## Example 3 of Forecasting Prices Using Price Progression and Overlays:
Weekly Cendant, CD

Here is a weekly example of forecasting support and resistance price levels using the progression of a pivot price and overlays. Figure 90 shows a weekly chart for Cendant Corp., CD, a provider of real estate and travel services. The first step is to select a historical low price which is lower than any of the current data. This first starting price is used as the starting price on the Square of Nine. For this example, the long term low price of 6.50 from October 19, 1998 is selected.

The second step is to select the price on which to align the overlay's 0° angle. The price selected for this is the top price of 20.00 from January 4, 2002.

The third step is to select a price increment to advance the prices on the Square of Nine per cell. Based on the price range of this chart running from 10 to 22, the price increment selected for this example is 0.25 or 25 cents.

Figure 90 shows the weekly chart for Cendant with a horizontal line drawn from the top at 20.00. This horizontal line represents the overlay's 0° angle.

Figure 90

The next step is to determine if this market favors any overlay angles. This is done by identifying the prices which fall on the overlay angles and drawing them on the chart as support and resistance levels. On Figure 91, a price from the overlay's 315° angle is drawn on the chart. The letter A marks the position where the price falls and makes a bottom pivot on the overlay's 315° angle. The pivot at point A shows this market favors the prices on the overlay's 315° angle so this angle is used to forecast support and resistance prices.

| 22.00	Weekly Cendant, CD	Overlay 0° Angle 01/04/2002 High 20.0	
20.00		0°	20.00
18.00			Forecast Area
16.00			
14.00	Figure 91	-315° Cell 32 A	14.54
12.00	Square of Nine Start 10/19/1998	Square of Nine Support and Resistance Price	
10.00	Low 6.50		
	Copyright© 2003 by Patrick Mikula All Rights Reserved www.MikulaForecasting.com		
	2001	2002	
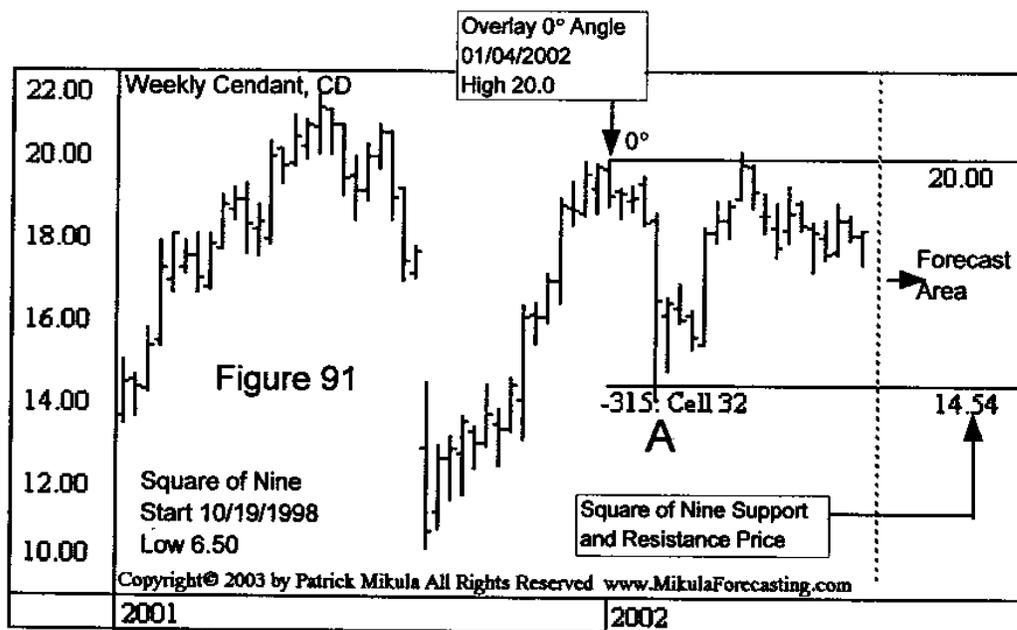
Figure 92 shows the Square of Nine for this example. The starting price is 6.50 and the price increment is 0.25. These are listed below the square. There is a circle around cell 54 which holds the price 20. The overlay's 0° angle is aligned on the price 20. There are two other circles around cells on the 315° angle. These are cell 14, which holds the price 10, and cell 32, which holds the price of 14.50. The exact prices that the overlay's 315° angle crosses are 9.94 and 14.54. These prices are on the chart in Figure 93 as support and resistance lines.
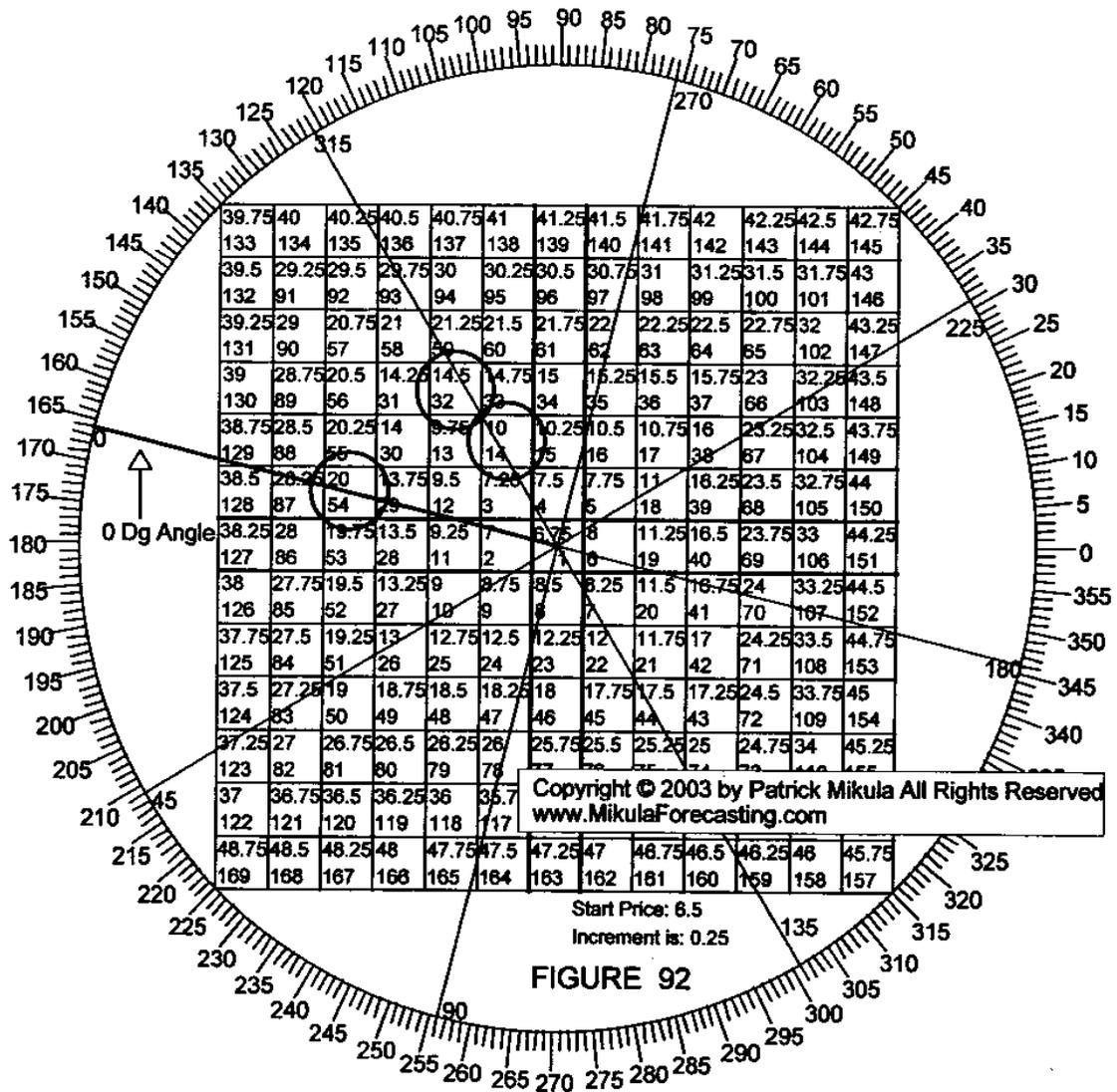

FIGURE 92

Figure 93 shows the prices from the overlay's 315° angle as support and resistance lines on the weekly Cendant chart. The market shows it favors the overlay's 315° angle at point A. Therefore, it is simple to forecast the next lower support level where the market makes a bottom pivot at point B. When the market touches the support price found on the overlay's 315° angle it makes the bottom pivot at B.

Figure 93

Overlay 0° on High 20.0

Weekly Cendant, CD

Square of Nine Support and Resistance Price

Square of Nine
Start 10/19/1998
Low 6.50

-315: Cell 32
A

-315: Cell 13
B

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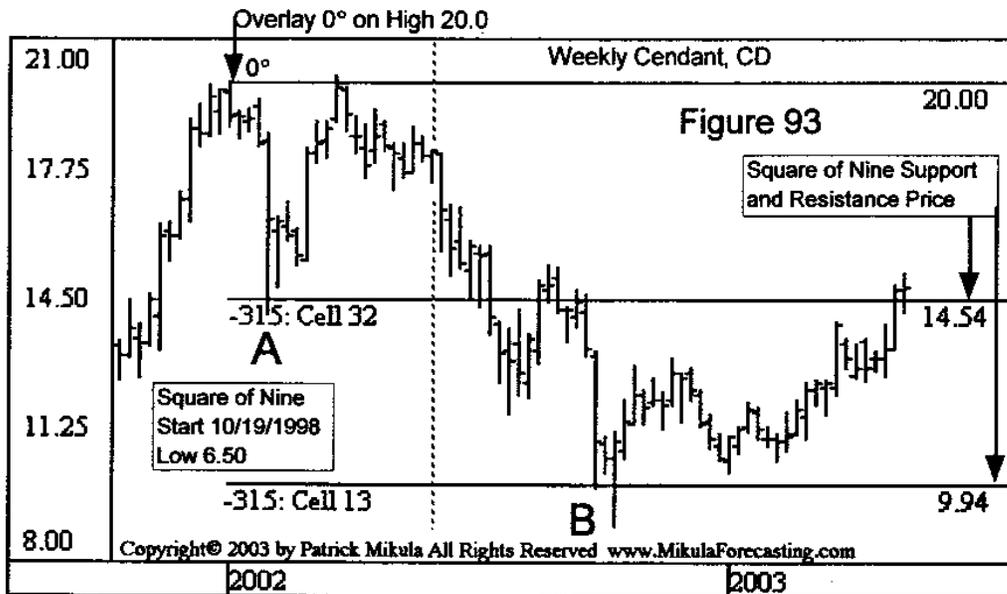
Chapter 7 Review

Objective:
Forecast support and resistance levels by using an overlay on a Square of Nine which shows the progression of the starting price.

Step 1:
The first step is to select a historical low price to use as the starting price on the Square of Nine. This historical price must be lower than any of the current price data. This price is often a futures all time low price or the lowest trading price over the past several years.

Step 2:
Step two is to select a price on which to align the overlay's 0° angle. This price must be higher than the price used as the starting price on the Square of Nine.

Step 3:
The third step is to select the price increment for the Square of Nine. Chapters 6 uses the same process to select a price increment. Read the section "Selecting the Increment" in Chapter 6, page 103. The price increment is used to advance the Square of Nine starting price one increment per cell.

Step 4:
The fourth step is to determine if the market currently favors any of the overlay angles. This is done by aligning the overlay's 0° angle on the price selected in step 2. Look for prices that fall on the overlay angles. Draw the overlay angles on the chart as support and resistance lines. If pivots form on an overlay angle, it is an indication the market favors that angle.

Step 5:
Use the prices identified in step 4 to forecast support and resistance levels.

CHAPTER 8: Forecasting Price: Using Regression

This chapter shows how to forecast support and resistance prices using the regression of a pivot price

Example 1 - Daily Teradyne Inc., TER

The first step to forecast support and resistance prices using the regression of a pivot price, is to select a pivot top or bottom price to use as a starting point. Figure 94 shows a stock chart for Teradyne Inc., TER. Teradyne manufactures test equipment for semiconductor, electronic and network systems manufactures. The selected starting price is the top pivot on December 2, 2002 at the price 17.58.
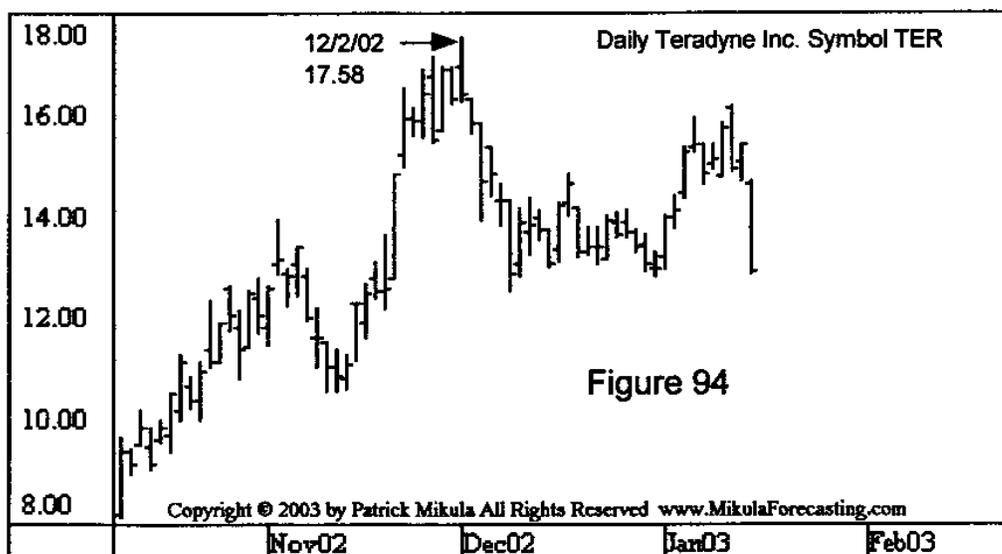
Figure 94

The second step is to select a price decrement to reduce the starting price on the Square of Nine. Each cell decreases the starting price by one price decrement. The price decrement for this example will be 0.05 or 5 cents. A frequently asked question is how to select the price decrement. There is a discussion of the selection procedure at the end of this chapter.

The starting price is placed below the Square of Nine along with the price decrement. The starting price and the price decrement are used in a formula to calculate a new lower stock price to place in each cell. Each cell on the Square of Nine shows the standard cell number and the stock price figured with the following formula.

Formula:

Cell Number * Price Decrement + Starting Price = Cell Price

For cell 127 this formula is:

127 *cell number* * -0.05 *decrement* + 17.58 *starting price* = 11.23 *cell price*

The Square of Nine in Figure 95 shows the Teradyne top price 17.58 used as the starting price and the price decrement is set to -0.05. This means the price values in each cell will become smaller as the Square of Nine moves out from the center. W.D.Gann used the prices which fall on the cardinal cross and diagonal cross as support and resistance price levels.

8.43/183	8.38/184	8.33/185	8.28/186	8.23/187	8.18/188	8.13/189	8.08/190	8.03/191	7.98/192	7.93/193	7.88/194	7.83/195	7.78/196	7.73/197
8.48/182	10.93/133	10.88/134	10.83/135	10.78/136	10.73/137	10.68/138	10.63/139	10.58/140	10.53/141	10.48/142	10.43/143	10.38/144	10.33/145	7.68/198
8.53/181	10.98/132	13.03/91	12.98/92	12.93/93	12.88/94	12.83/95	12.78/96	12.73/97	12.68/98	12.63/99	12.58/100	12.53/101	10.28/146	7.63/199
8.58/180	11.03/131	13.08/90	14.73/57	14.68/58	14.63/59	14.58/60	14.53/61	14.48/62	14.43/63	14.38/64	14.33/65	12.48/102	10.23/147	7.58/200
8.63/179	11.08/130	13.13/89	14.78/56	16.03/31	15.98/32	15.93/33	15.88/34	15.83/35	15.78/36	15.73/37	14.28/66	12.43/103	10.18/148	7.53/201
8.68/178	11.13/129	13.18/88	14.83/55	16.08/30	16.93/13	16.88/14	16.83/15	16.78/16	16.73/17	15.68/38	14.23/67	12.38/104	10.13/149	7.48/202
8.73/177	11.18/128	13.23/87	14.88/54	16.13/29	16.98/12	17.43/3	17.38/4	17.33/5	16.68/18	15.63/39	14.18/68	12.33/105	10.08/150	7.43/203
8.78/176	11.23/127	13.28/86	14.93/53	16.18/28	17.03/11	17.48/2	17.53/1	17.28/6	16.63/19	15.58/40	14.13/69	12.28/106	10.03/151	7.38/204
8.63/175	11.28/126	13.33/85	14.98/52	16.23/27	17.08/10	17.13/9	17.18/8	17.23/7	16.58/20	15.53/41	14.08/70	12.23/107	9.98/152	7.33/205
8.88/174	11.33/125	13.38/84	15.03/51	16.28/26	16.33/25	16.38/24	16.43/23	16.48/22	16.53/21	15.48/42	14.03/71	12.18/108	9.93/153	7.28/206
8.93/173	11.38/124	13.43/83	15.08/50	15.13/49	15.18/48	15.23/47	15.28/46	15.33/45	15.38/44	15.43/43	13.98/72	12.13/109	9.88/154	7.23/207
8.98/172	11.43/123	13.48/82	13.53/81	13.58/80	13.63/79	13.68/78	13.73/77	13.78/76	13.83/75	13.88/74	13.93/73	12.08/110	9.83/155	7.18/208
9.03/171	11.48/122	11.53/121	11.58/120	11.63/119	11.68/118	11.73/117	11.78/116	11.83/115	11.88/114	11.93/113	11.98/112	12.03/111	9.78/156	7.13/209
								9.53/161	9.58/160	9.63/159	9.68/158	9.73/157	7.08/210	
225	224	223	222	221	220	219	218	217	6.78/216	6.83/215	6.88/214	6.93/213	6.98/212	7.03/211

Start Price: 17.58
Decrement is: -0.05

FIGURE 95

The next step is to draw the price values from the diagonal and cardinal cross angles on the price chart as horizontal price lines. After drawing the lines, determine which angle correlates with the tops and bottoms in the market. When this angle is found, it can be used to forecast support and resistance levels.

On Figure 96, the support and resistance levels from the Square of Nine 180° angle are drawn on the chart. This is the left side horizontal angle from the cardinal cross. On the left end of the support and resistance lines are the cell numbers from Figure 95, in which the support and resistance prices are found. The number on the right end of each line, is the price at which the line is drawn.

After the starting pivot top, this stock falls and makes a bottom along the support line at point A. The market then moves up and forms a top at B. Points A and B reveal that Teradyne stock favors the support and resistance levels from the Square of Nine 180° angle. The prices found on the 180° angle are drawn into the future and used to forecast support and resistance levels.

Figure 96
Daily Teradyne Inc.
Symbol TER
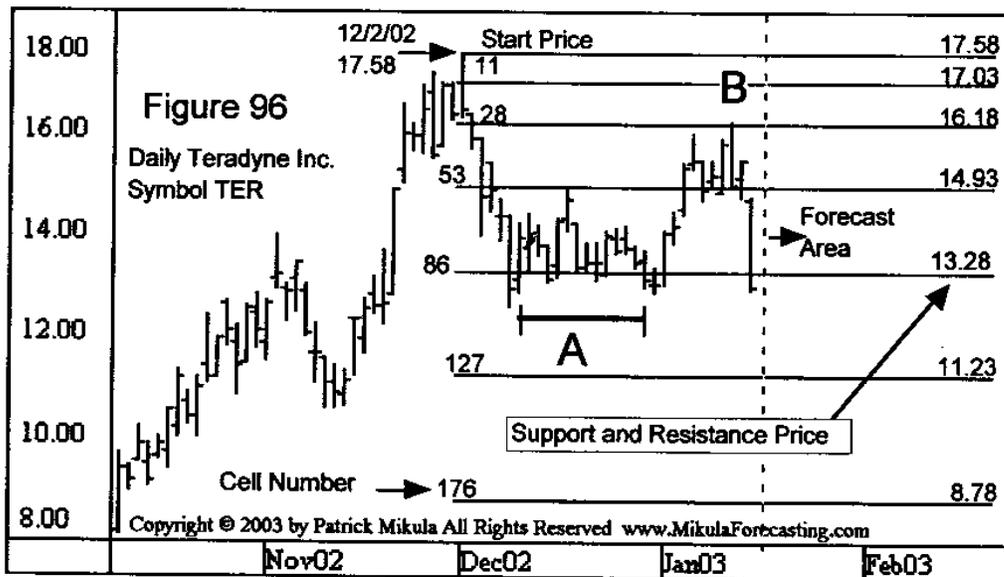
Figure 97 is a continuation of the Teradyne chart in Figure 96. After the top at point B, this market continues to form more pivots against the forecast support and resistance lines at points C, D, E, F and G. This shows the stock continues to favor the support and resistance levels from the Square of Nine 180° angle for several months after point B. The pivots at A and B represent the recent past which forecasts the pivot prices in the near future at C, D, E, F and G.
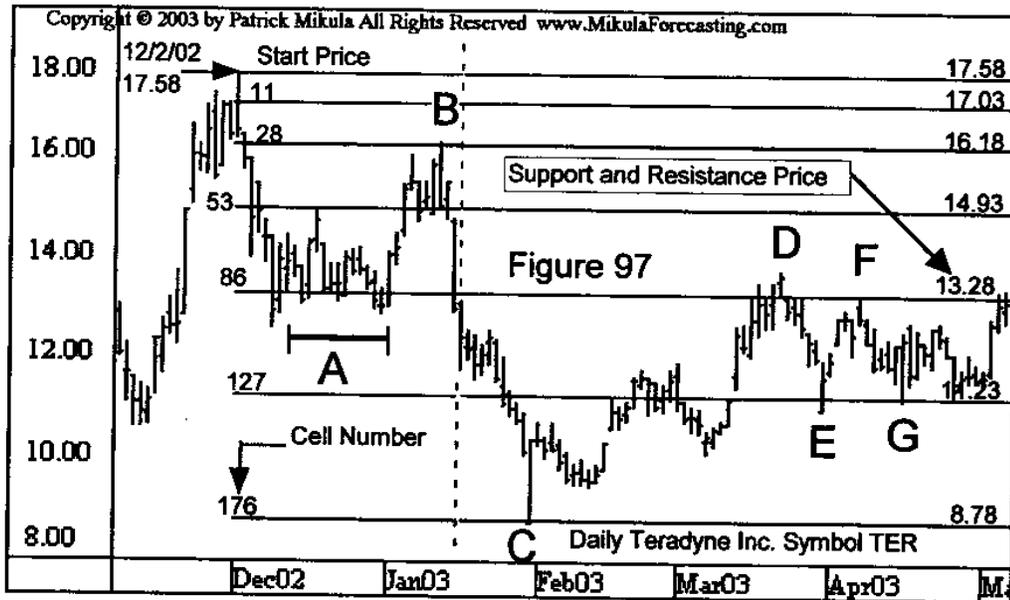
Figure 97

Example 2 - Weekly S&P500

This is a simple example that shows how reducing a starting price on the Square of Nine can accurately calculate a future pivot price. The initial step is to select a pivot top or bottom to use as a starting point. Figure 98 shows a weekly chart for the S&P500 cash index. The pivot selected for this example is the all time high for the S&P500 from March 24, 2000 at the price 1552.

