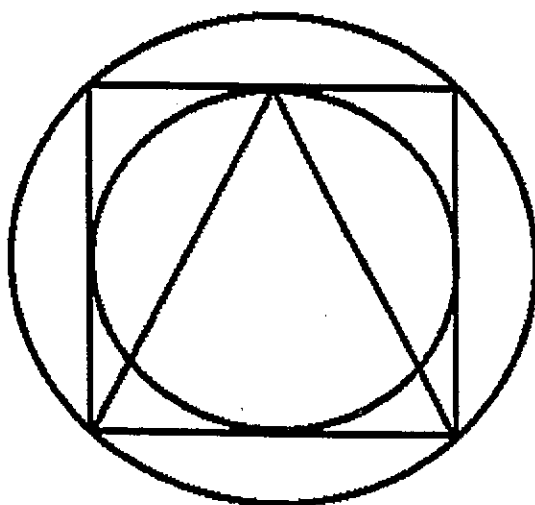


**THE  
AUSTRALIAN  
TECHNICAL  
ANALYSTS  
ASSOCIATION  
NEWSLETTER**



**MARCH 1994**

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## WARNING / DISCLAIMER

The Australian Technical Analysts Newsletter is published by the Australian Technical Analysts Association (ATAA). It is a vehicle for the interchange of ideas and information about technical analysis of markets, which is one of the principal aims of the ATAA. This forum is available at the discretion of the editor for the views of members, guest speakers and guest writers. The views expressed in the Newsletter are those of the member, speaker or writer concerned and do not necessarily reflect those of the ATAA.

Some of the articles may express opinions about markets such as those operating for the trading of such instruments as shares, options, bonds, futures, currencies, metals or commodities. None of these opinions is to be taken as a recommendation for any reader to trade on any market. A decision to initiate a trade should only be taken with knowledge of the objectives, needs, situation and resources of the trader. Nothing either stated or implied in any article should be read to indicate that the writer is aware of this information for any specific reader. Readers must assess these matters for themselves and take full responsibility for their trading decisions. Readers without the knowledge, training and experience should seek the help of a qualified adviser before acting upon any opinion expressed in the Newsletter.

## FROM THE PRESIDENT'S DESK

Welcome to all new members who are receiving this newsletter for the first time.

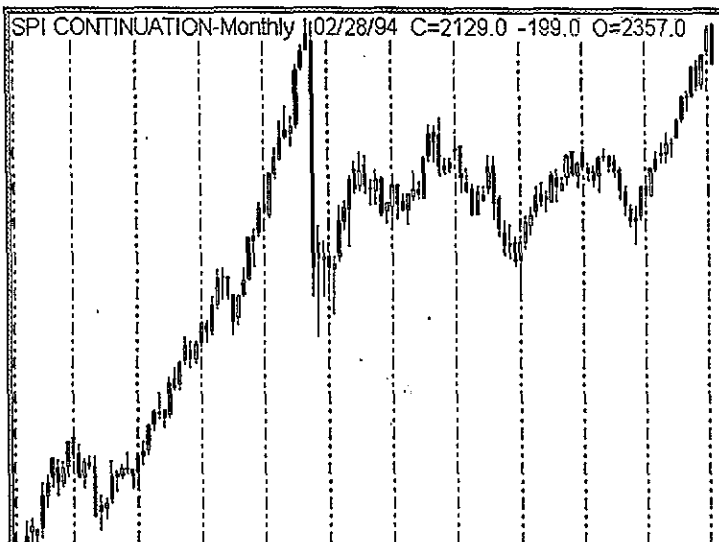
The eagerly awaited list of Australian data vendors is complete, and thanks go to all those who have made it happen. In particular, two of our fellow members, Michael Lynch and Nicholas Guoth, who have devoted the last few months into the preparation and distribution of questionnaires, collection, sorting and collation, and all those behind the scenes functions that were required to bring the results to fruition. Congratulations and well done.

Bryce Gilmore, master technician and trader, known to many of you, has released yet another classic book on technical analysis and trading - *Geometry of Markets II*. It deserves a place on your bookshelf next to the works of Gann.

And from the *Annals of Esoteric Trading* - "Remote Viewing". The term was invented by a team at the Stanford Research Institute in California, who did a number of experiments as part of their parapsychology research. Some of their work was funded by U.S. defence and intelligence agencies. The technique involves choosing everyday objects to represent possible outcomes. For example, to predict next week's silver price, you might choose a flower to represent a rise in price, a rock to represent no change, or an egg for a fall. The viewer then tries to describe the "object" (not the actual price of silver) and an independent judge decides which of the three objects most closely resembles the impressions.

Using this technique, a group in San Francisco made nine consecutive predictions that were ALL correct, and made \$120,000. Unfortunately for them, the next two were wrong, but still a fair Win/Loss ratio. Perhaps they could have incorporated a fixed fractional geometric growth function in their portfolio.

Till our next meeting best wishes,  
Charles Balas, President.



## WELCOME

Welcome to the following new members:

Mr David	Ragg	Warragul	VIC
Dr Bill	Stanley	Ermington	NSW
Mr John	Ruddick	McMahons Point	NSW
Mr Cam	Watters	Turrumurra	NSW
Mr John	Metcalfe	Castlecrag	NSW
Mr Neil	Anderson	Burrows Ltd	NSW
Mr Ross	Martin	Chester Hill	NSW
Mr Kelvin	Griffith	Camden	NSW
Mr Pat	Gleeson	Collaroy	NSW
Mr James	Grayson	McGregor	QLD
Mr Clive	Roydhouse	Beaudesert	QLD
Mr John	Mudge	West Albury	NSW
Mr Gordon	Manning	Bankers Trust	NSW
Ms Vivienne	Johnson	Ashbury	NSW
Mr Frank	Porter	Roseville	NSW
Mr Bill	Brunn	Springwood	QLD
Mr Thomas	Sutherland	Canterbury	VIC
Mr Darryl	Morley	Falkiners	VIC
Mr Rodney	Green	Camberwell	VIC
Mr Lance	Collins	Glen Iris	VIC
Dr Brian	McAuslan	Woollahra	NSW
Ms Elizabeth	McCall	Hughes	ACT

## VIDEOTAPES LIBRARY

The ATAA is building up a collection of videotapes that members may borrow. Currently ten tapes are available:

**"What it Takes to be a Great Trader"** This is an address given by Jack Schwager to the US Market Technicians Association. It is based on the observations he made when compiling his popular book "Market Wizards". The tape was reviewed in our January 1993 Newsletter on page 38.

**"Technical Analysis in Just 52 Minutes"** by Dr Alexander Elder, a professional trader, teacher of technical analysis and practising psychologist. The tape provides a broad introduction to technical analysis. It includes basic chart patterns, trendlines, support and resistance, computerised analysis, trend following indicators (focus on moving averages) and much more. The tape was reviewed in our September 1993 Newsletter on page 28.

**"MACD and MACD-Histogram"** by Dr Alexander Elder. MACD measures the intensity of bullish or bearish pressure and helps you trade in the direction of the dominant market group. Divergences between MACD-Histogram and prices identify important tops and bottoms.

**"Relative Strength Index (RSI)"** by Dr Alexander Elder. RSI confirms trends and helps to forecast their reversals by measuring closing prices, which are the most important prices of the day. You learn RSI trading rules and hear comments by professional traders.

# VIDEOTAPES LIBRARY

"Day Trading with Gerald Appel" Gerald Appel shows how he trades S&P500 futures, but stresses that his methods do not apply to other markets and longer time frames. His technique is based on channels, tick volume, spreads between S&P futures and cash and other factors.

"Directional System" by Dr Alexander Elder. This system answers two essential questions: Is the market in an uptrend, a downtrend or a trading range? If it is in a trend, is it moving fast enough to warrant using a trend following method? Directional also helps you catch very young bull markets.

"Triple Screen Trading System" by Dr Alexander Elder. How to combine oscillators with trend following indicators, so that their negative features cancel each other out, while their positive features remain undisturbed. How to analyse markets in more than one time frame and find better trades. This is Dr Elder's own trading method.

"Elder Ray" by Dr Alexander Elder. This new indicator shows whether bulls or bears are in control and whether they are becoming stronger or weaker. You can use Elder Ray as a stand alone system, or as a pin point entry technique with many other systems.

"Stochastic" by Dr Alexander Elder. One of the most popular technical indicators, Stochastic identifies short-term tops and bottoms. It helps you find buying points in uptrends and shorting points in downtrends.

"Williams %R" by Dr Alexander Elder. This simple, but powerful indicator measures the power of bulls and bears to close prices near their edge of the daily range. It helps you decide when to pyramid winning positions.

## HOW TO BORROW TAPES

These videotapes are in VHS format and are available for loan to ATAA members free of charge. You are only asked to pay the postage (cheapest seems to be the medium size Prepaid Postbag which costs \$2.70 from Post Offices) to return them promptly when you have finished watching them.

In order that the maximum number of members may take advantage of the library, you are asked to view the video tape and return it within one week. Members consistently taking too long to return video tapes may be dropped from the waiting list for further borrowings.

We lend these videos on a type of first-come-first-served basis and maintain a waiting list. You will only ever be sent one video at a time. Members who have not received a videotape are placed at the top of the list and will receive the next video that is returned to the library and was ordered by them. That member's name then drops to the bottom of the list and he/she

will not be sent another video until his name works its way to the top of the list again. This system ensures that all members experience a similar waiting period between videos, depending upon the demand.

Therefore, the order in which members receive their selections will be random, depending upon which video next comes back when their name is at the top of the list. Due to administrative complexity it is not possible to specify orders of preference for several videos.

If you would like to borrow any of the videotapes, contact Colin Nicholson to be placed on the waiting list. There are two ways to do this: Telephone Colin on (02) 436 1610 or photocopy, complete and send the following order form:

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## ATAA Video Tape Library Order Form

Mail to: Colin Nicholson  
3 Eastview Street  
Greenwich NSW 2065; OR

Fax to: Colin Nicholson  
c/- Christopher Carr (02) 901 4468

Name : \_\_\_\_\_

Address: \_\_\_\_\_

State: \_\_\_\_\_ Postcode \_\_\_\_\_

Phone Nos BH: \_\_\_\_\_ AH: \_\_\_\_\_

Fax: \_\_\_\_\_

Please place me on the waiting list for the following (tick boxes):

- Schwager: What it Takes to be a Great Trader
  - Elder: Technical Analysis in Just 52 Minutes
  - Elder: MACD and MACD-Histogram
  - Elder: Relative Strength Index (RSI)
  - Appel: Day Trading with Gerald Appel
  - Elder: Directional System
  - Elder: Triple Screen Trading System
  - Elder: Elder Ray
  - Elder: Stochastic
  - Elder: Williams %R
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# ATAA INFORMATION VENDOR SURVEY

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11 In-Telegence	

F Concluding Notes

1 Limitations of Survey and Other Sources
2 Accuracy of Data Supplied
3 Disclaimer
4 Authors

*electronic format*, covering any of the Australian or Overseas equities, options, futures, currencies or commodities markets). Of all the vendors contacted, 21 responded.

The questionnaire asked each data supplier about the following topics :

- Organisation details
- Type of information available. Real time, historical, etc
- Markets covered
- Method of access to service and information
- Available software
- Accuracy and reliability of information
- Data formats supported
- Costs

Responses to the questionnaire are summarised in table format where possible. Comments regarding each data supplier are listed in Section E.

In the Contents Section E, both Tables and in Section E itself, the companies are listed and numbered in the order in which the completed questionnaire was received from them. This order was a preferred numbering system over an alphabetical ordering system or any other which may infer bias.

It was assumed that the readers may want to select vendors for further investigation on the basis of their specific field of interest. This is assisted by the tables. Having found interest in a vendor, further information, together with address details, phone number, fax number and contact names can be found Section E.

## SECTION A INTRODUCTION

The Australian Technical Analysts Association often receives inquiries from members regarding the available sources of information on equities, options, futures and commodities.

These inquiries have recently increased due to growing interest in the subject of technical analysis and interest in the financial markets as a whole.

Although there is information in the financial press and ASX publications, there appears to be no comprehensive listing of information providers catering for technical analysts. As a service to its members, the Association decided to conduct a survey of known vendors who provide financial information. The results of the survey are compiled in this report.

## SECTION B THE SURVEY & ITS RESULTS

The purpose of the survey was to collect and document the different types and formats of information available, so that readers could self-evaluate the data suppliers.

In October 1993, a questionnaire was sent to all known Information Vendors. (Within this survey, an "Information Vendor" is defined as any entity providing regular data, *in an*

## SECTION C TYPE OF INFORMATION AND MARKET COVERAGE

### TABLE 1

This table lists all supplied details about the types of information and market coverage available. Explanatory notes on some columns of this table:

**No.:** This refers to the unique number assigned to each data supplier, so that each supplier can be cross referenced through the tables and the notes in Section E.

**Real time:** The ability to provide up to date quotes throughout the day.

**Intraday tick by tick:** The ability to provide the course of all individual trades throughout the day.

**Historical data:** The ability to provide end of day trading information, going back several years.

**Market coverage:** These columns should be self explanatory,



Table 1 : Market coverage and type of information available

No.	Name of Data Supplier	Type of Information					Market Coverage						
		Real Time	Intraday Tick by Tick	Historical Data	Australian Equities & Indices	Australian Options Market	Sydney Futures Exchange	Money Market & Fixed Interest	Overseas Equities & Indices	Overseas Futures Exchanges	Overseas Commodities	Other Markets	
1	DISCOVERY	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Aust/UK FX	
2	DATASTREAM	Some overseas		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Economic data	
3	AAP REUTER	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Shipping	
4	EQUINET	Yes		Yes	Yes	Yes	Yes	Partial		Partial			
5	ELDERLINK	Yes			Yes	Yes	Yes	Some		Limited			
6	TELETEXT	1/2hr delay			Yes		Yes	Indices	Limited	Limited			
7	HUTCHINSON	Yes	Yes		Yes		Yes	Yes	Yes	Yes			
8	SYDNEY FUTURES EXCHANGE	Yes	Yes	Yes			Yes						
9	CSI			Yes			Yes	Yes	Yes	Yes	Yes		
10	INFORMATION EXPRESS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	FX	
11	IN-TELEGEANCE	Yes	Yes		Yes		Yes						
12	TELERATE	Yes	Yes	Yes	Indices		Yes	Indices	Yes	Yes	Yes	FX	
13	PROVIEW			Yes	Yes		Yes	Yes	Yes	Yes	Yes	IMF stats.	
14	EIS JUST DATA			Yes	Yes		Yes	Some	Some	Some			
15	INFOCAST - BEACON	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Unlisted trusts	
16	RESEARCH TECHNOLOGY	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	FX, Overseas options	
17	TECHNICAL TOOLS		Later	Yes			Yes	Yes	Yes	Yes	Yes		
18	ALMAX				Yes	Yes	Yes	Indices		Some			
19	KNIGHT RIDDER	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Commodity derivatives	
20	RESOURCE DATA	Yes	Yes		Later		Later						
21	BOURSE DATA	Yes	Later	Yes	Yes	Yes	Yes	Later	Later	Later	Later		

Table 2 : Software/data formats supported

No.	Name of Data Supplier	Automatic Database Updates	Computrac	CSI	Dow Chart	Indexia	Lotus 123	Meta-stock	Excel	Super chart	Insight Trader	Windows	ASCII Format	Other Formats Supported
1	DISCOVERY	Yes	Yes		Yes		Yes	Yes	Yes			Yes	Yes	
2	DATASTREAM	Yes					Yes		Yes			Yes	Yes	Datastream S/M
3	AAP REUTER	Yes							Yes			Yes		Reuters S/M
4	EQUINET	Yes					Yes		Yes			Yes	Yes	Equinet S/M
5	ELDERLINK	Yes			Yes		Yes	Yes	Yes				Yes	
6	TELETEXT												Yes	
7	HUTCHINSON													
8	SYDNEY FUTURES EXCHANGE													
9	CSI	Yes	Yes	Yes			Yes	Yes	Yes	Yes			Yes	
10	INFORMATION EXPRESS	Yes	Yes				Yes	Yes					Yes	
11	IN-TELEGEANCE													
12	TELERATE		Yes										Yes	
13	PROVIEW	Yes					Yes		Yes				Yes	Proview S/M
14	EIS JUST DATA	Yes			Yes	Yes		Yes			Yes		Yes	EZY Chart
15	INFOCAST - BEACON	Yes					Yes	Yes	Yes			Yes	Yes	Crystal Systems, BOPS
16	RESEARCH TECHNOLOGY	Yes	Yes	Yes			Yes	Yes	Yes	Yes	Yes		Yes	FutureSource
17	TECHNICAL TOOLS	Yes					Yes	Yes	Yes	Yes			Yes	TechTools S/M
18	ALMAX	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	STEX, EZchart
19	KNIGHT RIDDER	Yes	Yes				Yes	Yes	Yes	Yes		Yes	Yes	Genesis, TechTools
20	RESOURCE DATA	Yes						Yes		Yes			Yes	
21	BOURSE DATA											Yes		

covering the major groups of interest. The words in the table are those used by the vendors. Some are inferring a partial service or one which is expected to be implemented in the near future.

