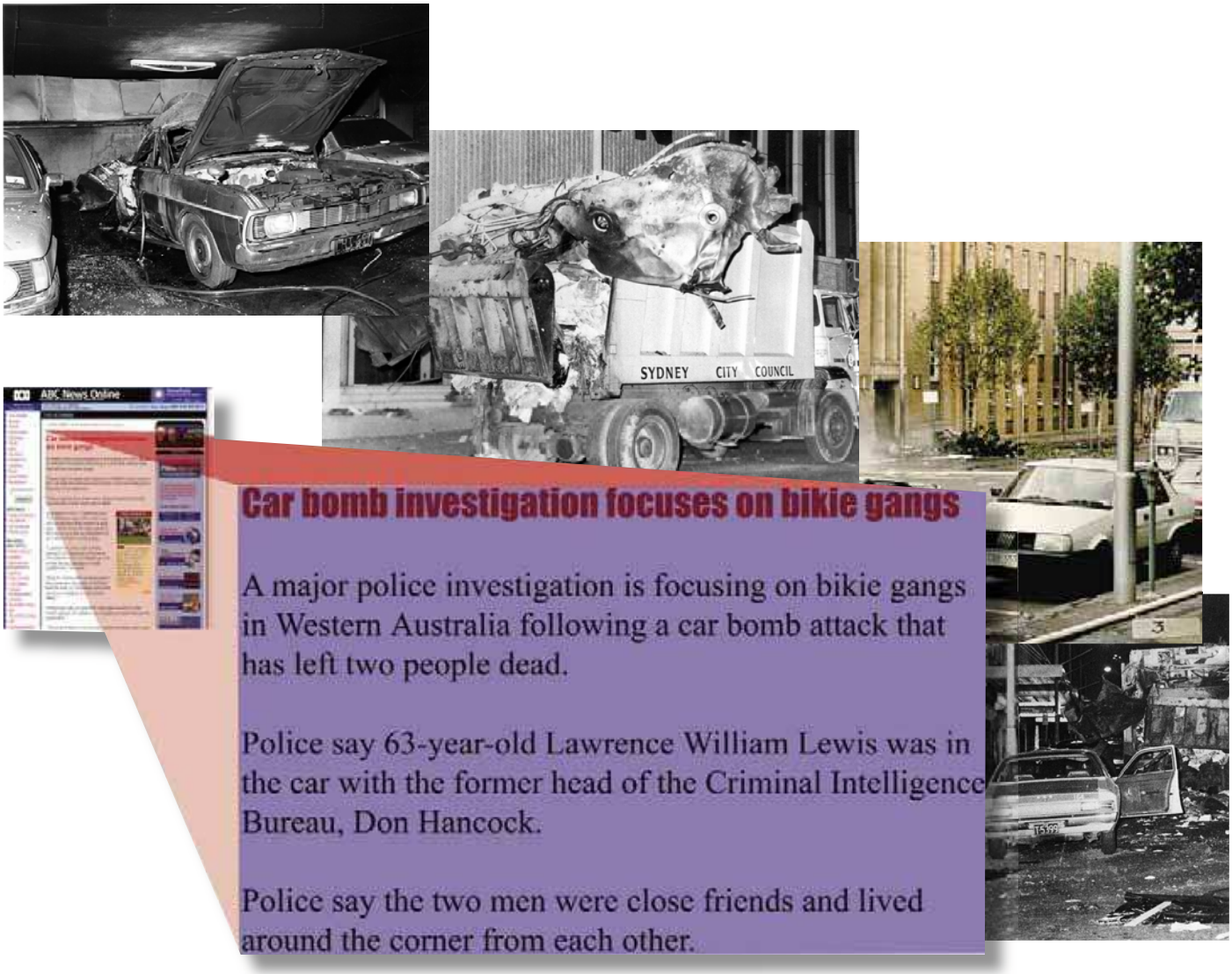
A coming of age

Australian Bomb Data Centre

Celebrating its 25th anniversary in July this year, the Australian Bomb Data Centre has become one of the longest serving of a world-wide network of such organisations. With its primary task being the collection and dissemination of information relating to criminal use of explosives, this wealth of accumulated knowledge has proved an invaluable investigation aid in the not too infrequent bombings in Australia in that quarter century and, of course, has played a significant role in the Bali bombing investigation.



By Terry Browne

A camaraderie that comes from a shared experience is the basis of the cooperative relationship between most bomb data centres around the world, according to Australian Bomb Data Centre Director Terry Vincent.

