

Reconnaissance International presents

HOLO-PACK HOLO-PRINT 2003

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Positioning the Industry for Holography's Third Age

The definitive annual event for the holography industry

November 18-20, 2003

Westin Bayshore Resort Hotel, Vancouver, Canada

"Thanks and congratulations for a great Holo-pack•Holo-print event. It provided a platform to meet the world's holographic industry at one place and freely exchange views for a great future"

U K Gupta, Holostik

"The Holo-pack•Holo-print event just gets better and better. Every time we think it's reached the best it can, the next year is even better."

John Halotek, ITW HoloPak Technologies



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Positioning the Industry for Holography's Third Age

In this, its Third Age, holography faces tremendous opportunities, but also significant challenges. With its theme of *Positioning the Industry*, **Holo-pack•Holo-print** will show where holography is going and how you can take your business forward to maximize the opportunities provided in the markets of today and – more critically – of tomorrow, through innovation, consolidation, and integration.

Consolidation – *How is the industry positioning itself to meet these challenges and where are the opportunities for partnerships, markets and technologies which will enable you to establish differentiation and exploit your existing capabilities?*

Integration – *What are the different opportunities for product integration, where are the technology partnerships working and how can the latest advances enhance your product offering and boost growth and profits?*

Innovation – *What are the latest developments in production technologies and materials to enhance productivity, quality and cost efficiency? And what are the product innovations that are opening up new markets and applications for holography?*

The formal program covers new business and licensing opportunities; developments in origination, materials, production and finishing techniques; and new applications for holographic technology. With the unrivalled networking available in the trade show and informal sessions, this will inspire your efforts to develop your role and your business.

In 2002 a record number of delegates attended this definitive worldwide industry forum, showing the continuing vitality of the industry.

Holo-pack•Holo-print 2003 is set to exceed 2002 as the most successful in its 14-year history, providing more business and networking opportunities, information and insight than ever before.

Tuesday, November 18, 2003

9.00 am **Proposed IHMA Certification Procedure – members' meeting** (*IHMA members only*)

1.30 pm **WORKSHOP 1: COMPUTERISED HOLOGRAM ORIGINATION SYSTEMS**

Rudolf van Renesse

More and more holograms are originated using digitized artwork and computerised exposure control systems. Today, every serious hologram origination studio has to offer dot matrix or similar originations – there are over 100 systems in active use around the world, some claiming particular suitability for security holograms, while many successful packaging designs are dot matrix originations. Some systems are proprietary, one-off systems designed by the studio, but most of the systems in use are made by one of the commercial suppliers. How do the commercial systems compare to the proprietary systems? And how do you choose the system that is right for you? What is the significance in design and in use of the published specifications for dot size, shape and resolution? How does this affect exposure times? What about the colour palette available – what does this mean in actual use?

In this workshop, Rudolf Van Renesse will examine the specifications and characteristics of the available computerised origination systems, to guide you in what these mean in the design and origination of holograms and which are the critical issues for different types of hologram.

Van Renesse, formerly of the TNO Applied Physics Research Laboratory in The Netherlands, has been making holograms since the 1970s. Editor of the first two editions of *Optical Document Security* and author of the third edition now in preparation, he is respected for his analysis of document security features and their production.

Who should attend? Holographers and executives from companies expecting to buy, build or upgrade computerised origination systems.

3.00 pm **WORKSHOP 2: SECURITY MANAGEMENT AND PRODUCTION AUDIT PROCEDURES**

Rob Cornelissen VPGI-Certificaat

Customer demands and competitive pressures mean that hologram producers increasingly need to operate to established international standards, such as the ISO quality standards, the new CEN CWA 14641 for security printers and the proposed security hologram producer certification which is under consideration by the IHMA. The requirements for meeting these standards can be onerous but more and more customers require, or are swayed by, bids from companies holding the appropriate certification. This workshop will explain how a hologram producer should approach the implementation of the procedures required for certification. This will include establishing or enhancing physical site protection, internal management and audit procedures, quality control and production tracking management.

This workshop will be led by Rob Cornelissen of VPGI and VPGI-Certificaat. He set up a standard for Dutch security printing and was then asked to chair the CEN Workshop which constructed CWA 14641 for security printing companies and the other necessary documents such as the Risk Inventory Checklist, and wrote the guidelines for implementation. He is experienced in helping companies meet the ISO and other standards.