**Other markets:** Refers to any market covered by the vendor, other than listed in the headings.

## SECTION D SUMMARY BY ANALYSIS SOFTWARE

**TABLE 2**

A feature of many financial information systems is the ability to extract information from the main information system into other software systems for further analysis.

A variety of advanced, PC based, analytical software systems are now available and provide the ability to analyse current and historical market information in a simple and efficient manner.

Table 2 lists, for each service, the major third party software systems which it supports. Explanatory notes on some columns of this table :

**Automatic updating:** This column refers to the ability of each data supplier to update the supported third party software systems in a simple, automatic way requiring minimum intervention. Many data suppliers claimed that each of the supported systems could be updated automatically.

**Windows:** Whether the information system provided by the supplier runs within the popular Microsoft Windows operating environment. If the software associated with the information system operates within the Windows environment, it is often a simple task to interface the supplied information into other Windows software systems - word processors, spreadsheets, etc.

**ASCII format:** This is a common PC data format, supported in some fashion by most PC software products.

**Other formats supported:** Other proprietary software (s/w) products supported by the information system. This is usually the analysis software of the data vendor, written for specific use with the data supplied.

## SECTION E FURTHER DETAILS ON INFORMATION VENDORS

The following section details further areas of interest regarding each data supplier. Concise organisation details are provided at the beginning of each item in the following layout:

No. ORGANISATION NAME - SERVICE NAME (where different).

Address

Phone No., Fax No., (Free call No.) Marketing contact.

In the following details "data format" is abbreviated as: O=open, H=high, L=low, C=close, V=volume, I=open interest where applicable, B=number of buyers, S=number of sellers and All=all the above provided.

Generally the services offer access 24 hrs except where stated otherwise.

System support is offered by vendors 1-5, 9, 10, 12-16, 18, 20 and 21.

Bulk discount is available from vendors 2, 3, 9, 13-17 and 19.

The costs associated with 'high end' services varies significantly. Many of these companies were reluctant to have cost information published. Most 'low end' services did provide some minimal, cost information, and this is listed where applicable.

## 1 TELECOM DISCOVERY - MONEY WATCH

1/157 Walker Street, North Sydney 2060  
02-956 9900, 02-956 9999, (008 028339) Mr Jeremy Brough

Provider of real time information for a wide range of financial markets including ASX, SFE, many overseas exchanges and general financial news.

Data format: All.

General financial news from AAP and Ralph Wragg.

Accessed with modem and PC for the cost of a local call from anywhere in Australia.

Money Watch forms a major part of Telecom's Discovery system which provides many other types of information and services to business and homes throughout Australia.

Money Watch has various services with different subscription levels, monthly fixed costs, royalty charges and usage charges. Users need to select the appropriate service in order to minimise costs based on their own particular usage pattern. Users may change from one service to another as their needs change.

As a general guide, users may expect to pay between \$100/month for low level usage to \$1000/month for high level usage covering access to many exchanges.

Real time service with no historical information available.

Software is available at minimum cost to automatically update other software packages as displayed in Table 2.

Ideal for users commencing with low usage patterns, but tends to become expensive as usage increases. Has the added attraction of many other information services available within Discovery.



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## **2 DATASTREAM INTERNATIONAL (AUST) - INVESTMENT RESEARCH SERVICES**

Level 14, 345 George Street, Sydney 2000  
02-299 5722, 02-299 5738, Mr Jason Goodacre

Provider of comprehensive historical and end of day information covering a large range of world markets. 400 direct sources of financial information used, of which the ASX and SFE are just two.

Some US and European market information is available on a real time basis.

Data format: All.

Current and historical company dividends and issues are available globally. Futures contracts available adjusted or unadjusted.

Information from the Australian Options Market not covered.

Accessed via PC with 2400/9600 modem. Connection can be via Dunsnet PPS for the cost of a local call or Austpac.

DSWindows software is provided free of charge for further analysis and research of historical information.

Service is mainly designed for stock brokers, fund managers, banks and institutions rather than private investors. These customers generally use the large historical database for research and analysis purposes, rather than as a 'feed' to other systems. Information can be transferred to other Windows applications via use of the DATASTREAM DDE Server software, if necessary.

The service is charged on an annual, fixed cost basis of between \$12,500 (for Australian market coverage only) to \$70,000 depending upon extent of service used.

## **3 AAP REUTER ECONOMIC SERVICES - REUTER TERMINAL & AAP MARKET QUOTE**

Level 6, 88 Pitt Street, Sydney 2000  
02-224 8100, 02-223 7927, Mr Peter Jones

Provider of real time market information, company news and general financial news covering a wide range of global markets, including all Australian markets.

Data format: All.

Full 10 years historical information available, including dividends and issues.

Most comprehensive service, generally used by institutions,

fund managers, dealers, brokers and large private investors/traders.

PC based service requiring dedicated Telecom line

Costs difficult to estimate, but dependent upon level of subscription, extent of service required, usage, royalties and communication charges.

## **4 EQUINET PTY LTD - PC EQUINET**

Level 2, 40 Market Street, Melbourne 3000  
03-612 5888, 03-614 0006, Mr Greg Austin

Provider of real time market information primarily from the ASX (equities, indices and options) and SFE, with some coverage of overseas markets and commodities. Company announcements and financial news provided for Australia and New Zealand.

Data format stated as varying with data type.

Service operates between the hours of 7 am and 7 pm only.

Extensive historical information available, including dividends and issues.

PC based system requiring a permanent Telecom line for communication. Requires Windows software.

Comprehensive Australian market information, generally used by institutions, fund managers, dealers, brokers and a few large private investors/traders.

Costs not provided, but by monthly arrangement.

## **5 ELDERLINK - PARK LANE COMPUTING PTY LTD**

347 Camberwell Road, Camberwell VIC 3124  
03-813 1000, 03-813 3053, (008 331577) Steve Boland

Provider of real time ASX (equities, indices and options) and SFE data only, for private investors and traders.

Data format: O,H,L,C,V.

Sources information from ASX signal C and futures data from Resource Data signal.

Low cost, real time service - small monthly charge of \$15 applies, 32c/minute connect time with 5c/page royalty for any ASX page displayed.

Accessed with PC and modem for the cost of a local call from anywhere within Australia.

Additional software supplied (SHLDATA), at minimal charge,

which assists the automatic updating of a variety of third party software systems as displayed in Table 2.

Ord Minnett support the service and provide a limited amount of overseas and general information on a daily basis.

Historical information available on dividends and issues for all ASX stocks.

## **6 TELETEXT - (CHANNEL 7) SOFTWARE SUPPLIER: R & D CARBUHN PTY LTD**

3 Viscount Way, Forest Hill VIC 3131  
03-803 3595 Mr & Mrs Ray & Doreen Carbuhn

A service different in many ways from all other data suppliers, one major difference being that it's free.

Teletext is provided though the Channel 7 television signal and is able to be decoded with special receivers.

All ASX stocks and other more general financial information is updated every 30 minutes, with up to the minute information. The contract with the ASX does not allow Channel 7 to update the information on a more frequent basis.

Information from the Australian Options Market is not covered by the service.

To many users, such an updating frequency is more than adequate. Stock prices are generally no more than 30 minutes out of date. This needs to be compared with many other data suppliers, who source their information from Signal C supplied by the ASX. Signal C is often itself over 30 minutes behind, meaning that many so called 'real time' data suppliers can be over 30 minutes behind during busy periods.

Data format: only last sale price available for stocks on the half hour.

The main disadvantage of a teletext system is that it is slow and cumbersome to use. However, for a once off cost of between \$450 or \$650 (depending on method of reception), a user can purchase a teletext card from R&D Carbuhn. This teletext card can, through a cable, directly interface a video receiver with a PC. It provides a simple, easy access to ASX data on a PC rather than a television set. The data can be saved on the PC for later viewing or storage.

This service has no on-going costs but the extent of the information available is limited.

For users requiring a minimum of real time stock information on an irregular basis, this service may prove worthwhile and cost effective.

## **7 HUTCHISON TELECOMMUNICATIONS - HUTCHISON NEWSPAGER**

60 Pacific Highway, St Leonards NSW 2065.  
02-964 4630, 02-964 4656, Mr John Houston

Provide real time market information from the ASX (equities, indices but not options), SFE and overseas exchanges.

Data format: H,L,C,V,B.

Information is transmitted to portable pager devices.

Company announcements and some financial news also available.

Service is ideally suited to those who tend to be continually mobile and require up to the minute market information.

Due to the nature of the pager service, no historical information is available, nor is there any support for other software systems.

Costs depend on range of information required. The average monthly costs is in the range of \$150-\$175. The cost for only the SPI is \$130.

## **8. SYDNEY FUTURES EXCHANGE LTD - REAL TIME MARKET INFORMATION**

32 Grosvenor Street, Sydney NSW 2000  
02-256 0555, 02-256 0666, Ms Bonnie Blaauw

SFE provide the original source of real time information to all other data vendors for the Exchange. SFE does not provide a real time service itself.

Data format: O,H,L,C,V,I, volatility and settlement.

SFE does provide historical market information for trading at it's exchange. Daily open, high, low, close and open interest for all commodities traded since 1980 can be provided at a cost of \$4/month/commodity. Intraday data is available since 1992 at a cost of \$15/month/commodity.

## **9 COMMODITY SYSTEMS INC (CSI) - CSI DATA RETRIEVAL SERVICE**

200 W. Palmetto Park Road, Boca Raton, Florida 33432 USA.  
407/392 8664, 407/392 1379, CSI Marketing Department.

CSI is one of the largest providers of end of day and historical market information in the US and the world. No real time services are provided.

Within Australia, CSI covers the SFE only. A wide range of overseas equities, futures and commodity markets are covered. This provides a good source of overseas information for Australian users.

Data format: O,H,L,C,V,I.

Historical information extends back to the 1960s and earlier. Historical dividends and issues are also available. Futures contracts are provided unadjusted.

Wide range of software systems are supported as shown in Table 2. CSI's downloader software (QUICKTRIEVE/QUICKMANAGER) provides simple, automatic, unattended updating of market information.

Service is via modem and is normally accessed via a short, international call to the US. Large volumes of data can be transferred quickly with the use of high speed modems and data compression.

Costs in \$US

- \$ 50 start-up covering downloading software
- \$ 11/month covering 5 futures contracts or 50 overseas stocks
- historical futures data - \$0.29/month/contract
- historical stock data - \$0.20/month/stock
- small royalty charges apply in addition
- international phone call charges

CSI also provides further software at minimal cost covering technical analysis and portfolio management.

## 10 INFORMATION EXPRESS

1155 Malvern Road, Malvern VIC 3144  
03-823 2222, 03-823 2227, Mr Greg Mellor

Provider of real time, end of day and historical market information and financial news covering a wide range of global markets, including all Australian markets.

Data format: All

Historical information available, including dividends and issues.

Comprehensive service, generally used by institutions, fund managers, dealers, brokers and large private investors.

PC service requiring dedicated Telecom line or can be accessed via dial up service.

CD-ROM database (Extel Workstation) provides extensive financial performance history for over 9000 companies together with analytical tools.

Ability to update many third party software systems automatically as shown in Table 2.

Costs on application and subject to requirements of user.

## 11 IN-TELEGENCE PTY LTD - STOCKWATCH

PO Box 779, Sunbury, VIC 3429  
03-740 9672, 03-740 9572, Mr Peter McMillan

Provide real time information from the ASX via a 0055 telephone service, most stocks having a separate telephone number.

Data format: last sale price only.

ASX equities and indices covered by service only. Last sale price provided. Possibility of further information at a later stage. No information provided from the Australian Options Market.

Information obtained from a direct link with the SEATS system.

Able to be accessed from any telephone with 0055 access.

Billing via standard telephone bills.

Access cost is 70c per minute. No other costs associated with service.

Provides some portfolio management facilities, to allow investors to obtain prices of all stocks within their portfolio during a single call.

## 12 DOW JONES TELERATE - TELETRAC

Level 11, 309 Kent Street, Sydney NSW 2000  
02-290 8888, 02-290 8890, Kim Robertson

Provider of real time market information covering many global markets. Historical information is available for all markets covered. General financial news also available.

Data format: O,H,L,C,V.

Most global foreign exchange, fixed income, commodity and futures markets are covered. Global stock indices are provided but not individual equities themselves.

Teletrac software supplied with service to provide charting and analysis of available information.

Information is accessed from a PC via a direct, leased line. Temporary dial up lines available.

Normally no need to transfer information to other software systems, as Teletrac software provides comprehensive analysis. Computrac and ASCII downloading supported for further, extensive analysis, if necessary.

Majority of users tend to be traders and dealers.

No costing information supplied.

### **13 PROVIEW PROFESSIONAL SERVICES - PROVIEW**

Level 3, 33 York Street, Sydney NSW 2000  
02-299 2111, 02-290 3309, Mr Richard Cook

Comprehensive end of day information service covering a wide range of global markets.

Data format: O,H,L,C,V.

Markets covered include ASX (equities and indices but not options), US equities, SFE, global commodities, all world futures exchanges, all global stock indices and money markets.

Adjusted, continuous futures contracts provided.

Extensive historical information available on all markets.

Dial up access from PC with modem. Local call from within Sydney, STD charges apply otherwise.

Proview also provide their own software system with the service for all charting and analytical work. This software compares favourably with other available software packages.

Service does not easily interface into other analytical systems, nor is this encouraged. The information is set up to work with the Proview analysis software.

Proview individually maintains each user's database. Stock splits/issues, ASX name and code changes are automatically handled within the system by Proview.

Subscribers can easily nominate and change stocks/commodities to be downloaded.

Used predominantly by institutions, traders and large private investors.

#### **Costs:**

- \$495 start-up covering software
- \$50/month minimum fee
- data fees depending upon extent of history required and number of items being tracked
- telephone call charges

Proview offer the following special discount packages to ATAA members:

For Stock Investors: weekly and daily charts (W/D) on All Ord. Index stocks (approx. 280) and M/W/D charts on gold, silver, Dow, Nikkei, \$A/\$US Aus. 10yr bonds. (a total of approx. 580 charts) for start-up cost of \$650 (analysis software and historical data) and updating fee of \$145/month.

For Futures Traders: W/D charts on 25 major futures markets

(set selection), 125 chart database and analysis software for \$650 start and \$99/month. Combined package for \$999 start and \$199/month.

### **14 ELECTRONIC INFORMATION SOLUTIONS - JUST DATA**

Level 3, 26 Bellevue Street, Highgate Hill, QLD 4101  
07-846 1811, 07-846 2207, (008 777972) Mr Jody Elliss

Brisbane based company offering end of day ASX (equities, indices and options) and SFE information to private investors and traders using their own technical analysis software.

Data format: dependent on market.

Information becomes available at about 8:30 pm on trading days and can be collected 24 hrs thereafter.

All adjustments for issues, name changes, distributions, new or deleted stocks, have to be done by the user for both historical data and regular updating.

Significant service updates are in progress, including the above adjustments, and various downloading improvements.

Provides support for many third party technical analytical software systems as shown in Table 2. Others which are not automatically updated but can use the data are Computrac, CSI, Lotus 123, Excel and Supercharts.

Local call fee from anywhere within Australia via dial-up modem with automatic updating.

Limited overseas, money market and fixed interest market data available.

Subscribers may receive entire ASX and SFE market on a daily basis or nominate a selection of data to be received.

Costs dependent upon selection, but compare favourably to many other similar services. The minimum joining fee is \$50 and the usage charges vary with the extent of information downloaded.

Historical data is also available, the cost depending on volume. The total ASX market data (equities indices and options from August 1990) currently costs \$990. It is expected that the ASX will increase this cost in the near future.

### **15 INFOCAST AUSTRALIA PTY LIMITED - BEACON**

Level 5, 76-80 Clarence Street, Sydney NSW 2000  
02-248 9400, 02-248 9440, (008 021219) Ms Fiona Boyd

Provider of real time market information and financial news covering a wide range of global markets, including all Australian



markets.

Data format: All plus bid, offer, strike price and other information.

Extensive historical information available, including dividends and issues.

Futures information can be provided in adjusted or unadjusted format.

Also provide information on unlisted property trusts and funds.

Comprehensive service generally used by institutions, fund managers, dealers, brokers and large private investors.

Well regarded service which covers the Australian Options Market.

Special method of communication requiring Infocast certified computer hardware.

Beacon and BOPS software supplied with service and operate under the Windows environment. The software has a wide range of charting and analytical facilities.

Costs on application to Infocast.

## 16 RESEARCH TECHNOLOGY CORPORATION

Level 7, 4 O'Connell Street, Sydney NSW 2000  
02-233 6822, 02-233 2929, (008 025985) Mr Nigel Hobbs

Supplier of a range of services which provide both real time and end of day market information services to private investors, traders and institutions.

Data format: O,H,L,C,V,I plus bid, ask strike and others.

Real time service is provided via Futuresource, a PC based system. This system allows real time access to all Australian financial markets and a wide range of overseas markets. The software provides high quality, real time technical analysis. Access is normally via a leased line.

A separate PC based system, Microdata, provides end of day information available via a dial up modem.

Research Technology markets and supports the Metastock system within Australia. The Microdata system is designed to download data to a subscriber's Metastock system at the end of each day.

Microdata also supports a number of other PC based software systems as shown in Table 2.