"Bomb data operatives inevitably come from a bomb disposal background, so there is a shared experience that usually leads to a high level of cooperation between those who are in this line of work," he said.

There are around 30 bomb data centres world wide with their common function to gather intelligence and report on the criminal use or attempted use of explosives.

The ABDC was established on 1 July 1978 and it collects, interprets and disseminates data gathered from Australia and overseas, regarding the illegal use of explosives and incendiaries. This has evolved into three main areas of responsibility: technical intelligence; training; and the conduct of trials and evaluations relating to explosives, incendiaries and related equipment. The ABDC is administered by the AFP as part of its Forensic Services and provides information in a range of formats to national and international clients.

The need to hold and analyse information on bombings was initially identified in 1973 and formally recognised by the Australian Police Commissioners' Conference in 1976.

Approaching its 25th anniversary, the ABDC is one of the longest-serving international bomb data centres and has within its programs, federal, state and territory police services, the Australian Defence Force, other relevant federal organisations and international bomb data centres.

The ABDC also acts as the national repository for data relating to incidents involving improvised explosive and incendiary devices (IEDs), and the theft and recovery of commercial and military explosives. Through the maintenance of a variety of reference materials on IEDs, explosives and accessories, the centre provides technical assistance to investigators and forensic examiners. The centre also designs and conducts short-term training courses and modules dealing with bomb-threat procedures, search techniques and explosive-device awareness for UN contingents and other Commonwealth employees with a need for such training. As part of the information flow, the centre produces training manuals on a range of topics including such titles as *Bombs – Defusing the Threat*, and *Mail Bomb Countermeasures* – a publication that is accompanied by a training video

The devastation at the Sari Club in Bali was typical of a large, low-velocity-of-detonation explosive device

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designed and produced by the centre with the assistance of the AFP Video Operations.

The ABDC also provides a 24-hour enquiry response service which makes technical and other information available to allied organisations. With the illicit use of explosives a world-wide problem, the ABDC is in continuous liaison with national and international agencies in order to maintain current information. The exchange of information can include improved methods of render-safe techniques; discussion on commercial equipment for bomb disposal and search; examination of equipment designed to limit the effects of a bomb; and the re-creation and analysis of bombs (which may enlist the services of the Defence Science and Technology Organisation and Police Forensic Laboratories).

The ABDC issues restricted information and technical intelligence bulletins in Australia and overseas. Information bulletins incorporate general information in respect of ABDC services, incident reporting requirements and procedures, and an overview of incidents which have occurred. Technical bulletins detail actual explosive/incendiary devices or realistic hoax devices. The devices reported on may be of national or international origin. These bulletins may also contain technical information on classified bomb detection and disposal equipment. Intelligence bulletins provide information of vital interest to qualified bomb technicians with regard to suggested or successfully used, render-safe procedures, and information relating to explosives or improvised explosive devices which have been, or may be, encountered.

The ABDC also issues unrestricted publications including the ABDC Annual Report and a variety of training manuals. The annual report is published each June for the previous calendar year and provides statistical and other information on a range of bomb-related activities within Australia, including a 10-year graphical overview. The training manuals provide 'textbook' coverage on a variety of topics including bomb threat procedure and search techniques. Video tapes are included in some training packages.

With its broad range of contacts within Australia and overseas, the ABDC is able to bring together information and intelligence. The ABDC focuses on the provision of timely and accurate information to all participating agencies and, by so doing, help in reducing the loss of life and damage caused by the illegal use of explosives.

The Bali bombings

As a result of the bombings in Bali on 12 October 2002, the Australian Bomb Data Centre's work has gained a much higher profile. Two ABDC members were deployed to Bali to assist in Operation Alliance on post-blast investigation and technical bomb- and explosives-related issues with another two members assigned to supporting those deployed. Of the remaining operational members, including one seconded from the ADF, the ABDC provided a liaison point handling information requests between

Photo by Brian Hartigan

Operation Alliance investigators and bomb data centres throughout the world.

Recently, a significant increase in the level of threat perceived by Australian organisations and departments has also resulted in an increase in the ABDC's training role in highlighting security and safety issues relating to terrorist threats. This has included facilitating UN requests to train and establish bomb search capabilities within the East Timor Police Force (PNTL). The initial training commenced in Dili on 3 January 2003 and is likely to be an ongoing commitment.

There was also an increase in the number of requests from government and commercial organisations for the ABDC's Bomb Safety Awareness Kit. The kit is a composite of procedures and recommendations derived from the experiences of national and international police, security and law enforcement agencies.