Figure 98
Weekly S&P500 Index
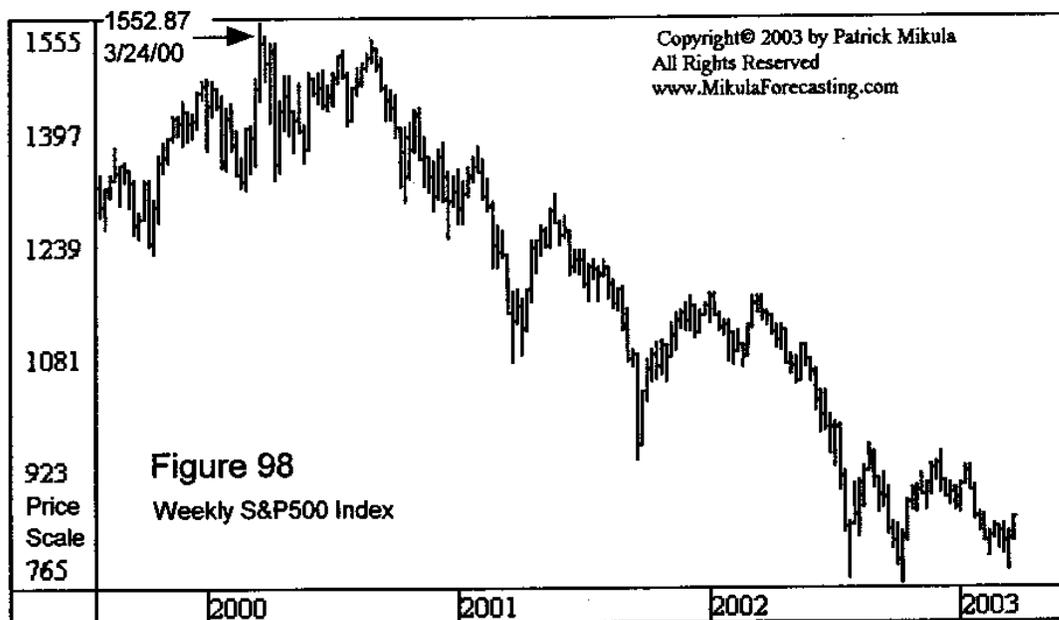
The second step is to select a price decrement to use in reducing the starting price on the Square of Nine. Each cell on the Square of Nine reduces the starting price by one price decrement. The price decrement for this example is negative 1. See the end of this chapter for a discussion of selecting the decrement.

The next step is to calculate the price value which is written in each cell. For example, the price written in cell 197 is 1355. To calculate this price, use this formula.

Formula:

Cell Number * Price Decrement + Starting Price = Cell Price

For cell 197 this formula is:

197 *cell number* * -1 *decrement* + 1552 *starting price* = 1355 *cell price*

Only the upper right corner of the Square of Nine for this example is in Figure 99. The next step is to select the angles from the diagonal or cardinal cross to use for support and resistance price levels. As stated previously, W.D.Gann observed that pivots gravitate toward certain angles. Those angles where pivots appeared most frequently are useful in forecasting support and resistance levels. For this example, the prices from the 45° angle are used.

Start Price 1552
Decrement is -1

Figure 99

| | | | | | | | | | | | | | | | | 50 45 40 |

782	781	780	779	778	777	776	775	774	773	772	771	770	769	768	767
770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785
889	888	887	886	885	884	883	882	881	880	879	878	877	876	875	766
663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	786
988	987	986	985	984	983	982	981	980	979	978	977	976	975	874	765
564	565	566	567	568	569	570	571	572	573	574	575	576	577	678	787
1079	1078	1077	1076	1075	1074	1073	1072	1071	1070	1069	1068	1067	974	873	764
473	474	475	476	477	478	479	480	481	482	483	484	485	578	679	788
1162	1161	1160	1159	1158	1157	1156	1155	1154	1153	1152	1151	1066	973	872	763
390	391	392	393	394	395	396	397	398	399	400	401	486	579	680	789
1237	1236	1235	1234	1233	1232	1231	1230	1229	1228	1227	1150	1065	972	871	762
315	316	317	318	319	320	321	322	323	324	325	402	487	580	681	790
1304	1303	1302	1301	1300	1299	1298	1297	1296	1295	1226	1149	1064	971	870	761
248	249	250	251	252	253	254	255	256	257	326	403	488	581	682	791
1363	1362	1361	1360	1359	1358	1357	1356	1355	1294	1225	1148	1063	970	869	760
189	190	191	192	193	194									683	792
1414	1413	1412	1411	1410	14□									868	759
138	139	140	141	142	143	144	145	198	259	328	405	490	583	684	793
1457	1456	1455	1454	1453	1452	1451	1406	1353	1292	1223	1146	1061	968	867	758
95	96	97	98	99	100	101	146	199	260	329	406	491	584	685	794
1492	1491	1490	1489	1488	1487	1450	1405	1352	1291	1222	1145	1060	967	866	757
60	61	62	63	64	65	102	147	200	261	330	407	492	585	686	795
1519	1518	1517	1516	1515	1486	1449	1404	1351	1290	1221	1144	1059	966	865	756
33	34	35	36	37	66	103	148	201	262	331	408	493	586	687	796
1538	1537	1536	1535	1514	1485	1448	1403	1350	1289	1220	1143	1058	965	864	755
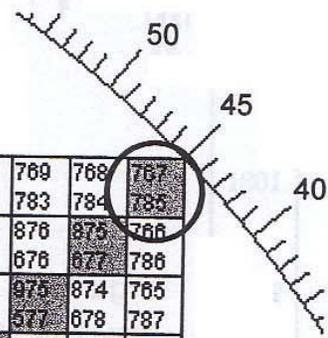
Figure 100 is the same weekly S&P500 chart as in Figure 98. The horizontal lines running across the chart are the support and resistance lines based on the price values from the Square of Nine 45° angle. There is a number from the Figure 99 Square of Nine at both ends of each line. On the left is the cell number and on the right is the price.

The main point of interest on Figure 100 is the letter A. This letter is below the lowest pivot on the chart which occurs in October 2002 at the price 768. This pivot occurs very close to the price identified by the Square of Nine's 45° angle, cell 785. The low price is 768 and the support and resistance level is 767. To calculate this price, the procedure is: (785 *cell number* * -1 *decrement*) + 1552 *starting price* = 767. The regression technique in this chapter calculated the bottom price value for this three year bear market in the S&P500 to within one point.

Figure 100
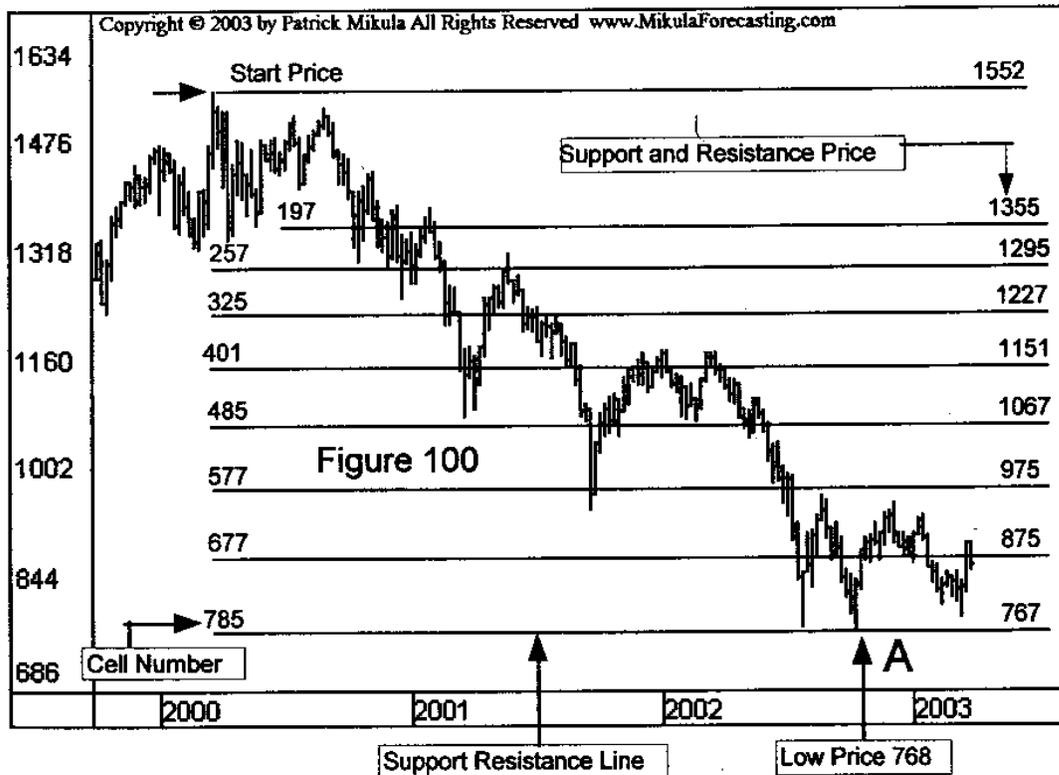
Selecting the Decrement

A price decrement has to be selected to reduce the starting price on the Square of Nine. Selecting the decrement is not an exact process so it tends to raise a lot of questions. The price decrement must be set so it has some relation to the chart's price scale. When a technique using the decrement is applied, the result should be support and resistance lines within the price range of the chart. If the decrement is too large or too small, the result will be support and resistance lines far outside the price range. The proper decrement should be easy to find using the guidelines below.

For low price stocks, start with -0.01, -0.05, -0.10.

For medium price stocks, start with -0.10, -0.25, -0.50.

For high price stocks, start with -0.25, -0.50, -1.00.

For stock indexes, start with -1, -5, -10, -25.

For future contracts start with the minimum tick. For example with Soybean Oil this is -0.01, for Soybeans, Wheat, and Corn this is -0.25. Use multiples of the minimum tick until a decrement is found which allows a reasonable amount of support and resistance levels on the chart. A simple process of experimentation is required to select a proper decrement. Appendix 1, page 203, has a list of the minimum tick values for most future contracts. If you need a tick value for a future contract not listed in Appendix 1, look up the web site for the future exchange where the contract trades. The exchange web sites list all the futures contract tick values.

Chapter 8 Review

Objective:
Forecast support and resistance levels by regressing a starting pivot price.

Step 1:
Select a top or bottom pivot to use as a starting point. Both examples in this chapter used pivot tops but either tops or bottoms can be used.

Step 2:
Select a price decrement to reduce the starting price on the Square of Nine. See, Selecting the Decrement, on the previous page.

Step 3:
Use the formula below to calculate the price for each Square of Nine cell.

> **Formula:**
> Cell Number * Price Decrement + Starting Price = Cell Price

Step 4:
Do a simple review of the support and resistance levels in relation to the recent market pivots. Identify the Square of Nine angle from the diagonal or cardinal cross which seems to correlate with the most pivots. Use this Square of Nine angle to forecast support and resistance levels on the price chart. Remember, the recent past provides the best chance to forecast the near future.

CHAPTER 9: Forecasting Prices: Using Regression and Overlays

This chapter shows how to forecast support and resistance price levels using the regression of a high pivot price and overlays

Example 1 - Daily Wheat

In this chapter, a high price is used as the starting price on the Square of Nine. The high price is regressed by a decrement. Once this Square of Nine is set up, the overlay is aligned on a price that is lower than the square starting price.

The first step is to select a high price that is higher than any of the other prices which are used with the example. For this example, the top of 459.00 from April 21, 1997 in the July 1997 Wheat contract is used. This is on the chart in Figure 101. We have selected this high price because it is a major top in the July contract. When selecting historical prices for a futures contract, it is a good idea to select historical prices from the same contract month. In this case the July contract. This high price will be the starting price for the Square of Nine.

The second step is to select the decrement which is used to regress the starting price per cell. In this example, the decrement is negative -0.25. This value is simply the minimum tick for Wheat futures. When using a futures contract, the minimum tick is the most common decrement.

Top 380.00
09/09/2002

Overlay 0° Angle
Start Price

380.00

Square of Nine Start Price
Top 459.00
04/21/1997
July 1997 Wheat Contract

Figure 101
Daily July 2003 Wheat

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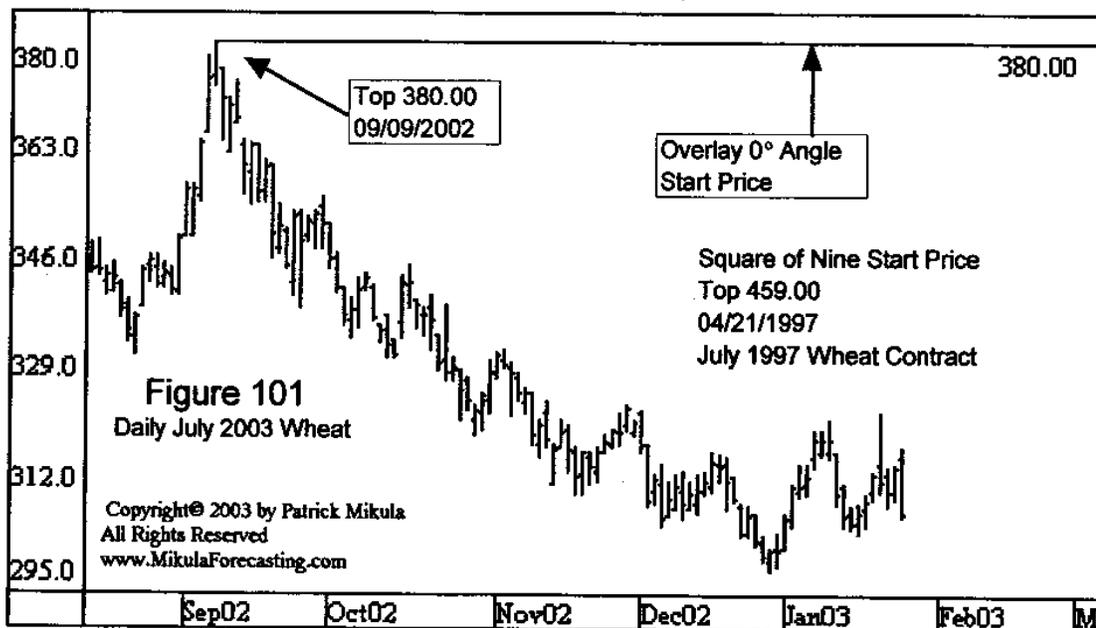
The third step is to select a second pivot price on which to align the overlay's 0° angle. This pivot price must be lower than the high price selected in step one. This pivot price can be either a top or a bottom. In this example, the top price of 380.0 from Sept. 9, 2002 is used to align the overlay's 0° angle. This is on the bar chart in Figure 102.

After the Square of Nine is set up and the overlay is aligned on a pivot, the next step is to identify which overlay angles are favored by the market. The overlay angles cross over prices on the Square of Nine and these prices are used as support and resistance levels. On Figure 102, the prices that the overlay's 90° angle and the overlay's 180° angle cross over, are drawn as support and resistance levels. On Figure 102, the letters A, B, C and D mark pivots that occur near the overlays's 90° and 180° angles. This market favors these two angles in the Square of Nine. The overlays's 90° and 180° angles are used to forecast support and resistance levels.
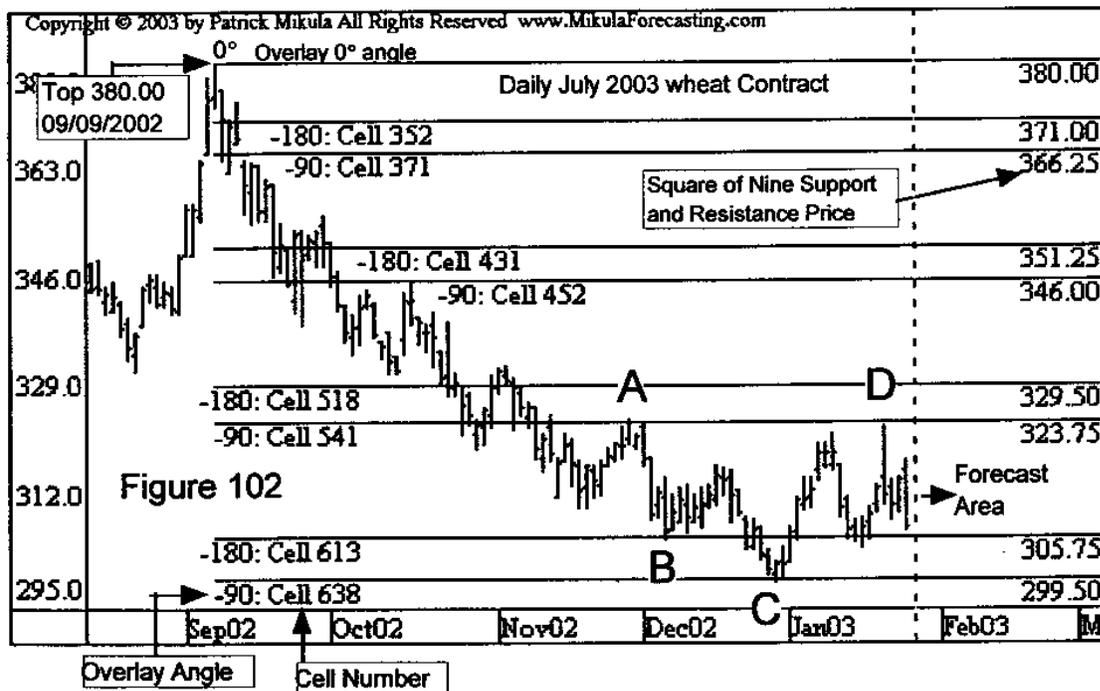
Figure 102

Figure 103 shows the Square of Nine for this example. The starting price of the square is 459.0 and the decrement is -0.25. This means each square is decreased by -0.25. The overlay's 0° angle is aligned on the price of 380.0 which is in cell 316. There is a circle around this cell. There is also a circle around cell 518 with the price 329.50, cell 613 with the price 305.75 and cell 716 with the price 280.0. These cells are all on the overlay's 180° angle. Also circled on Figure 103, are: cell 638 - price 299.5 and cell 541 - price 323.75. These cells are on the overlay's 90° angle. These circled cells represent the support and resistance prices where the market makes the tops and bottoms at points A, B, C, D, E, F and G on bar charts in Figure 102 and 106. The Square of Nine in Figure 103 uses small type so there are two additional pictures of this square in Figures 104 and 105.
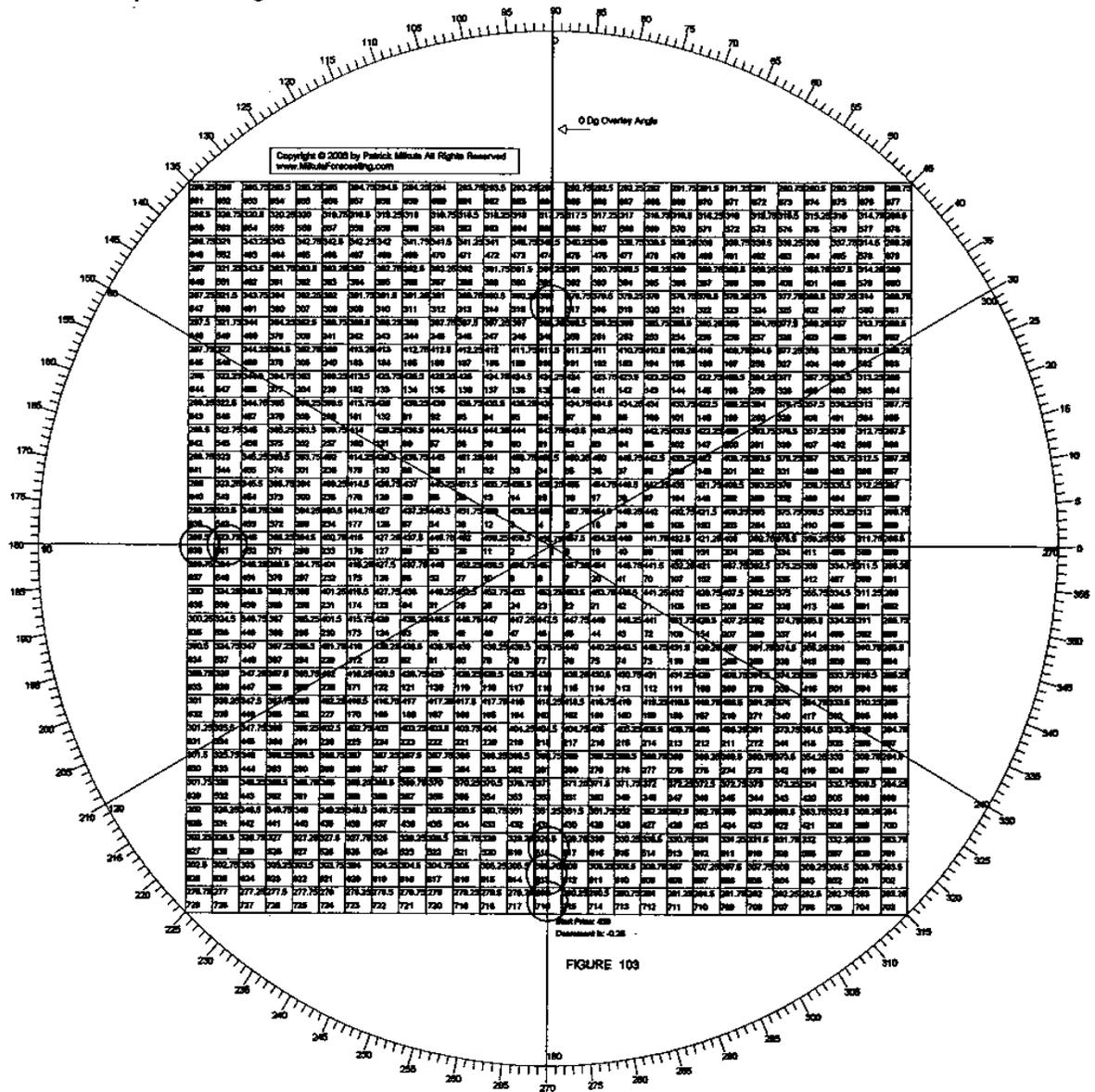
FIGURE 103

Figure 104

299.25	323.5	345.75	366	384.25	400.5	414.75	427	437.2
639	542	453	372	299	234	177	128	87
299.5	323.75	346	366.25	384.5	400.75	415	427.25	437.5
638	541	452	371	298	233	176	127	86
299.75	324	346.25	366.5	384.75	401	415.25	427.5	437.7
637	540	451	370	297	232	175	126	85
300	324.25	346.5	366.75	385	401.25	415.5	427.75	438
636	539	450	369	296	231	174	125	84
300.25	324.5	346.75	367	385.25	401.5	415.75	428	438.2
635	538	449	368	295	230	173	124	83
300.5	324.75	347	367.25	385.5	401.75	416	428.25	438.5
634	537	448	367	294	229	172	123	82
300.75	325	347.25	367.5	385.75	402	416.25	428.5	428.7

Figure 105

291	226	225	224	223	222	221	220	219	218	217	216
386.5	386.75	387	387.25	387.5	387.75	388	388.25	388.5	388.75	389	389
290	289	288	287	286	285	284	283	282	281	280	279
368.75	369	369.25	369.5	369.75	370	370.25	370.5	370.75	371	371.25	371
361	360	359	358	357	356	355	354	353	352	351	350
349	349.25	349.5	349.75	350	350.25	350.5	350.75	351	351.25	351.5	351
440	439	438	437	436	435	434	433	432	431	430	429
327.25	327.5	327.75	328	328.25	328.5	328.75	329	329.25	329.5	329.75	330
527	526	525	524	523	522	521	520	519	518	517	516
303.5	303.75	304	304.25	304.5	304.75	305	305.25	305.5	305.75	306	306
522	621	620	619	618	617	616	615	614	613	612	611
277.75	278	278.25	278.5	278.75	279	279.25	279.5	279.75	280	280.25	280
725	724	723	722	721	720	719	718	717	716	715	714

Start Price: 459

Increment is: -0

In this example the Wheat market is shown to favor the support and resistance lines from the -90° and 180° overlay angles. After the favored angles are identified, the support and resistance lines are drawn into the future. These lines work as a pivot level forecast. Figure 106 shows a continuation of the July 2003 wheat chart shown previously in Figure 102. After the overlay angle, that this market favors is identified, the market continues on to make a top at point E and two bottoms at points F and G.

