

## NOTE PRINTING AUSTRALIA

Note Printing Australia Limited (NPA) is a wholly owned subsidiary of the RBA. Based at Craigieburn in Victoria, NPA prints currency notes for Australia and a number of other countries on Guardian® polymer substrate. It was the pioneer of polymer banknote technology and remains the world's leading printer in this field.

NPA's Board comprises chairman Graeme Thompson (formerly a Deputy Governor of the RBA and now Chief Executive Officer of the Australian Prudential Regulation Authority), Dick Warburton (a non-executive member of the Reserve Bank Board), Les Austin (formerly an Assistant Governor of the RBA) and Mark Bethwaite (Chief Executive of Australian Business Ltd). This Board oversees NPA's operations under broad policy direction from the Reserve Bank Board. NPA's Chief Executive is John Leckenby.

During 2000/01 NPA produced 276 million polymer banknotes. This was fewer than in the previous year because of a lower Australian requirement, due largely to the passing out of the Y2K bulge and to the much longer life of polymer notes. The new Federation \$5 note was issued in January 2001 and accounted for about 25 per cent of total production. This note contains a number of new security features developed by NPA and not previously used on Australian banknotes.

With activity levels lower in the second half of the year, NPA took the opportunity to introduce new quality procedures into the print hall and finishing areas. In addition, trials were conducted to prove the viability of new security features developed by the NPA Research and Development Group, in conjunction with CSIRO. A new simultan offset press was commissioned so NPA

now has backup on all key production processes as well as extra production capacity. Note processing at the new National Note Processing Centre (NNPC), established within NPA's Craigieburn printing works, commenced in June 2001 (see the chapter on "Business Services").

The development of polymer notes in Australia has now reached a point where our experience shows that their life is approximately five times that of paper. This longevity is generating substantially lower costs for both new note manufacture and processing costs. (Note processing costs have fallen significantly because polymer notes do not have to be returned for checking as often as their paper predecessors.) The consequence for NPA is further reduction in prospective demand for Australian notes. This was recognised last year in a new enterprise bargaining agreement with staff that allowed for greater flexibility in manning and rostering. This has been vital during periods of low demand.

NPA has continued to pursue export business, but new sales have been slow in coming in a very competitive and conservative market. Despite these difficulties, some export sales were achieved and three countries were added to the list of polymer note issuers.

**Polymer Notes Export Orders**

Year of first issue	Customer	Denomination	Issue
1990	Singapore	50 Dollar	Commemorative
1992	Western Samoa	2 Tala	Circulating
1992	Papua New Guinea	2 Kina	Circulating
1992	Kuwait	1 Dinar	Commemorative
1994	Indonesia	50 000 Rupiah	Commemorative/ circulating
1996	Brunei Darussalam	1, 5, 10 Dollar	Circulating
1996	Thailand	50, 500 Baht	Commemorative
1997	Thailand	50 Baht	Circulating
1998	Sri Lanka	200 Rupee	Circulating
1998	Malaysia	50 Ringgit	Commemorative
1999	New Zealand	5, 10, 20, 50 & 100 Dollar 10 Dollar Millennium Note	Circulating Commemorative
1999	Papua New Guinea	50 Kina	Circulating
1999	Romania	2 000 Lei	Commemorative/ circulating
1999	Indonesia	100 000 Rupiah	Circulating
2000	Romania	500 000 Lei	Circulating
2000	Papua New Guinea	2, 10, 20, 50 Kina	Commemorative
2000	Bangladesh	10 Taka	Circulating
2001	Kuwait	1 Dinar	Commemorative
2001	Solomon Islands	2 Dollar	Circulating
2001	Mexico	20 Peso	Circulating

An important part of NPA's business is assisting customers of Securrency Pty Ltd (see below) by producing for those customers an initial quantity of polymer notes. These customers have their own printing works but the initial production of notes by NPA is an integral part of the technology transfer process and provides assurance to the customer that NPA's experience will be available in the transition to polymer. Because of the close links between the RBA, NPA and Securrency, overseas customers can also receive assistance in introducing the new notes into the community,

and training in note processing, note handling and storage.

As well as finished banknotes, NPA can supply high-level security authentication systems to other issuers. This area has grown considerably during the year and some innovations have been achieved that will increase the life of the equipment and lower maintenance costs.