In light of emerging threats of mail containing biological and chemical hazards, the ABDC provided advice to various state and federal departments and agencies on the development of bomb-threat security procedures. The recently updated ABDC publication *Bombs, Defusing the Threat*, which incorporates *Mail Bomb Countermeasures* has proved to be appropriate and very helpful in this new environment.

Australian Bomb Data Centre Conference 2002: A Resounding Success

In the aftermath of the Bali bombing, the ABDC held its 11th Annual Conference at the National Convention Centre in Canberra. On 26 November 2002, AFP Deputy Commissioner John Davies officially opened the conference, which was relocated to the larger venue two weeks before the opening because of the groundswell in interest.

From humble beginnings in the early 1990s with 70 attendees, the 2002 Annual Conference culminated in the ABDC's most successful conference attracting more than 200 participants.

While the level of bombing incidents in Australia are routinely reported by the media, the regularity of their occurrence goes relatively unnoticed by the general public. Statistics for the year 2000 listed 222 incidents. While two-thirds could be described as vandalism, the remaining numbers were assessed as criminally malicious to varying degrees. A review of major incidents since 1976 also shows that many of

An oldie but a goodie... how to win friends and put the wind up them in the bomb-disposal business

Thanks to Mark Goltsman and Andrei Diatlov from DP Enterprises for their cooperation at the ABDC Conference

Photo by Brian Hartigan

Protector safety and protector – a safety equipment sales representative displays his company's wares to an APS officer at the Australian Bomb Data Centre Conference in Canberra

the major bomb incidents have resulted in loss of life or significant property damage:

• 1976	Bunbury, WA, wood chip mill
• 1978	Hilton Hotel, Sydney
• 1978	Police HQ, Sydney
• 1979	Flemington Markets, Melbourne
• 1980	Pentridge Gaol, Victoria
• 1982	Hakoah Club, Sydney
• 1984	Family Law Court bombings
• 1986	Turkish Consulate, Melbourne
• 1986	Victoria Police HQ, Russell Street, Melbourne
• 1990	Tourist resort Yeppoon, Queensland
• 1994	NCA postal device, Adelaide
• 1996	Department of Social Security Building, Coffs Harbour, NSW
• 1996-97	NSW Transit Authority, Sydney bombings
• 1997	Chlorine bombings of Sydney shopping centres –16 people hospitalised
• 1998	Mail bomb campaign consisting of 28 posted live letter bombs
• 2000	TATP bombing Swan Hill, Victoria
• 2001	Double-fatality car bombing Western Australia
• 2002	Bali bombings

The conference also attracted considerable interest from government departments and their security managers with Australian Protective Service personnel providing static security to all delegates.

Overseas interest was also at an all-time high with delegates attending from 10 countries including the USA, the United Kingdom, New Zealand, Dubai, United Emirates, Belgium, Hong Kong, Sweden, Malaysia and Singapore.

The conference saw speakers present on three main topics:

- Large vehicle-bourne devices (LVB);
- Chemical, biological and radiological (CBR); and
- a variety of threat and intelligence items.

Of particular interest were topics presented on the Bali bombing from members of AFP Forensic Services and ABDC who had been involved in the investigation as well as a wide range of local and overseas guest speakers representing organisations involved in research, emergency management and national and civil defence. These presentations were augmented by significant displays of technical products that show-cased throughout the conference by both domestic and international commercial exhibitors.

The conference was officially closed on 28 November 2002 and, based on the favourable comments made by delegates on all aspects of the conference and its content, the conference was deemed to have met or exceeded expectations.

Planning for the 12th Annual ABDC Conference to be held in December 2003 has already started. For information regarding the event contact the ABDC Conference Co-ordination team at abdc@afp.gov.au

Crime seen in a new light

Australian Federal Police involvement in the Bali bombings investigation afforded investigators a unique opportunity to field-test new Australian-developed survey technology to map and record the crime scene. Restricted access and pressures imposed by a need to return the blast sights quickly to public utility meant that alternatives to traditional methods of crime-scene mapping needed to be looked at.

Current surveying techniques are often labour and time intensive, sometimes dangerous or impossible, and can be less accurate than warranted. With time constraints in mind, the AFP sought assistance from an Australian survey company with a unique, home-grown product.

I-SiTE 3D Laser Imaging Systems combines unique hardware and software features in one product, providing a new method for quick, accurate and safe collection of scene data for analysis, interpretation and future records. The system comprises a hardware element capable of acquiring 6000 point measurements a second from one vantage point up to a distance of 700m and its Australian-developed software is recognised as a World leader in 3D data acquisition and manipulation.