Who should attend? Senior management from hologram companies intending to seek ISO, CEN or IHMA certification or simply planning to improve their procedures.

5.30 **International Hologram Manufacturers' Association AGM** (*members only*)

7.30 **Tradeshow opening and cocktail reception**

WHO SHOULD ATTEND

- Hologram producers and manufacturers: technical, R&D and production personnel
- Strategists, sales and marketing managers and executives
- Hologram designers and artists
- Origination, production and finishing equipment suppliers
- Hologram finishers, converters and hot-stampers
- Printers and label makers
- Suppliers of contract and support services

If you are involved in holography, as an inventor, supplier, manufacturer, converter or user, Holo-pack•Holo-print will give you unique insight and information on how to shape your strategy and develop your business to maximize the opportunities offered by holography's third age.

Wednesday, November 19, 2003

SESSION 1: CONSOLIDATING THE INDUSTRY'S POSITION

Holograms are an established component in familiar applications, but how does the industry consolidate and build on these positions to continue growth?

8.45 am Introduction to the Third Age I: The Challenges

Ian M Lancaster **Reconnaissance International** (UK/USA)

The holography industry continues to grow but at a lower rate than for its first two decades. Ian Lancaster, editor of Holography News, examines how the industry needs to adapt to this new situation, while confronting the challenges from competing products and counterfeits.

9.15 The Third Age II: Midlife Crisis or Wise Maturity?

Sean Johnston **University of Glasgow** (UK)

Sean Johnston is researching the history of holography as a paradigm of a science-based, specialist field. He reviews the key innovations which have stimulated new markets or growth in existing markets, to see what lessons can be learned for continuing such innovation into the future.

9.45 Holographic Packaging: Preventing Commoditization

Dave Beeching **CFC International** (USA)

How does the holography industry grow in the packaging field, where it is as important to maintain margins as to increase sales? Dave Beeching, who has developed holographic packaging concepts with blue-chip consumer product companies such as Colgate, PepsiCo and Procter & Gamble, looks at the challenges of converter integration and profitability.

10.15 Break and tradeshow viewing

10.45 Growing Demand For Holography in Flexible Packaging

Marty Aleksis **AET Films Inc.** (USA)

OPP packaging films manufacturer AET has recently started embossing its own holographic films. Marty Aleksis reviews the challenges faced in increasing the demand for holographic films in the flexible packaging market and what effect, if any, this will have on its supply of embossable films to hologram producers.

11.15 Tobacco Protection and Decoration in China

K Laser (Taiwan)

The majority of cigarette packs sold in China carry some form of holographic decoration or authentication, consuming over \$100 million in holographic materials annually.

11.45 Print Market Expansion Through Printers and Finishers

Steve Horne **Total Register Machines** (UK/USA)

To continue to build markets in the print sector, installation of efficient and cost-effective application machinery at printers is essential. Steve Horne examines the growing interest from printers and its positive implications for hologram producers.

12.15 Incremental Improvements for Improved Packaging Performance

Duncan Watson **Shorewood Packaging** (USA)

Registering a specific hologram image with a printed graphic design remains a challenge in the film packaging sector, but this is the goal of many packaging designers. Duncan Watson shows a new approach which has been successfully used on the pack for a Nike golf ball.

Awards for Excellence in Holography

The 2003 awards, in recognition of excellence in holography, will be presented at the conference gala dinner on the evening of November 19.

Will you be a winner this year?

For an application form, contact Reconnaissance International or download from www.reconnaissance-intl.com.



12.45 pm Lunch and tradeshow viewing

SESSION 2: INTEGRATION FOR GROWTH

Rather than competing with alternative products, holograms can usefully combine with other technologies to offer customers an integrated product.

2.00 pm A Systems Approach for Merchandise Protection

Alkis Lembessis **Cavomit** (Greece)

Cavomit is supplying the authentication system for licensed merchandise at one of the world's major international sporting events. Alkis Lembessis discusses the way that holograms, in combination with taggants, are at the core of an authentication, tracking and forensic testing program for the event's merchandise.