Extensive historical information is available on all markets. Continuous, adjusted futures contracts are available

Minimum and start-up costs apply dependent upon the type of service.

Historical information is available at \$15/stock/year. This tends to be expensive, especially if history for a number of commodities/stocks is required.

Research Technology provide a number of other unique services for the small private investor. These include Faxlink ( end of day fax service ) and a range of books covering analysis and investing.

## 17 TECHNICAL TOOLS - TT CHARTBOOK SYSTEM

Suite 202, 334 State Street, Los Altos, CA 94022  
415-948 6124, 415-948 5697, (USA only) Ms Deanna Lands

Technical Tools is a large, worldwide provider of end of day and historical market information. No real time services are provided.

Data format: O,H,L,C,V,I.

Within Australia, Technical Tools covers the SFE only. A wide range of overseas equities, futures and commodity markets are covered. This provides a good, low cost source of overseas information for Australian users.

Historical information extends back to 1968.

Service is via modem and is normally accessed via a short international call to the US. Large volumes of data can be transferred quickly with the use of high speed modems and data compression.

The TT chartbook software is included with a subscription to the service. This operates under Windows. The software provides communication facilities and chart viewing facilities allowing subscribers to quickly and easily view charts in a variety of formats.

The information within the TT chartbook system can be transferred to other analytical software as shown in Table 2 for further analysis.

Overall service is aimed at private investors and traders worldwide.

Costs in \$US:

- \$ 50 minimum charge per month which provides up to 100 stocks or 20 futures. \$ 750/month allows unlimited access to all information. Other subscription levels available.
- historical futures data - \$2.50/year/contract or \$25 for entire history.
- historical US stock data - \$1/year/stock or \$ 10 for entire history.
- international phone call charges.
- monthly billing via credit card.



## 18 ALMAX INFORMATION SYSTEMS

PO Box 1058 Glen Waverley, VIC 3160  
03-561 2448, 03-561 2448 Mr Allen de Rosario

Melbourne based company offering end of day ASX (equities, indices and options) and SFE information to private investors and traders.

Data format: All.

Provides end of day information only, which becomes available at about 8:30pm at night. No historical information available.

Ideally suited to private individuals requiring end of day information for technical analysis. Wide support for most third party technical analytical software systems as shown in Table 2.

Local call fee from Sydney or Melbourne via modem with simple, automatic updating.

Annual charge of \$ 299 provides daily updates for up to 100 stocks of the subscribers choice. Additional charges for further stocks, SFE data. Entire market information is also available.

Limited overseas, money market and fixed interest market data available.

## 19 KNIGHT RIDDER FINANCIAL - MONEY CENTRE/EQUINET

Level 8, 151 Macquarie street, Sydney 2000  
02-251 4633, 02-252 3349, Mr S. Rattray

Provider of real time, end of day and historical market information and financial news covering a wide range of global markets, including all Australian markets. All Asian and US equity markets fully covered.

Data format: All.

Historical information available, including dividends and issues. Continuous, adjusted futures contracts provided.

Comprehensive service generally used by institutions, fund managers, dealers, brokers and large private investors.

Access via PC and modem with dial up service available.

Ability to update a wide range of third party software systems automatically as shown in Table 2.

Costs on application. Various levels available.

## 20 RESOURCE DATA PTY. LTD. - FUTURESCHART & OPTIONSCHART

Suite 3, 4th Floor 118 Queen St., Melbourne, 3000  
03-670 1760, 03-629 5065, Mr. Bruce Marks

Provider of low cost, real time information from the Sydney Futures Exchange for private investors and trader.

Data format: O,H,L,C,V,B,S.

Accessed for the cost of a local call from Sydney, Melbourne or Adelaide (Brisbane to commence shortly).

Resource Data source their information via a direct link to the SFE and distribute this information in a more usable format via a dial-up modem link for the cost of a local telephone call.

Other third parties have developed software to further enhance, process and display supplied information. Some packages provide a further interface to the other popular analytical systems. Such software includes Quotes/Rescam (from Camron Business Systems 03-598 9924), Livewire (from Plant Deat 08-322 5810) and Supercam (from QBL 02-879-7033)

Resource Data plan to introduce a similar data signal covering all ASX options information in the near future. This will operate in a similar way to their current, futures signal.

At a later stage, Resource Data also hope to provide a low cost, signal covering all ASX equities. Plans are to distribute this via spare capacity within the Channel 7 television signal rather than via a dial up service.

\$210 startup cost. Resource Data futures signal priced at \$195/month. Proposed cost for the options signal is \$250/month. This is inclusive of all royalty charges. Third party software to further enhance and process incoming information is additional.

## 21 BOURSE DATA AUSTRALIA PTY. LTD.

Lower Ground Floor, 351 Collins Street, Melbourne, 3000  
03-629 1166, 03-629 1383, Mr. Frank Kennedy

Provider of real time information covering the ASX (equities, indices and options) and SFE. Some overseas market coverage is to be added later in 1994.

Data format: All.

Historical information available including dividends and stock issues.

Range of users covering institutions, private investors and traders.

Access with modem via dial up or permanent leased line.

## TECHNICAL ANALYSIS POWER

*"Great minds tend towards banality. It is the noblest effort of individualism. But it implies a sort of modesty, which is so rare that it is scarcely found except in the greatest, or in beggars". Andre Gide.*

Initial, startup up cost of \$820 for dial up service, then \$785/month covering all ASX and SFE data and royalties. For dedicated line, initial startup is \$1000 with a monthly charge of \$950.

### SECTION F CONCLUDING NOTES

#### F 1 Limitation of Survey and Other Sources

There are many information vendors covering the financial markets. All those known at the time of the survey were contacted. The vendors who responded are all included in this report. Those who did not reply are omitted. Generally, several subsequent attempts were made to get information from this latter group.

In recent years, a number of new information providers have entered the 'low cost end' of the market. There is now a substantial overlap between the services. However, most services offer something unique and different from any of the others. The Australian Stock Exchange is currently preparing the "Information Directory For 1994". This document is expected to contain further information, particularly on new services.

There are many data suppliers in the US covering the world financial markets. A few suppliers have been listed in this document. A further source of information for other worldwide suppliers is contained in monthly magazines, such as 'Technical Analysis of Stocks and Commodities'.

#### F 2 Accuracy of Data Supplies

In reply to the questionnaire, all the information vendors have claimed to provide high quality, accurate and reliable market information. This is an area of critical importance. Intending users will have to verify for themselves the quality, reliability and accessibility of any supplier.

In order to assist members in the selection of a vendor, the ATAA proposes to conduct a survey on the experiences of members who use information services. These members can provide the most valuable assessment.

#### F 3 Disclaimer

The details compiled in this report are based generally on information collected from the various vendors, particularly from their replies to the questionnaire. Within the framework of the survey no attempt was made to verify the correctness of the information received. Every effort has been made to fairly represent the information supplied. This report should only be used as a guide. Before making any decision on subscribing to a financial information supply, interested parties must make their own inquiries, taking into account their specific requirements.

F 4 Authors The survey and results were compiled by Nicholas Guoth and Michael Lynch, ATAA members.

Like the market itself, a Technical Market Analyst develops his personality in four distinct stages. But where the good differ from the not so good, is at the end of this personal development; the good analyst embraces all four characteristics as his own.

In the early stage emotions need to be overcome: fear, greed et al. We learn how to emotionally meet the challenge of putting our neck and our name on the line, along with our predictions of future price action. Those emotions are with us from day one and are only overcome by "clarity" of mind. Through the development of a balanced approach, which includes intuition and analytical skills, one gains the capacity to forecast market condition, change of trend and price. Through experience, the interchange of ideas with fellow technicians and the study of market history, we develop a set of tools, both mental and physical, which give us the precision to deal with the emotional pressures associated with our profession. But along with this "clear vision" comes a pitfall; it's not what we have taken into account that gets us into trouble, but the variables we "never" questioned. The subterfuge comes from beliefs like thinking one's method can predict with a high statistical accuracy how far a price trend is going to go.

To the contrary, the consistent analyst uses clarity only to see, to observe, to wait and measure carefully. He uses his skills to perceive when the markets are going to change, where a group strength is improving or deteriorating, or when a stock is ripe for accumulation. Clarity to determine the conditions of trend. That use of your technical skill is called "Power". But "power corrupts". We have all known many a good analyst who has fallen prey to that adage.

The possession of power, without the understanding that it was never really owned, can lead to the self-possessed view. A dogmatic attitude can take over. However, consistency transcends this problem. Those who do not possess this sense of modesty, on the other hand, can ride the wild swings of the wheel of fortune. But for those of us that strive for consistency versus publicity, there is one last potential flaw that needs to be kept in abeyance; the yielding to rest. In other words, we must maintain the questioning attitude and continue to look for the unexpected. In order to maintain the "Power", the analyst must continue his homework.

Technical Analysis is as much Art as it is a Science. There is no computerised system, or quantitative method, that can deliver what it takes to be a good analyst. By nature, "data" is a closed system, non-intuitive, and non-creative. A paint brush which ends up on a canvass is only as good as the Artist who uses it.

Jack C Cahn CMT :Reprinted from the Nov 1993 CMT Newsletter (USA) with permission of the author.

# Contributions

In order to have a good newsletter, we need contributions from members.

Contributing to the ATAA Newsletter is easy and will repay your effort by expanding and sharpening your analytical ability.

Newsletters are published each March, May, July, September and November. The deadline for copy is the 20th of the previous month, ie February, April, June, August and October.

If you would like to discuss how you could contribute, telephone Colin Nicholson on 02 436 1610.

Contributions should be addressed to Colin and sent to him at 3 Eastview Street Greenwich NSW 2065.

Our preference is that you submit articles in both hard copy and on IBM disk. Software packages preferred are WordPerfect 5.1 and Lotus 2.2. However, most packages will generate an ASCII file, which will be fine.

## Any Questions?

The editor has approached many members about writing for the newsletter. The most common response is that the member is only a beginner at Technical Analysis and has joined the association in order to learn more. This being so, it occurs to us that we need to target our newsletter more towards this group of our members.

To meet that need, we have to know what it is that you would like to know more about. If you still do not know everything about Technical Analysis, we invite you to send us a question you would like answered. The association has a lot of very knowledgeable members, who we can call upon to answer your questions.

No question you can send us will be too simple or too elementary. Do not assume that you are the only one not to know something. It is amazing how often at our courses one student asks a question and others chime in with: "Yes I was wondering about that too".

Questions can be very specific (How many periods are best for RSI on the SPI?) or very general (What is MACD?).

To encourage those of our members who might be shy, we will publish the question, but will not publish who asked it. You can even send them in anonymously if you wish.

Address questions to The Newsletter Editor, Colin Nicholson 3 Eastview Street Greenwich NSW 2065 or send them to GPO Box 2774 Sydney NSW 2001.

## Suggestions

At the Annual General Meeting in Sydney last November, a number of suggestions were made. The Committee have been considering them and the following is a progress report:

Name Tags at Meetings Pending something more permanent, members will be asked to write their name on a self adhesive sticker on entry to each meeting and to wear the sticker during the meeting. The Committee will provide stickers and pens at the door.

Associated with this, it was also decided that members would no longer be asked to sign an attendance book. However, non members will be asked to sign the visitors book.

These arrangements went into effect from the February meeting.

Point and Figure Course We organised and ran a course with the SIA in 1992 and advertised a repeat in late 1993. However, the 1993 course did not proceed for lack of sufficient enrollments. This suggestion has been referred to our education sub-committee for further consideration, but does not look like going anywhere without further feedback from members. What is the demand? Why did those who want it not enroll in the 1993 course? Any other comments?

Weekend Conference This suggestion is currently with the education sub-committee to work up some specific proposals.

Australian "IFTA Type" Conference This suggestion is also currently before the education sub-committee to work up a specific proposal, either separate to, or rolled in with the above item.

Software Demonstration Disk Library It was felt by the committee that this proposal involved significant problems in keeping such a library up to date. It was also felt that it was properly the function of the software developer and that the ATAA should not be subsidising his costs. We are not aware of any difficulty in obtaining demonstration disks from developers. No further action to be taken at this stage.

Dissemination of Sharemarket Information This had been discussed previously by the committee at some length and decided in the negative because of the copyright problems. In the absence of new information, it was decided not to reopen discussion of this matter. Members are referred to the report on information vendors in this issue.

Other Suggestions The other six matters raised by members will be considered by the committee in coming months. The committee would like to emphasise that they are always looking for ways to better meet members' needs. If you have an idea, why not telephone one of your committee members and discuss it. Their telephone numbers are inside the front cover of every newsletter.



# POINT AND FIGURE CHARTING

COLIN NICHOLSON ADDRESSED BOTH THE MELBOURNE AND SYDNEY MEETINGS OF THE ATAA ON SEPTEMBER 15 AND 20 1993 RESPECTIVELY. HE GAVE A BRIEF OVERVIEW OF HOW HE TEACHES POINT AND FIGURE CHARTING FOR THE COURSE RUN IN CONJUNCTION WITH THE SIA. HE ALSO GAVE SOME OF HIS VIEWS OF THE MARKET AT THAT TIME. THIS IS A TRANSCRIPT OF THE SYDNEY PRESENTATION AND WAS PREPARED BY THE SPEAKER. WHERE POSSIBLE, POSTSCRIPTS BRING COMMENTS ABOUT SPECIFIC MARKETS UP TO DATE TO LATE FEBRUARY.

I have this quotation on the front of my chart folder:

*"Remember there is always a reason for a stock acting the way it does. But also remember: the chances are that you will not become acquainted with that reason until some time in the future, when it is too late to act on it profitably."*

Jesse Livermore

I look at it every now and again and remind myself why I use charting to make trading decisions in the stock market. As a matter of interest, when I first started running the Point and Figure course with the SIA, I wanted to call it "Legal Insider Trading", but they would not let me for obvious reasons.

However, that is what I think about charts, particularly of the stock market. If anyone tries to tell you that insider trading is illegal and there is very little going on, they do not know anything about our stock market. It is going on all the time. People do know what is going on in companies before it becomes generally available information and they trade on the basis of what they know. Whether it is them, or their relatives, or friends, someone is trading on the information. I can usually tell whether a company is going to bring out a good or a bad report from the action on its chart as we get into the reporting season. The thing is that these insider traders "leave their footprints" on the chart, because they cannot buy or sell in any quantity without affecting the price. If sometime in the future, insider trading is ever stamped out, it will be a sad day for the chartist, because some of his advantage in trading with the insiders will evaporate. Lets hope it never happens.

A little about my background first of all, for those of you who do not already know me. I trade off Point and Figure charts in the stock market. I am a position trader, having learned long ago that the best profits are made on the longer moves, rather than the very short term trades. I also learned to specialise, to try to do one thing well. Therefore, I only trade the Australian stock market, I only trade from the long side and I only trade equities. I do not trade derivatives at all. My analysis is basically Point and Figure, although I do use some computerised analysis of some things, particularly the indexes and non price

indicators of the overall market.

What I want to do this evening, in the short time we have available, is to firstly give you a very quick run through the sort of subject area that I cover in the Point and Figure course. Bear in mind that it is an eight hour course, so obviously in less than one hour, I am not going to be able to cover all of it in detail. However, I will try to give you enough to understand what is covered in that course. After that, I will have a look at an example of the way I use Point and Figure charts in my trading and finally I will take you through what I think are some interesting markets.

## Data

Where I start with teaching Point and Figure charting is to look at the data used, because data is all important to Point and Figure work. We must have a basic understanding of what the data is that we are using, because it is different to other forms of charting, most of which use only a summary of the data. If you do not use the correct data, you will not be able to use all the techniques and also not be able to get the desired results from your analysis.

I start right at the beginning, to cover people coming to Point and Figure without any background in technical analysis. So, you start with the market opening, and you will have some kind of gap between the bids made by the buyers and the offers made by the sellers, as shown in Figure 1.

Figure 1: Market Opens

Sellers	22
Sellers	21
Buyers	19
Buyers	18

Then, at some point through the day, a sale will take place, where we get an agreed value between the buyer and the seller. Maybe one of the buyers gets aggressive and raises his bid to 20, which is matched by an anxious seller, who offers at 20, or accepts the bid at 20. The important thing is that when a sale takes place we have an agreed value at that time. See Figure 2.

Figure 2: The First Sale

Sellers	22
Sellers	21
Sale	20 = Agreed Value
Buyers	19
Buyers	18

It is these actual sales, these agreed values, that we use for Point

and Figure charting. We do not generally use the quotations. Although I have seen people doing that, it is fraught with some danger.

Then, as the market operates, you get, as the day progresses a string of sales taking place through the day. See Figure 3.

Figure 3: Market Operates

Sales: 20, 20, 20, 21, 21, 21, 21, 21, 22, 23, 24, 25, 24, 25, 25, 25, 25, 25, 24, 24, 26, 28, 30, 31, 30, 31, 30, 30, 30, 29, 30, 30, 29, 29, 29, 29, 29

So, let us assume that our example is a mining stock that starts off at 20 cents, trades a couple of times at that price, and then moves up to 21 cents, where it trades for a while longer. After a while, it moves up smartly through 23 and 24 to 25. Then back to 24, before returning to 25 for a number of trades and so on through the day.

Now, this is reported in the form of "price changes", which is simply the string of sales that have taken place with the consecutive trades at the same price eliminated. That is, it records the price every time the sale price changes. See Fig. 4.