The laser-based system was used in Bali by the AFP to accurately and quickly provide a complete three-dimensional record of the bomb scenes as well as basic two-dimensional plans of the area to aid in post-blast visualisation.

I-SiTE's Jason Richards said the blast scenes in Bali changed on a daily basis and it was only through 3D-imaging technology that investigators were able to accurately preserve the scene as it was on the date of acquisition.

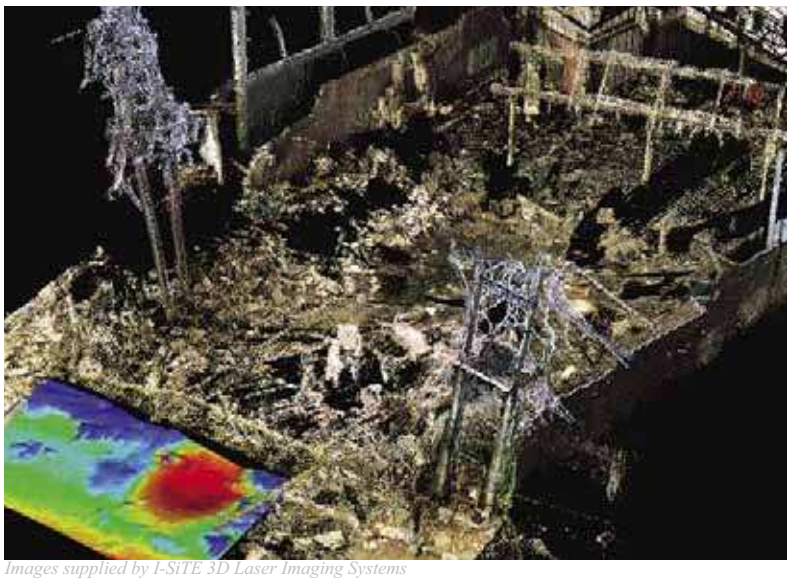
"From this data, replica models of the location were built to assist witnesses to recall their locations, or the location of others at the time of the blasts," Mr Richards said.

"By placing oneself in the eyes of the witness and being able to see exactly what they would have seen, enables investigators to be immersed in the scene, without having to be there. Unlike a photo that is flat, 3D data allows investigators to rotate, zoom and move around inside a scene."

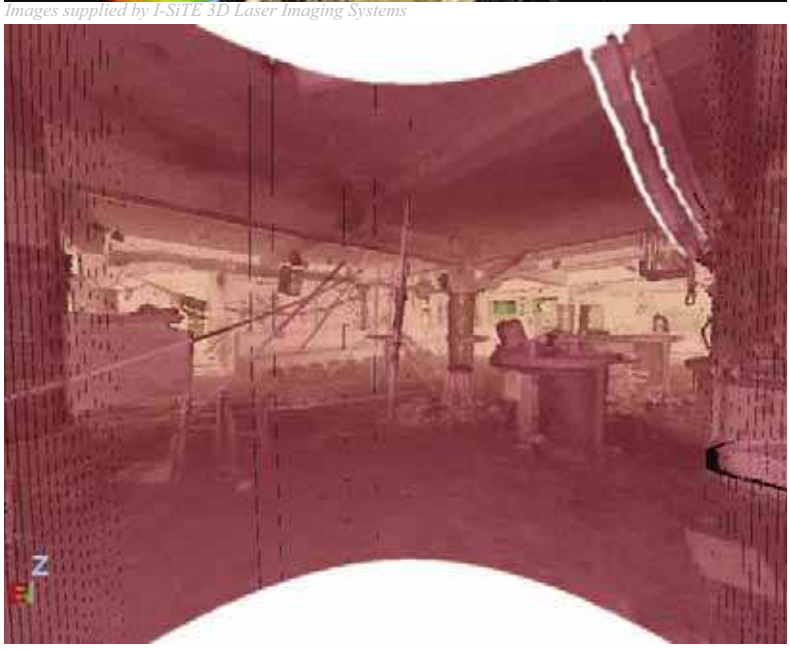
The technology has been used at a number of crime scenes in the past but Bali was by far the most demanding both physically and emotionally for its operator.

