference rooms (variable sizes)

In rooms with moveable walls, both manual call points as well as ceiling detectors are usable without cables, in order to flexibly adjust the fire alarm system to the respectively changing spacial and usage conditions. The suitable radio components of the **IQ8Quad** series and the **IQ8MCP** can simply be screwed onto the corresponding bases and just as simply be removed again. Special wishes regarding design can be fulfilled with detector housings in black, green, gold, and many other colors.

## 6 Ballroom

A special challenge for security systems is often posed by the ceiling height of ballrooms. Due to the large room heights in some cases, only a very small concentration of smoke reaches this area. This problem can be approached with high-sensitivity aspirating smoke systems which can still reliably recognize minimal smoke concentrations. Alternatively, if a detection of one individual detection point is necessary, point-type detectors with specific kits for the suspended detector arrangement below possible heat cushions can also be used.

## 7 Underground car park

Heat detectors from the **IQ8Quad** series are especially suitable here. Furthermore, with the supervisor system WINMAGplus, hotel operators have a reliable, convenient, and cost-efficient possibility to combine the different systems in the building: for example, displaying the underground car park video monitoring at reception, the central control of several entrances simultaneously, or the precise management of the fire-fighting forces during emergencies.

# Our solutions protect a diverse range of objects

## **Courtyard by Marriott, Pilsen, Czech Republic**

In 2007, the Courtyard by Marriott will open a new building in the center of Pilsen, in the Czech Republic. The hotel is integrated into a multifunctional complex and has 195 rooms, including 20 junior suites and seven studio suites, all with individually adjustable air-conditioning. The hotel also has a restaurant, a 24-hour mini-mart, a fitness room with panorama view, as well as a parking garage. There are three work stations as well as three combinable meeting rooms in the business center available to traveling business people. Prague airport is about 45 minutes away.

The hotel building is protected by a fire protection system with speech alarm. The company of TECHNISERV, s.r.o. from Prague installed **IQ8**Quad fire detectors with integrated alarm signaling devices in all rooms, in order to be able to inform the guests of emergency situations. An evacuation system conforming to the EN-60849 standards was used in the hallways and public areas. So, in case of emergency, those persons



present can receive precise instructions for a secure and quick evacuation via customized announcements. In addition to the high safety standards, the installed fire protection system also offers saving potential regarding loudspeakers, cables, amplifier power, and emergency power supply capacities.

## **Hotel Ling Bao in Phantasialand, Brühl, Germany**

The biggest Chinese building today outside of the People's Republic, the Ling Bao adventure hotel, can be found in Europe's no. 1 entertainment park, Phantasialand in Brühl. The four-star hotel opened in 2003 and offers 140 family rooms, 25 double rooms, ten different-sized suites, as well as conference rooms generously equipped with the most modern meeting-room technology. In the interior of the hotel, 17th and 18th century Qing dynasty architecture is combined with the naturalistic building tradition of the Yangtze region. Of special note are the extensive wooden constructions, traditionally mortised and cut without metal joints, among other things.



Phantasialand Schmidt-Löffelhardt GmbH & Co. KG commissioned the TELBA installation company in Düsseldorf with the Ling Bao object; Telba had previously equipped the recreational park with ESSER systems. In addition to 749 automatic ESSER brand smoke detectors, the installation company installed an additional 33 manual release ESSER push-button detectors at selected places in the building which provide immediate notification of the fire department.

Several sirens are sounded in the case of a necessary evacuation. In order to guarantee highest possible safety standards while remaining discrete, seven additional LHD 4 line heat detectors were mounted in the attic area. These detectors completely and fully automatically monitor the extensive ceiling constructions with their difficult-to-reach areas and offer the advantage of central maintenance.

**Baltic Sport and Resort Hotel, Zinnowitz, Germany**

This hotel has a large sports complex and amber thermal spring and is located directly behind the dunes of the Baltic Sea island of Usedom in the seaside resort of Zinnowitz. It has modern equipped single, double, family, and business rooms, all with shower/toilet, cable TV, telephone, and minibar. In addition to this, there is a brasserie with a bistro and café terrace, a restaurant, a pub with a winter garden, a dance bar, a beauty farm, and a fitness center with sauna, physiotherapy, hairdresser, and boutiques, a gallery for modern art, and meeting rooms equipped for up to 350 persons.