Figure 4: This is Reported as Price Changes

Course of Sales: 20, 21, 22, 23, 24, 25, 24, 25, 24, 26, 28, 30, 31, 30, 31, 30, 29, 30, 29

This is called the "Course of Sales" and you will be familiar with it, even if you did not know what it was, having seen it in the Australian Financial Review each day, as it usually occupies most of a page. See Figure 5 for part of the Course of Sales table.

Figure 5

**NATIONAL SHARE MARKETS - COURSE OF SALES**

This full sequence of price changes is used for Point and Figure charting. You can see the difference to the data used for other forms of charting, which use only a summary of the course of sales. See Figure 6.

Figure 6: Summary of the Course of Sales

Open	20
High	31
Low	20
Close	29

In addition, these summaries will generally show the number of shares sold in the day, also known as the "volume". The volume figures are also found at the end of the course of sales for each stock, but volume data is not used for Point and Figure charting, being inherent in the price action shown on the chart. For derivatives markets, the daily summary may also include the number of open contracts in the market, also known as the "open interest".

The daily summary is used for line charts, bar charts, swing charts, candle stick charts and equivoolume charts. All of these could be drawn from the course of sales. However, Point and Figure charts should not be drawn from the daily summary unless there is no course of sales data available. In this case, you are severely restricted with respect to a number of aspects of the Point and Figure technique. In particular, you will not see the full shape and extent of the congestion areas, which renders congestion area analysis and price projections largely a waste of time. Trend lines and precise support and resistance levels will also be of dubious value. Most importantly, you can never be confident of break-outs, casting uncertainty over buying and selling decisions.



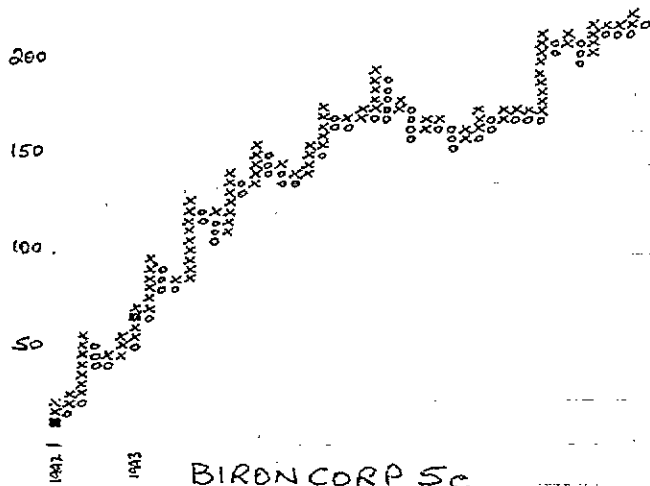




## Trend Analysis

The next thing that we go into in the course is the concept of price trends, which are as important in Point and Figure charting as they are in other charting methods.

Figure 11



Trends are seen on Point and Figure charts in their most minute form. With a small box size, each up trend will be a succession of crosses moving up, then the reaction will be zeros moving down. Then you can see the trends in terms of the larger movements, the so-called "steps and stairs" patterns, where you have higher highs and higher lows.

We also talk about how the major trends will comprise minor trends and counter trends. So, in Figure 11, the major trend from 10 cents to \$2.00 has a number of minor trends within it.

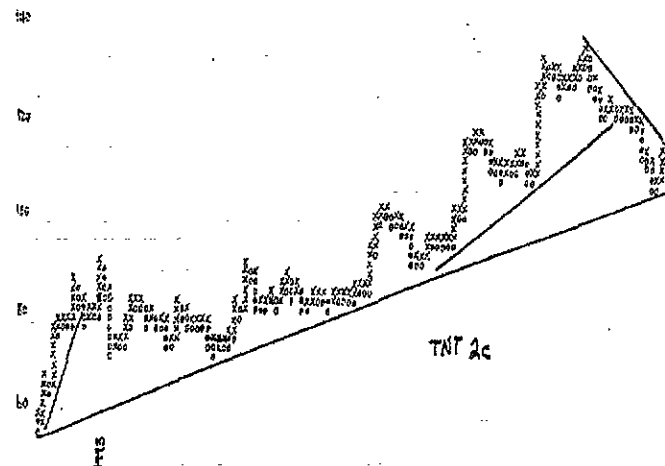
We also talk about a trend break, where you no longer maintain the succession of higher highs and higher lows, or the reverse, in the case of a down trend, because, to maintain a trend, we need to have this succession of highs and lows moving in the same direction.

## Trend Lines

We then look at the concept of trend lines. Trend lines are probably one of the more contentious areas in technical analysis. There seems to be almost as many ideas as to how you draw trend lines as there are analysts to talk to. You may remember in the Eldervideo (Technical Analysis in 52 minutes), he talked about drawing them through the bases of the congestion areas, rather than the extreme points. Ivan (Krastins) likes to have three points on his trend lines, before he has a valid trend line. That is a common view. I am not sure that you can be a rigid as that. I think that you can start to draw a trend line through any two points, but that the significance of the trend line is greater, the more points you have on it. However, in saying that you can use only two points, the important thing is that the line seems to describe a trend, even though it only

approaches the trend line, rather than touching it many times. If the trend line describes the trend, it may well be of value to you.

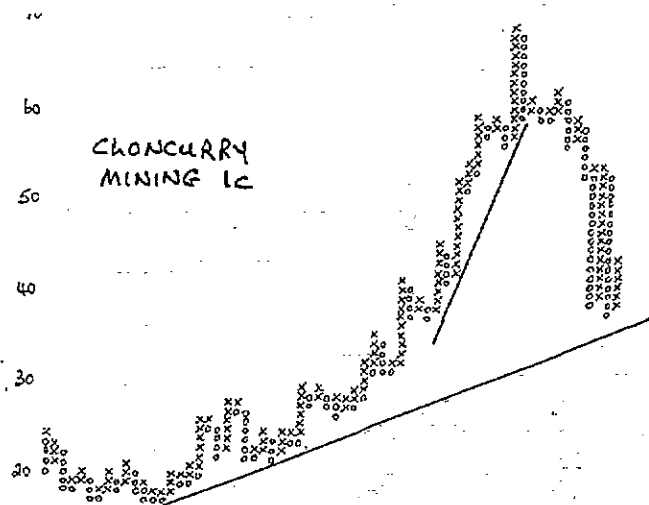
Figure 12



The other thing that I think is vital is the slope of the trend line. A very steep slope on the trend line is not going to be maintained for very long and that should be of some use to you in your analysis and trading.

We also examine the important distinction that a trend line break and a trend break are not necessarily the same thing. If you look at the TNT chart in Figure 12, you can see a steep short term trend line on the right hand side. Clearly the pattern of higher lows was broken before the trend line was cut. In other words, the up trend was finished and we should have acted upon it in the short term, before there was a trend line break. In other cases, a trend line break may give an early warning that a trend will be broken in the near future. Quite clearly, it is important to distinguish between trends and trend lines and to know what people are talking about when they are discussing markets.

Figure 13



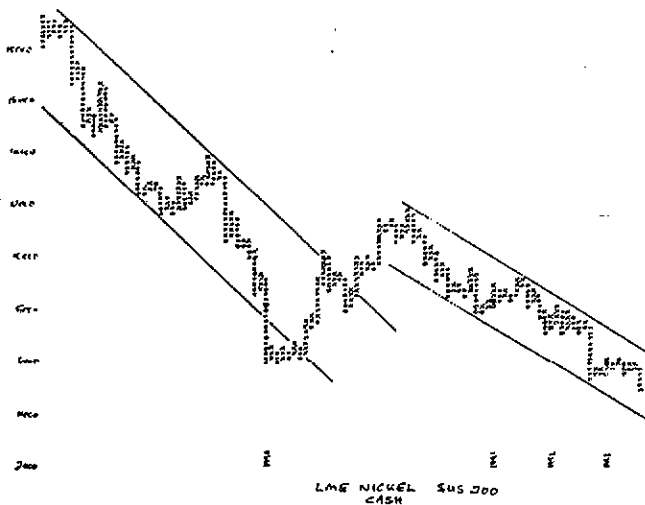
The value of steep short term trend lines is demonstrated in the chart of Cloncurry Mining in Figure 13. If you were trading this stock, and you were using the shallow longer term trend line, it would have come all the way back from 70 cents to 40 cents and you would still be long. Something that I learned from Burton Pugh's book "A Better Way to Make Money", about trading commodities and written a long time ago, was the value of steep short term trend lines in timing your trades. I believe that the most difficult part of analysis is timing your sales, your exits from the market, as apart from your entries. I find that the entries to be reasonably straight forward, it is getting out of the market that is the difficult part. Therefore, I find that these short term trend lines are a very useful technique for timing exits.

In the Cloncurry Mining case, you take the last low before the last new high and draw a trend line through it from the previous significant low. You can see that for the short term trend to continue, it should not break that trend line. Notice, that it cut the line and held for a short time at the support at 60, before falling quite sharply. This period when the support held up the decline gave an optimal exit point.

### Trend Channels

Another technique that I find very useful is the concept of trend channels.

Figure 14



In Figure 14 we see an example in the chart for LME Cash Nickel. This is a long term chart that I keep as background for my work on mining stocks. Nickel has been trading for quite some time now in some clear trend channels. There are two ways that you can use this phenomenon. Firstly, once you have got a trend channel established, you can trade the range within the channel. Secondly, is something that I find is of immense use in anticipating tops and bottoms of trends. If you have a market trading in a nice orderly pattern between trend channel lines like this and you get an acceleration out of the channel in the direction of the trend, it is a signal of the end. What is it

telling you in psychological terms? In a downtrend, it is telling you that there is real fear in this market, there is a near panic. The orderly process of price deflation has been broken by people in a hurry to get out, who have formed the belief as a crowd that this is a one way market.

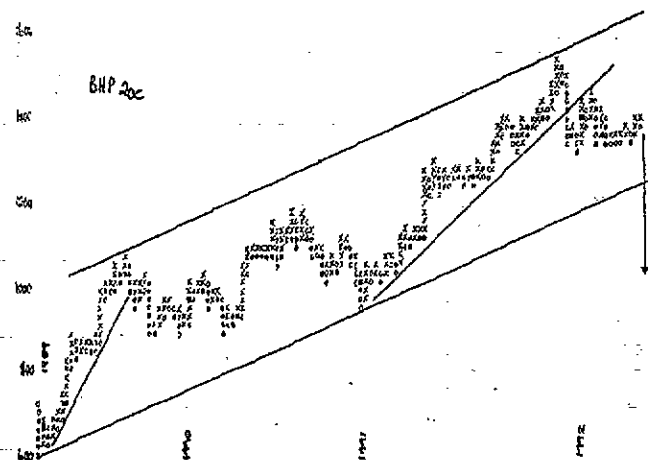
So, if we see an acceleration out of the channel, it is signalling an opportunity to trade in the opposite direction. This is almost a pure "contrary opinion" trade, based on clear evidence on the chart of the near one sidedness of the opinion of the crowd. We know that crowds are invariably wrong at turning points.

A good example on the upside, although it is not confirmed absolutely yet, is Western Australian Newspapers Holdings (chart not shown). This stock traded in a lovely rising trend channel for a long time. Then we saw a euphoric burst on the upside, up through the trend channel and it is now consolidating at that level. Where it goes now we are yet to see, but clearly the up trend is over for the time being and will lead to a period of consolidation at best and to a down trend at worst.

[Postscript late February 1994: Following this comment, WAN actually made a new high at 455 (a 10% rise), but since then, it has made a significant lower low and failed at 450 to exceed the last high. So, technically it has made a lower low and a lower high, confirming the advance signal from the trend channel break. However, WAN may well be consolidating for the next leg of the Australian bull market. The key decision points are: A break on the down side below 325 would indicate the completion of a top pattern and further downside action to come. A break on the upside above 455 would indicate completion of a consolidation pattern, with considerable upward potential. 400 is a significant support area. Further consolidation around 375 to 425 before an upward break out would be bullish.]

Another way of using trend channels is shown on the BHP example in Figure 15.

Figure 15





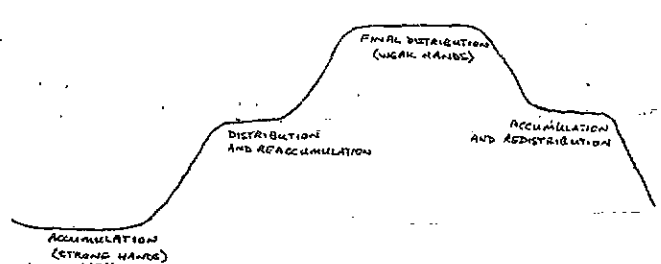
This 20 cent box size BHP chart covers the period from the start of the up trend that began in 1989 and ran through to late 1991. The way I looked at this was first to establish a step short term trend line in 1989, which marked the first upthrust out of the base pattern (not shown). BHP then came off close to 50% and consolidated again. A move out of this consolidation area made a clear new high, but then broke the short term trend line (not shown), a longer term trend line (not shown) and finally made a lower low and lower high. What was significant was that the ensuing consolidation area held above the support from the previous consolidation area and the down thrust to the low in early 1991 did not really test the lows of that support zone. This confirmed that we were still in a longer term up trend from the original base. Thus, when the uptrend resumed, we were able to draw in the longer term trend line, shown on the chart. I then established the parallel channel line through the first major high after the trend started, even though I only had that one point to draw it through at that time. As the trend continued to develop, the price action stayed nicely within the channel.

What I have found is that when a stock then accelerates up to the top of the channel and turns back, it is often the end of the move. In this case, that signal for the end of the move was soon confirmed by the break of a short term trend line, to which a neat pull back gave an excellent selling point. Even later, and after the end of the chart as shown, the long term trend line was also broken. The point is that the signal from the test of the channel line was right at the high for the trend and selling there would have been perfect. As an aside, that high was also very close to the price target established from the original base. I will deal with price targets in a little while, but I mention it here to indicate that the channel signal was not taken as a trading signal without confirmation.

## Accumulation and Distribution

A lot of my analysis using Point and Figure charts is based on a way of looking at markets that is based on the chart showing you what people are doing. This is somewhat different to that which is fashionable at the moment vis a vis Elliott Wave and other cycle theories which concentrate on rigid models of so many waves up and so many waves down and so on. These methodologies have moved, in a stylised way, a long way from the chart as a picture of supply and demand. Basically, the concept on which Point and Figure was originated and the importance within the method of congestion areas, is based on the idea that stock is accumulated and distributed at different stages of bull and bear markets.

Figure 16



The basic idea is shown in Figure 16. The process starts with the market forming some sort of a base pattern, during which time the stock is accumulated by "strong hands". These are investors/traders who take a longer term view and are taking positions because they see that the stock is basically undervalued by the market. They are prepared to hold for the long term, until the market corrects its undervaluation. They are accumulating stock from people who bought at the last top of the market and are now liquidating their positions, as the hope that sustained them in holding on all the way down is washed out of the market.

Once this liquidation and accumulation stage is completed, there is a break out of the base and we enter the first mark up stage, the first leg of the new bull market. This will be followed by an area of distribution, where some strong hands who bought in the base take their profits. As the stock is not yet over valued, this distribution is often to other strong hands who perceive that there is value there, that was perhaps not seen earlier. So, there is both some distribution and some re-accumulation going on.

When this process is finished, there will be another break out into another mark up stage, where more and more enthusiasm for the stock is generated. There may be several stages of distribution/re-accumulation, but progressively the stock is sold by the strong hands into "weak hands" who are only buying because they hope to sell at a higher price.

Eventually you will get a final distribution phase as the strong holders realise that the stock is over valued and they distribute their remaining holdings to weak hands. Typically at this stage "everybody" (that is except the smart money) is long and all hoping the bull trend will continue so they can sell to someone at a higher price. This is the stage where the final top is formed, from which the inevitable happens.

The inevitable is that there will be a break on the down side as some weak holders tire of holding positions that go nowhere. This triggers further selling as more weak holders see losing positions and scramble to cut their losses. Others hold in hope that they will get a rise that will get them out at least square.

As the price falls, some strong hands will begin to accumulate stock again and a congestion area will form, as this buying halts the selling pressure for a while. There will also be some further distribution by the original strong holders who were not able to get out at the top, but were also smart enough not to feed the initial selling frenzy.

Again, as on the upside, there will often be several of these congestion areas, with mark down phases between them. At some point, though, the stock will become under valued again and the base building process will start over.