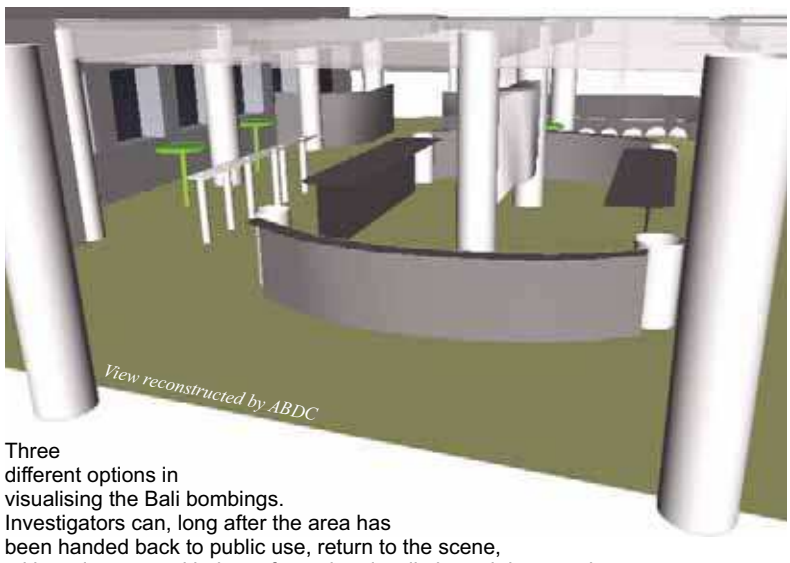
"Despite high temperatures and eye-opening devastation everywhere, we were able to provide a great result," he said.

"Capturing huge amounts of data in minimal time were two criteria heavily relied upon."



Images supplied by I-SiTE 3D Laser Imaging Systems





Three different options in visualising the Bali bombings. Investigators can, long after the area has been handed back to public use, return to the scene, taking witnesses with them, for a virtual walk through images that can be zoomed and rotated similar to "walking" through an arcade game


PHONE THREAT CHECKLIST
KEEP CALM
RECIPIENT

Name (print):
Telephone number:
Signature:

GENERAL QUESTIONS TO ASK:
1. What is it?
2. When is the bomb going to explode? OR When will the substance be released?
3. Where did you put it?
4. What does it look like?
5. When did you put it there?
6. How will the bomb explode? OR How will the substance be released?
7. Did you put it there?
8. Why did you put it there?

CHEMICAL / BIOLOGICAL THREAT QUESTIONS:
1. What kind of substance is in it?
2. How much of the substance is there?
3. How will the substance be released?
4. Is the substance a liquid, powder or gas?

BOMB THREAT QUESTIONS:
1. What type of bomb is it?
2. What is in the bomb?
3. What will make the bomb explode?

EXACT WORDING OF THREAT:

CALLER'S VOICE:
Accent (specify):
Any impediment (specify):
Voice (loud, soft, etc):
Speech (fast, slow, etc):
Diction (clear, muffled):
Manner (calm, emotional, etc):
Did you recognise the caller?
If so who do you think it was?
Was the caller familiar with the area?

THREAT LANGUAGE:
Well spoken:
Incoherent:
Irrational:
Taped:
Message read by caller:
Abusive:
Other:

BACKGROUND NOISES:
Street noises:
House noises:
Aircraft:
Voices:
Music:
Machinery:
Other:
Local Call:
STD Call:

NOTES:

OTHER:
Sex of caller: Estimated age:

CALL TAKEN:
Date: Time:
Duration of call:
Number called:

ACTION (OBTAIN DETAILS FROM SUPERVISOR):
Report call immediately to:
Phone number:

- DO NOT HANG UP -
Handling Suspect Mail - See Reverse

Defusing the threat

Australian Bomb Data Centre bomb-threat assessment, education and awareness products

Mouse mats – a handy and practical tool to keep bomb-threat awareness to the fore in the office

It is widely recognised that it is in the best interest of the community at large, including government and private enterprise, to be involved in self determination when dealing with bomb threats.

Bombs: Defusing the Threat and other products produced by the Australian Bomb Data Centre (ABDC) were developed through the knowledge and experience of Australian and overseas police forces. Their content aims to provide management with a background on which to formulate their own in-house policies and strategies to counter bomb threats.

There is no set cure for bomb threats. All differ in circumstance, location, motive, time of day, method of delivery and so on. Yet with logic, realistic and probing threat assessment, and properly installed and rehearsed procedures, any organisation should be able to develop strategy to overcome the threat, regardless of origin or intent.

Knowledge and its skilful application is an effective tool and although initial measures may appear inconvenient to some personnel, organisations big and small will be compensated by improved safety, flexibility and fewer interruptions to productivity.

With a heightened threat and awareness of bombs following the blasts in Bali, it is incumbent upon all Australians, and Australian workplaces in particular, to think about their own security.

The Australian Bomb Data Centre can help.

Please call the ABDC on (02) 6287 0750.