2.30 Working With RFID on Vehicle Registration Systems

Marie-Laure Maquaire **Hologram Industries** (France)

Radio frequency identification devices (RFID) could be a major threat to holograms and other overt security devices, but Marie-Laure Maquaire explains how they can also be used to enhance hologram protection projects, with reference to several case studies including vehicle registration systems.

3.00 A Mutual Attraction – Harnessing Magnetics with Holograms

Francis Tuffy **Light Impressions** (UK)

Will retailers and product manufacturers recognise the potential for magnetics in distribution control and security? And if so, can holograms have a role as the overt partner to machine-readable magnetic systems? Light Impressions believes so and is working with magnetics suppliers; Francis Tuffy explains how and why.

3.30 Break and tradeshow viewing

4.00 Production and Vertical Integration with Labels

Ed Dietrich **Flex Products** (USA)

Flex offers innovative color-shift materials for the label and packaging sectors, some combined with holograms. And earlier this year the company bought the LA Label Co, so it now has true integration with label production. Ed Dietrich explains the logic of the product mix and the acquisition and the hopes for the future.

4.30 The IHMA Secure Producer Certification Procedure

Hugues Souparis, Chairman **IHMA**

The IHMA is proposing to adapt the new CEN security printer certification procedure for secure hologram producers. Hugues Souparis explains the logic for this as a way to consolidate the industry's integration with the security print sector.

5.00 Close of first day program

7.00 pm Cocktail reception sponsored by the IHMA

7.30 Conference Dinner

Excellence in Holography Awards 2003

Guest Speaker: Mr Cao Kai Xing, General Secretary

China Anti-Counterfeiting Technology Association

China produces more holographic material than any other country, with a number of important production equipment suppliers. Mr Cao describes the domestic hologram market and sets the stage for Holo-pack•Holo-print 2004 in Shanghai.

TRADESHOW

The **Holo-pack•Holo-print** tradeshow is the showcase for the latest materials, equipment and techniques for the production of holograms: visit the trade show to see and discuss the latest substrates, computer origination systems, lasers, electroforming and pre-press equipment, embossing, finishing, application and converting equipment.

The companies below have already decided to maximize their opportunities at Holo-pack•Holo-print as sponsors and/or exhibitors. You can still join them in showing your products or services to the worldwide holography industry. The trade show provides a unique opportunity for suppliers to the holographic industry to communicate directly with a highly-focused audience of delegates looking for new materials, equipment and services.

There is limited exhibit space remaining. To reserve your exhibit space contact Reconnaissance on +44 (0) 1784 497008 or visit the website – www.holopackholoprint.info.

- **AHEAD OptoElectronics** - offers a high resolution, high speed dot matrix mastering system with laser writer feature. A new laser engraver for serial numbering, bar codes, etc. is now available
- **CFC International** - will be introducing an exciting variety of new holographic packaging, authentication print and other holographic products
- **Computer Holography Centre** - a world leader in the manufacture of high security hologram origination, specialising in e-beam technology
- **Toray Plastics** - Toray will feature the latest developments in their LumBrite line of embossable polyester films for metalized and HRI coated holograms
- **Digital Matrix** - manufacturers of high-speed soft and hard holographic electroforming systems for precision shims (shim size 6-70 inches), spray booths, electrocleaning and water and waste treatment systems
- **Polskie Systemy Holograficzne** - inventors and manufacturers of award-winning HoloMax and KineMax non-pixelated, high-resolution (up to 20,000 dpi) hologram mastering systems
- **Total Register Machines** - manufacturers of a range of rotary in-line modules and off-line machines for hot stamping holograms onto a wide range of substrates

Thursday, November 20, 2003

SESSION 3: GOING FORWARD WITH INNOVATION

The holographic industry will continue to be driven by innovation. This session covers the latest developments in origination, production and application of holograms which are opening up new markets, enhancing quality and driving down costs.

8.30 am The Future of Security Holograms

Dr Brian Holmes **De La Rue** (UK)

How can security holograms meet the apparently conflicting demands of ease of recognition and extreme difficulty of mimicking or reproducing, especially given the proliferation and convergence of many OVD origination technologies? Brian Holmes addresses the issue and how to approach the solution.