Figure 106
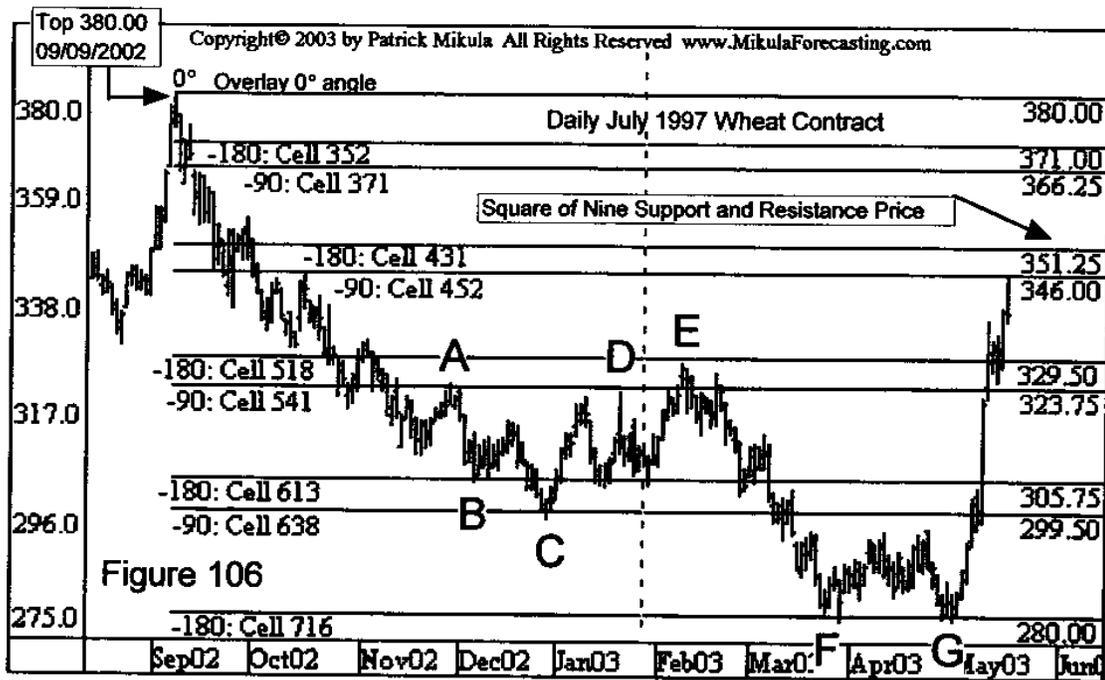
Example 2 of Forecasting Prices Using Price Regression and Overlays
Daily NASDAQ 100 Index

The next example uses a daily chart of the NASDAQ 100 Index. The first step is to select a high price to use as the starting price for the Square of Nine. This example uses the all time high price for the NASDAQ 100 Index. The price is 4816 from March 24, 2000. The decimal point is ignored.

The second step is to select a decrement to reduce the starting price per cell. This example uses a high price so negative -10 is used for the decrement.

The third step is to select a pivot on which to align the overlay's 0° angle. This can be a top pivot or a bottom pivot. For this example the top price of 1734 from December 6, 2001 is used to align the overlay.

Figure 107 shows the 0° angle aligned to the 1734 top on the NASDAQ 100 Index.

Figure 107

Daily NASDAQ 100 Index

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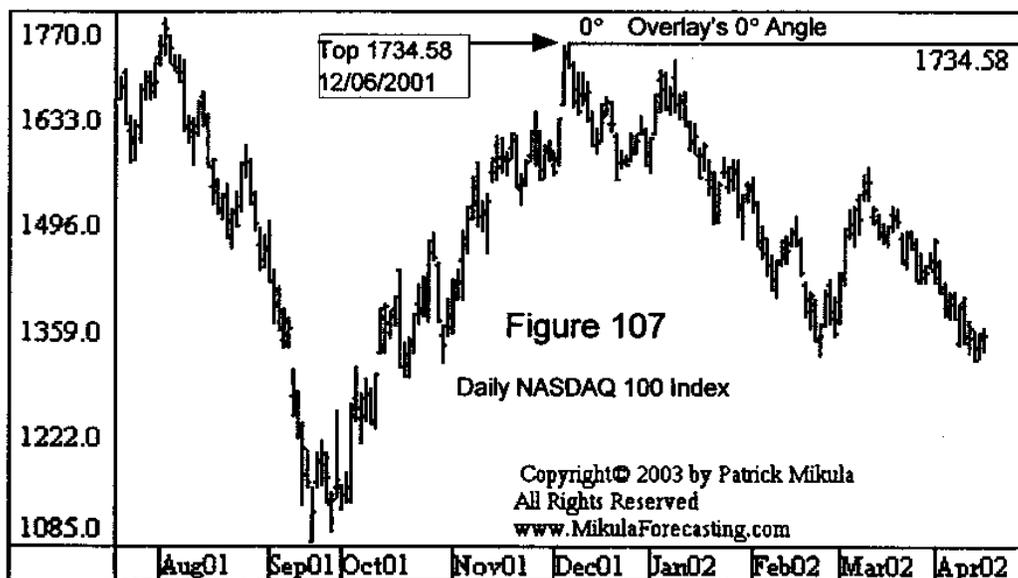
The next step is to determine if there is an overlay angle which the market favors. If an angle correlates with pivot tops or bottoms, then the market is said to favor that angle. On the bar chart in Figure 108, the letters A and B mark a bottom and top pivot near the overlay's 270° angle. This one angle has two pivots form near it. This indicates the NASDAQ 100 Index favors the overlay's 270° angle.

The next step is to draw into the future the prices located on the overlay's 270° angle. These price levels become forecast support and resistance levels. This is on the bar chart in Figure 110.

Figure 108
Daily NASDAQ 100 Index

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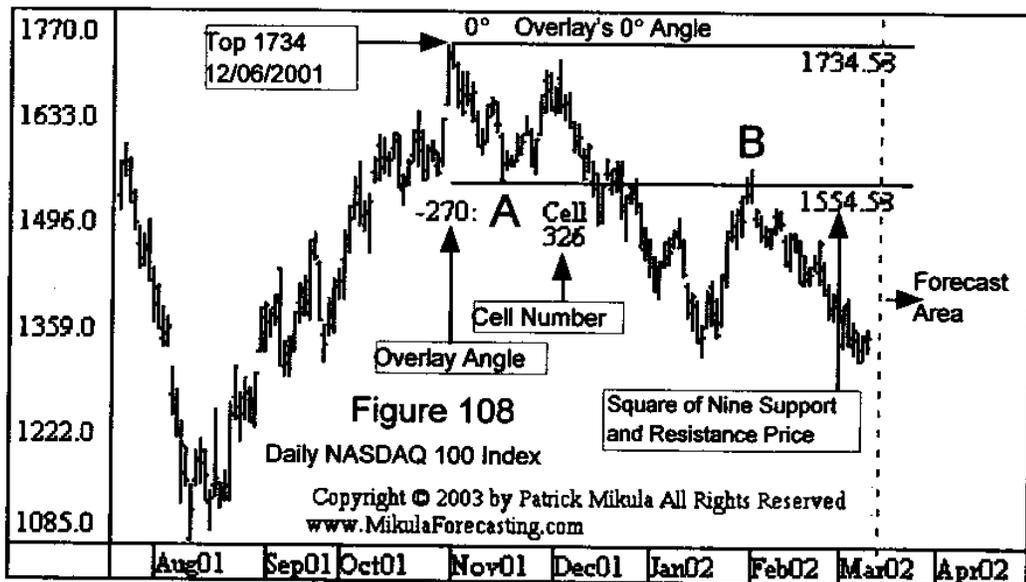
Figure 109 shows the Square of Nine for this NASDAQ 100 Index example. The Square of Nine starting price is 4816. The decrement which reduces the price in each cell is -10. The overlay's 0° angle is aligned on the top price of 1734 which is between cells 308 and 309. This starting value is circled on the square. Also circled on Figure 109, are the prices identified by the overlay's 270° angle which correlate with pivot points. This is on the bar chart in Figure 110.
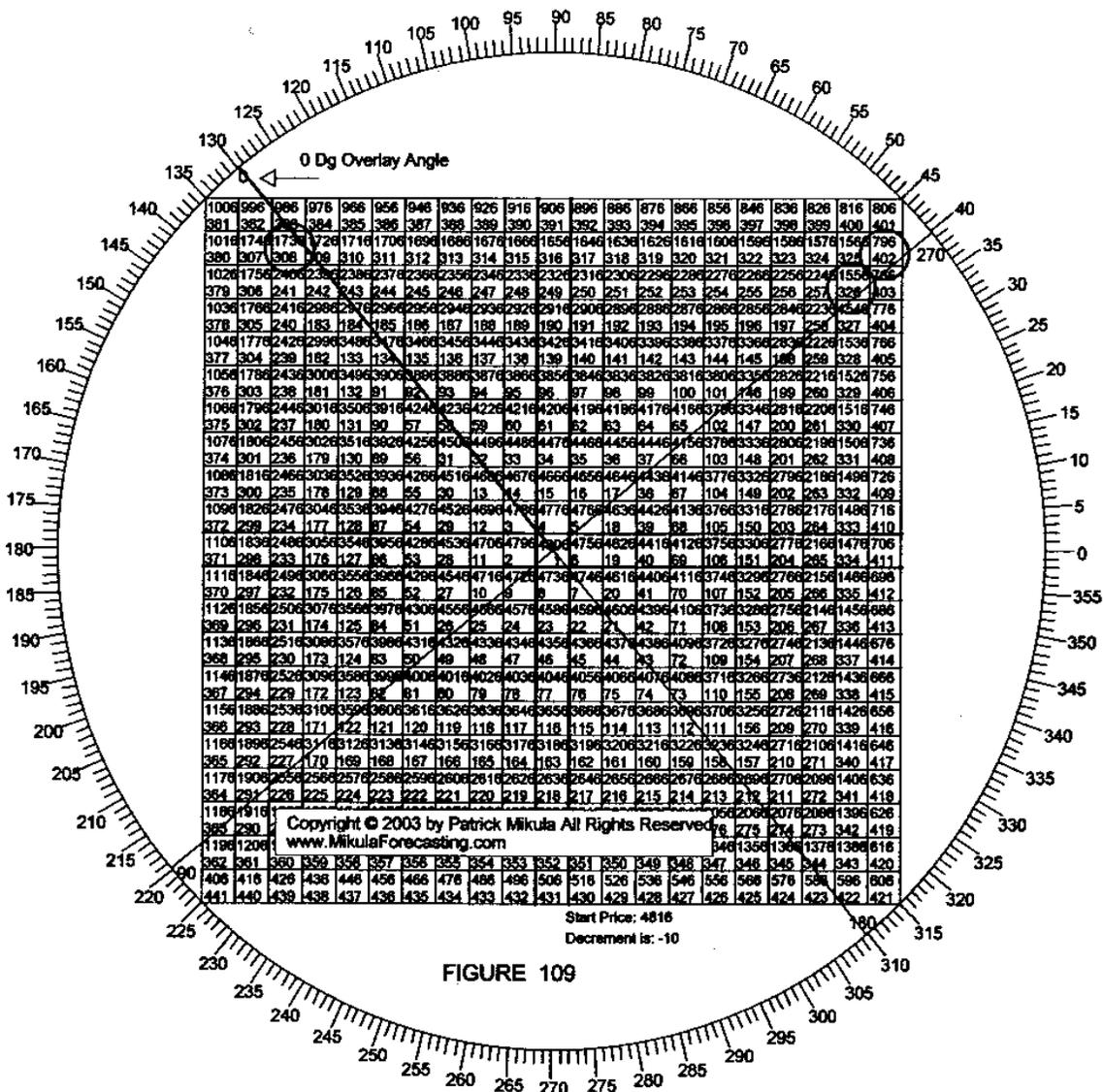
FIGURE 109

Figure 110 shows price levels from the overlay's 270° angle, drawn as support and resistance lines. After this market shows that it favors the overlay's 270° angle at points A and B, the market falls and makes a significant bottom at point C. This again shows that the overlay angles which a market favors can be used to successfully forecast price levels.
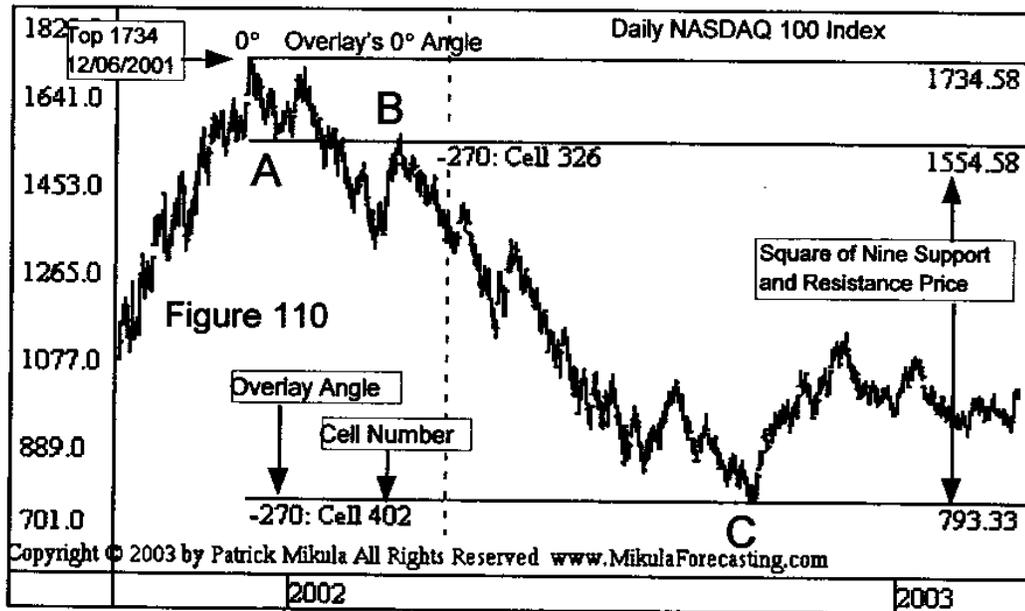
Example 3 of Forecasting Prices Using Price Regression and Overlays:
Daily Corn

This is the final example for Chapter 9. This is a shorter example than the previous two with only one price chart and one Square of Nine. The first step is to select a high price to use as the starting price on the Square of Nine. For this example, the all time high for July Corn futures is used. This is the 554.50 top from July 12, 1996.

The second step is to select a decrement. The decrement is used to reduce the price per cell. In this example, the minimum tick for Corn which is 0.25, is used. The decrement is negative -0.25.

The third step is to select the pivot price on which to align the overlay's 0° angle. This can be either a pivot high or a pivot low. For this example the top price of 290.25 from September 11, 2002 is used to align the overlay.

Figure 111 shows the July 2003 Corn futures contract with the overlay's 0° angle drawn from the top at 297.25. There are two additional horizontal lines drawn on this chart. Both of these lines are drawn at prices found on the overlay's 0° angle. This means the support and resistance lines are 360° apart on the Square of Nine. After the market falls from the 9/11/2002 top, it declines two full rotations around the Square of Nine and makes two bottom pivots at points A and B.
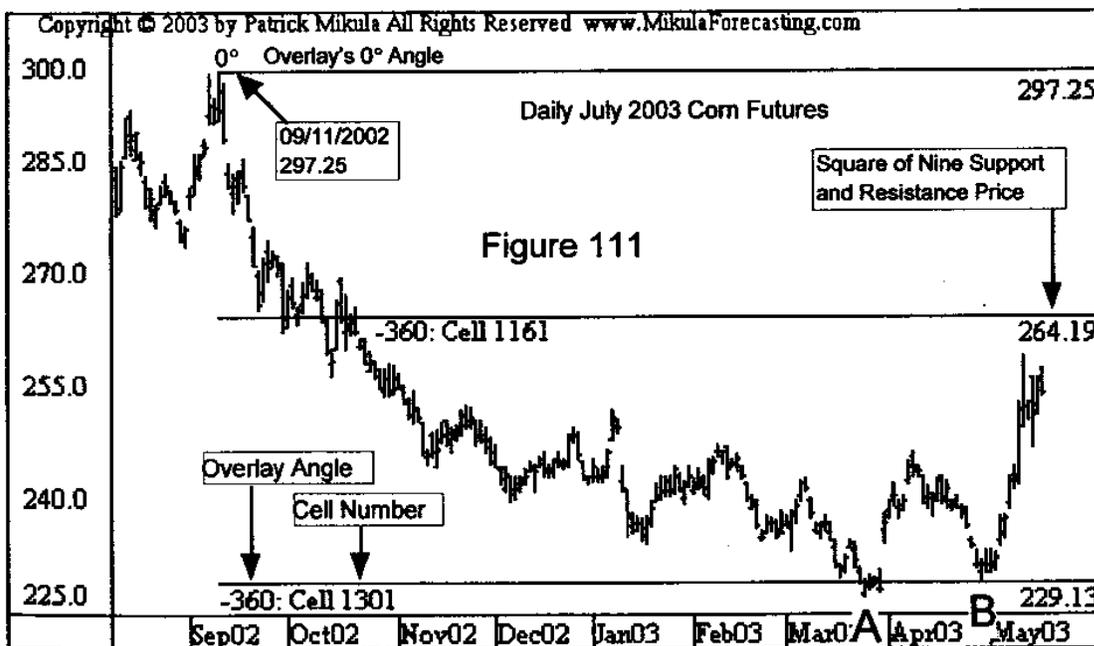
Figure 111

Figure 112 shows the Square of Nine for this example which is using Corn futures. The overlay's 0° angle is aligned on the price 297.25 which is in cell 1029. The two support prices which are on the same 0° angle are: 264.19 in approximately cell 1161 and 229.13 in approximately cell 1301. These cells are circled on the Square of Nine.

1.75	231.5	231.25	231	230.75	230.5	230.25
91	1292	1293	1294	1295	1296	1297
6.5	266.25	266	265.75	265.5	265.25	230
52	1153	1154	1155	1156	1157	1298
9.25	299	298.75	298.5	298.25	265	229.75
21	1022	1023	1024	1025	1158	1299
0	329.75	329.5	329.25	298	264.75	229.5
8	899	900	901	1026	1159	1300
8.75	358.5	358.25	329	297.75	264.5	229.25
3	784	785	902	1027	1160	1301
5.5	385.25	358	328.75	297.5	264.25	
6	677	786	903	1028	1161	1302
0.25	385	357.75	328.5	297.25	264	228.75
7	678	787	904	1029	1162	1303
0	384.75	357.5	328.25	297	263.75	228.5
8	679	788	905	1030	1163	1304
9.75	384.5	357.25	328	296.75	263.5	228.25

Figure 112

Start 554.50
Decrement -0.25

Chapter 9 Review

Objective
Forecast support and resistance levels using the overlay on a Square of Nine which shows a regressed starting price.

Step 1:
The first step is to select a historical high price which will be used as the starting price on the Square of Nine. This historical price must be higher than any of the current price data. This price is often a futures all time high price or the highest trading price over the past several years.

Step 2:
Step two is to select a price to align the overlay's 0° angle. This price must be lower than the price used as the starting price on the Square of Nine.

Step 3:
The third step is to select the price decrement. The process to select a decrement is the same for the methods in Chapter 8. Read the section in Chapter 8 page 125 titled, Selecting the Decrement. The price decrement is used to reduce the Square of Nine starting price one decrement per cell.

Step 4:
The fourth step is to determine if the market currently favors any of the overlay angles. This is done by aligning the overlay's 0° angle on the price selected in step 2 and then identifying the prices which fall on the overlay angles. The overlay angles are then drawn on the chart as support and resistance lines. If pivots form on an overlay angle this is an indication that the market is favoring this angle.

Step 5:
Identify the overlay angles which the market favors. Use the prices from these overlay angles to forecast support and resistance levels.

CHAPTER 10: Forecasting Price: Using a Zero Base

This chapter shows how to forecast support and resistance prices using a Square of Nine with a zero base and an increment other than one

Example 1 - Daily Minnesota Mining & Manufacturing Co., MMM

To forecast price using a zero base, this method again uses the cardinal cross and diagonal cross to locate support and resistance levels. The starting price on the Square of Nine is set to zero and the increment is set to a value other than one(1). Figure 113 shows a chart for Minnesota Mining & Manufacturing, symbol MMM. The price increment on the Square of Nine in Figure 114, is set to 0.50. Across the chart in Figure 113 are the support and resistance lines. The lines have a number at each end. On the left end is the cell number, on the right end is the price at which the line is drawn. All of the angles from the cardinal and diagonal cross are used to create the support and resistance lines on Figure 113.