This base will not necessarily be at the same level as the original base. Commonly it will be higher, because all stock markets have tended to be inflationary over the longer term. It has only been on rare occasions that bear markets have come below the level of the base pattern preceding the last bull phase. Of course, individual stocks can fall much lower, where severe misfortune

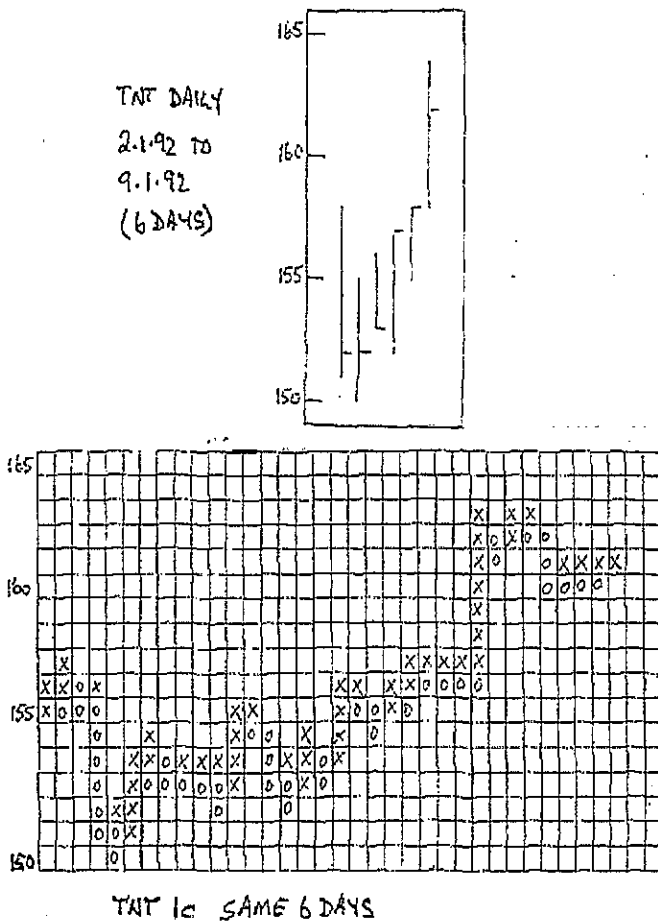


or mismanagement causes a complete restructuring of the business.

### Congestion Areas

What this theory of accumulation and distribution is leading to is the importance of congestion areas. If we can take any congestion area, no matter where it occurs in the cycle shown in Figure 16, and discern whether accumulation or distribution is taking place, we have some clue as to where the market may go next. Also, if you know clearly where the boundaries of that accumulation area are, you will also be able to clearly see where the break-outs are, or where your entry or exit points might be.

Figure 17



Now, look at the charts in Figure 17. I drew these some time ago specifically for the course. You are looking at two charts of TNT for the same five days in 1992. The top one is a standard High/Low/Close daily bar chart. Underneath it is a one cent box size Point and Figure chart of the same five days. The point is that with the daily bar chart, you are often left to wonder whether the low was before or after the high, and how much

fluctuation within the range took place during the day. The Point and Figure chart removes all that need for assumptions and captures all of the price action for each of the days. There is a lot more detail available to you in the Point and Figure technique, depending upon the box size that you choose and whether, in fact, you are looking for that detail.

The Point and Figure chart highlights the congestion areas because on any one day, there may have been an active market with a lot of churning of price backwards and forwards. So, a congestion area may develop on a single day, whereas you may not even suspect it on the daily bar chart.

Now, I do not want anybody to think that I am running down daily bar charts, because I use them and find that all of the charting techniques are useful, because they give you different perspectives on the markets. While Point and Figure is my primary tool, there is no reason why your primary tool should not be daily bar charts. However, I have often found that a Point and Figure chart will clarify something I was in doubt about on the daily bar chart and vice versa. When I am in doubt about a Point and Figure chart and it is really important to me, I will seek out a daily bar chart to try to clarify the picture.

So, in this part of the course, I deal in some considerable detail with the analysis of congestion areas, because of their importance in the Point and Figure technique. What I spend about two hours on in the course is the concept of the development of demand and supply vacuums that develop above and below congestion areas and their implications.

In most cases we will be looking for a break-out from a congestion area to give the clue as to the direction of the next trend move. However, there are clues in the shape of the congestion area and where within it the price action takes place, that can help us anticipate the likely direction of the break-out. This can help us by clarifying our risk within the congestion area and also add to our confidence in the break-out signal when it occurs.

### Importance of the Correct Data

You will remember that I indicated that Point and Figure charts should be drawn from the price change data published in the Course of Sales, see Figure 5. The reason for insisting on this is tied up with the critical importance of congestion area analysis in Point and Figure charting. If the Course of Sales data is not used, you are depriving yourself of the use of this important part of the Point and Figure technique. You will also be depriving yourself of the ability to make price projections or targets from the charts and of the full use of trend line studies. In fact, if you have only daily range information available, you should think twice about trying to learn the Point and Figure technique, as you are likely to find it quite limiting and even frustrating. Let me show you why.

Figure 18 shows a 10 cent box size Point and Figure chart of BHP, drawn from the Course of Sales from January to August 1993. You can see the development of the congestion areas on

the chart.

Figure 18

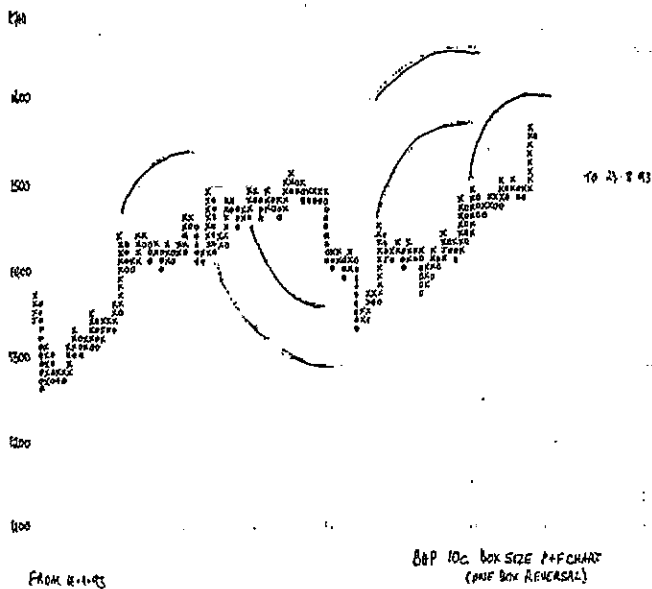
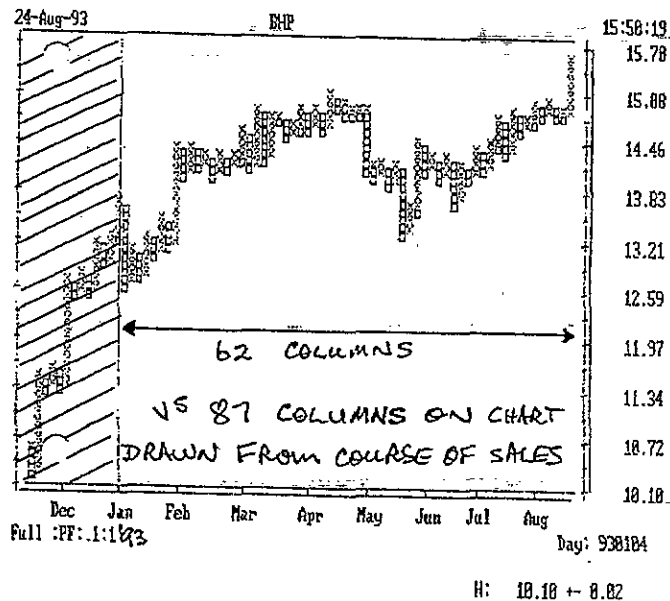
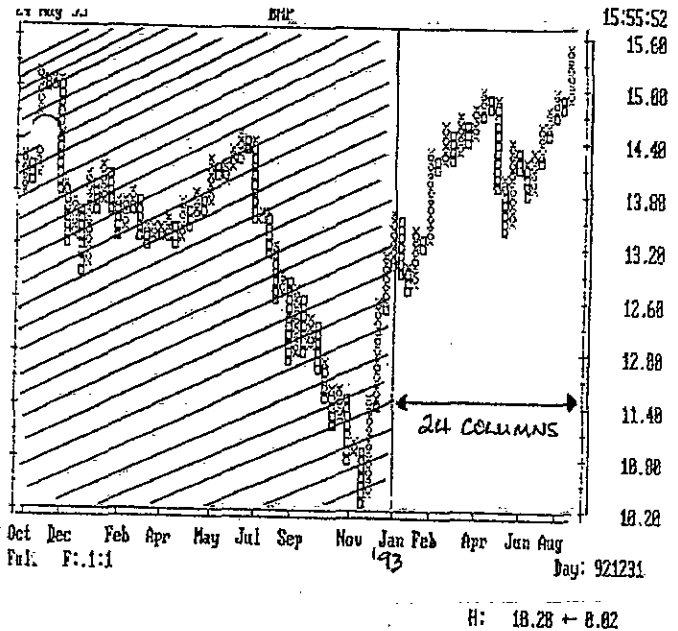


Figure 19



Now, compare it to Figure 19, which is a 10 cent box size Point and Figure chart of BHP drawn only from the daily high and low, as is done by most computer programs. Notice that there are only 62 columns of plots on this chart, which shows exactly the same period as Figure 18. The congestion areas are condensed and there is a loss of significant detail.



Finally, compare both of the two Figures above to Figure 20, which is a 10 cent box size Point and Figure chart of BHP for exactly the same period, drawn from the daily closing price only, as is done by some other computer programs. There are only 24 columns of plots on this chart. The congestion areas have virtually disappeared. This sort of chart is virtually useless for Point and Figure work, except in very long term charts, with a large box size, where there are almost no intraday movements to be plotted.

This is why I keep almost all of my charts by hand from the Course of Sales information. It is the only way that you can see all of the congestion areas and you are not condensing the charts such that they are useless for congestion area analysis, trend line studies and price projections.

### Price Projections

Price objectives are determined on Point and Figure charts by projecting the width of congestion areas. What we are saying is that the width of the congestion area is an indication of how far the ensuing move may carry. This has an empirical basis, but is also based on the theory that the width of the congestion area indicates the extent of the accumulation or distribution that took place in it. The greater the accumulation or distribution, the stronger the ensuing move will be.

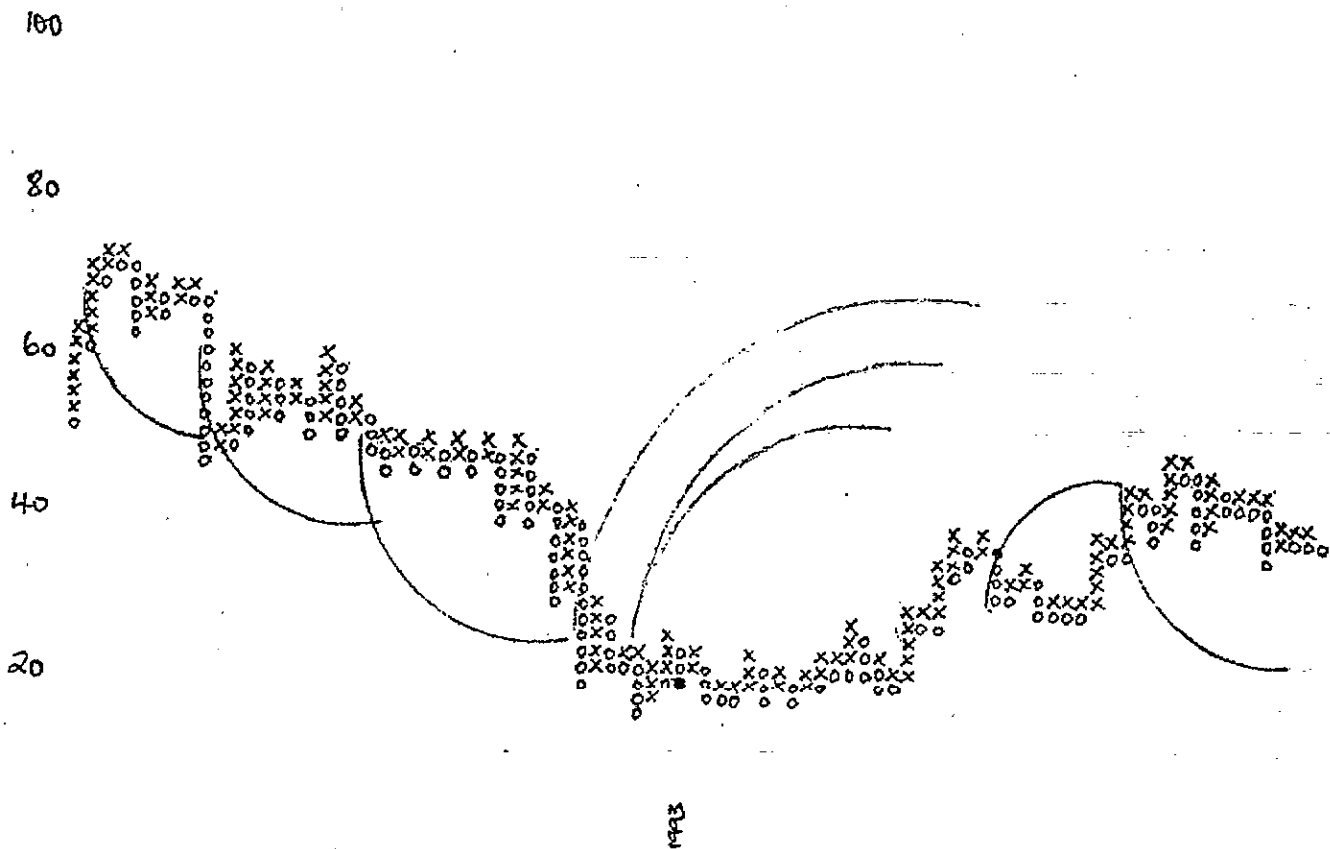
Now, some congestion areas are easier to measure than others, because the easiest ones to measure will be those that have clearly defined "walls" on either side. Other congestion areas may well have sloping sides and there can be some doubt as to where to measure from.

Figure 21

The easiest way to make the projection is to use a pair of compasses, as demonstrated in Figure 21.

Figure 21

make projections from each section and, as that projection is reached, expand your projection to include the other sections. See figure 21, where there were alternative projections from the base pattern. Measurement to the extreme high or low in a



PASET MINING 2c

We place the two points on the bottom of the walls for an up move and the top of the walls for a down move. Then we simply describe an arc to find the projected price. You can also do it by "counting" the number of squares across the congestion area and then counting the same number of squares up or down (or multiplying the number of squares by the box size and adding the result to the price at which the projection is being made.

As explained above, you would try first to use the top or bottom of the "walls" that define the congestion area. In the absence of clear "walls", you would try to measure across the centre of the congestion area, or across the price level with the most price action. That is, with the most "x"s and "o"s on it.

The further away you get from a situation with a clearly defined set of "walls", the less reliable your price projection.

Where you have a complex congestion area, you would first

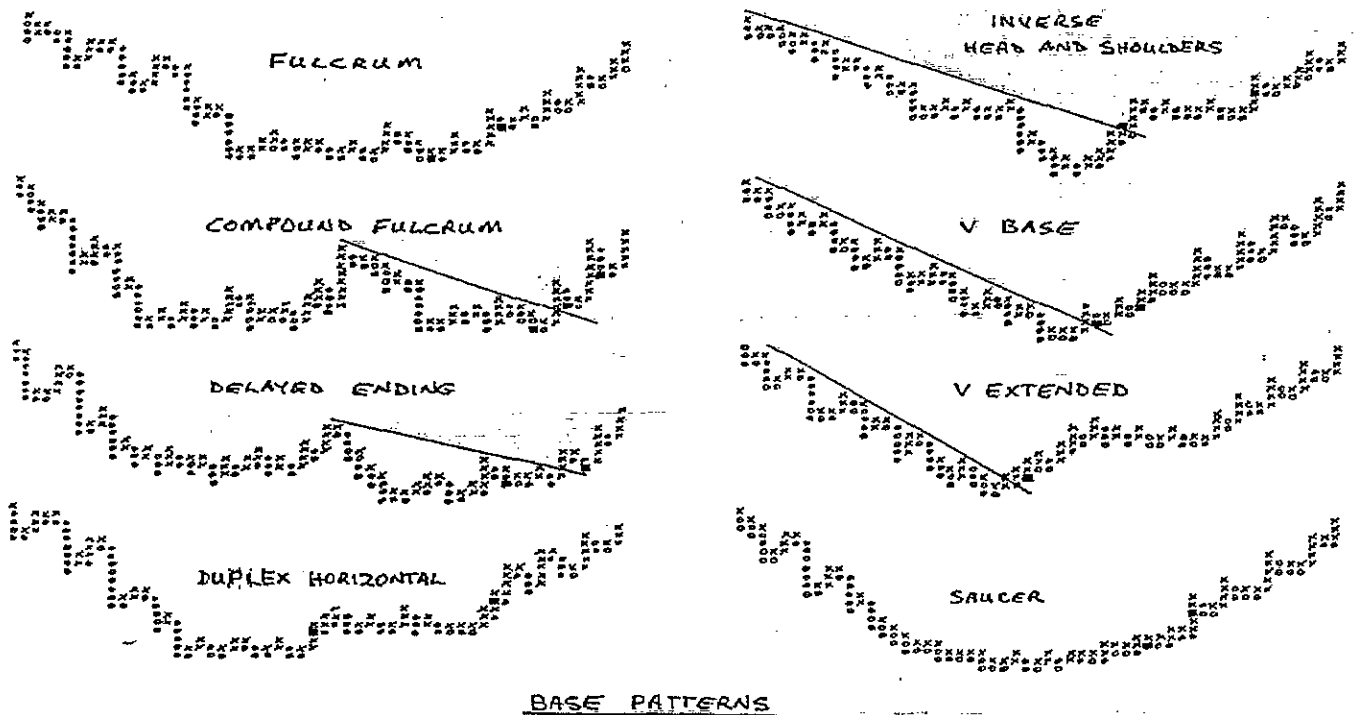
congestion area is also quite fruitful on many occasions.