NPA's Research and Development program achieved a significant breakthrough during the year with a patent for the TIDE (Transparent Intaglio Disappearing Effect) security feature

moving to the national examination phase. International examination of this patent will be carried out shortly. This print feature has been sold on banknotes already and creates an image that changes as the viewing angle changes. Two provisional patents were also applied for during the year.

NPA's systems are subject to regular audit and it maintains an ISO 9001 certificate. During the year a Risk Management Plan was developed and implementation commenced. All managers were involved in the process and progress towards treating the risks was reviewed by the RBA's auditors, with a satisfactory initial report. Comcare audited NPA's safety program during the year as part of a rolling program and confirmed that NPA was generally performing well.

## SECURENCY

Securrency Pty Ltd is the company formed in 1996

as a joint venture between the RBA and UCB Films PLC, a manufacturer of polypropylene films. Securrency supplies its press-ready polymer substrate, Guardian<sup>®</sup>, to NPA and to overseas printers for banknotes and Sentinel<sup>®</sup> for other high security documents such as land titles and share certificates. It produces Guardian<sup>®</sup> and Sentinel<sup>®</sup> by applying unique coatings and security features to specialised films manufactured by UCB.

Securrency's Board comprises three representatives of the RBA, three appointed by UCB and the Managing Director (a non-voting member). Its offices and plant are located at Craigieburn close to NPA's operations and to a UCB films plant that was commissioned in 1999.

Securrency's main customers for security products using polymer substrate – other than those supplied with currency notes through NPA – are shown in the following table.

### Securrency Export Customers

Year of Issue	Customer	Product
1998	Bank of Thailand	50 Baht
1999	Central Bank of China, Taiwan	50 NT Dollar
1999	China Engraving & Printing Works, Taiwan	Land Title
1999	National Bank of Belgium	UCB Share Certificate
1999	National Bank of Belgium	Financier Share Certificate
1999	Central Bank of Brazil	10 Reais
1999	Canadian Bank Note Company	Northern Bank 5 Pound
2000	People's Bank of China	100 Yuan
2001	State Bank of Vietnam	50 Dong
2001	National Bank of Romania	10 000 Lei
2001	Central Bank of Austria Banknote Printing Works (for Romania)	100 000 Lei
2001	National Bank of Romania	50 000 Lei
2001	Central Bank of Mexico	20 Peso
2001	Bangladesh Bank	10 Taka



CHECKING SECURITY AND OTHER FEATURES IN A SHEET OF THE FEDERATION \$5 NOTES, AT NOTE PRINTING AUSTRALIA, CRAIGIEBURN, VICTORIA.

Production levels for the past year have been at relatively low levels compared to the previous year, resulting in lower-than-budgeted earnings.

A major achievement was the supply of substrate to the Brazilian central bank and subsequent printing and issue of the 10 Reais banknote to the Brazilian market. This is the first polymer note to be issued in the Americas and has been well accepted by the Brazilian public. A further achievement has been the recently signed agreement for the supply of the 20 Peso circulating banknote in conjunction with NPA for the Mexican central bank. Securrency has won an additional contract for the supply of substrate to the Mexican central bank over the next two years.

Other notable projects in the past year were orders supplied for Romania, China and Vietnam. By the

end of 2001 all Romanian circulating banknotes will be produced on Guardian<sup>®</sup> substrate. The Bangladesh Bank announced that, following the successful issue of the 10 Taka note printed by NPA, it will progressively change all notes to polymer, with printing done in Bangladesh.

Several overseas note printers have run trials with Securrency's Guardian<sup>®</sup> and are considering conversion from paper. All of the polymer notes issued in the world to date have been on this material. Securrency's marketing efforts of the past year have seen a significant increase in interest around the world, and orders are being pursued with several encouraging prospects in Asia, Europe and South America.

Following the successful issuing of the Land Title in Taiwan and Share Certificates in Belgium,

Securrency has appointed a dedicated resource to exploit significant global interest generated for these products.

Significant investment continues to be undertaken in research and development that reflects the partners' commitment to remain the market leader in this area. Security features include the Diffractive Optical Element (DOE), which has been incorporated in the 2 000 Lei for Romania

and the 100 Yuan for China. This had led to additional capital investment to enable this feature to be applied using a unique inline system designed by Securrency. During the year Securrency registered one additional patent and several provisional patents lodged in the previous year have moved to the national examination phase. The Self Authenticating patent application continues to progress despite challenge by a competitor.