To forecast support and resistance lines with this method, there must be a few pivots in the recent past that formed on the support and resistance lines. On Figure 113, the pivots at A, B and C are on the support and resistance lines. After these pivots formed on the support and resistance lines, expect a few more pivots to form against the same support and resistance lines in the near future.
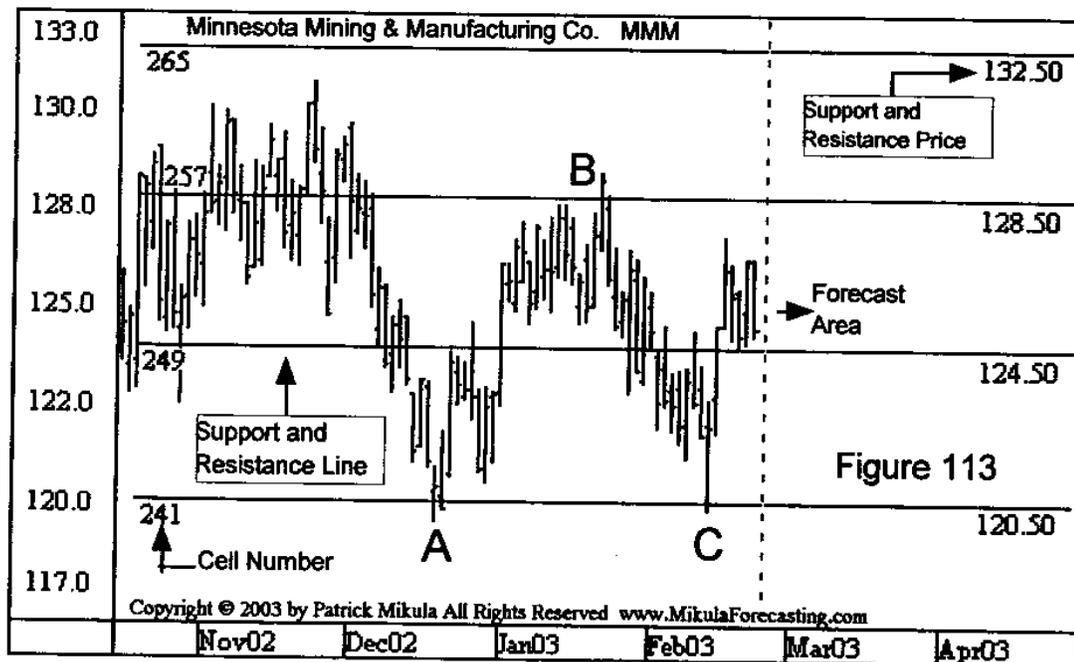
Figure 113

Given the price range for MMM, an appropriate increment to use is 0.25, 0.50 or 1.00. This example will use 0.50. The Square of Nine in Figure 114 is used to create the support and resistance levels on the chart in Figure 113. Calculating the price values which go into each cell requires the simple formula below. For example, the price in cell 149 is calculated by, 149 *cell number* * 0.50 *increment* = 74.50 *cell price.*

Formula:

Cell Number * Price Increment = Cell Price

Start Price: 0
Increment is: 0.5
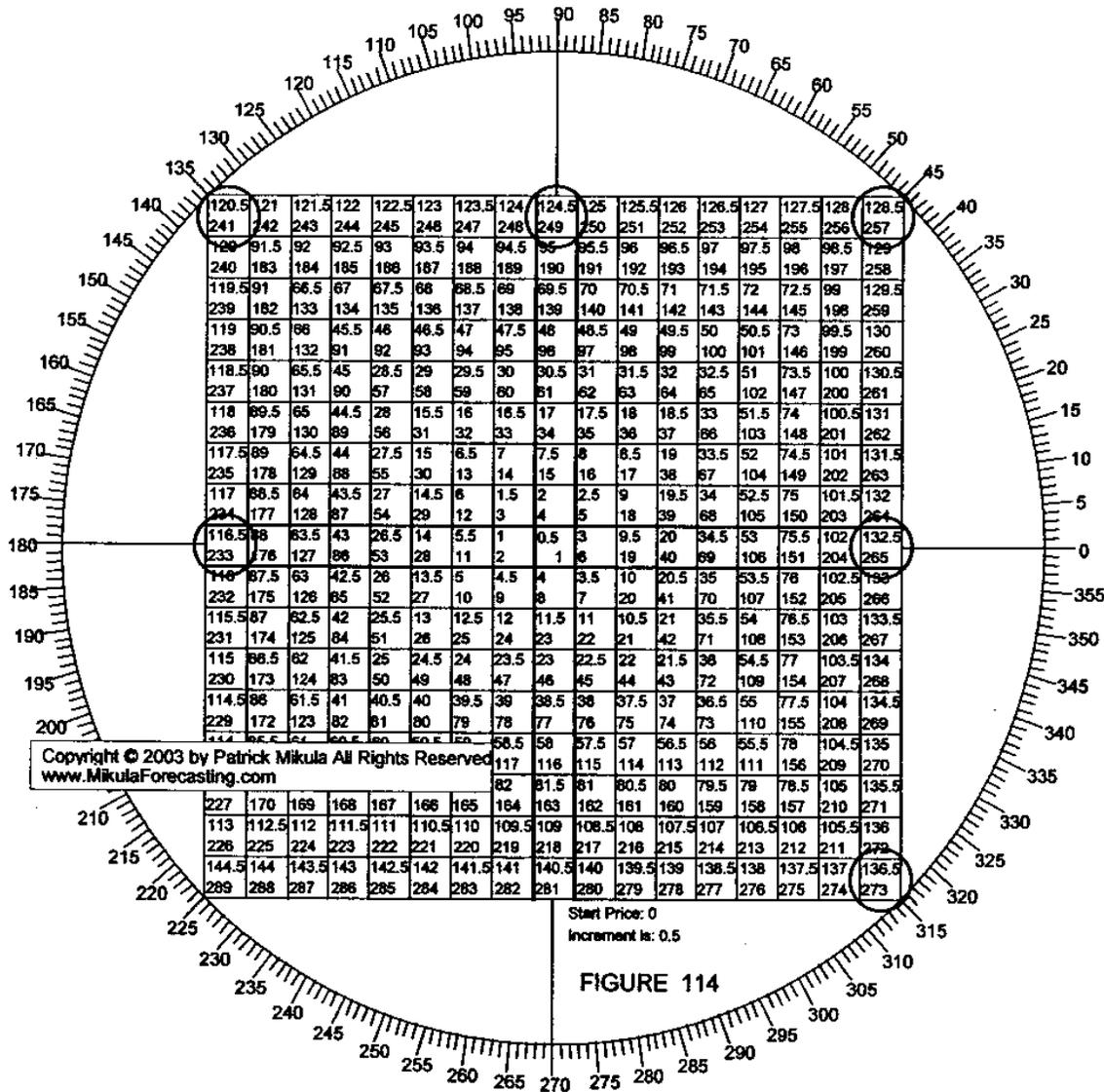
FIGURE 114

Figure 115 is a continuation of the bar chart in Figure 113. After pivots A, B and C, this market goes on to make pivots D, E and F on the forecast support and resistance lines.
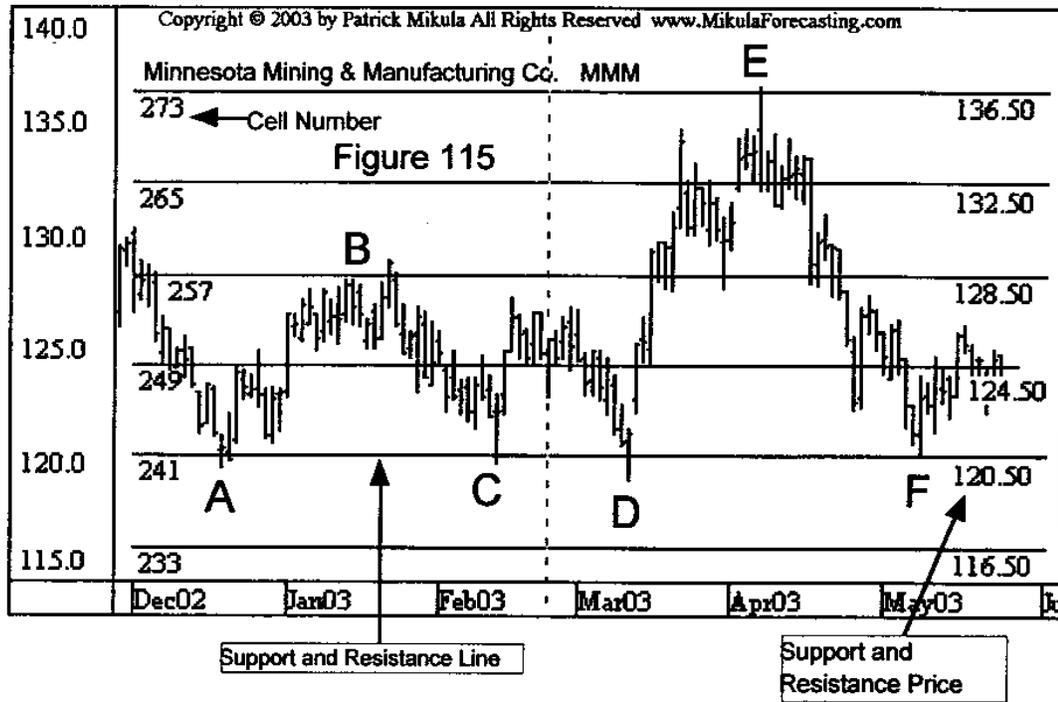
Example 2 of Forecasting Prices Using a Zero Base:
Daily Gold

The next example uses the daily Gold chart in Figure 116. This example uses a price increment of 5 on the Square of Nine. The support and resistance lines are drawn horizontally across the chart. On each line the cell number is on the left edge and the price at which the line is drawn, is on the right edge.

To make a forecast of support and resistance levels using this method, a few pivots must first form on the support and resistance lines. Only after a few historical pivots form on the support and resistance lines can the lines be used to forecast. On the chart in Figure 116, the Gold market makes a top at point A on one of the support and resistance lines. After point A, these lines can be used to forecast support and resistance.

Figure 116

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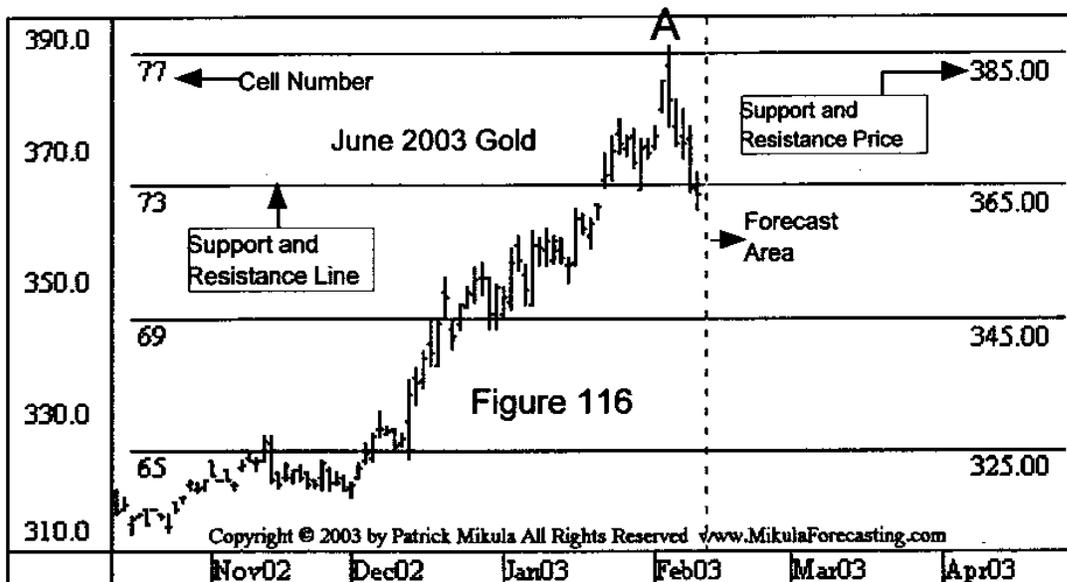
Figure 117 is the corresponding Square of Nine for the chart in Figure 116. The starting number on the Square of Nine is zero. The price in each cell increases by 5. The support and resistance lines drawn on Figure 116 are from all the angles in the cardinal cross and diagonal cross. To calculate the price which goes into each cell on the Square of Nine, use the formula below. The price for cell 88 is, 88 *cell number* * 5 *increment* = 440 *cell price*.

Formula:

Cell Number * Price Increment = Cell Price

665	670	675	680	685	690	695	700	705	710	715	720	725	990
133	134	135	136	137	138	139	140	141	142	143	144	145	198
660	455	460	465	470	475	480	485	490	495	500	505	730	995
132	91	92	93	94	95	96	97	98	99	100	101	146	199
655	450	285	290	295	300	305	310	315	320	325	510	735	1000
131	90	57	58	59	60	61	62	63	64	65	102	147	200
650	445	280	155	160	165	170	175	180	185	330	515	740	1005
130	89	56	31	32	33	34	35	36	37	66	103	148	201
645	440	275	150	65	70	75	80	85	190	335	520	745	1010
129	88	55	30	13	14	15	16	17	38	67	104	149	202
640	435	270	145	60	15	20	25	90	195	340	525	750	1015
128	87	54	29	12	3	4	5	18	39	68	105	150	203
635	430	265	140	55	10	5	30	95	200	345	530	755	1020
127	86	53	28	11	2	1	6	19	40	69	106	151	204
630	425	260	135	50	45	40	35	100	205	350	535	760	1025
126	85	52	27	10	9	8	7	20	41	70	107	152	205
625	420	255	130	125	120	115	110	105	210	355	540	765	1030
125	84	51	26	25	24	23	22	21	42	71	108	153	206
620	415	250	245	240	235	230	225	220	215	360	545	770	1035
124	83	50	49	48	47	46	45	44	43	72	109	154	207
615	410	405	400	395	390	385	380	375	370	365	550	775	1040
123	82	81	80	79	78	77	76	75	74	73	110	155	208
610	605	600	595	590	585	580	575	570	565	560	555	780	1045
122	121	120	119	118	117	116	115	114	113	112	111	156	209
845	840	835	830	825	820	815	810	805	800	795	790	785	1050
169	168	167	166	165	164	163	162	161	160	159	158	157	210
1120	1115	1110	1105	1100	1095	1090	1085	1080	1075	1070	1065	1060	1055
224	223	222	221	220	219	218	217	216	215	214	213	212	211

Start Price: 0
Increment is: 5

FIGURE 117

Figure 118 is a continuation of the chart in Figure 116. After the top at point A, the Gold market proceeds to make a pivot bottom at point B and C. The recent past is the best predictor of the near future. The only way to predict the support and resistance levels at points B and C is to use the success of the support and resistance levels at point A.

Figure 118

June 2003 Gold
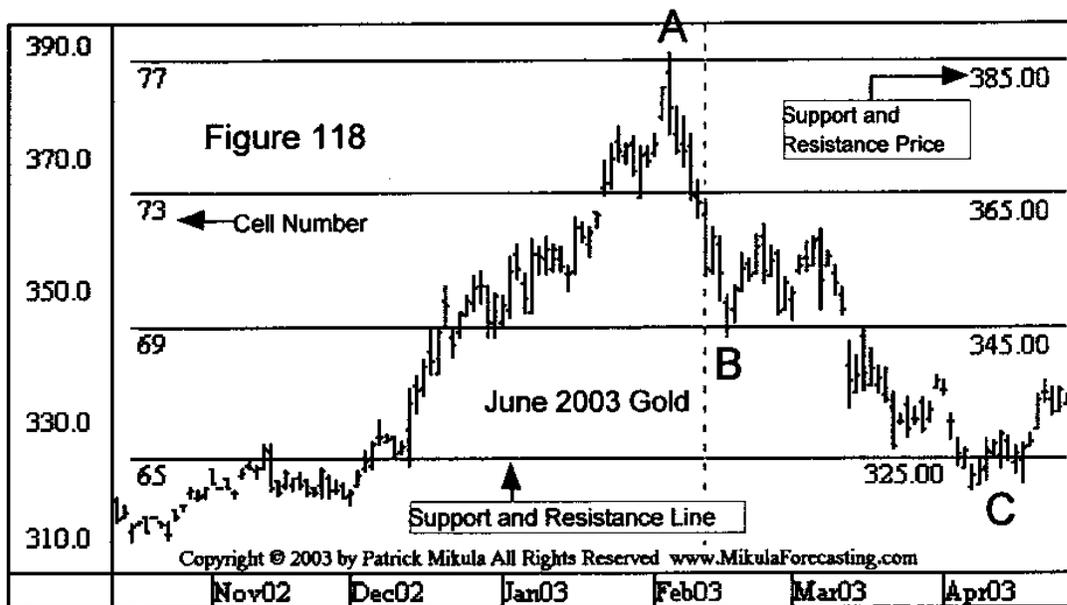
Chapter 10 Review

Objective:
Forecast support and resistance levels.

Step 1:
Set the Square of Nine starting price to zero.

Step 2:
Select a price increment which is not equal to one. This chapter uses the same process to select a price increments as is used in Chapter 6. Read the section "Selecting the Increment" in Chapter 6, page 103. The price increment is used to advance the Square of Nine starting price one increment per cell.

Step 3:
Calculate the price which goes into each Square of Nine cell by multiplying the cell number by the increment. Use the formula below.

Formula:
Cell Number * Price Increment = Cell Price

Step 4:
The final step is to draw the price values from the cardinal cross and diagonal cross into the price chart. The price values from one, or all the cardinal cross and diagonal cross angles can be used as support and resistance lines.

Step 5:
To make a forecast using these support and resistance lines, watch for a few pivots to form against the support and resistance lines. Only then can the lines be used to forecast support and resistance. The recent past will help forecast the near future. If there have been pivots on the support and resistance lines in the recent past there should be more in the near future.

CHAPTER 11: Forecasting Prices:
Using a Zero Base and Overlays

This chapter shows how to forecast support and resistance prices using a
Square of Nine with a zero base, an increment other than one and overlays

Example 1 - Daily Iomega, IOM

This chapter adds the use of overlays to the technique presented in Chapter 10. This method requires the selection of two numbers. The first number is an increment for advancing the Square of Nine per cell. The process to select the increment is the same as in Chapter 6. Read the section "Selecting the Increment" in Chapter 6, page 103. The second number to select is a pivot top or bottom to use in aligning the overlay's 0° angle.

Figure 119 shows a daily chart for Iomega, a company that makes computer memory devices. For this example the increment 0.25 is used and the low price of 7.48 from October 10, 2002 is used to align the overlay. The overlay's 0° angle is aligned on the low pivot price 7.48. The overlay angles of 90°, 180°, 270° and 360° are used to create support and resistance prices. As in other methods, a few pivots must form against the support and resistance lines before they can be used to forecast. On Figure 119, the pivots at A and B form on these support and resistance lines. This indicates the market favors these particular support and resistance lines and we can expect to see more pivots form against them in the future.

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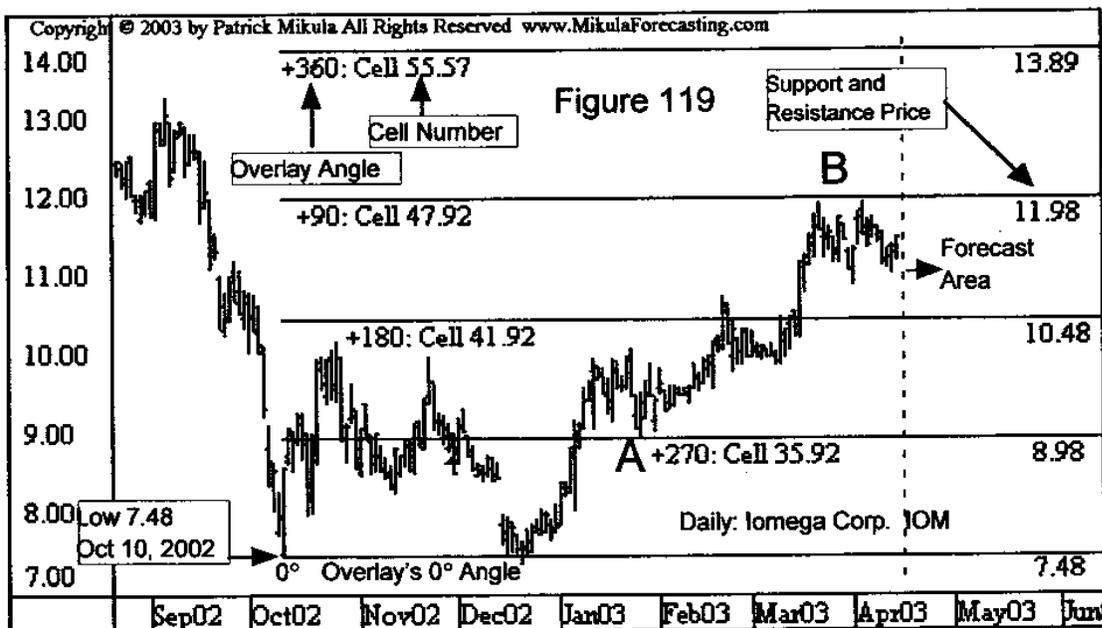
Figure 119

Figure 120 is the Square of Nine which corresponds with the bar chart in Figure 119. Given the price range for Iomega, an appropriate increment to use is 0.05, 0.10, 0.25 or 0.50. For the Square of Nine in Figure 120, the increment per cell is 0.25. Calculating the price values which go into each cell requires the simple formula below. For example, the price in cell 117 is calculated by, 117 *cell number* * 0.25 *increment* = 29.25 *cell price.*

> **Formula:**
> Cell Number * Price Increment = Cell Price

The overlay's 0° angle is aligned on the price 7.48 which is in cell 30. There are circles around the four support and resistance prices which are on the bar chart in Figure 119. These are the prices identified by the overlay's 90° angle, 180° angle, 270° angle and the overlay's 360° angle.

Start Price: 0
Increment is: 0.25
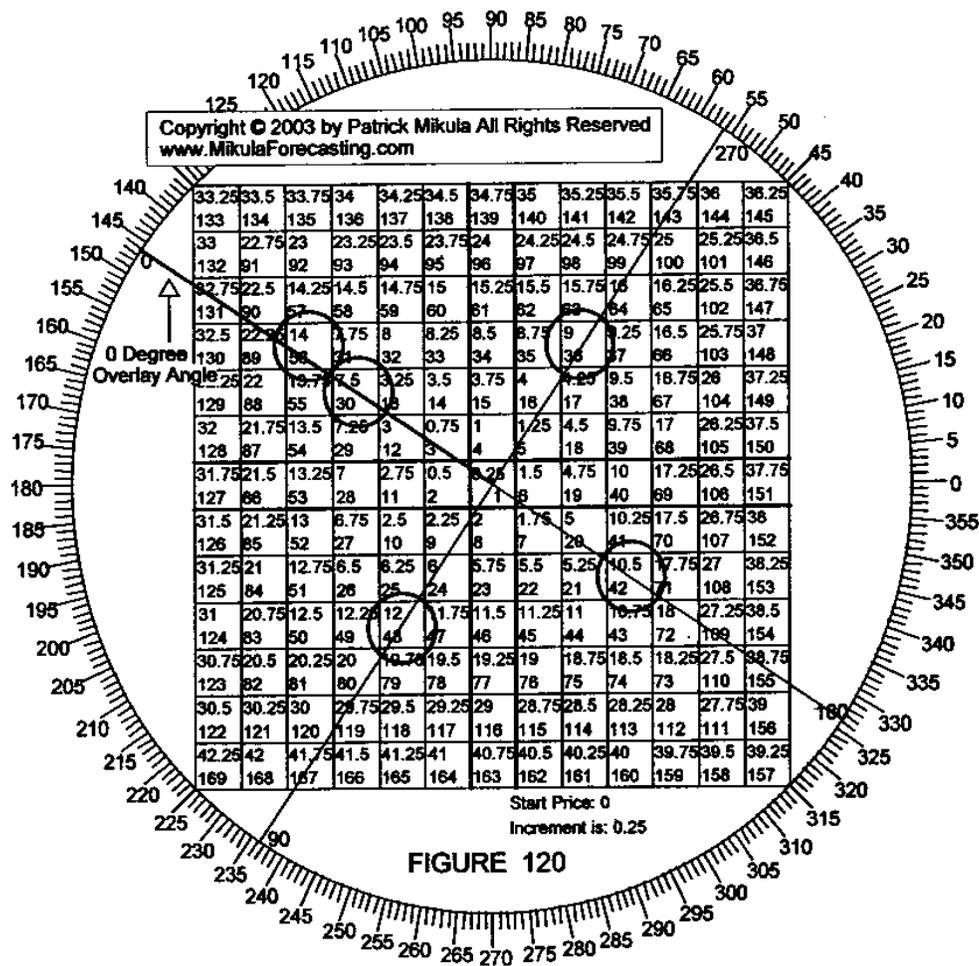
FIGURE 120

Figure 121 shows a continuation of the Iomega chart in Figure 119. After developing the pivots at A and B on these support and resistance lines, the market continues on to form a pivot bottom at point C. The pivots which formed in the recent past at A and B allow the accurate forecast of the support and resistance level at point C. Remember the recent past is the best indication of the near future.