9.00 The Systems Approach to Security Design & Inspection

Randy James **Pacific Holographics** (USA)

In the authentication sector, customers want holograms that are easily and speedily verified as the genuine item. Randy James explains the benefits of a system that allows them to do this as part of a systems approach to the whole project.

9.30 Optical Data Encryption Holograms

Ronald Pfaff **Tesa Scribos** (Germany)

Holograms have a large capacity for data storage, a feature which can be exploited in authentication and track and trace techniques. But is there a market for these products and how will they impact hologram manufacturers? Ronald Pfaff describes the tesa Holospot® system which can contain up to 1 kbyte of individualized data.

10.00 Break and tradeshow viewing

10.30 Product Optimization for the Japanese Market

Yasumasa Kamata **Toppan Corporation** (Japan)

In Japan, both embossed and photopolymer display holograms feature widely on packaging and secured documents. Yasumasa Kamata describes the Japanese market and explains the move towards innovative overt/covert holograms in combination with other technologies that is needed to continue market growth.

11.00 Projectors and Other Displays

Franz Fichtner **Xetos** (Germany)

Xetos AG has developed a technology for 3D projection using holographic principles to show virtual 3D objects to a large audience in real time without using tools like special glasses or headtrackers. The presentation will show the basic technology as well as market potential in applications such as architectural design, product design and prototyping.

12.00 Enhanced Displays for Enhanced Markets

Du Pont Displays (invited) (USA)

In just a few years the market for holographic enhancers on displays for handheld electronics devices – primarily phones and handheld computers – has become the major consumer of holographic photopolymer. This paper examines this market and looks at the other areas in which this HOE technology could be exploited.

12.30 pm Lunch and tradeshow viewing

2.00 pm Innovation in Vehicle Finishes and Components

Andrew Laczynski **Hspace** (Canada)

From decorative finishes to useful information systems, there is major potential for holography in the automotive market. Andrew Laczynski, a specialist hologram designer and conceptualiser, discusses his work with Magna, one of the most diversified automotive suppliers in the world, which - through Magna Advanced Technologies - has recently been evaluating the potential of holography.

2.30 Innovation in Visual Hologram Security

Pawel Stepien, Roman Stachowiak **Polish Holographic Systems** (Poland)

Computerized hologram mastering systems have become commonplace in the production of security holograms, sometimes leading to over-complexity in the holograms designed. But new mastering systems allow the design and origination of visual features which are easy to identify and difficult to copy. Pawel Stepien presents a discussion of hologram characteristics which are easily recognized but difficult to copy.

3.00 Progress in Innovation

Innovation is one thing, bringing products successfully to market is a separate challenge. In this session we are updated on innovations previously reported at Holo-pack•Holo-print conferences. Topics will include:

Holographic Technology and Commercial Lighting Control

Melissa Crenshaw **Ledalite** (Canada)

3D Colour Pixel Holograms

Mike Klug **Zebra Technologies** (USA)

Hologlass and Furniture

Russell Taylor **Visual Impact Technologies** (USA)

Interactive, Electroholographic 3D Displays

Chris Slinger **QinetiQ** (UK)

Direct Embossable Polyesters

Eric Bartholomay **Toray Plastics** (USA)

4.30 Close of Conference



Total Register Machines - sponsors of this brochure and the conference proceedings



Cavomit - sponsors of the delegate briefcases for the 10th consecutive year



Amagic - sponsors of the conference proceedings



FOIL STAMPING & EMBOSSEING
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Delegate Registration Form

November 18-20, 2003

Westin Bayshore, Vancouver, Canada

Positioning the Industry for Holography's Third Age

Please register the following delegate for this event (separate forms need to be completed for additional delegates from your company. Photocopies of this form are acceptable)

Name: _____
 Position: _____
 Organization: _____
 Address: _____

 Zip/Postcode: _____ Country: _____
 Phone: _____ Fax: _____
 Email: _____

I wish to receive information about this and other Reconnaissance events by email

Payment Options (please ✓ the appropriate box)

Remittance enclosed (payable to Reconnaissance International)

Please invoice my company

Quote purchase order if necessary _____

Your receipt or invoice will be issued in the currency most appropriate to your location

Payment by Credit Card

Card Type: American Express MasterCard Visa

Card Number: _____ Expiry Date: _____

Cardholder Name: _____

Billing Address: _____

Signature: _____ Date: _____

Payment

All fees must be paid in full prior to the start of the conference. Payment can be made in US dollars, euros or E sterling by bank transfer, check or credit card. The organisers reserve the right to refuse entry to delegates whose fees have not been paid in full by the start of the event. All prices plus VAT for organisations in the EU.