It is a good idea to look for projections from minor congestion areas that confirm and fine tune the major projections.

### Reversal Patterns

In the Point and Figure charting course, we then go on to look at reversal patterns. These are the major top and bottom patterns that develop on Point and Figure charts. Figure 22 shows the base patterns and there is an equivalent sheet of top patterns that are simply the same formations upside down.

Figure 22



We spend a considerable amount of time discussing each pattern to identify what the requirements are for that pattern to be in existence and where the ideal entry and exit points are.

The first pattern in Figure 22, the Fulcrum, is the one that the Point and Figure chartist tends to be looking for most often. It is also the one that occurs most often and is one of the most reliable reversal patterns.

Its requirements are that, firstly, you have a down thrust in price and then some price action at the bottom of the down thrust. This should be followed by at least one rally that significantly close, you may have to hold the position for quite some time while the base is completed. Often there are multiple rallies and retests of the lows before the base pattern is completed. There is an opportunity cost for holding your position that must be weighed against the greater potential for gain as the pattern spreads out.

Finally, there needs to be a break out above the highs of the rally peaks within the base pattern. This is the next buying point. Note though that your stop loss should be below the pattern, so this entry puts more of your capital at risk. However, the odds are much higher that you will see an early return.

The final buying point is on a dip following the break-out.

You will notice that there are a lot of similarities among the base patterns. In fact they are all variations on either the Fulcrum or the V Base patterns.

The point I always make is that these are idealised patterns and you see something exactly like them in the markets only very rarely. This is because there are endless possible combinations. The key is to understand what the requirements are, so that you can analyse the real patterns that you find in the markets. You are then able to say that a real pattern meets the requirements of one of the textbook types and can act accordingly once you see a break out.

The point is that it is not necessary to put an exact label on every real pattern in the markets. I often find that a pattern could be one or it could be several others as it has all their characteristics. It is not necessary to put a label on it to make money from it. All you need to recognise is that it is a base and that you have a valid break out from it.

### Course: Conclusion

So that is the ground that we cover in the Point and Figure course. Obviously over the eight hours of the course we go into a lot more detail than is possible here tonight.

*THIS CONCLUDES THE FIRST PART OF COLIN NICHOLSON'S PRESENTATION. THE SECOND HALF WILL BE PUBLISHED IN THE NEXT NEWSLETTER.*



# MOB PSYCHOLOGY AND THE NUMBER 56

The fourth article in a series by David McMinn. Readers unfamiliar with this subject area should consult the Glossary of Terms at the end of this article.

*'I do not understand your meaning when you say 'astrology'. I do not know all the influences which go from body to body. I do know that if man is not affected in some way by the planets, Sun & Moon, he is the only thing on Earth that isn't'.*

Millikan.

A 56 year cycle has been established in trends of US & Western European financial crises since 1760 (Funk, 1932; McMinn, 1993). Clearly, many major financial crises are precipitated by some mechanism, as they occur preferentially in patterns of the 56 year cycle and not as random events. After testing numerous hypotheses for significance, the 56 year cycle was concluded to be based on angular/zodiacal relationships between the Sun, Moon and Moon's nodes (diurnal cycles?). Many economists would scoff at the notion that the heavens have relevance to economic booms and busts. Despite such biases, astrology is sound as a scientific theory as it is testable and thus competing hypotheses relating the cosmos to earthly experiences may be confirmed or negated. Such findings are reproducible in subsequent studies and have a high degree of predictability, both of which are scientific criteria. In contrast, most economic theories and models are untestable, unverifiable and non science. However, the 56 year cycle of financial crises was not based on traditional astrology. This is hardly surprising, as rigorous research has offered little hard core support for astrological theory, although such concepts have been widely researched (Dean, 1978; Culver & Ianna, 1984).

## SOLUNAR INFLUENCES

It is well established that solunar cycles, especially lunar phase, have a direct impact on the Earth, its life forms and humanity. Indeed scientific references on this topic are voluminous. The following is given only as a brief outline:

The gravitational pull of the Sun & Moon cause tides in the ocean, atmosphere and land surface.

Solunar cycles have been implicated with earthquake and volcanic activity, as well as the weather.

The Sun's radiation provides energy on which virtually all Earthly life forms are sustained and variations in input cause the four seasons and the solar day.

Lunar phase influences many sexual/mating/breeding cycles of animals.

Reproduction, moulting and many physiological rhythms in mammals are regulated by changes in the photoperiod (ie seasonal changes in day length). This is particularly evident in the latitudes where there is a marked variation in day length during the year.

Lunar phase does have relevance to technical trading, mainly in those commodities which are subject to cyclical price

variation, such as sugar, cocoa, silver, soybean oil, corn and wheat (Eng, 1988). A new Moon gives a buy signal (ie: a low market) and a full Moon a sell signal.

How the Sun & Moon directly influence the human body is subject to debate. Three noteworthy possibilities arise:

Gravity effects and biological tides of peoples' own bodily liquids could impinge on the emotions and physical functions, thus accounting for the lunar effect.

Animal and human behaviours are influenced by the Earth's magnetism and electromagnetic field, which in turn are strongly affected by the two luminaries. All living organisms have electrical activity and are thus subject to the laws of electricity.

Changes in the photoperiod (ie hours of daylight) have been shown to have an impact on animal behaviours. Similarly, the varying intensity of moonlight during a synodic month may also be influential.

Such factors make it plausible for people to undergo psychological mood swings in accordance with the changing Sun - Moon cycles. This, in turn, is postulated to precipitate the cycles of business activity. Mills (1867) first formulated the view that the 'mental mood' of businessmen runs in cycles. Theoretically, business indexes could be regarded as a measure of people's prevailing psychological mood. When optimistic, they invest, speculate, buy goods and services and expand production. Taken to an extreme euphoria, foolishness, fraud and squandering become apparent. Such thinking results in prosperity and economic expansion. Conversely if pessimistic, they reduce purchases, investments and speculations, becoming gloomy and cautious about future prospects. This gives rise to recession or depression. Financial crises and panics occur when there is a sudden change for the worse in people's outlook.

## SOLUNAR CYCLES

A prime influence on financial crises is believed to be the well known Saros cycle. Every 223 synodic months (18.03 years), the angles between the Sun, Moon and nodes align in the same relative position to within a fraction of a degree. The Saros of 18.0 solar years is equal to 19.0 eclipse years. (One eclipse year is the time taken for the Sun to complete one cycle north node to north node and equals 346.62 days.) The Saros divided by two gives the 9 ysc. Every 9.5 eclipse years (or 9.0 solar years), the Moon's relative position is approximately the same angle to the north node, with the Sun 180 degrees on the opposite side of the zodiac.

Every 56 years the Sun conjuncts (0 degree angle) the Moon's north node in almost the same zodiacal position (3 degrees clockwise) and on the same date (minus three or four days). Furthermore, an alignment of solunar cycles occurs at 692.5 synodic months (56.0 solar years), as is evident for the half Saros at 111.5 synodic months (9 solar years) (see Appendix 1). The 0.5 fraction in these figures results in alternating solar/lunar

eclipses and full/new moons every 111.5 and 692.5 synodic months. Every 56.0 years the Sun and the north node align in approximately the same relative angle with the Moon 180 degrees on the opposite side of the zodiac. Some type of connection could be expected between the Saros and the 56, as financial crises occur at the 'intersection' of the 56 year sequences and the sub-cycles in multiples of 9 years (see Tables 1 & 2, McMinn, 1993).

Every 3.3 years, the same relative angles occur between the Sun & Moon with the north node 180 degrees on the opposite side of the zodiac (see Appendix 1). However, this proposed short term cycle is less precise (to within about 2.5 degrees), than the 9 and 56 year cycles (to within one degree).

These Sun-Moon cycles of 3.3, 9.0 and 56.0 solar years are based on angles of 0 and 180 degrees. The reasons for the importance of these angles remain unknown, although it may arise from the relevance of the north and south nodes which are always 180 degrees apart in the zodiacal circle.

The Moon's nutation period of 18.6 years is based on one cycle of the north node clockwise through the zodiacal (ecliptic) circle and is integrally linked with the 56 year cycle and financial crises.

No connection could be confirmed between the Metonic cycle and business activity. Every 19.0 years from the precise date of an eclipse or full/new Moon, another eclipse or full/new Moon, occurs at about the same degree of the zodiac and the same date.

## THE ECLIPSE YEAR.

Sun/north node (S/NN) conjunctions (ie 0 degree angles) are the basis of the eclipse year of 346.6 days, in which the Sun completes one cycle north node to north node. From Table A Appendix 2, S/NN conjunctions for:

**ALL** 23 years in the 36 year sub-cycles (ysc) Series 1 (1760-2000) are found in an arc of 85 degrees between 05 Pisces & 30 Taurus.

**ALL** 21 years in 36 ysc Series 2 (1760-2000) are located roughly opposite in the zodiac between 20 Leo & 12 Scorpio, an arc of 82 degrees.

For the 9 ysc (see Table B, Appendix 2), **ALL** 23 S/NN conjunctions (1760-2000) occurred between 0 Aries and 05 Taurus (an arc of 35 degrees) and, diagonally opposite in the zodiac, 15 Virgo and 20 Libra (an arc of 35 degrees). The probability for such patterns to occur by chance would be infinitely small and perfect correlations exist between the zodiacal placement of S/NN conjunctions and the 9/36 ysc. One would expect by chance an even distribution throughout the zodiac of S/NN conjunctions, if there was no relationship between these configurations and financial sub-cycles based on multiples of 9 years.

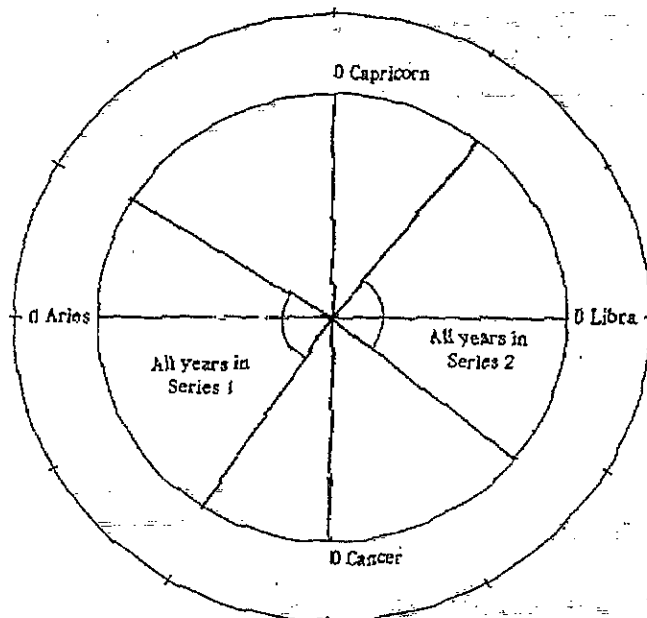
As may be expected from the data on S/NN conjunctions, the zodiacal position of the north node also forms perfect correlations with the 36 ysc (see Diagram 1). As on July 1, the north node

for **ALL** years in Series 1 are sited between 28 Aquarius and 28 Taurus, while for Series 2 they **ALL** occur between 22 Leo and 21 Scorpio.

## Diagram 1 ZODIACAL POSITION OF THE NORTH NODE (1760-2000)

As on July 1

All Years In the 36 year sub-cycles (Series 1 & 2)



Kindleberger (1989) listed 31 major crisis years for the period 1760-1940 (see Appendix 3), S/NN conjunctions are nearly always found in two segments of about 80 degrees roughly opposite in the zodiac:

- \* 3 Aries to 24 Gemini An arc of 81 degrees
- \* 21 Virgo to 12 Sagittarius An arc of 81 degrees

Of the 31 major crisis years, only for 1815 (4 Cancer), 1907 (23 Cancer), 1932 (26 Pisces) and 1933 (8 Pisces) are the S/NN conjunctions found outside these two zodiacal segments (Highly significant  $p < .00001$ , using chi-squared test). Again one would expect an even distribution of S/NN conjunctions throughout the zodiacal signs if only chance factors were operating. Furthermore, for the 31 years, S/NN conjunctions in:

11 major crisis years are located in Aries and the opposite sign Libra (1760-1940) ( $p < .01$ ).

Only one major crisis year (1907- 23 Cancer) had S/NN conjunctions sited in either 15 Cancer - 0 Virgo or 15 Capricorn - 0 Pisces (two 45 degree arcs diagonally opposite in the zodiac) ( $p < .01$ ).

None of the major crisis years occurred between 15 Sagittarius to 5 Pisces (an arc of 80 degrees) ( $p < .01$ ). Of the 44 major crises (1760-1987 period) given by Kindleberger (1989), only one (1973) happened when S/NN conjunctions fall in this 80 degree zone ( $p < .01$ ).

For Kindleberger's 44 major crisis years in the 1760-1987 period, S/NN positions for the various zodiacal segments/signs discussed previously were still statistically significant, but usually at a lower level ( $p < .05$  in some cases).

For the 36 sub-cycles (Series 1) between Sequences 01, 21 and 41 in Table A Appendix 2, the S/NN conjunctions are found in a narrow range of about 60 degrees (late Pisces to late Taurus).

20 ysc (on the diagonals in Table A Appendix 2) eg: 1873 (24 Taurus), 1893 (29 Aries), 1913 (3 Aries). The relative zodiacal position of S/NN conjunctions changes by about 26 degrees clockwise every 20 years.

36 ysc (eg: 1857 (6 Aries), 1893 (29 Aries), 1929 (21 Taurus)). The relative zodiacal position of S/NN conjunctions changes by about 22 degrees anti clockwise every 36 years.

For these 20/36 ysc, major financial crises are rarely activated once the S/NN conjunctions move outside the 'critical zone' (Aries & Taurus). A comparable situation would arise for the 36 ysc Series 2 with a 'critical zone' focused on Libra.

Every 56 years, the S/NN conjunctions alter their relative position by only 3 degrees clockwise. This slow motion through the 'critical zones' accounts for the persistence of the 56 year sequences over long time spans. As this study only covers 230 years, it is not possible to determine if 'critical zones' move through the zodiac or remain centred on Aries & Libra. Why these two zodiacal segments are so important in the 56 year cycle is unknown. It may possibly have some connection to 0 Aries/0 Libra coinciding where the plane of the Earth's orbit around the Sun (the ecliptic) crosses the Earth's celestial equator. (The equinoxes occur in September and March when the Sun is at these degrees.)

Importantly, each north node configuration to the Sun & Moon has a counterpart for the south node 180 degrees on the opposite side of the zodiac. Tables in Appendix 2 give north node data but could also be drawn up for the south node.

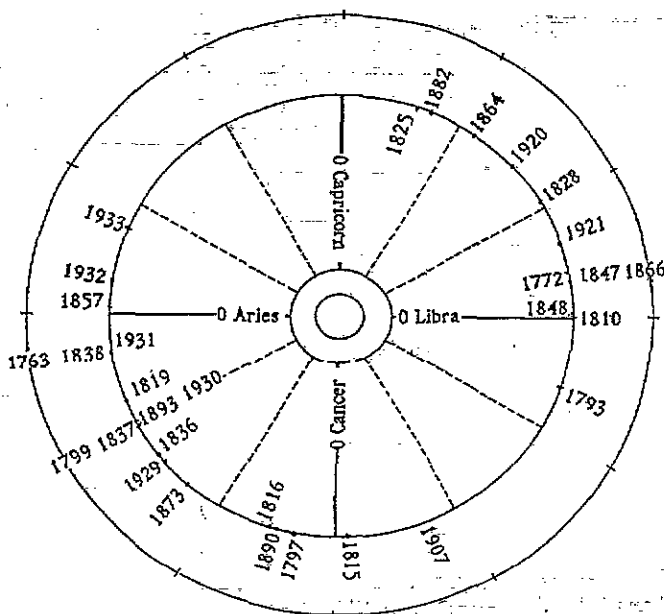
## THE ZODIAC, THE SUN & NODES

The timing of major crises (1755-1940) may be strongly correlated with the nutation cycle (see Diagram 2). Only 6 crises occurred when the north node was located in the quadrants Capricorn - Aquarius - Pisces and Cancer - Leo - Virgo ( $p < .001$ ). No crises were evident when the north node was between 15 Sagittarius & 5 Pisces; an arc of 80 degrees ( $p < .001$ ). Two crises occurred when the north node was in Cancer - Leo or the diagonally opposite signs Capricorn - Aquarius ( $p < .01$ ). Given the relatively slow movement of the nodes through the zodiac, such patterns could have been assumed from data on S/NN conjunctions, which was discussed previously. One would expect an even distribution of the north node (at the time of a major financial crisis) throughout the zodiacal circle if only chance factors were operating.

In Diagram 2: Major crisis years by Kindleberger (1989) for the period 1755-1940. Zodiacal position of the mean north node at the time of the financial crisis/panic. For years with no given

crisis month, the north node is taken as occurring at July 1. For years with multiple months, the north node is timed mid way between the first and last crisis month given.