After the top at point B, Iomega announced a $160 million drop in revenue from the previous year. This caused the stock price to fall down to the support line and make the bottom at point C.
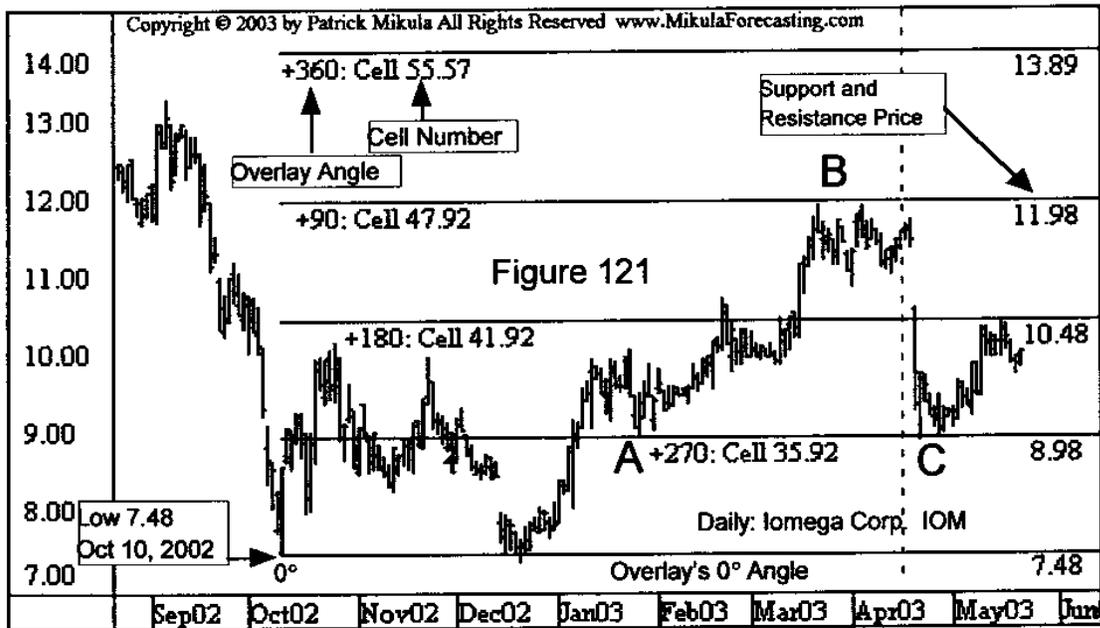
Figure 121

Example 2 of Forecasting Support and Resistance Levels Using a Zero Base and an Overlay: Daily Wellpoint Health Network, WLP

Figure 122 shows a daily bar chart for Wellpoint Health Network, symbol WLP. To apply this technique to a chart, two numbers must be selected. The first number is the increment per cell used to advance the prices of the Square of Nine. Based on the WLP price range, 0.5 is used as the increment. The second number to select is the price of a high or low pivot. In this example the top pivot of 89.20 from October 17, 2002 is used.

After calculating all the prices for the Square of Nine, the overlay's 0° angle is aligned on the pivot price 89.20. This is on Figure 122. The overlay angles 90°, 180°, 270° and 360° are used to generate support and resistance price levels. On the left end of each support and resistance line is the overlay angle and the cell number where the price is located. On the right end of each line is the price at which the line is drawn.

On Figure 122, the price falls from the overlay's starting price of 89.20. It stops at the support line labeled, -360: Cell 129. The label, -360: Cell 129, indicates the support line is the overlay's 0°/360° angle and the line price can be found in cell 129. The actual line price is listed as 64.53. The price of Wellpoint makes two bottom pivots on this line at A and B.

Daily: Wellpoint Health Network, WLP
Figure 122
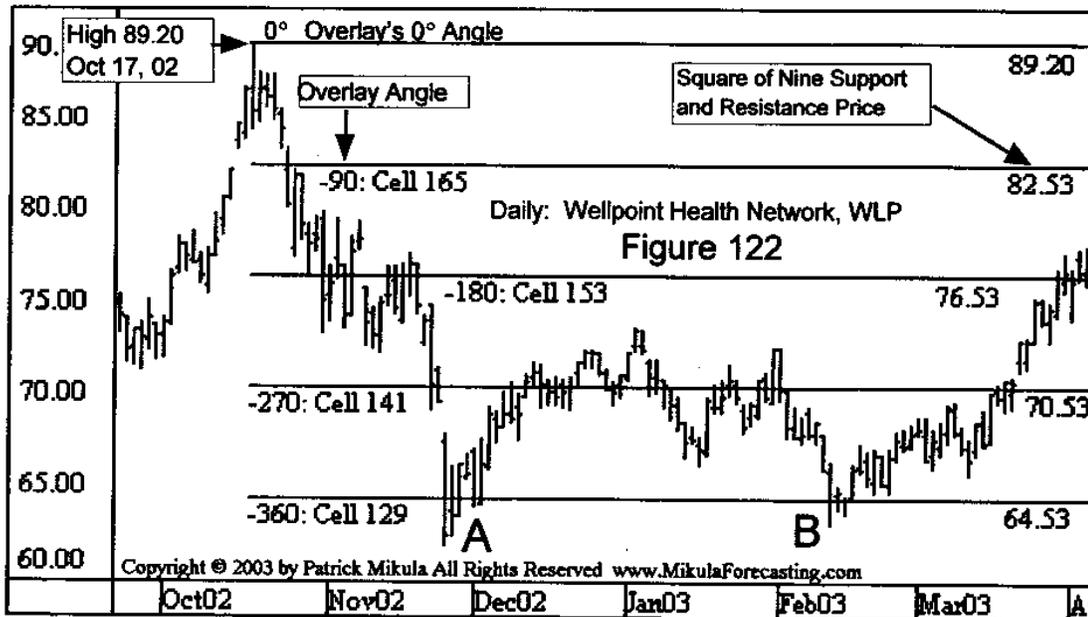
Figure 123 is the Square of Nine which corresponds with the chart in Figure 122. For the Square of Nine in Figure 123, the increment per cell is 0.50. Calculating the price values which go into each cell requires the formula below. For example, the price in cell 197 is calculated by, 197 *cell number* * 0.50 *increment* = 98.50 *cell price*.

Formula:

Cell Number * Price Increment = Cell Price

The overlay's 0° angle is aligned on the price 89.20 which is in cell 178. There are circles around the support and resistance prices which are on the chart in Figure 122. These are the prices identified by the overlay's 90° angle, 180° angle, 270° angle and the overlay's 360° angle.

91.5	92	92.5	93	93.5	94	94.5	95	95.5	96	96.5	97	97.5	98	98.5
183	184	185	186	187	188	189	190	191	192	193	194	195	196	197
91	66.5	67	67.5	68	68.5	69	69.5	70	70.5	71	71.5	72	72.5	99
182	133	134	135	136	137	138	139	140	141	142	143	144	145	198
90.5	66	45.5	46	46.5	47	47.5	48	48.5	49	49.5	50	50.5	73	99.5
181	132	91	92	93	94	95	96	97	98	99	100	101	146	199
90	65.5	45	28.5	29	29.5	30	30.5	31	31.5	32	32.5	51	73.5	100
180	131	90	57	58	59	60	61	62	63	64	65	102	147	200
89.5	65	44.5	28	15.5	16	16.5	17	17.5	18	18.5	33	51.5	74	100.5
179	130	89	56	31	32	33	34	35	36	37	66	103	148	201
89	64.5	44	27.5	15	6.5	7	7.5	8	8.5	19	33.5	52	74.5	101
178	129	88	55	30	13	14	15	16	17	38	67	104	149	202
88.5	64	43.5	27	14.5	6	1.5	2	2.5	9	19.5	34	52.5	75	101.5
77	128	87	54	29	12	3	4	5	18	39	68	105	150	203
88	63.5	43	26.5	14	5.5	1	0.5	3	9.5	20	34.5	53	75.5	102
176	127	86	53	28	11	2	1	6	19	40	69	106	151	204
87.5	63	42.5	26	13.5	5	4.5		3.5	10	20.5	35	53.5	76	102.5
175	126	85	52	27	10	9	6	7	20	41	70	107	152	205
87	62.5	42	25.5	13	12.5	12	11.5	11	10.5	21	35.5	54	76.5	103
174	125	84	51	26	25	24	23	22	21	42	71	108	153	206
86.5	62	41.5	25	24.5	24	23.5	23	22.5	22	21.5	36	54.5	77	103.5
173	124	83	50	49	48	47	46	45	44	43	72	109	154	207
86	61.5	41	40.5	40	39.5	39	38.5	38	37.5	37	36.5	55	77.5	104
172	123	82	81	80	79	78	77	76	75	74	73	110	155	208
85.5	61	60.5	60	59.5	59	58.5	58	57.5	57	56.5	56	55.5	78	104.5
171	122	121	120	119	118	117	116	115	114	113	112	111	156	209
85	84.5	84	83.5	83	82.5	82	81.5	81	80.5	80	79.5	79	78.5	105
170	169	168	167	166	165	164	163	162	161	160	159	158	157	210
112.5	112	111.5	111	110.5	110	109.5	109	108.5	108	107.5	107	106.5	106	105.5
225	224	223	222	221	220	219	218	217	216	215	214	213	212	211

0 Degree Overlay Angle

Start Price: 0
Increment is: 0.5

FIGURE 123

Chapter 11 Review

Objective:
Forecast support and resistance levels.

Step 1:
Set the Square of Nine starting price to zero.

Step 2:
Select a price increment which is not equal to one. Chapter 6 and this chapter use the same process to select a price increment. Read the section "Selecting the Increment" in Chapter 6, page 103. The price increment is used to advance the Square of Nine starting price one increment per cell.

Step 3:
Select a pivot top or bottom price which will be used to align the overlay's 0° angle.

Step 4:
Calculate the price which goes into each Square of Nine cell by multiplying the cell number by the increment. Use the formula below.

```
Formula:
........................................................................
Cell Number  *  Price Increment  = Cell Price
```

Step 5:
Draw the price values from the overlay angles on to the price chart. The price values from one, or all the overlay angles, can be used as support and resistance lines.

Step 6:
To make a forecast using these support and resistance lines, watch for a few pivots to form against the support and resistance lines. Only then can the lines be used to forecast support and resistance. The recent past will help forecast the near future. If there have been pivots on the support and resistance lines in the recent past there most likely will be more in the near future.

CHAPTER 12: Forecasting Dates:
Using Shape Overlays

This chapter shows how to forecast pivot dates using a
Square of Nine and shape overlays

Example 1 - Daily Wheat

One of the oldest forecasting techniques W.D.Gann used is based on divisions of the year. W.D.Gann aligned one of the shape overlays to a date found on the outer ring of the Square of Nine. The corners of the shape overlay are then aligned on the dates which divide the year. The starting dates W.D.Gann used were the dates of high and low pivots. Figure 124 shows a daily chart for Wheat futures. This example uses the octagon shape overlay which divides the year into eight sections of 45°. The overlay has been aligned on the low pivot date 12/30/2002. The dates identified by the first four corners of the octagon overlay are shown.

Before a forecast can be made with this method, one or two of the dates identifies by the shape overlay must correlate with a pivot point. If the dates identified by the shape overlay do not correlate with historical pivots then no forecast is possible.
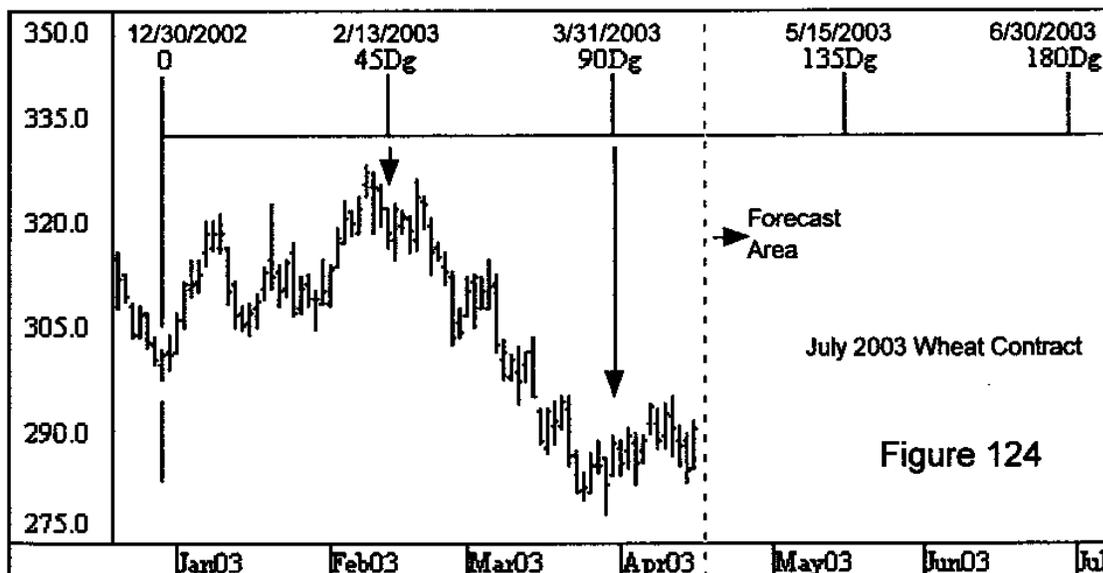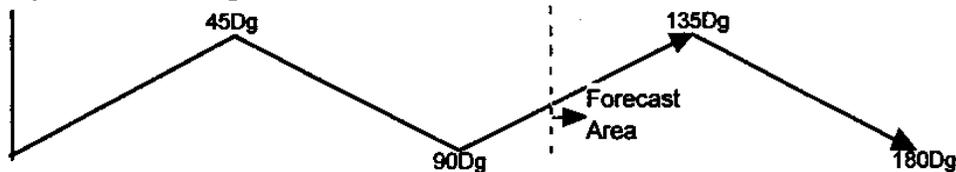
Figure 124

Figure 124 shows that the date 2/13/2003 identified by the 45° corner of the octagon shape overlay correlates with a pivot top. The 90° corner of the octagon shape overlay identified the date 3/31/2003 which is near a pivot bottom. Because the first two octagon corners correlate with pivots, a forecast can be made that the future dates identified by the octagon corners will also correlate with market pivots.

Figure 125 shows the Square of Nine with the dates around the outside. The dates are listed every 15°. The 0° start corner is aligned on the starting date 12/30/2002. The 45° corner identifies 2/13/2003, the 90° corner identifies 3/31/2003, the 135° corner identifies 5/15/2003 and the 180° corner identifies 6/30/2003.
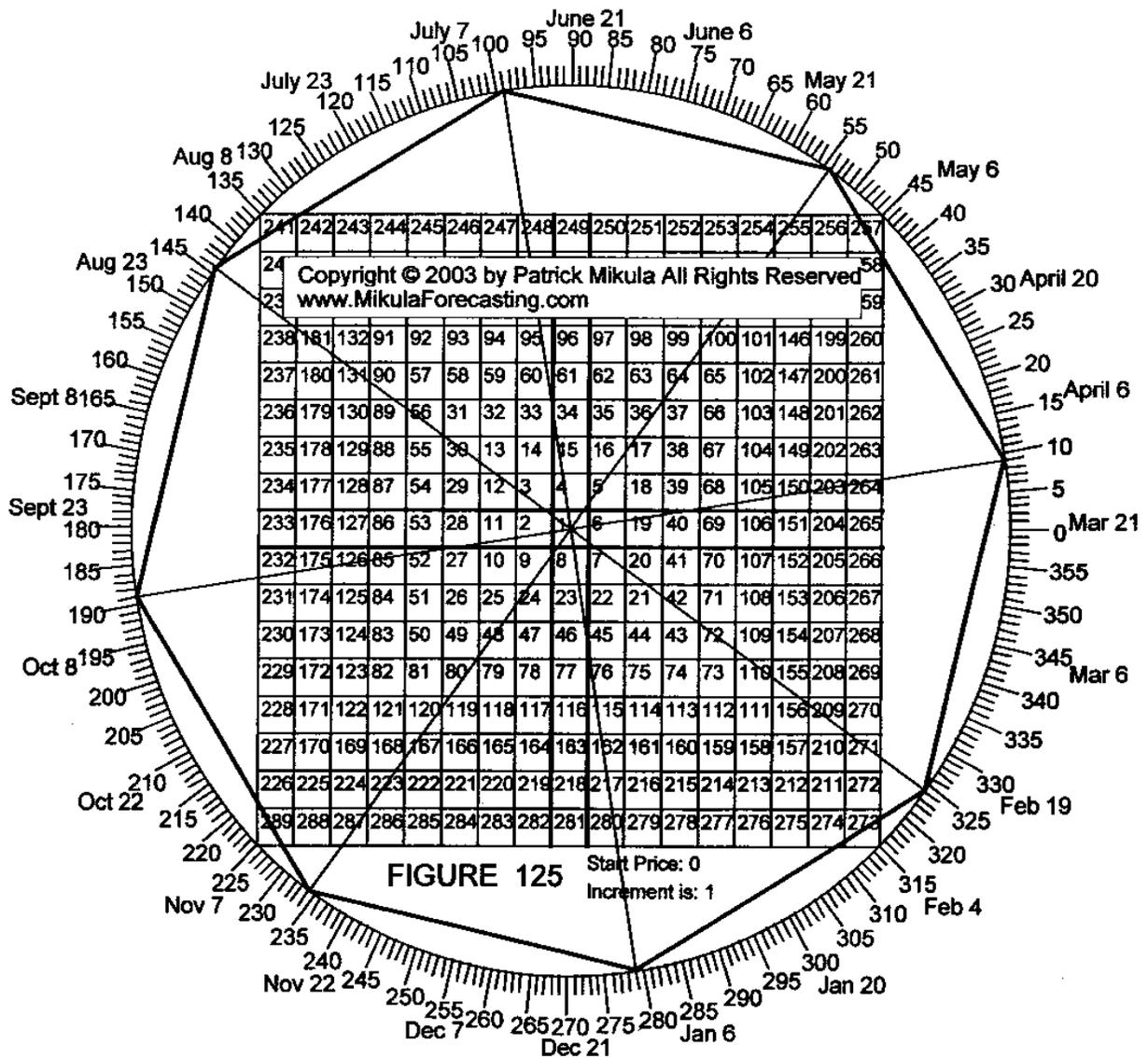
FIGURE 125

Figure 126 shows the Wheat market which was shown previously in Figure 124. Notice at point A on Figure 126, the market moves up to the 135° date 5/15/2003 and makes a top.

Notice the line diagram below the price chart on Figure 126. This diagram shows the top bottom sequence of the pivots identified by the octagon shape overlay. If these dates stay in sequence, then the next pivot date can be forecast as a top or bottom. For example on Figure 124, the starting date was a bottom, the 45Dg date was a top and then the 90Dg date was a bottom. This shows a bottom, top, bottom sequence. Then the 135Dg date could be forecast as a top and the 180Dg date could be forecast as a bottom. If there is no top bottom sequence, the 135Dg date could still be forecast as a pivot date but it would not be forecast as a top.
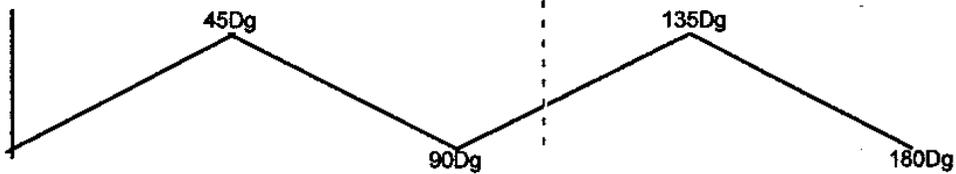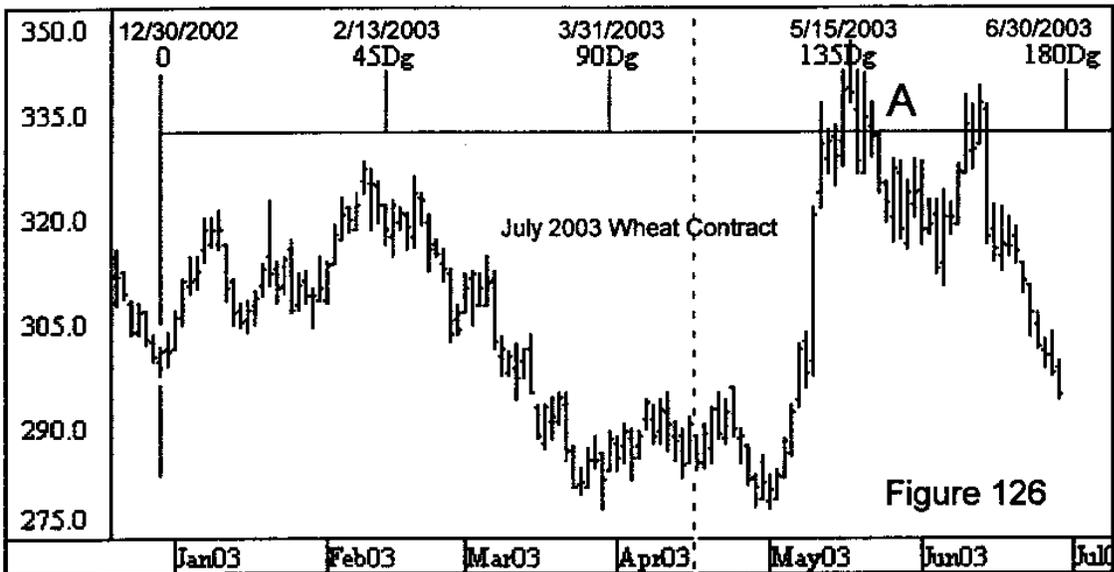
Figure 126

Example 2 of Forecasting Pivot Dates Using Shape Overlays:
5 Minute Minnesota Mining & Manufacturing Co., MMM

Here is an intraday example of forecasting pivots using a shape overlay. Figure 127 shows a 5 minute bar chart for Minnesota Mining & Manufacturing, symbol MMM. When W.D.Gann placed time on the outer ring of the Square of Nine he used the 24 hours of one day. This is not the time period we will use on the outer ring for this method. When using the full 24 hours, most of the forecast times occur when the market is not open. This example will use 9:30 am to 4:00 pm when the market is open as the time around the outer ring of the Square of Nine.

Figure 127 shows the times identified by aligning the square shape overlay on the pivot high time 12:15 pm, June 9. Before a forecast can be made, some of the historical pivot times identified by the square overlay have to correlate with pivots. On Figure 127, the 90Dg time is near a pivot top and the 180Dg time is near a pivot bottom. Based on this, the forecast can be made that the next times identified by the square shape overlay will also correlate with a pivot.