When the continuation permit for the old fire alarm system (which was installed before 1989) expired, it was successively replaced by the new ESSER system 8000 during regular operation. In spite of the restricted possibility of new cabling, the Wojtas Sicherheitstechnik e.K. installation company from Stralsund was able to carry out a proper installation with the



help of esserbus® transponders. The personnel can now allocate all announcements from the extensive building complex, thanks to the clear supervising monitor at the reception.

**Collegium Leoninum Hotel and Nova Vita Residence in Leoninum, Bonn, Germany**

The centrally situated Collegium Leoninum four-star hotel is both hotel and seniors residence, and was opened at the beginning of 2004 in the former seminar building for priests in Bonn. The harmonious combination of historical construction with new architectural elements forms an appealing framework for discerning guests.

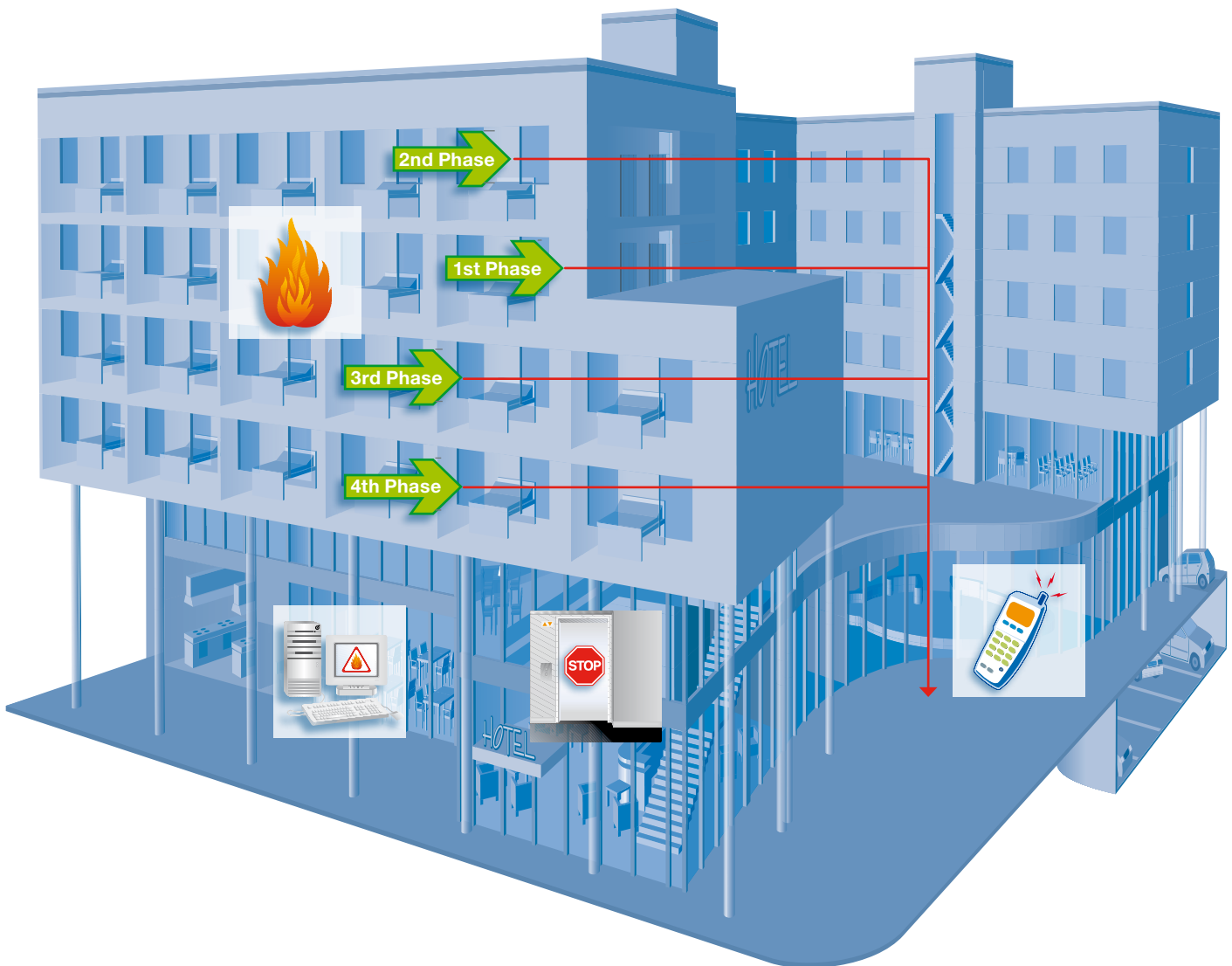
A total of 90 hotel rooms and suites as well as 100 Nova Vita senior apartments are available in the Leoninum. The Nova Vita residences unite high levels of comfort with service as well as care services.