**Diagram 2 NORTH NODE ZODIACAL POSITION & MAJOR FINANCIAL CRISES 1755-1940**



The nutation cycle of financial crises partly accounts for the 9 year Juglar cycle of economic literature. Analysis of the Juglar cycle regarded the following crisis years as the prime turning points in economic trends. The position of the mean north node at the time of the crisis month is given in parentheses: 1810 (0 Libra), 1818 (29 Aries), 1825 (12 Sagittarius), 1836 (9 Taurus), 1847 (10 Libra), 1857 (0 Aries - 25 Pisces), 1866 (10 Libra), 1873 (18 & 25 Taurus), 1882 (7 Sagittarius), 1890 (16 Gemini), 1900 (10 Sagittarius), 1907 (19 & 22 Cancer), 1913 (28 Pisces), 1920 (13 Scorpio), 1929 (12 Taurus). Please note: For some years, the crisis month was unknown (eg: 1900, 1913, 1920). In such cases the July 1 position of the north node is given. Of the 15 years presented in the Juglar cycle, only one (1907) falls outside the following two quadrants, which are opposite in the zodiac:

- \* 20 Pisces to 20 Gemini An arc of 90 degrees.
  - \* 20 Virgo to 20 Sagittarius An arc of 90 degrees.
- Very Significant  $p < .001$

The alternating periods, when major crises are likely/unlikely to manifest, gives a period of roughly 9 years as found within the Juglar cycle. (A half nutation period equals 9.3 years.)

The zodiacal position of the Sun could also be regarded as having an impact upon business activity. September - October (Sun in Virgo - Libra) has always been considered as the period in which major crises are likely to occur. These months accommodate all of the 'black' days in US economic history (1869, 1873, 1929, 1987). Harle & McMinn (to be published)



found that, for the 50 greatest one day rises and falls in the Dow Jones Industrials (1928-93), the Sun was found in Libra - Scorpio with statistical significance. Such factors support the view that the Sun's zodiacal position is significant in business trends.

After assessing figures for 1983-92, Knox (1992) found that the Australian stock market reached a seasonal peak in September which was followed by an easing or slump in October. During the year, the stock market reached a low in February, a peak in April (the most reliable up market month), a June correction, a September peak and a December low. The best months to buy according to Knox were January, March - April and July. However this annual trend may be due to more mundane seasonal factors. These months coincide with the beginnings of new financial years in various countries. Overseas buying could account for the marked seasonal effect rather than the Sun's zodiacal placement.

There are also calendar effects in stock market movements. At certain times of the year and on certain days of the week stock prices predictably rise (or fall) by more (or less) than on the average of all trading days (The Economist, 1992). Related returns vary correspondingly. Stock prices tend to rise on:

- The last day of a month/first few days of a new month. ...
- Fridays but fall on Mondays.
- The day before public holidays.

These artificial effects are unrelated to solunar cycles.

## THE MOON: A KEY

Given the alignment of several solunar cycles at 9 (half Saros) and 56 solar years, the Moon was expected to play a prominent role in the 56 year cycle. Consequently, the angle made by the Moon to S/NN conjunctions was appraised. In the 36 ysc Series 1 & 2, Moon angles to S/NN conjunctions in ALL 44 years between 1760 and 2000 show up in the following ranges:

- \*0 to 50 degrees                      A range of 50 degrees.
- \*170 to 240 degrees                A range of 70 degrees.

This would be extremely unlikely to occur by chance and a perfect correlation exists between the Moon angle to S/NN conjunctions and the 9/36 ysc.

Moon's zodiacal position at the time of S/NN conjunctions (1760-2000) ranged for ALL 44 years in the 36 ysc (Series 1 & 2) as follows:

- \*22 Aquarius - 07 Cancer            An arc of 135 degrees.
- \*02 Virgo - 16 Capricorn            An arc of 134 degrees.

This was highly unlikely to occur by chance ( $p < .001$ ).

The comparable figures for ALL the 26 years in the 9 ysc are:

- \*25 Virgo - 07 Sagittarius            An arc of 72 degrees.
- \*02 Aries - 27 Taurus                An arc of 55 degrees.

A near perfect correlation.

At the time of S/NN conjunctions, the Moon was found in Aries/Libra in 11 of Kindleberger's 31 major financial crisis years (1760-1940) ( $p < .01$ ). Of Kindleberger's 18 major crisis years in the 36 ysc (Series 1 & 2) (1760-1987 period), 17 had the Moon's zodiacal position at the time of S/NN conjunction

occurring in:

- \*02 Aries - 07 Cancer                An arc of 95 degrees.
  - \*10 Virgo - 26 Sagittarius          An arc of 106 degrees.
- ( $p < .001$ ).

Lunar Phase (Sun - Moon angles) may also be relevant. Harle & McMinn (to be published) found no significance ( $p > .01$ ) between the greatest 50 one day rises/falls in the Dow Jones Industrials (1928-93).

Apogee/Perigee could be postulated to have a bearing on the 56 year cycle. Perigee is that point in the Moon's orbit which is closest distance to the Earth, where as apogee is the point furthest from the Earth.

Diurnal Cycles are likely to be significant in relation to the 56. The lunar day (ie: lunar rising, noon and setting) would differ from place to place on the Earth's surface, a key variable that would also apply to the Sun & north node.

Latitude. There are also indications that cycles may vary with latitude. According to Wing (1961 & 1962), cycles as diverse as tree growth, rainfall, wheat acreages, disease, war, FINANCIAL CRISES (author's emphasis), etc all exhibit a wave of 9.6 years duration that peaks about the same time at the same latitude. However, the peaks occur progressively later with decreasing latitude towards the equator. The difference between the pole and the equator is proportional to cycle length and averages roughly 0.7 cycles.

Studies on diurnal cycles and latitude effects offer clues in explaining variations in economic activity by country/region and why financial crises may occur in some countries and not others in a particular year. The influence of the Sun & Moon should vary according to the location on the Earth's surface.

Many factors support the premise that the angular/zodiacal relationship between the Sun, Moon and nodes is related in some manner to financial crises. This rudimentary approach cannot predict the timing or intensity of financial crises. Additional variables are involved, which will only be determined through research.

## THE ELLIOTT WAVE

No connection was established linking the 56 year cycle with the Elliott wave, which many technical analysts use in their market forecasting. The latter is a mathematical model for forecasting stock market movements based on predictable patterns and was first proposed by R N Elliott in the 1930's. In his theory, the market rises (an impulse: A-B) in three waves up and two down, while it falls (a correction: B-C) by two down and one up. The corrections cause partial loss (usually 50%) of the gains made in the impulse phase. The Elliott wave is complex and can exhibit the same pattern A-B-C with vastly different time scales. This wave theory is derived from the Fibonacci numbers, in which each number is the sum of the previous two (ie. 0, 1, 1, 2, 3, 5, 8, 13, 21, etc). Such numbers are widely found in nature - nautilus shells, the petals of sunflowers, the radial spiral of



pineapples, etc.

The Elliott wave predicts market tops and bottoms, where as the 56 year cycle denotes likely panic or crisis periods in market movements. Both the 56 year cycle and the Elliott wave are systematic trends in market activity and should be interrelated in some manner. Consequently, it could be postulated that some connection exists between these two cycles and solunar cycles. Unfortunately, a testable hypothesis could not be proposed to prove such a statement.

## HARMONICS

Harmonics is based on the formula - 360 degrees of a circle divided by N, where N is a whole number. Thus, 360 degrees divided by: 2 gives 180 degrees (2nd harmonic); 3 gives 120 degrees (3rd harmonic); 4 gives 90 degrees (4th harmonic); 5 gives 72.5 degrees (5th harmonic) and so on. In harmonics, there appear regular fluctuations around circles of 360 degrees which correspond to the integral divisions of 360. The circles used in astrology are the:

Zodiacal circle based on the ecliptic.

Aspectual circle based on the angular separation of two points/planets.

Diurnal circle based on the rising/culmination/setting of a heavenly body.

Throughout the analysis, the key angles associated with the 56 year cycle were 0 and 180 degrees (ie: 2nd harmonic). No explanations can be offered to account for this phenomenon. There was no evidence of other harmonics being valid (ie: 3rd, 4th, 5th, 6th, etc.), although such harmonics may be important.

After an exhaustive critical appraisal of astrological research conducted between 1900 and 1976, Dean (1978) concluded that:

*'THE RESULTS OF HARMONIC RESEARCH TO DATE SUGGEST THAT ASTROLOGICAL SIGNIFICANCE LIES NOT IN THE TRADITIONAL SIGNS AND HOUSES BUT IN THE INTERVAL BETWEEN TWO POINTS (OR HEAVENLY BODIES). THE DECISIVE THINGS ARE THUS THE SIZE OF THE INTERVAL, ITS RELATION TO 360 DEGREES AND WHAT COMPRISES THE TWO POINTS. THE SIGNIFICANCE OF THE INTERVAL IS THOUGHT TO LIE IN THE SYMBOLISM BY WHICH THE CIRCLE IS DIVIDED'.*

*'IN THE ZODIACAL CIRCLE, THE REFERENCE POINT IS PROBABLY THE CARDINAL POINTS (IE 0 ARIES; 0 CANCER; 0 LIBRA; 0 CAPRICORN) AND IN THE DIURNAL CIRCLE THE REFERENCE POINT SEEMS TO BE LOCATED NEAR THE ASCENDANT. THIS STRONGLY SUGGESTS A COMMON DENOMINATOR, NAMELY THAT IN BOTH CIRCLES THE REFERENCE POINT IS A NODE (AUTHOR'S EMPHASIS)'.*

The Findings of this study tend to support Dean's conclusions. Traditional astrology was not confirmed and, throughout the solunar analysis, angles between the Sun/Moon/nodes formed a basis of the 56. Furthermore, the zodiacal circles giving data

on the Sun/NN conjunctions in major crisis years showed a strong emphasis on the two cardinal zodiac signs - Aries & Libra. The Moon's nodes were also of prime importance in assessing the 56 year cycle.

## TRADITIONAL ASTROLOGY

Various astrologers have conducted extensive studies on possible planetary influences on business cycles. The findings have been interesting, but failed to yield valid correlations (Dean, 1978). Williams (1982) believed Jupiter - Saturn - Uranus cycles 'offered a clue' in explaining the crises in Sequences 01, 21 & 41 (Funk, 1932). This view was not confirmed by the evidence with no connection being found between any of the planets and the 56. Numerous hypotheses were tested for significance: planets by zodiacal sign/segment, angles between the planets, planets at certain zodiacal degrees and so forth. None of these factors had any relevance to the 56. Overall, traditional astrological theory did not correlate with the 56 year cycle. Only the Sun & Moon are advocated as the prime influence on cycles of financial crises.

Ascendant & ecliptic longitude are extensively used in astrology. However, the Moon's rising point may have more validity. The latter is the moment the heavenly body (not its ecliptic longitude) crosses the eastern horizon. In comparison, the ascendant is the degree on the ecliptic which rises on the eastern horizon at a specific time. For moonrise, the rising point can differ from the ascendant by as much as 20 ecliptic degrees in European latitudes. The Sun and nodes are on the ecliptic and thus their rising points always coincide with the ascendant. Astrological studies have not verified the relative merits of rising points versus ascendant and ecliptic longitude (Dean, 1978).

Nutation Cycle. Williams (1982) concluded that the Moon's north node at 0 Aries or 0 Libra gave an 'advance warning' of an important stock market low. Similarly, the north node at 0 Cancer or 0 Capricorn is an indicator of a market high. According to Williams, this 9.3 year half nutation period correctly denoted the New York stock market highs and lows about 80% of the time for 41 examples between 1792 and 1983. The north node was at 0 Aries in December 1987 near the major low just after the spectacular October stock market panic of that year. The north node at 0 Capricorn in July 1992 did not coincide with a major peak in the stock market. The north node will be at 0 Libra in January 1997, when the theory indicates another low may be evident.

Zodiacal Degrees. Some astrologers believe 'critical degrees' to be important - 0, 13, 26 degrees of the cardinal signs (Aries, Cancer, Libra, Capricorn), 9, 21 degrees of the fixed signs (Taurus, Leo, Scorpio, Aquarius) and 4, 17 degrees of mutable signs (Gemini, Virgo, Sagittarius, Pisces). No consistent correlation was found between financial crisis years and the occurrence of solunar eclipses or full/new Moons at certain discrete zodiacal degrees.

Part of Fortune is calculated from the position (in terms of ecliptic degrees) of the Moon added to the position of the



maximum precipitation tended to occur in the third to fifth day after new or full Moons. Adderly & Bowen (1962) established a similar finding for the southern hemisphere. Brier (1965) deduced that the average lunar monthly rainfall was 20% higher when the full or new Moons were close to perigee and also adjacent the Moon's nodes. His analysis spanned the period 1900 to 1962. Brier also found a rainfall pattern associated with the lunar day. The 56 year cycle could possibly prove influential on weather, if records were examined for such a trend.

## CONCLUSIONS

The 56 year cycle of financial crises is based on angular/zodiacal relationships of the Sun, Moon and nodes. Diurnal cycles may also be important, but could not be assessed from the data used in this study. These solunar patterns would vary for each crisis, thereby accounting for the uniqueness of each event. The 56 year cycle must also change progressively over long time spans and never repeat itself exactly, a factor which does not augur well for predicting from historical trends. Patterns in the 56 year cycle form and disperse in a complex manner and it is not possible to achieve accurate forecasting by extrapolating from historical trends.

Solunar cycles offer the best prospects for understanding the 56 year cycle of financial crises and possibly the whole business cycle of expansion, crisis and downturn. Alas only basic principles have been established in relation to the 56 year cycle. Further research could establish additional solunar links with business indexes. Such studies could be easily undertaken using relevant indices and running a battery of statistical tests for solunar influences in stock market movements. Any valid correlations should appear in trends of the Dow Jones Industrials (New York), the FTSE 100 (London) and the Nikkei-Dow (Tokyo). From various references and the findings of this study, the following key variables could be tested for significance:

- \*Angular relationship between the Sun/Moon/north node/ascendant.
- \*Zodiacal placement of the Sun/Moon/north node/ascendant.
- \*Apogee/perigee.
- \*Latitude and diurnal effects.
- \*Harmonics.
- \*Fibonacci numbers/Elliott wave.

Some of this work may already have been done. If high correlations were produced, the results need not have been published, given the potential profits to be made. To the author's knowledge, studies relating solunar cycles to business activity have not been undertaken, apart from a few basic analyses on the Moon's nodes and lunar phase. This seems highly unusual given the scientifically proven solunar influences on the Earth and humanity.

After testing various hypotheses, no relationship could be established between the 56 year cycle of financial crises and the following:

Planets being located in certain zodiac signs or segments.

Angular relationships between the planets.

The 11 year sunspot cycle and the 19.0 year Metonic cycle.

Solunar eclipses and full/new Moons at certain precise zodiacal degrees.

The pathway of the Moon's shadow over the Earth's surface during solar eclipses.

The timing of eclipses.

Overall, traditional astrology was not applicable to the 56 year cycle of financial crises. Even so, some very basic concepts were found to be valid such as the use of zodiacal and aspectual circles and the importance of the Sun, Moon and nodes. (Diurnal cycles may also be relevant.) However, these several variables give rise to a very complex cyclic behaviour, which has a major impact upon business trends. New concepts in cycle theory will need to be developed thereby opening up the possibility of accurate long term business forecasting - the holy grail of technical analysts.

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**Synodic Month** (or lunar month) is the interval between successive new Moons and is equal to 29.5306 days.

**Tropical Month** is the time taken for the Moon to complete one 360 degree cycle of the zodiac (tropical) and is equal to 27.3216 days.

**Nodical Month** is the time taken for the Moon to complete one cycle north node to north node and is equal to 27.2122 days.

**Note:** Perturbations exist in the motions of the Earth and Moon and deviations from these average figures are evident.

## APPENDIX 2: ACCOMPANYING SUN-MOON TABLES

### TABLE A 36 YEAR SUB-CYCLES & S/NN CONJUNCTIONS (a)

#### APPENDIX 1 - COMPARING THE 56 YEAR & SAROS CYCLES

##### SAROS CYCLE

Days	Years	Solunar Cycle
6,574.36	18.000	18 Solar Years
6,585.78	18.031	19 Eclipse Years
6,585.32	18.030	223 Synodic Months (One Saros Cycle)
6,584.51	18.028	241 Tropical Months
6,585.35	18.030	242 Nodical Months

##### HALF SAROS CYCLE

Days	Years	Solunar Cycle
3,287.18	9.000	9 Solar Years
3,292.89	9.016	9.5 Eclipse Years
3,292.66	9.015	111.5 Synodic Months
3,292.26	9.014	120.5 Tropical Months
3,292.68	9.015	121.0 Nodical Months

##### 56 YEAR CYCLE

Days	Years	Solunar Cycle
20,453.55	56.000	56 Solar Years
20,450.58	55.992	59 Eclipse Years
20,449.94	55.990	692.5 Synodic Months
20,450.23	55.991	748.5 Tropical Months
20,449.97	55.990	751.5 Nodical Months

##### PROPOSED 3.3 YEAR CYCLE

Days	Years	Solunar Cycle
1,205.30	3.300	3.3 Solar Years
1,213.17	3.322	3.5 Eclipse Years
1,210.75	3.315	41.0 Synodic Months
1,202.15	3.291	44.0 Tropical Months
1,210.94	3.315	44.5 Nodical Months

**Solar Year** is the time taken for the Sun to complete one cycle from spring equinox to spring equinox and is equal to 365.2422 days.