Figure 127

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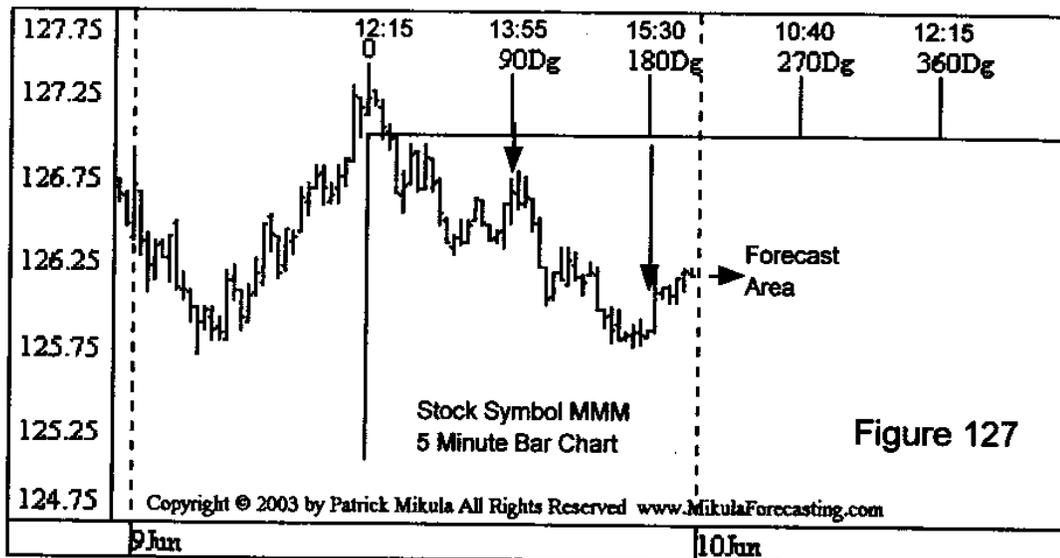
Figure 128 shows a Square of Nine with the trading hours for the New Your Stock Exchange around the outside. The 0° corner of the square overlay is aligned on 12:15. The 90° corner of the square, lines up with 13:55, the 180° corner lines up with 15:30 and the 270° corner lines us with 10:40.
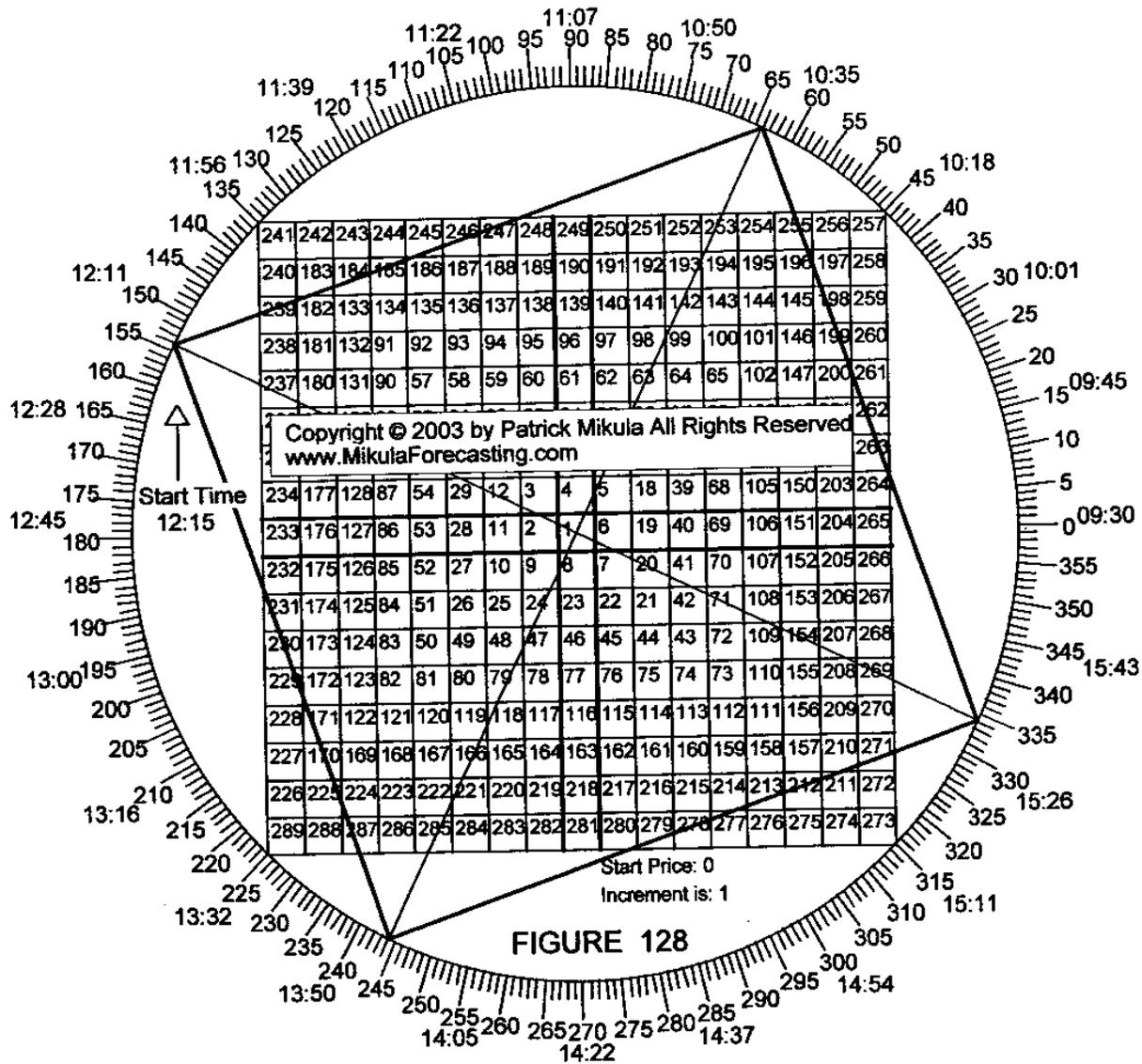
FIGURE 128

Figure 129 shows the 5 minute chart for MMM. The forecast time of 10:40 is near a pivot bottom at A. The forecast time 12:15 is near a pivot top at B.

Figure 129. Stock Symbol MMM 5 Minute Bar Chart
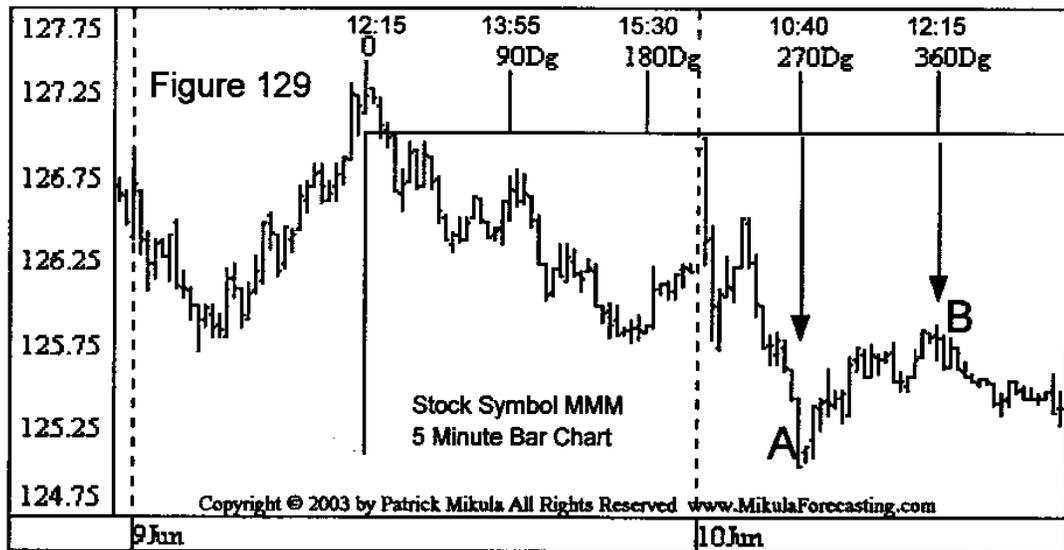
Example 3 of Forecasting Pivot Dates Using Shape Overlays:
5 Minute Disney, DIS

This example will use a 5 minute bar chart for Disney, symbol DIS. The hours of trading for the New York Stock Exchange. 9:30 am to 4:00 pm are again placed around the outside of the Square of Nine. Figure 130 shows the times identified by the triangle overlay when it is aligned to the time 11:15. Before a forecast can be made, at least one of the historical times must correlate with a pivot. On Figure 130, the 240Dg time of 15:35 is near a pivot top. After this occurs, a forecast is made for the next time identified by the triangle overlay. This is the 360Dg time or 11:15 am.
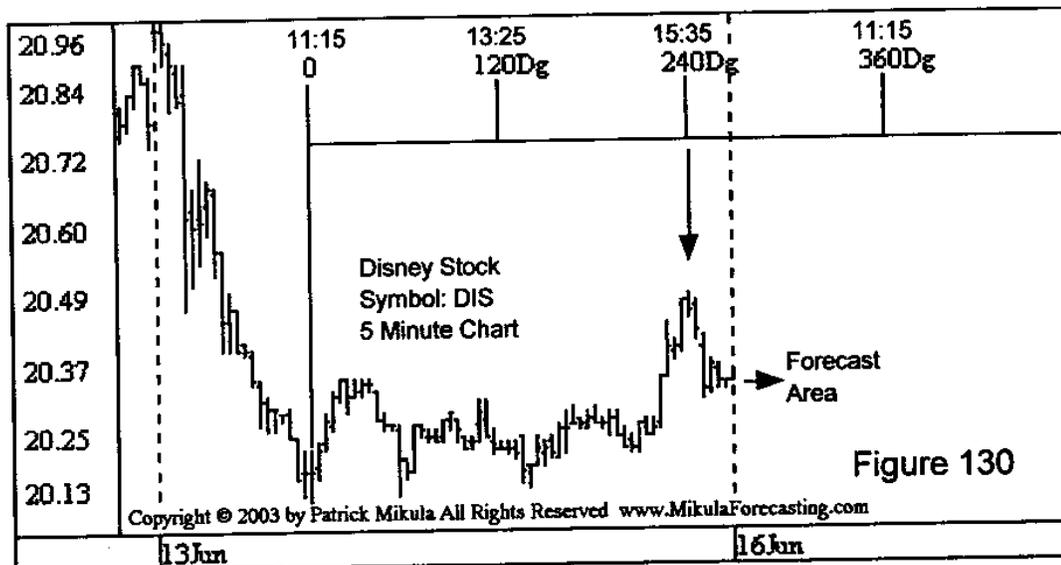
Figure 130

Figure 131 shows the 0° point of the triangle overlay aligned on 11:15 am. The 120° point of the triangle overlay identifies 13:25. The 240° point of the triangle overlay lines up with 15:35.

FIGURE 131

Start Price: 0
Increment is: 1
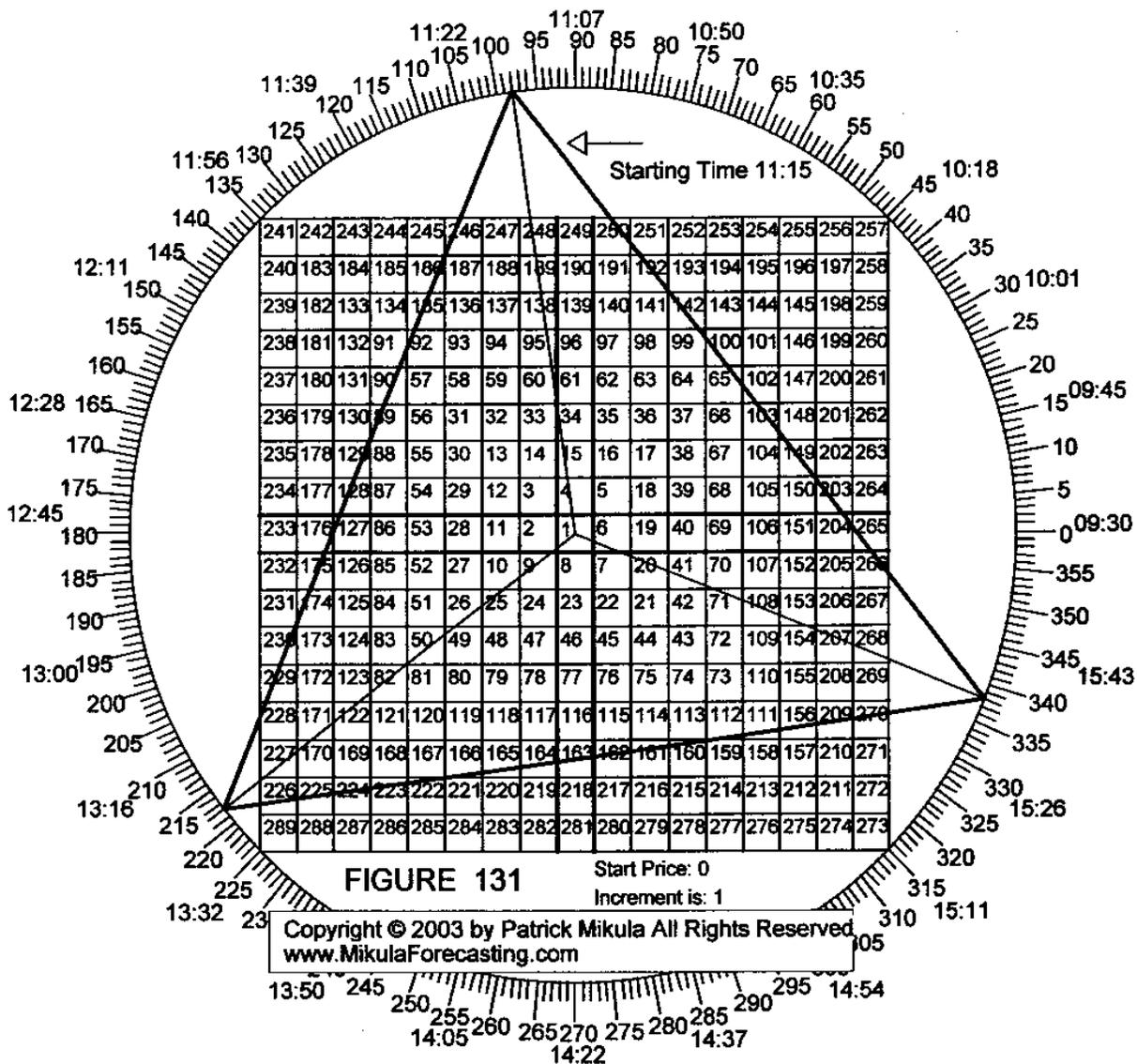
The chart in Figure 132, shows a continuation of the 5 minute bar chart for Disney. The price moves up and makes a top at the forecast time 11:15 at point A.

In this example and the previous intraday example, the market makes a top at a forecast time which is 360° from the starting time. This means a pivot formed at the same time the next day. When using this method with an intraday chart, always watch the 360° point for pivots because it has a greater tendency to form a pivot than any other time.

20.96	11:15	13:25	15:35	11:15
20.84	0	120Dg	240Dg	360Dg

Disney Stock
Symbol: DIS
5 Minute Chart

Figure 132

13 Jun   16 Jun
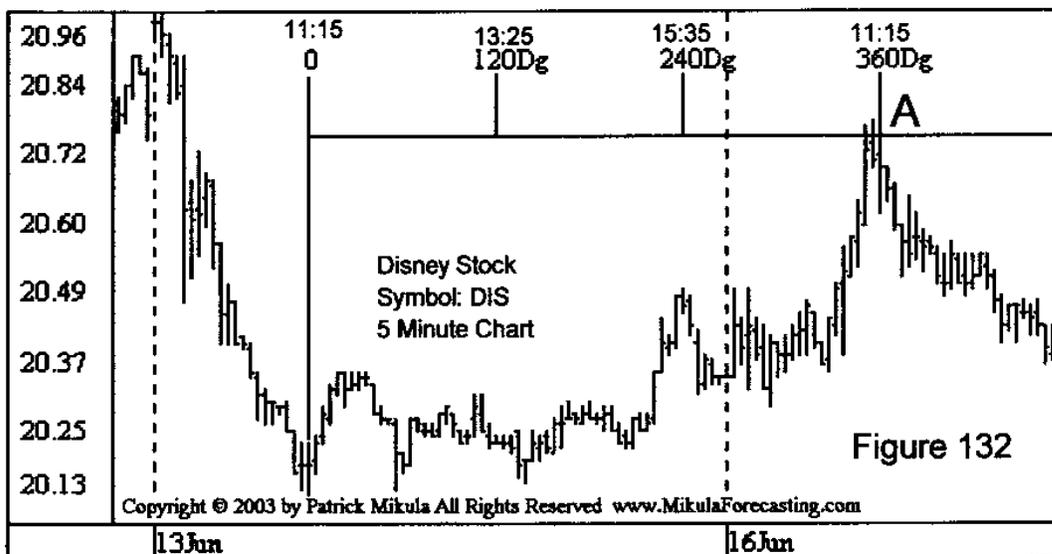
Chapter 12 Review

Objective:
Forecast the date or time of pivots.

Step 1:
Align one of the shape overlays to a pivot date on the Square of Nine.

Step 2:
Identify the dates which line up with the corners of the shape overlay. Look for some of the historical dates to correlate with pivots. If some of the historical dates do line up with pivots, then the next dates in the sequence can be used to forecast pivots.

Step 3:
If the historical pivots which correlate with the overlay dates have maintained the top, bottom, top, bottom sequence, then the next pivot should continue the sequence. The next pivot is then forecast as either a top or bottom. If there is no top bottom sequence, the overlay dates can still be used to forecast a pivot but not a specific top or bottom.

Step 4:
When using this forecasting method on an intraday chart, pay special attention to the 360° forecast time.

CHAPTER 13: Price and Time Forecasting Grid #1

This chapter shows how to create and use
Price and Time Forecasting Grid #1

How to Create and Use, Price and Time Forecasting Grid #1

In this book, Chapters 2 through 12 describe eleven methods for forecasting prices or pivot dates. By using a price forecasting method and a time forecasting method on the same chart, a Price and Time Forecasting Grid is created. The price forecasting method creates a set of horizontal lines and the time forecasting method creates a set of vertical lines. These horizontal and vertical lines create the Price and Time Forecasting Grid. The Price and Time Forecasting Grid #1 is created by using the price forecasting method in Chapter 3 and a fixed time cycle forecasting method.

The chart in Figure 133 is a daily chart for the Commodity Research Bureau index which is also know as the CRB commodity index. The price forecasting method described in Chapter 3 has been applied to this chart. The starting price for the Square of Nine overlay is the February 24, 2003 high price of 251.59. Price lines representing each 45° of movement on the Square of Nine are added to this chart. These price lines are the first step to create the Price and Time Forecasting Grid #1.

Figure 133
Daily Chart CRB Index
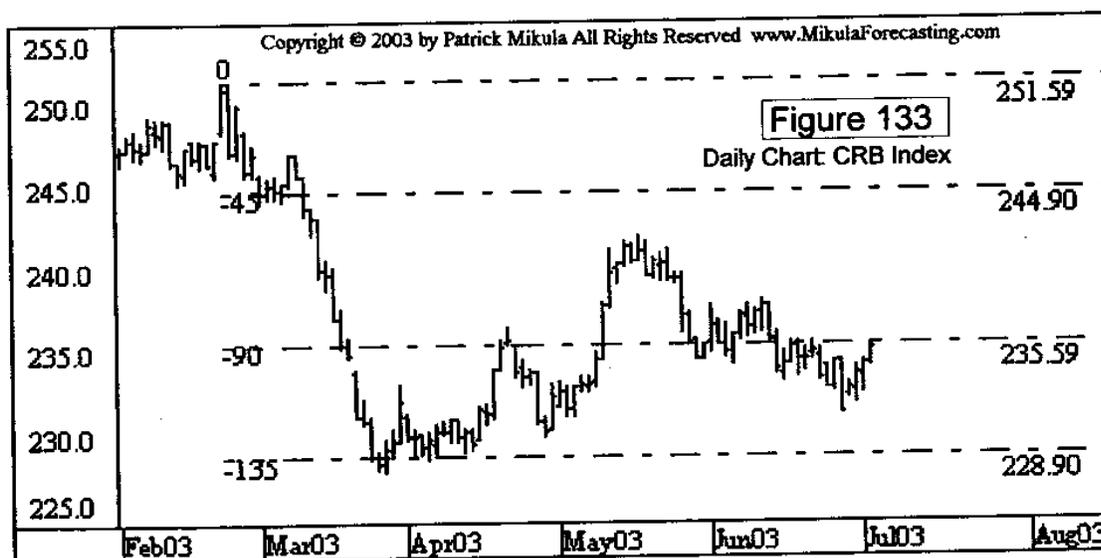
Step 2 for creating the Price and Time Forecasting Grid #1, is to add the vertical time lines. On Figure 134, the price of the CRB commodity index falls from the top starting point and makes a bottom on the price line which is -135° around the Square of Nine. This bottom is identified by the letter A. This bottom, at point A, is 21 bars from the starting bar. In this example, the time of 21 bars is used as the fixed time cycle size. The vertical lines are 21 bars apart. This creates increments of 21, 42, 63, 84 and so on. Any size can be used for the fixed cycle time lines. When selecting the cycle size the time from the starting point to the first significant pivot should always be considered as a possible candidate for the cycle size.
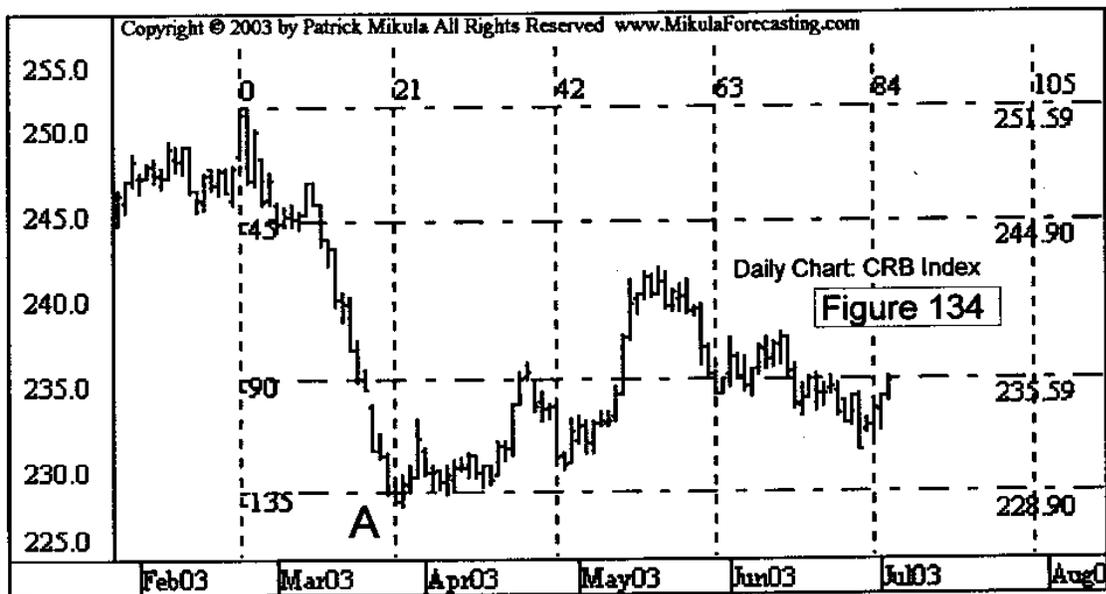
Daily Chart: CRB Index

Figure 134

The third step to create the Price and Time Forecasting Grid #1 is to connect the intersections of the horizontal price line and the vertical time lines with upward sloping lines. On Figure 135, upward sloping lines are drawn connecting the intersections of the price and time lines.