What's included

Fees include admission to the conference and tradeshow, documentation, lunch, light refreshments, cocktail reception and conference dinner plus presentation of the **Awards for Excellence in Holography** on the evening of November 19. They do not include transportation or accommodation, partners' admission to the cocktail reception and conference dinner or the workshops. Fees for the workshops include documentation and light refreshments.

Cancellation

Cancellations will be accepted and fees refunded (less a 25% administration charge) if made in writing and received by October 26. Registrations cannot be cancelled or fees refunded thereafter. Substitutions can be made at any time with prior notice.

A B C

CONFERENCE FEES

PRICES BEFORE SEPTEMBER 15, 2003

Holography News subscribers	US\$1,494	€1,328	£914	<input type="checkbox"/>
Others	US\$1,740	€1,565	£1,075	<input type="checkbox"/>
Exhibitor personnel	US\$747	€664	£455	<input type="checkbox"/>
Students/independent holographers	US\$747	€664	£455	<input type="checkbox"/>

(10% discount on fees. Applies only to registrations received and paid for by September 15, 2003)

PRICES AFTER SEPTEMBER 15, 2003

Holography News subscribers	US\$1,660	€1,475	£1,015	<input type="checkbox"/>
Others	US\$1,935	€1,740	£1,195	<input type="checkbox"/>
Exhibitor personnel	US\$830	€735	£505	<input type="checkbox"/>
Students/independent holographers	US\$830	€735	£505	<input type="checkbox"/>

WORKSHOP FEES

Workshop 1 - Computer-Generated Origination Techniques	<input type="checkbox"/>
Workshop 2 - Certification for Secure Hologram Producers	<input type="checkbox"/>
One workshop	US\$350 €315 £215 <input type="checkbox"/>
Two workshops (25% discount)	US\$525 €475 £325 <input type="checkbox"/>

PARTNER FEES

Welcome Cocktail Reception	US\$25	€23	£15	<input type="checkbox"/>
Conference Dinner	US\$65	€60	£40	<input type="checkbox"/>

Complete form & fax or mail to:

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or register online www.holopackholoprint.info

HOLO-PACK 2003 HOLO-PRINT 2003

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Your Conference Organizer

Reconnaissance International – publisher and consultant in the fields of holography and authentication – is the leading source of intelligence on the holography industry and has run the **Holo-pack • Holo-print** conferences since 1990. Reconnaissance also produces the industry's monthly newsletter **Holography News™**, as well as the **Holo-pack • Holo-print Industry Study and Market Report™**, and provides the secretariat for the International Hologram Manufacturers Association.

Venue

The location for **Holo-pack • Holo-print 2003** is Vancouver, a city of breathtaking beauty which lies halfway between Western Europe and the Asia Pacific countries, providing an ideal meeting point for an international conference. The conference and tradeshow venue is the Westin Bayshore Resort and Marina, a 510-room resort hotel on the waterfront with stunning views of the harbour, mountains and skyline, next to Stanley Park yet just minutes from downtown Vancouver.

Accommodation

Participants are responsible for arranging their own travel and booking their own accommodation. Reconnaissance has negotiated a special rate at the hotel – C\$189 per room per night for single occupancy; add C\$30 for double occupancy. These rates are exclusive of a 10% provincial and a 7% federal tax. Please quote **Holo-pack • Holo-print** when reserving your accommodation to receive the group rate.

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Conference Language

The language of the conference will be English.

Social Program

There will be two cocktail receptions, on the opening evening (November 18) and prior to the conference dinner (November 19).

Release

Reconnaissance International accepts no liability for personal injury or any loss of or damage to delegates' personal effects. Reconnaissance reserves the right to cancel, modify or postpone the event without prior written notice and to refuse admission to any person (with payments refunded).

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