**Eclipse Year** is the time taken for the Sun to complete one cycle north node to north node and is equal to 346.6200 days.

SERIES 1: SEQ 05(b)	SEQ 41	SEQ 21	SEQ 01 1761 30 Taurus
		1781 + 36 5 Taurus	1817 27 Taurus
1765 + 36 17 Pisces	1801 + 36 9 Aries	1837 + 36 2 Taurus	1873 24 Taurus
1821 + 36 14 Pisces	1857 + 36 6 Aries	1893 + 36 29 Aries	1929 21 Taurus
1877 + 36 11 Pisces	1913 + 36 3 Aries	1949 + 36 26 Aries	1985 18 Taurus

SERIES 2: SEQ 52	SEQ 32	SEQ 12 1772 + 36 20 Libra	SEQ 48 1808 12 Scorpio
	1792 + 36 24 Virgo	1828(c)+36 17 Libra	1864(c) 9 Scorpio
1812 + 36 29 Leo	1848 + 36 21 Virgo	1884 + 36 14 Libra	1920 6 Scorpio
1868 + 36 26 Leo	1904 + 36 18 Virgo	1940 + 36 11 Libra	1976 3 Scorpio
1924 + 36 23 Leo	1960 + 36 15 Virgo	1996 08 Libra	
1980 20 Leo			

### TABLE B 9 YEAR SUB-CYCLES & S/NN



### CONJUNCTIONS (a)

SEQ 32	SEQ 41	SEQ 50	SEQ 03	SEQ 12	SEQ 21
			1763	1772	1781
			24 Aries	20 Libra	5 Taurus
<b>1792</b>	1801	1810	<b>1819</b>	<b>1828(c)</b>	<b>1837</b>
24 Virgo	9 Aries	6 Libra	21 Aries	17 Libra	2 Taurus
<b>1848</b>	<b>1857</b>	<b>1866</b>	1875	1884	<b>1893</b>
21 Virgo	6 Aries	3 Libra	18 Aries	14 Libra	29 Aries
1904	1913	1922	<b>1931</b>	1940	1949
18 Virgo	3 Aries	0 Libra	15 Aries	11 Libra	26 Aries
1960	1969	1978	<b>1987</b>	1996	
15 Virgo	0 Aries	27 Virgo	12 Aries	08 Libra	

Major crisis years by Kindleberger (1989) presented in bold. (a) Zodiacal position of S/NN conjunctions. (b) Two S/NN conjunctions fall in Sequence 05 in the year commencing February 20. (This may happen as the eclipse year of 346.62 days is less than the solar year of 365.24 days.) The S/NN conjunctions presented in the tables is the same Saros number in a particular 36 year sub-cycle (eg: 1877, 1913, 1949, 1985 all fall in Saros Number 05). (c) 1828 & 1864 French crises occurred 'early' (pre March).

### APPENDIX 3 - SOLUNAR DATA- MAJOR CRISIS YEARS (1760-1987)

The following table gives solunar raw data for major crisis years by Kindleberger (1989) for the period from 1760 to 1987.

Day	Month	Year (a)	S/NN(b)	Moon(c)	Phase(d)
13	04	1763*	023	026	003
12	10	1772*	200	028	188
16	09	1792*	174	175	001
13	06	1797	083	304	222
06	05	1799	046	063	017
29	09	1810*	185	193	007
26	06	1815	094	325	231
06	06	1816	076	208	133
11	04	1819*	020	209	189
04	12	1825	252	176	284
29	10	1827	215	330	115
10	10	1828*(e)	197	209	013
10	05	1836	050	355	305
22	04	1837*	032	227	196
03	04	1838	013	123	109
03	10	1847	190	125	296
14	09	1848*	171	002	190
27	03	1857*	006	021	015
20	11	1863	238	358	120
01	11	1864*(e)	219	240	021
25	09	1866*	183	020	198
15	05	1873*	054	266	212
30	11	1881	249	011	122
14	06	1890	084	056	332
18	04	1893*	029	057	028
17	07	1907	113	186	072
30	10	1920*	216	069	213

11	10	1921	198	321	123
12	05	1929*	051	097	046
23	04	1930	033	335	302
05	04	1931*	015	229	215
17	03	1932	356	104	108
26	02	1933*	338	007	029
16	10	1958	202	246	044
01	08	1962	129	140	011
13	07	1963	110	014	263
23	06	1964	092	256	164
08	04	1968	019	137	118
20	12	1973	269	224	315
02	12	1974	250	111	221
14	11	1975	232	006	134
01	09	1979	158	269	110
12	08	1980*	140	160	020
05	07	1982	103	277	174
09	05	1985*	048	286	237
01	04	1987*	012	053	041

All years included with no exceptions.

\* Asterisks denote major crisis years in the 36 ysc Series 1 & 2.

Abbreviations: S/NN - Sun/north node conjunctions.

Mean north node used in the table and text.

(a) Timing of S/NN conjunctions. (b) Zodiacal position of S/NN conjunctions. (c) Moon's zodiacal position at time of S/NN conjunction. (d) Moon angle to S/NN conjunction. (e) The French crises of 1828 & 1864 occurred early (ie: pre March) and thus data for 1827 & 1863 has been used in the statistics.

Major crises extending into the subsequent year:

1772 Seq 12 Crisis (England and Amsterdam - Jan 1773)

1792 Seq 32 English crisis. After canal mania (Feb 1793)

1810 Seq 50 English crisis. Great Panic (Jan 1811)

1881 Seq 09 French crisis. Union Generale Failure (Jan 1882)

Raw data supplied by The American Federation of Astrologers.

### GLOSSARY OF TERMS

**Apogee:** The point in the Moon's orbit greatest distance to the Earth.

**Ascendant:** The point of ecliptic longitude which is found on the eastern horizon at a specific time.

**Conjunction:** When the angle between two points and/or planets is 0 degrees.

**Diurnal cycle:** Pertaining to the rising/culmination/setting of a heavenly body or point eg: solar day, lunar day, etc.

**Eclipse:** A solar eclipse occurs when the Moon passes directly between the Sun and Earth obscuring at least part of the Sun when viewed from Earth. A lunar eclipse is less common and happens when the Earth passes between the Sun & Moon. This causes the Earth's shadow to darken the Moon. For eclipses to manifest, the Sun - Moon alignment must be in close proximity to the Moon's nodes.

## BOOK REVIEW

**Eclipse year:** The time taken for the Sun to complete one cycle from north node to north node and equals 346.62 days.

**Ecliptic:** The plane of the Earth's orbit around the Sun which is inclined at 23.5 degrees to the Earth's equator. When viewed from Earth, the ecliptic appears as the apparent path of the Sun's movement through the Heavens.

**Equinox:** The times of the year (20 March and 22 September) when the Sun passes over the Earth's equator (ie when the Sun is at 0 Aries or 0 Libra). The vernal equinox occurs when the Sun is at 0 Aries and the autumnal equinox when the Sun is at 0 Libra.

**Full Moon:** Occurs when the Sun, Moon and Earth align in a straight line when the Earth is found between the Sun & Moon.

**Lunar day:** The period from moonrise to moonrise and equals 24.84 hours.

**Mid Heaven:** The highest point above the horizon attained by a heavenly body.

**New Moon:** Occurs when the Sun, Moon and Earth align in a straight line and when the Moon passes between the Sun & Moon.

**Node (Moon):** The plane of the Moon's orbit is inclined at 5 degrees to the plane of the Earth's orbit around the Sun (the ecliptic). The nodes are the points where these planes intersect. The ascending or north node is the point where the Moon crosses from below to above the ecliptic. The descending or south node is where the Moon crosses from above to below the ecliptic. The nodes regress (ie move clockwise) through the zodiacal signs.

**Nutation cycle:** The time taken for the Moon's north node to complete one cycle of the zodiac and is equal to 18.6 years.

**Perigee:** The point in the Moon's orbit closest distance to the Earth. Perigee rotates slowly in the direction of the Moon's motion about the Earth, taking 8.850 years to complete one cycle of the Moon's orbit.

**Saros cycle:** This is the interval between two similar eclipses which occur every 223 synodic months (ie 6,585.32 days). The Sun, Moon and nodes align to within a fraction of a degree in relation to each other.

**Synodic month:** The time taken for the Moon to complete one cycle new Moon to new Moon and is equal to 29.5 days.

**Zodiac:** A band of the sky ranging 8 degrees either side of the ecliptic, in which the Moon and the planets remain. In astrology, this band is divided into 12 zodiacal signs from the vernal equinox (Sun at 0 Aries), each of 30 degrees ecliptic longitude.

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### Geometry Of Markets II. - Bryce T. Gilmore.

Bryce Gilmore, author of the books *Time And Price Analysis Of Stocks And Commodities*, *Geometry Of Markets* as well as the *Wavetrader* and *Cycletrader* software has released yet another master work, the second volume of *Geometry Of Markets II*. *Geometry Of Markets II* contains all the important technical analysis methods that Bryce Gilmore employs and shows how to apply ancient sacred geometric principles to analysis of time and price activity of market trends. Bryce Gilmore believes that the more experience one has the greater the expectation of success.

The first part of *Geometry Of Markets II* covers Time, Price, Pattern and Trend Analysis. It shows how to interpret a bar chart in terms of bull/bear market trends, Minor/Intermediate, Major/Primary degree swings as well as impulse and corrective wave formations. It also covers composite time counts in divisions and multiples of a year, Fibonacci and Lucas series. It also shows an analyst how to calculate time cycle ratios in advance. The book also details the primary price patterns to consider for a change of trend such as Key Reversal Days and Outside Reversal Days. Trend analysis covers the use of Trend Waves, moving averages and the popular RSI. There is also a large section devoted to Elliot Wave interpretation, structure, wave counting and characteristics with detailed charts and examples.

*Geometry Of Markets II* also explains how Natural cycles like Equinoxes, Solstices, Apogees and Perigees and Planetary cycles and aspects used in conjunction with technical time cycle ratios can alert you to primary turning signals.

The book also covers the basics of money management, trading rules required for success, and shows you how to construct your own trading plan.

The comprehensive appendix covers Pythagorean Theorem, the Canon of Proportion, Squaring the Circle, harmonic/geometric & arithmetic ratios as well as ancient numerology. It explains how these sacred proportions were derived, and how they manifest within the speculative markets. As Pythagoras said, "All is arranged according to number."

As a bonus, Bryce Gilmore has included all his previous "Wave Trader Digest" market reports for 1992, and his "Wave Trader Fax" reports for the beginning of 1993.

I believe that the principles and methods outlined in his book will prepare the astute analyst for the future better than any other doctrine published on technical analysis, and will be a classic on every trader's bookshelf.

"*Geometry Of Markets - II*" is available as a hard bound volume at a cost of A\$195 and can be ordered direct from Bryce Gilmore by calling Melbourne (03) 576-9233 or Fax (03) 576-9296.

## OVERSEAS COURSE

The New York Institute of Finance is running its popular 'Seminars for International Financial Professionals' series again in 1994.

The Technical Analysis course was run in January and will be repeated in June 1994. Details are as follows:

Dates: June 13 to 17 1994

Description: Sophisticated forecasting tools are critical for assessing and interpreting the world's increasingly interrelated capital markets and investment products in the context of today's unprecedented volatility, competition and market risk.

\*Learn the key skills, techniques and theories needed to evaluate market behaviour and forecast future price trends and movements.

\*Discuss Dow theory (the foundation of technical analysis) and Elliott Wave Theory (wave patterns and ratio analysis).

\*Explore technical indicators including market momentum, investor psychology and use of daily, weekly and monthly bar and point and figure charts.

\*Examine intermarket technical analysis, futures technical analysis and the use of technical analysis in portfolio management.

Cost: \$US 2,475

Information: Ms Claudette Morgan  
International Licensing Manager  
5th Floor  
2 Broadway  
New York NY 10004-2207  
Fax: 212-344 3469 or 212-514 8423  
Phone: 212-344 2900

## AUDIO TAPES TO BUY

In the January 1994 Newsletter, under this heading, we listed the audio tapes available for purchase from the CompuTrac TAG XV conference in October 1993.

Unfortunately, the order form was left out of the article. The ordering details are as follows:

Mail your order to:

Dow Jones Telerate Software Inc  
1017 Pleasant Street  
New Orleans LA 70115 USA

Or Fax it to: 504 895 3416

Supply the following information:

List the tapes you wish to buy  
Your Name  
Your Company (If applicable)  
Your Address  
Your Visa/Mastercard Number and expiry code  
(or enclose a US Dollar cheque)  
Your signature

Prices (per tape) are as follows:

- (a) Up to 9 tapes: \$US30
- (b) Any 10 tapes: \$US28 + additional tapes: \$US27
- (c) Any 15 tapes: \$US25 + additional tapes: \$US24
- (d) All 22 tapes: \$US396 (\$US18 each)

Postage must be added as follows:

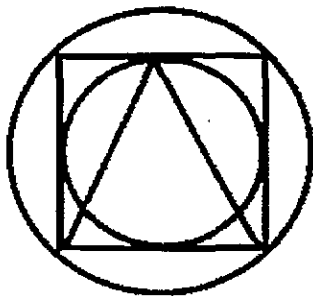
Surface: (a) \$US8 (b) \$US10 (c) \$US14 (d) \$US16  
Air: (a) \$US20 (b) \$US26 (c) \$US35 (d) \$US46

Please accept our apologies for leaving this information out of the January Newsletter. Editor.

## FOR SALE

IBM Compatible 486DX33 Optima, 4 Meg RAM, 210Meg Hard Disk, 250 Meg Tape Backup, 15 inch Non Interlace Monitor, Smart Modern 1234E, Windows 3.1, DOS 6.0, Futures and stock trading software and data. \$2,500.00 or near offer. Mark Harding 02 360 7138.

# MEMBERSHIP APPLICATION FORM



**AUSTRALIAN  
TECHNICAL  
ANALYSTS  
ASSOCIATION**

Name : \_\_\_\_\_

Company (If membership paid by a Company): \_\_\_\_\_

Address : \_\_\_\_\_

Suburb : \_\_\_\_\_ State: \_\_\_\_\_ Postcode: \_\_\_\_\_

Phone: \_\_\_\_\_

Bus. Hours: \_\_\_\_\_ Evening: \_\_\_\_\_ Facsimile: \_\_\_\_\_

Please describe your use of, or interest in, Technical Analysis:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For our records, how did you first hear about the ATAA?

\_\_\_\_\_  
\_\_\_\_\_

Membership is \$100.00. For membership purposes our year runs from 1 July to June 30.

There are special concessions for new members joining part way through a year.

If they join between July 1 and December, 31, they receive copies of all newsletters published to date in the year.

If they join after December 31, the initial \$100 fee will in effect, relate to the NEXT year.

For more information call the President, Charles Balas on (02) 522 5220; the Secretary, Colin Nicholson on (02) 436 161; or the Victorian Chairman Paul Simmons (03) 497 3551.

Please Mail Application Form with \$100 cheque to

The Secretary

ATAA

GPO Box 2774

Sydney NSW 2001

PLEASE MAKE ALL CHEQUES PAYABLE TO ATAA.



# THE AUSTRALIAN TECHNICAL ANALYSTS ASSOCIATION

The aims of the Australian Technical Analysts Association (ATAA) are:

To establish personal contacts between analysts both inside and outside of Australia with a view to promoting the theory and practice of technical analysis,

To help raise the level of community awareness and respect for technical analysis.

To provide meetings and encourage the interchange of materials, ideas and information for the purpose of adding to the knowledge of its members.

To encourage the highest standards of professional ethics and competence among its technical analysts.

The ATAA is affiliated with the International Federation of Technical Analysts helping us to keep abreast of international markets and techniques.

Founded by a small group of technical analysts that met on a regular basis, the association was officially launched on 26 April 1990.

Membership is varied in employment, geography, market interest and approaches to the markets. Current members include corporate treasurers, fund managers, bank analysts and traders, stockbrokers, financial planners, private and local traders and investors. The members will be professional Technical Analysts, or people using Technical Analysis for private investing or trading.

Benefits include; monthly meetings and a bi monthly newsletter providing a forum for discussion and new ideas to improve the level of knowledge of technical analysis. In addition, members have access to a video tape library and discounts on various technical, psychology and trading courses and books.

Meetings are held each month except December and January. In Sydney, meetings are usually held on the third Monday of each month at 6.00pm at the State Library of New South Wales, Macquarie Street Sydney. In Melbourne, meetings are usually held on the third Wednesday of each month at various venues. All meetings are advised in advance by mail. Alternatively, contact the President, or Secretary in Sydney, or Paul Simmons in Melbourne. Informal meetings are held in other states at various times.

Subscription can be obtained by filling in the membership application form on the reverse side and mailing it to;

**The Secretary  
ATAA  
GPO Box 2774  
Sydney NSW 2001.**

For further information call the President, Charles Balas on (02) 522 5220, the Secretary, Colin Nicholson on (02) 436 1610, or the Victorian Chairman, Paul Simmons (03) 497 3551.