Figure 135
Daily Chart: CRB Index
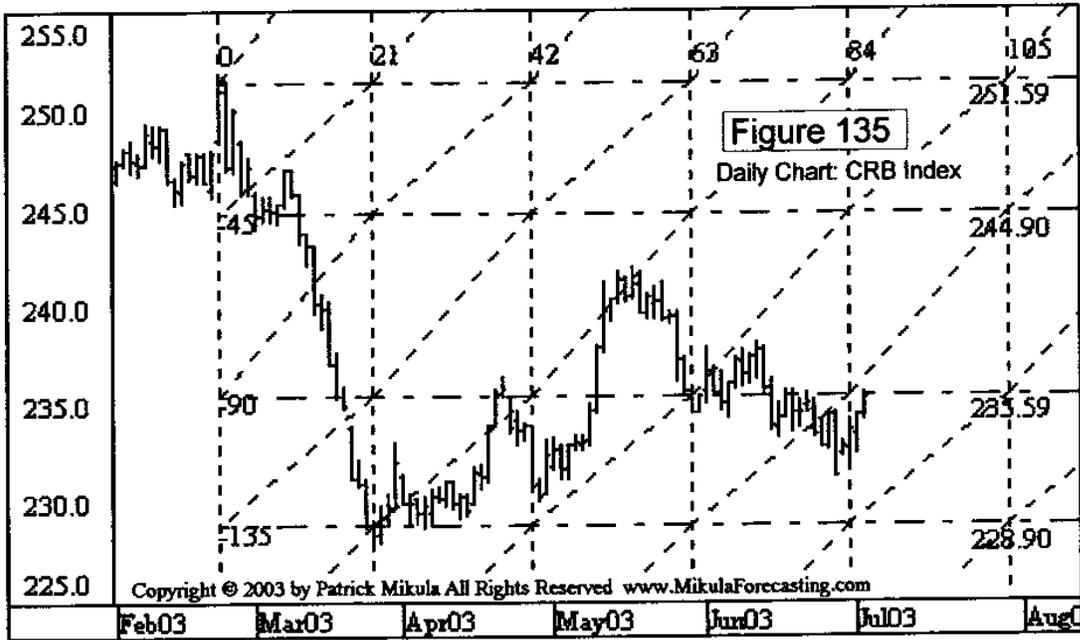
The fourth and final step to create the Price and Time Forecasting Grid #1, is to connect the intersections of the horizontal price line and the vertical time lines with downward sloping lines. On Figure 136, downward sloping lines are drawn connecting the intersections of the price and time lines. Figure 136 shows the complete Price and Time Forecasting Grid #1.

Figure 136
Daily Chart: CRB Index
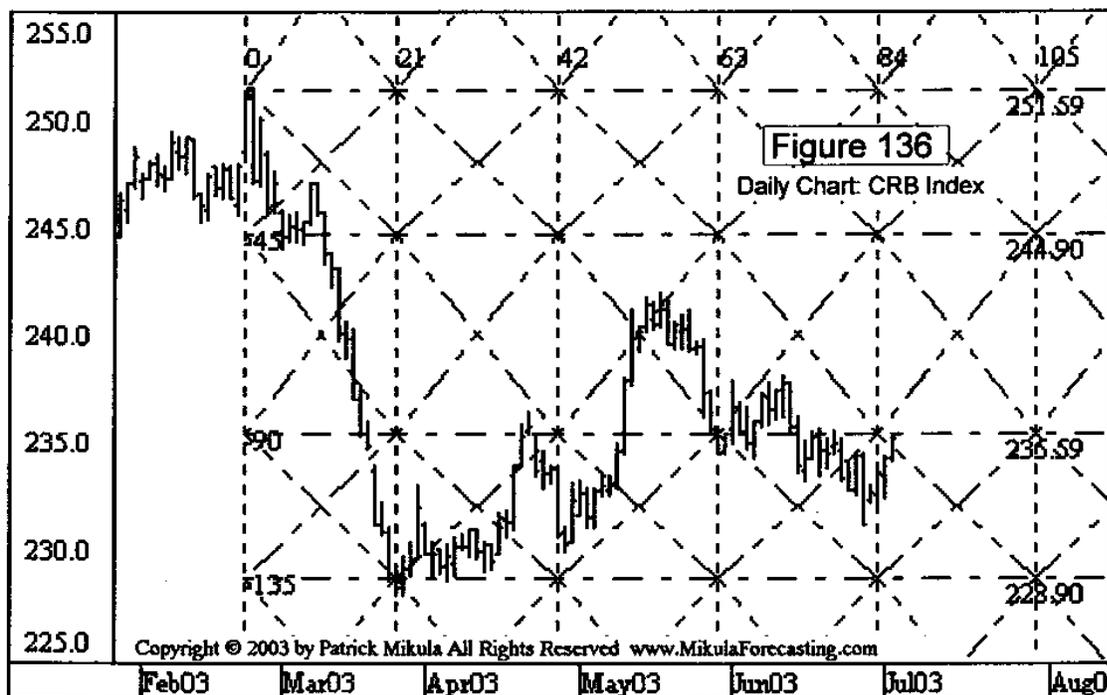
Example 1 of the Price and Time Forecasting Grid #1:
Daily CRB Commodity Index

Figure 137 shows the daily CRB commodity index with the Price and Time Forecasting Grid #1 applied to the chart. Point A on Figure 137, is the measuring point for the time cycles. Point A is 21 bars past the starting point so all the vertical time lines are 21 bars apart. The horizontal price lines are forecast by the method in Chapter 3.

After point A, the price moves up to point B where a top forms on the -90° price line. The price then falls until it reaches the second vertical time line at point C. When the price reaches the time line at C, there is a fast move up to point D. Point D is right above the intersection of two diagonal lines. The intersection of two lines is always an important location to watch for a pivot to form. At point D, the price reaches the intersection of two diagonal lines and forms a top pivot. The price then falls to point E and makes a small bottom pivot at the intersection of a horizontal price line and a vertical time line. Finally the price falls to point F and makes a bottom just before a vertical time line. The Price and Time Forecasting Grid works as a road map for the pivots as they unfold. The review at the end of this chapter includes a list of items to watch for when using the Price and Time Forecasting Grid.

Figure 137
Daily Chart: CRB Index
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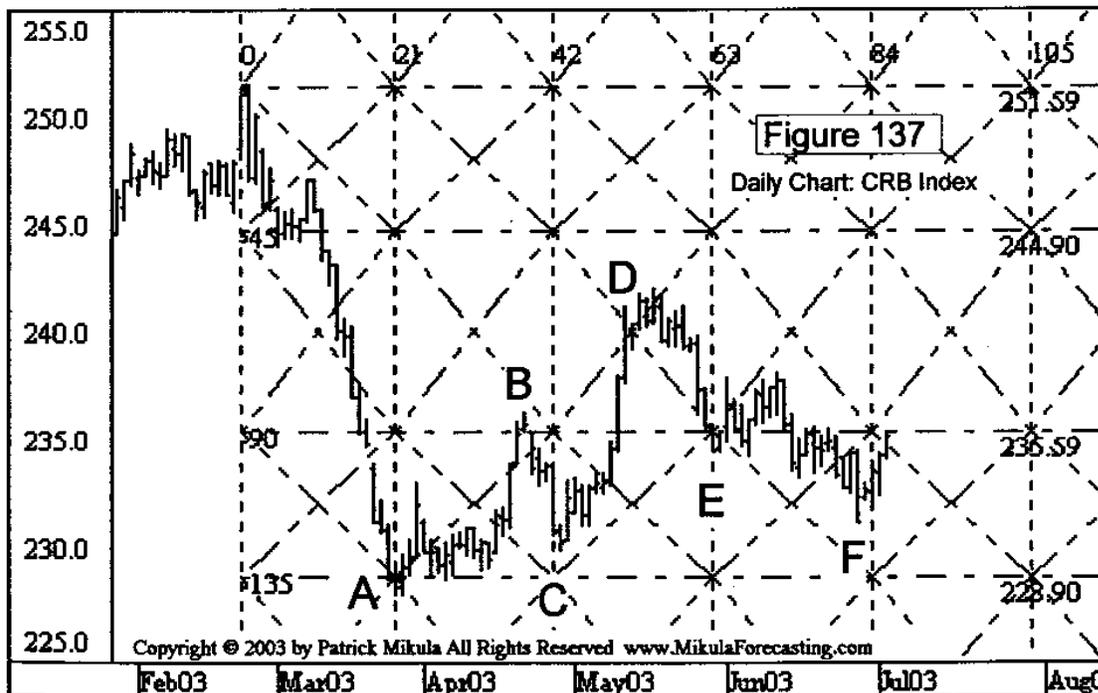
Figure 138 shows the same CRB index chart in Figure 137. The diagonal lines in the Price and Time Forecasting Grid commonly work as a price channel. Watch for this to happen. On Figure 138, there are four arrows, two point up and two point down. The two upward arrows mark the boundaries of an upward price channel created by the Price and Time Forecasting Grid. Notice that the price stays between the top and bottom boundary of this channel as it moves up from point A to point B.

The two downward sloping arrows identify the boundaries of a downward price channel created by the Price and Time Forecasting Grid. After the top at point B, the price falls and stays inside the boundaries of this price channel.

Figure 138
Daily Chart: CRB Index
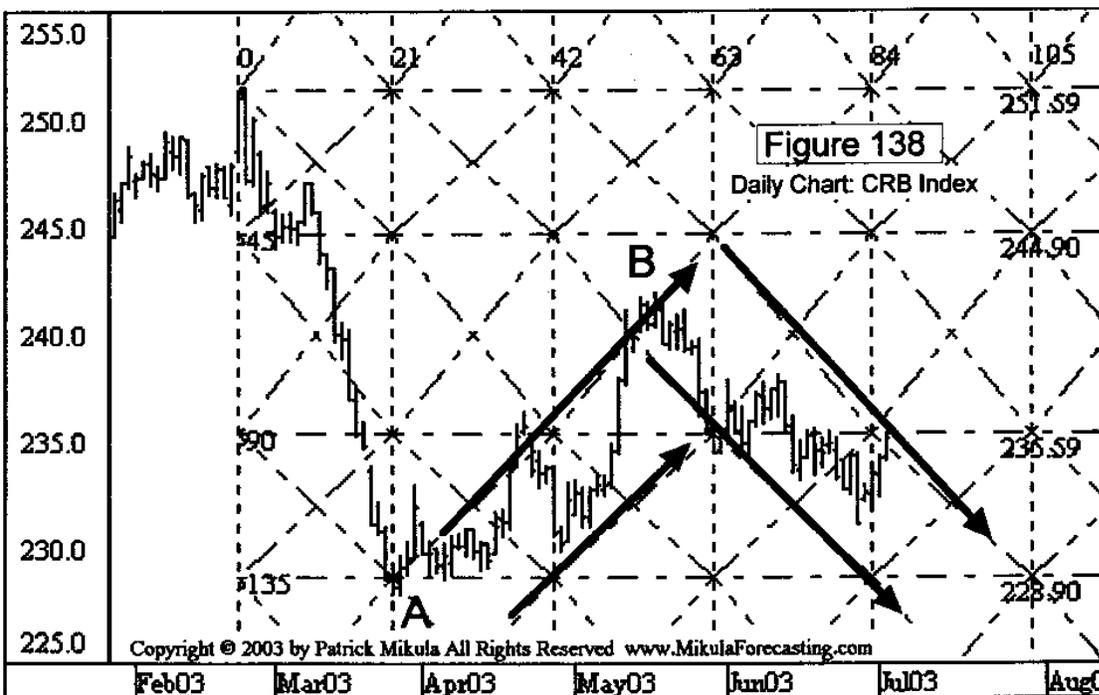
Example 2 for the Price and Time Forecasting Grid #1:
15 Minute Amazon.com AMZN

Figure 139 shows a 15 minute bar chart for Amazon.com stock. The lines are drawn for the Price and Time Forecasting Grid #1. The horizontal price lines are created by using the method in Chapter 3. The starting point for the grid is the low price of 34.54 on June 24, 2003, 10:15 am. This is an intraday chart with a low price scale. The starting price is multiplied by 100 so it can be used on the Square of Nine to create the price lines.

The top at point A, is the time cycle measuring point. From the starting bar to point A, there are 28 bars. Each time cycle line is 28 bars apart.

After point A, the price falls to point B and makes a bottom on the +90° price line. Then the price moves sideways until it reaches point C at the second vertical time line. At point C, the price starts a fast break upward. The price moves up until at point D it makes a top at the intersection of the +360° price line and the third time line.

Figure 139 — 15 Minute Chart Amazon.com AMZN
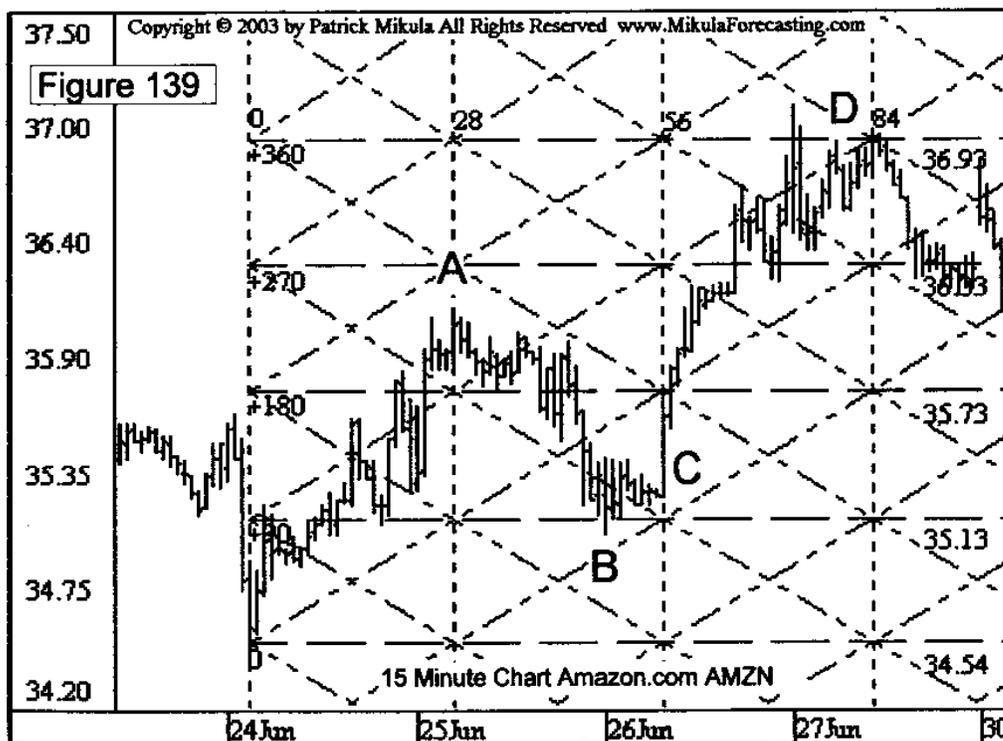
Figure 140 is a continuation of the 15 minute Amazon.com chart in Figure 139. After the top at point D, the price falls to point E and forms a bottom on the +180° price line. The price then moves sideways. When it reaches the fifth time line, it starts a fast move up at point F. Finally the price moves up and makes a top at point G against the next higher +180° price line. The Price and Time Forecasting Grid lays a mapping grid onto the price chart. In a great many cases, it helps a trader or forecaster identify pivots as they occur.

Figure 140
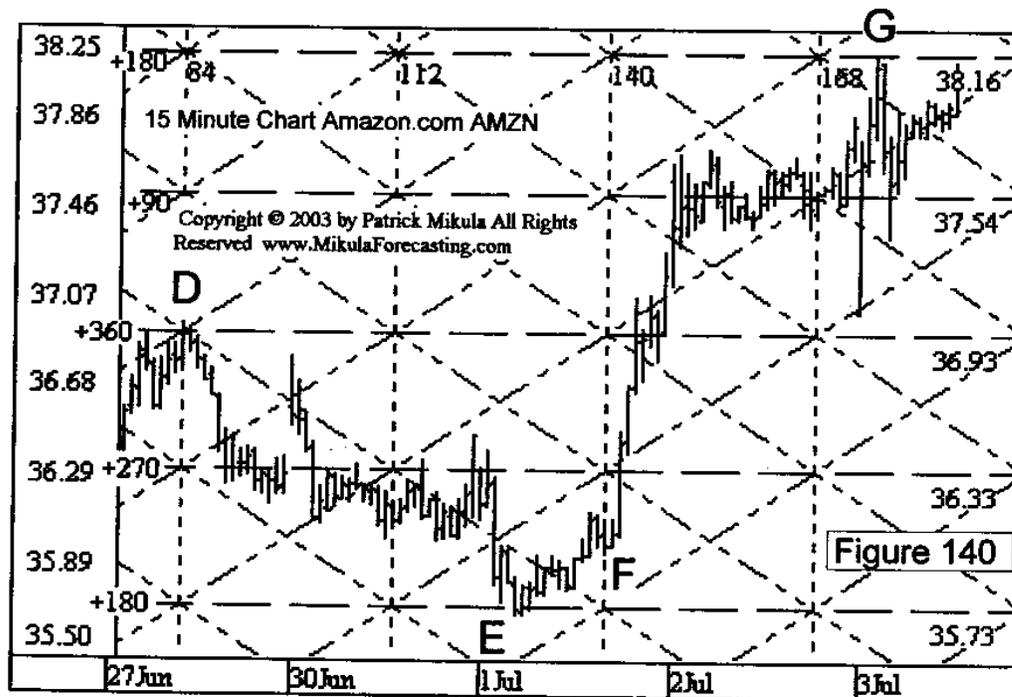
Chapter 13 Review

Objective:
Use the Price and Time Forecasting Grid #1 to identify pivots as they occur.

Step 1:
Use the method in Chapter 3 to draw the horizontal price lines.

Step 2:
Draw the vertical time lines on the chart. The time line spacing is a fixed cycle size. A common cycle size to use for the time cycle is the time between the starting point used in step 1 and the first significant pivot. This is the method used to determine the cycle size in the two examples in this chapter.

Step 3:
Complete the Price and Time Forecasting Grid #1 by drawing the upward and downward sloping lines. These lines connect the vertical and horizontal line intersections.

Step 4:
As the price unfolds through Price and Time Forecasting Grid #1, watch for the following items.

1.) Watch for pivots to form against price lines.

2.) Watch for pivots to form when the price reaches a time line.

3.) Watch for a fast break to start from a time line.

4.) Watch for pivots to form when the price reaches an intersection between a horizontal price line and a vertical time line.

5.) Watch for pivots to form when the price reaches an intersection between two diagonal lines.

6.) Watch for the upward diagonal lines to form an upward price channel.

7.) Watch for the downward diagonal lines to form a downward price channel.

CHAPTER 14: Price and Time Forecasting Grid #2

*This chapter shows how to create and use
Price and Time Forecasting Grid #2*

How to Create and Use, Price and Time Forecasting Grid #2

Price and Time Forecasting Grid #2 is created by using a price forecasting method and a time forecasting method on a chart simultaneously. The method in Chapter 3 is used to create the horizontal price lines. The method in Chapter 4 is used to create the vertical time lines.

Step 1 to create Price and Time Forecasting Grid #2 is to draw the price lines on a chart using the method in Chapter 3. Figure 141 shows a weekly chart for the S&P500. The price forecasting method in Chapter 3 is applied with the starting date of March 24, 2000 at the top price 1552.87. This is the all time high for the S&P500. The horizontal price lines are drawn every 360° moved around the Square of Nine.

Figure 141
S&P500 Index:
Weekly Chart
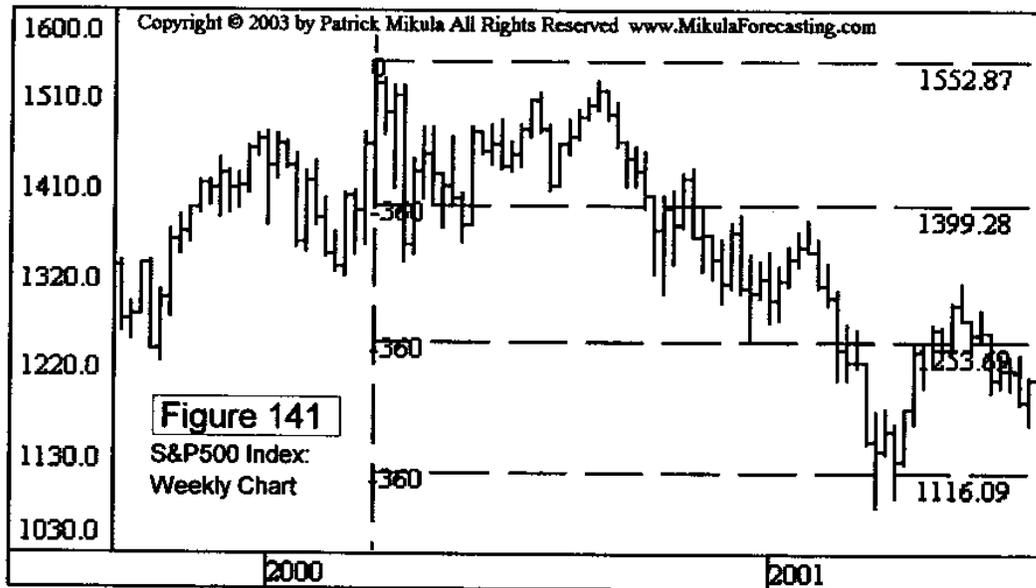
Step 2 is to draw the time lines on the price chart using the method in Chapter 4. This method draws time lines based on the Square of Nine cell numbers found on the diagonal cross and cardinal cross. On Figure 142, the first vertical time line is labeled 23, and marks the exact bar of the first top pivot after the starting bar. On the Square of Nine, the number 23 is on the 270° angle which is the downward vertical angle in the cardinal cross. Because the 270° angle in the cardinal cross identifies the first pivot, this angle is used to create all the vertical time lines.

Figure 142

S&P500 Index:
Weekly Chart
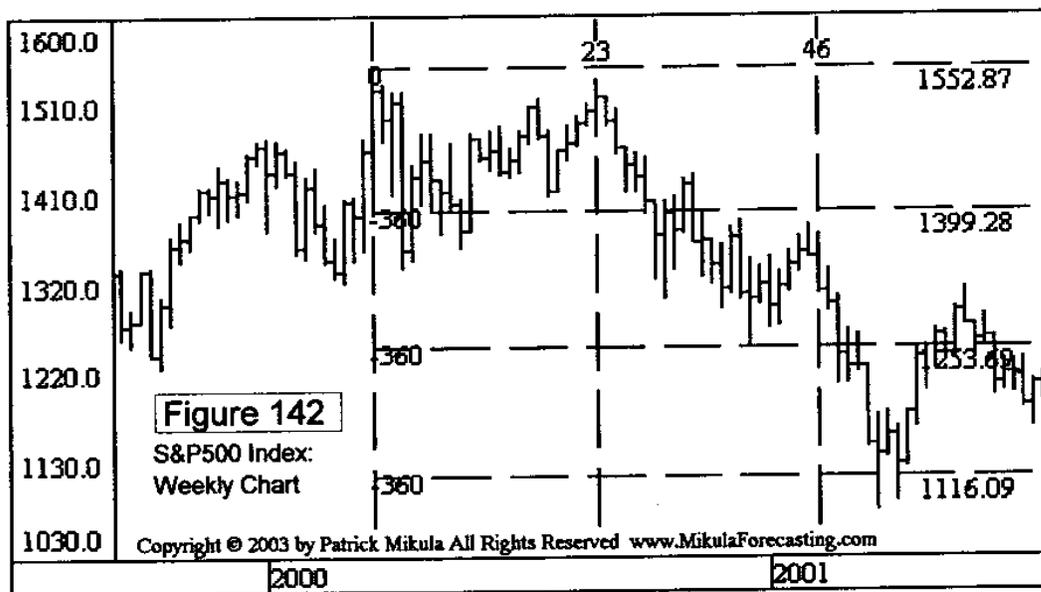
The third step to create the Price and Time Forecasting Grid #2 is to draw the upward angles. These angles connect the intersections of the horizontal price lines and the vertical time lines. See Figure 143.