An important aspect to consider during the planning and installation of this technology was the protection of the historical building. In addition, an integrated solution with fire protection and nurse call systems was designed in order to be able to react to changing market needs through easy conversion. Thus every room has a corridor lamp at the door and has a handicap-friendly bath equipped with



push buttons. In addition to about 1,000 different fire detectors such as the O<sup>2</sup>T detectors, optical detectors, heat detectors, as well as manual call points from ESSER, the Siegener Vitt GmbH installers fitted the clino com 21 care communications system from Ackermann clino throughout the entire building.

# Targeted alarm – controlled evacuation



## 1st phase

A fire detector signals the emergency in one of the upper floors. Optionally, the alarm is at first discretely signated on mobile telephones, pagers, and DECT terminal equipment. The fire alarm system controls the rescue route technology and sends the elevators to the ground floor automatically. At the same time, the WINMAGplus signals the alarm at the permanently manned operator station on the ground floor, and provides information on the operating status of the elevators.

## 2nd phase

The floor in question is first cleared via speech announcements. All higher floors are informed: Speech announcements provide people with directions for an orderly evacuation. WINMAGplus provides visual information on the locations of all persons based on in the building considering the data from the access control. It is possible to determine the scale of the fire with the aid of video monitoring.

## 3rd and 4th phases

Now the floors located below the source of the fire are informed and evacuated beginning with the topmost. The acoustic and optical alarms occur in stages, controlled according to priorities.



## Save time – save lives

With the aid of intelligent ESSER fire protection concepts, all important measures are taken within seconds in order to save human lives with precise and orderly evacuations during emergencies.



### Detection

Acute risk of fire in a hotel room. The installed IQ8Quad detector detects the fire and alarms by flasher, sounder, or speech.



### Discreet alarm

Optionally, the alarm occurs quietly at first. To avoid panic, WINMAGplus sends the alarm signal to mobile telephones, pagers, and DECT terminal equipment. A controlled evacuation is initiated by the discreet alarm of selected personnel.



### Emergency exit control

The rescue route technology is controlled via the fire alarm system. In case of fire, a fast and secure evacuation is thus guaranteed.



### WINMAGplus: central overview and administration

WINMAGplus reports the alarm at the permanently manned operator station with corresponding action texts and provides fire-fighters with plans showing approach routes. In addition to this, detailed status data of the smoke extraction installations and safety installations of the building control system are transferred to WINMAGplus and represented clearly.



### Elevator control via fire alarm system, displayed via WINMAGplus

WINMAGplus provides information on the current operating status and positions of all elevators via the "Elevator Control" interface.



### Speech announcement in the fire area

First the affected floor and the rooms of persons in need of special assistance are informed via speech announcements. The precise and orderly room and/or floor-wise evacuation begins with clear instructions, in several languages if necessary.



### WINMAGplus: access control information

The number and positions of the persons contained in the building is quickly acquired via the access control visually represented by WINMAGplus.



### Video monitoring of the fire area

Parallel to the displayed building plan, a video display of the affected area is represented. This makes it possible to determine the scale of the fire.



### Acoustic and optical alarm controlled in stages according to priorities, throughout the entire building

The acoustic and optical alarm occurs in stages and controlled according to priorities. Normally, the floor-wise evacuation begins with the floor affected by the fire, followed by those floors situated above in order to prevent escape routes from being cut off. Only then are the lower floors alerted.

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Art. No. 795827.G0

January 2008

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