Figure 143
S&P500 Index:
Weekly Chart
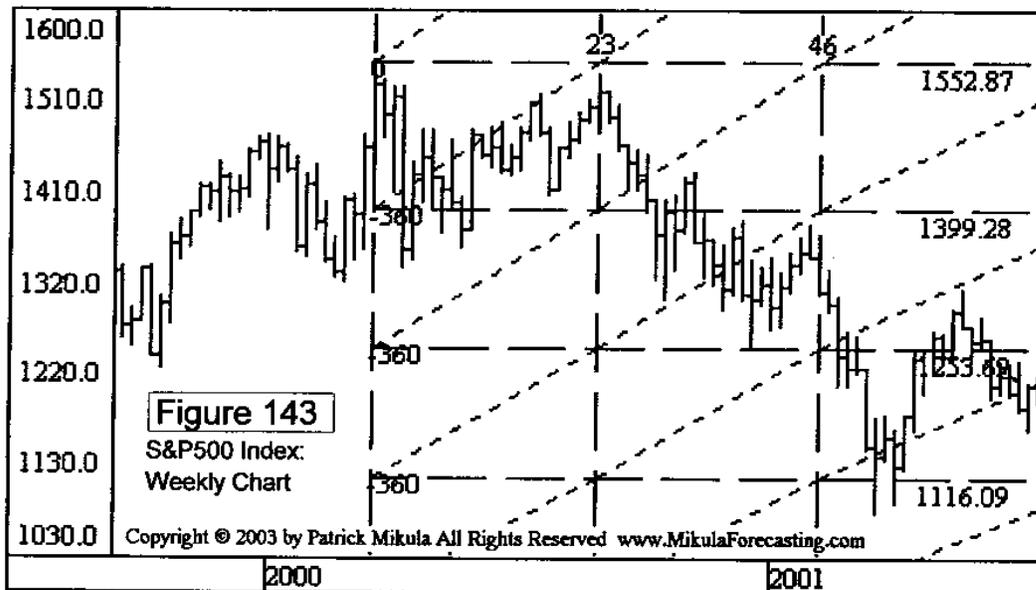
The 4th and final step to create the Price and Time Forecasting Grid #2 is to draw the downward angles. These angles also connect the intersections of the horizontal price lines and the vertical time lines. See Figure 144.

Figure 144
S&P500 Index:
Weekly Chart
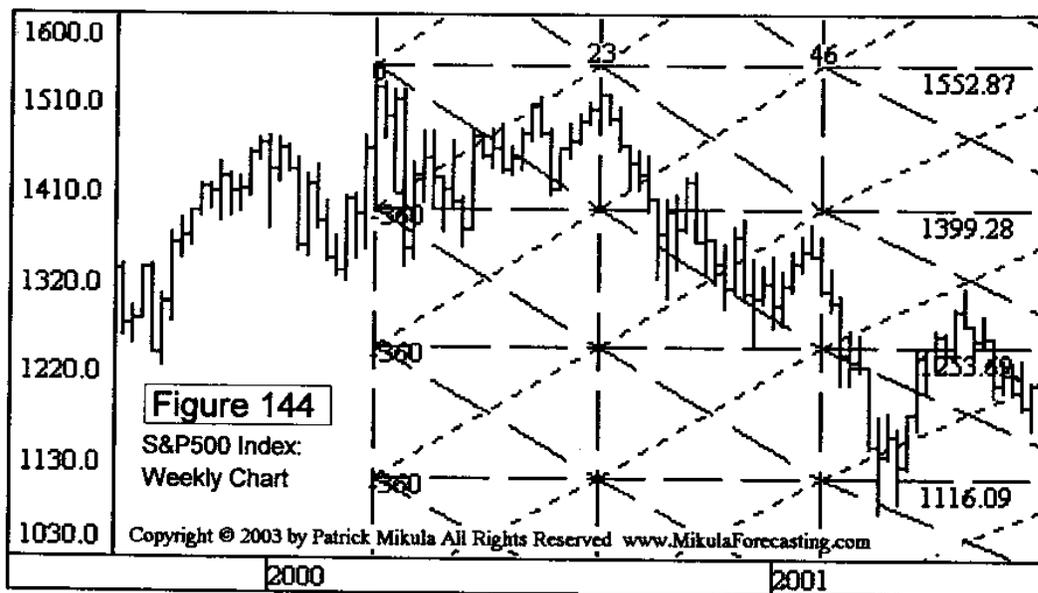
Example 1 of the Price and Time Forecasting Grid #2:
Weekly S&P500 Index

This first example of Price and Time Grid #2 uses the Weekly chart for the S&P500. This is the same chart that is on the previous three pages. The starting bar for creating the grid is the all time high for the S&P500, March 24, 2000 at the price of 1552.87. The method in Chapter 3 is applied to create the price lines and the method in Chapter 4 is applied to create the time lines. The vertical time lines are drawn based on the cell numbers on the 270° angle on the Square of Nine. This is the lower vertical angle on the cardinal cross. The diagonal lines have the appearance of being slightly curved because the time lines progressively farther apart.

When selecting the Square of Nine angle to use to create the time line, you should look for the closest match to the first pivot after the starting bar. On Figure 145 the first time line labeled A, also labeled 23, exactly marks the first swing top bar after the starting bar. The label 23 is the cell number from the Square of Nine. Cell 23 is on the 270° angle on the cardinal cross. This is why this cardinal cross angle is selected for constructing the time lines.
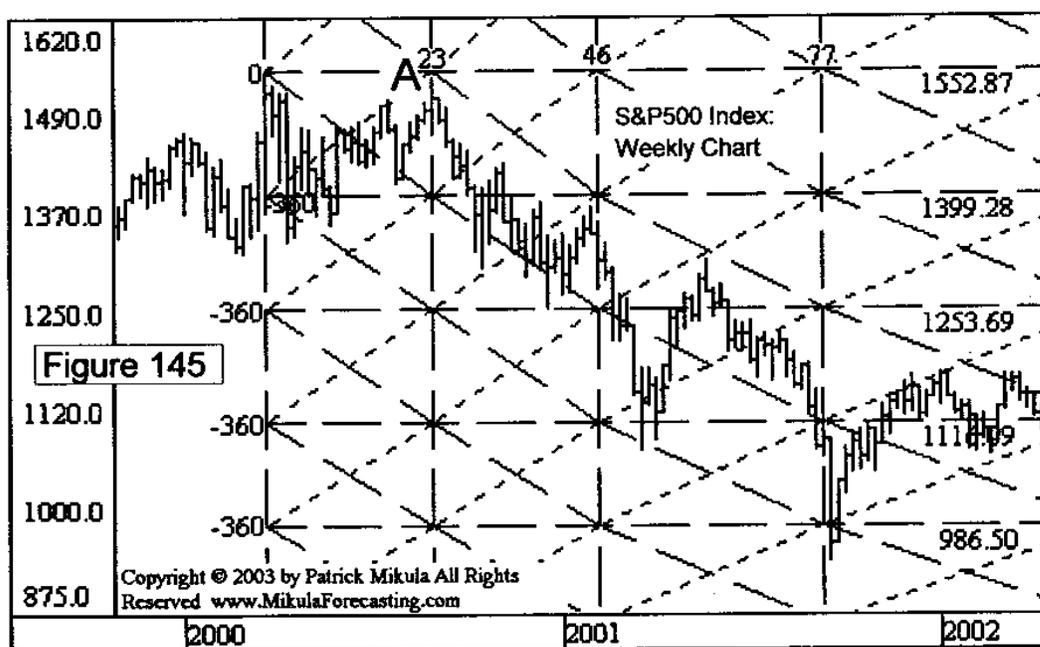
Figure 145

Figure 146 shows the same S&P500 chart in Figure 145. On Figure 146, two of the downward sloping lines are highlighted. These two angles create a downward price channel. As the S&P500 moves down through 2000, 2001 and 2002, it makes tops and bottoms against this price channel. The tops at point B, D, F and G all form on the top channel line. The two bottoms at C and E form on the bottom channel line.

Figure 146

S&P500 Index:
Weekly Chart

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Reserved www.MikulaForecasting.com
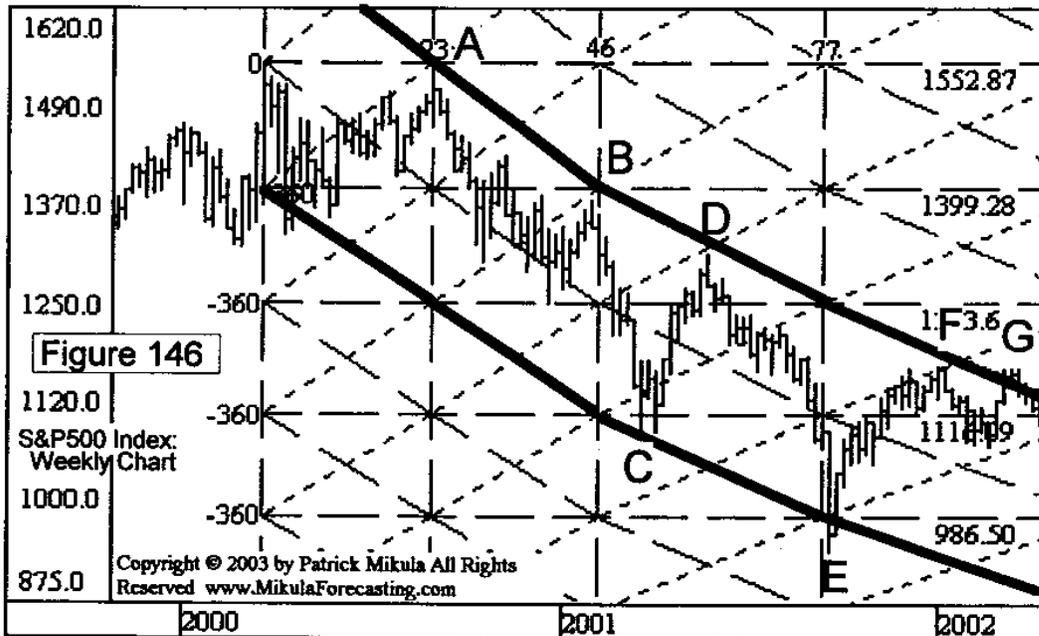
Figure 147 is a continuation of the chart on Figure 146. After the top at point G, the price falls and makes a double bottom on the lower channel line at points H and I. The market is currently up to point J and is again on the upper channel line. If this bear market in the S&P500 is going to continue, it must make a break downward. If the S&P500 moves above the upper channel then the bear market which started in 2000 will be over.

S&P500 Index: Weekly Chart

Figure 147

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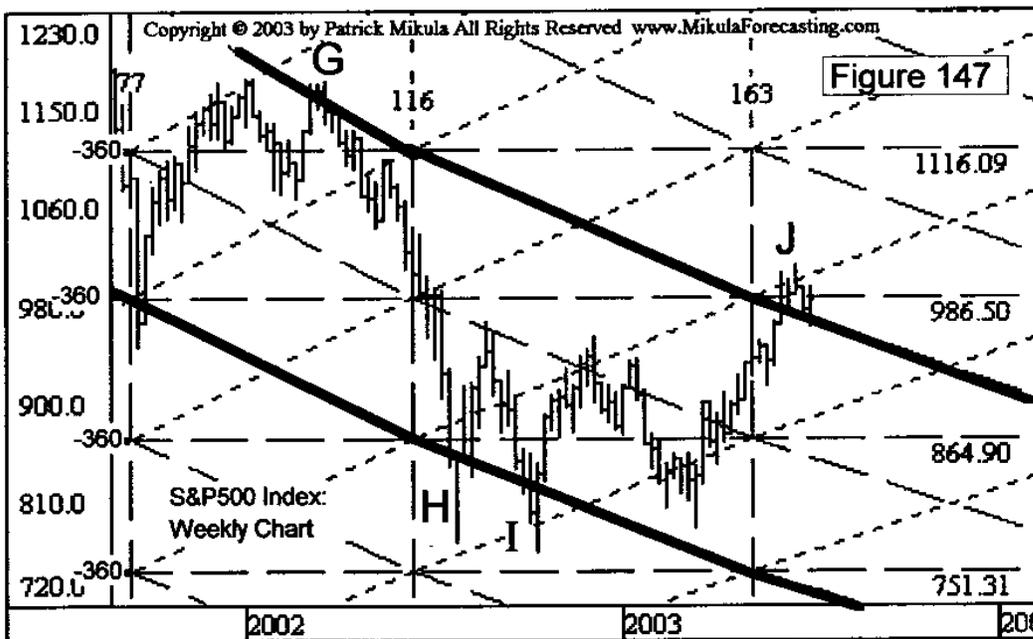
Example 2 of the Price and Time Forecasting Grid #2:
15 Minute Symantec Corp., SYMC

Figure 148 shows a 15 minute chart for the software company, Symantec, SYMC. On this chart, the horizontal price lines are created using the method in Chapter 3. The starting point is the high price of 46.50 on June 25, 2003 at 14:00. Using the method in Chapter 3, the price lines are drawn every 90° away from the starting price. This is an intraday chart with a small price range and low prices therefore the starting price is multiplied by 100 so it can be used on the Square of Nine.

The vertical time lines are created using the method in Chapter 4. The first bottom pivot after the starting bar is identified by point A. This pivot bar is 19 bars away from the starting bar. The Square of Nine cell 19 is on the 0° angle of the cardinal cross. This is the right side horizontal angle of the cardinal cross. Because this angle identifies the first pivot after the starting bar, it is used to calculate all the time lines.

After point A, the price falls to the bottom at point B and makes a bottom on the -360° price line. Next the price moves up to point C and makes a top at the intersection of the second time line and the -180° price line. After point C, the price falls and makes a bottom at point D on the second -90° price line.

Figure 148
15 Minute Symantec, SYMC
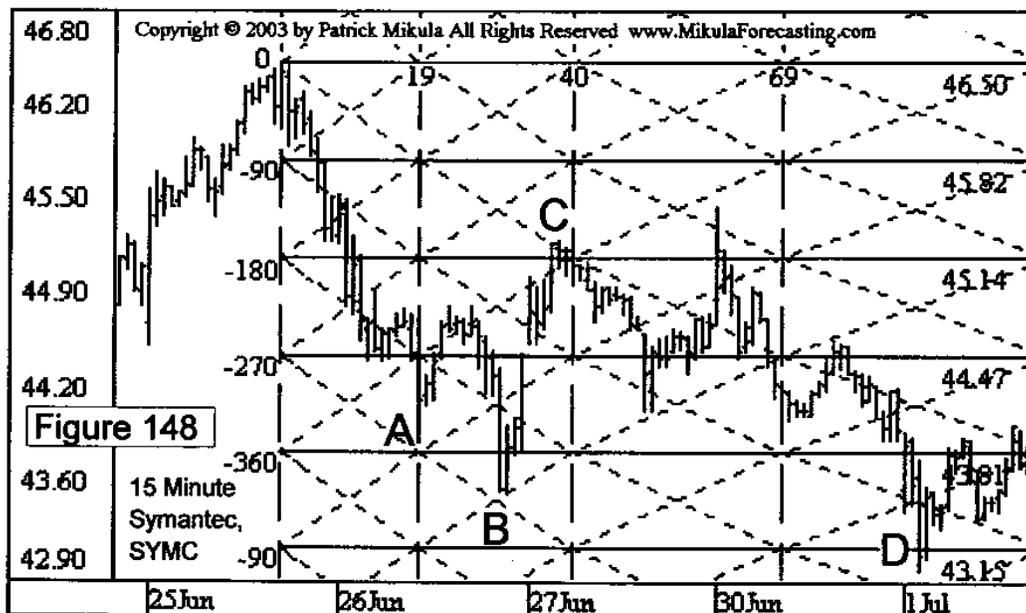
Figure 149 is a continuation of Figure 148. After the bottom at point D, the price rallies and makes a top at the intersection of the 106 time line and the -270° price line, at point E. Next the price falls and makes another bottom on the -90° price line at point F. Finally the price again moves up and makes a double top on the -270° price line at points G and H. It is very common to see the price move between the price lines forming several pivots in a row on different price lines and at the intersections of price and time lines.
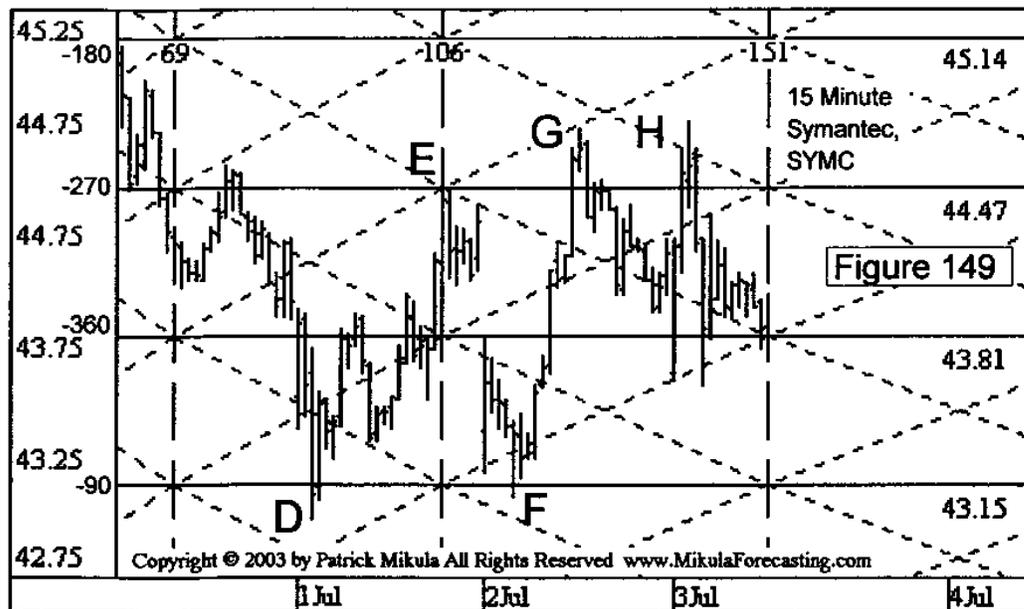
Chapter 14 Review

Objective:
Use the Price and Time Forecasting Grid #2 to identify pivots as they occur.

Step 1:
Use the method in Chapter 3 to draw the horizontal price lines.

Step 2:
Use the method in Chapter 4 to draw the vertical time lines on the chart. A common way to select the Square of Nine angle used in creating the time lines, is to find the angle on the Square of Nine diagonal cross or cardinal cross which produces the closest match to the first pivot after the starting bar. This is the method used in the two examples in this chapter.

Step 3:
Complete the Price and Time Forecasting Grid #2 by drawing the upward and downward sloping lines. These lines connect the vertical and horizontal line intersections.

Step 4:
As the price unfolds through Price and Time Forecasting Grid #2, watch for the following items.

1.) Watch for pivots to form against price lines.

2.) Watch for pivots to form when the price reaches a time line.

3.) Watch for a fast break to start from the time line.

4.) Watch for pivots to form when the price reaches an intersection between a horizontal price line and a vertical time line.

5.) Watch for pivots to form when the price reaches an intersection between two diagonal lines.

6.) Watch for the upward diagonal lines to form an upward price channel.

7.) Watch for the downward diagonal lines to form a downward price channel.

CHAPTER 15: Mikula's Square of Nine Planetary Angles

This chapter shows how to draw planetary angles
based on the Square of Nine.

How to Draw Mikula's Square of Nine Planetary Angles

This chapter shows a method which I developed almost 10 years ago in 1994. Since that time this method has proved to be just about the best way to use planetary data for trading. These planetary angles have shown themselves to be accurate in locating pivot price levels as well as being easy to understand.

To convert a planetary longitude to a price which can be drawn on a chart, start by looking up the longitude for the planet on a specific day. On March 27, 2003 the geocentric longitude for Mars was 284.0°. The second step is to locate this degree on the outer ring around the Square of Nine. This can been seen in Figure 151. The symbol for Mars ♂ is located at 284° and is circled. To locate the prices which are affiliated with this longitude, place the overlay's 0° angle on this degree. In Figure 151 the overlay has been aligned to the degree 284° on the outer ring around the Square of Nine. The prices you will place on the price chart for this date March 27, 2003 are the prices which are on the overlay's 0° angle.

Figure 150 is a chart for the S&P500. There are two prices on the overlay's 0° angle which fall in the price range of the S&P500 chart. These are 942 and 823. Figure 150 shows these prices drawn on the S&P500 chart for March 27, 2003.
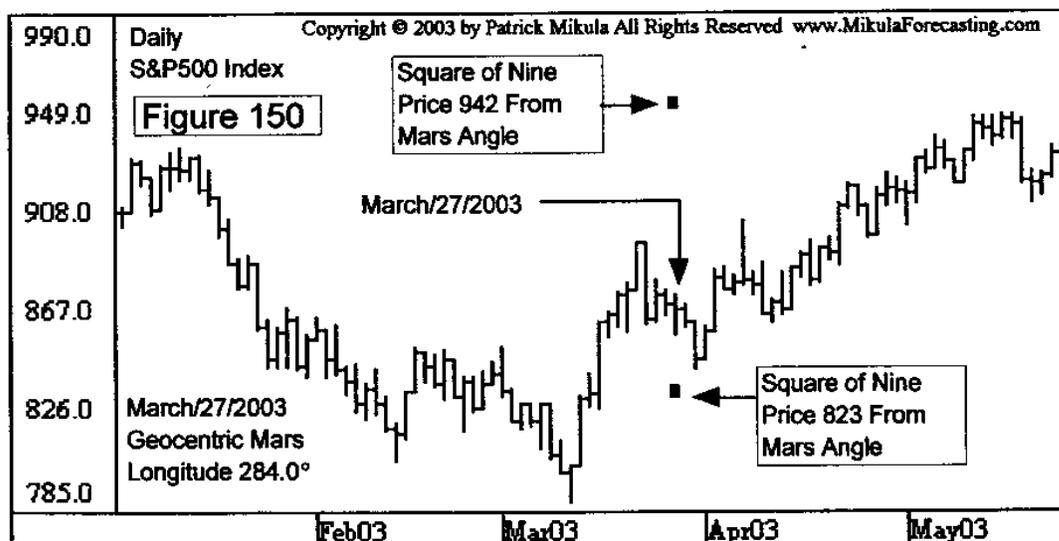
Figure 151 shows the overlay's 0° angle aligned on the longitude of Mars ♂ 284° form March 27, 2003. The circled prices on the Square of Nine, 942 and 823 are the two prices which fall in the price range of the S&P500. This process is repeated for each bar on the chart to calculate a price for each bar. When all the prices are drawn on the chart, it creates a set of angles which represent the Square of Nine values for the planet Mars.


FIGURE 151   0 Dg Overlay Angle
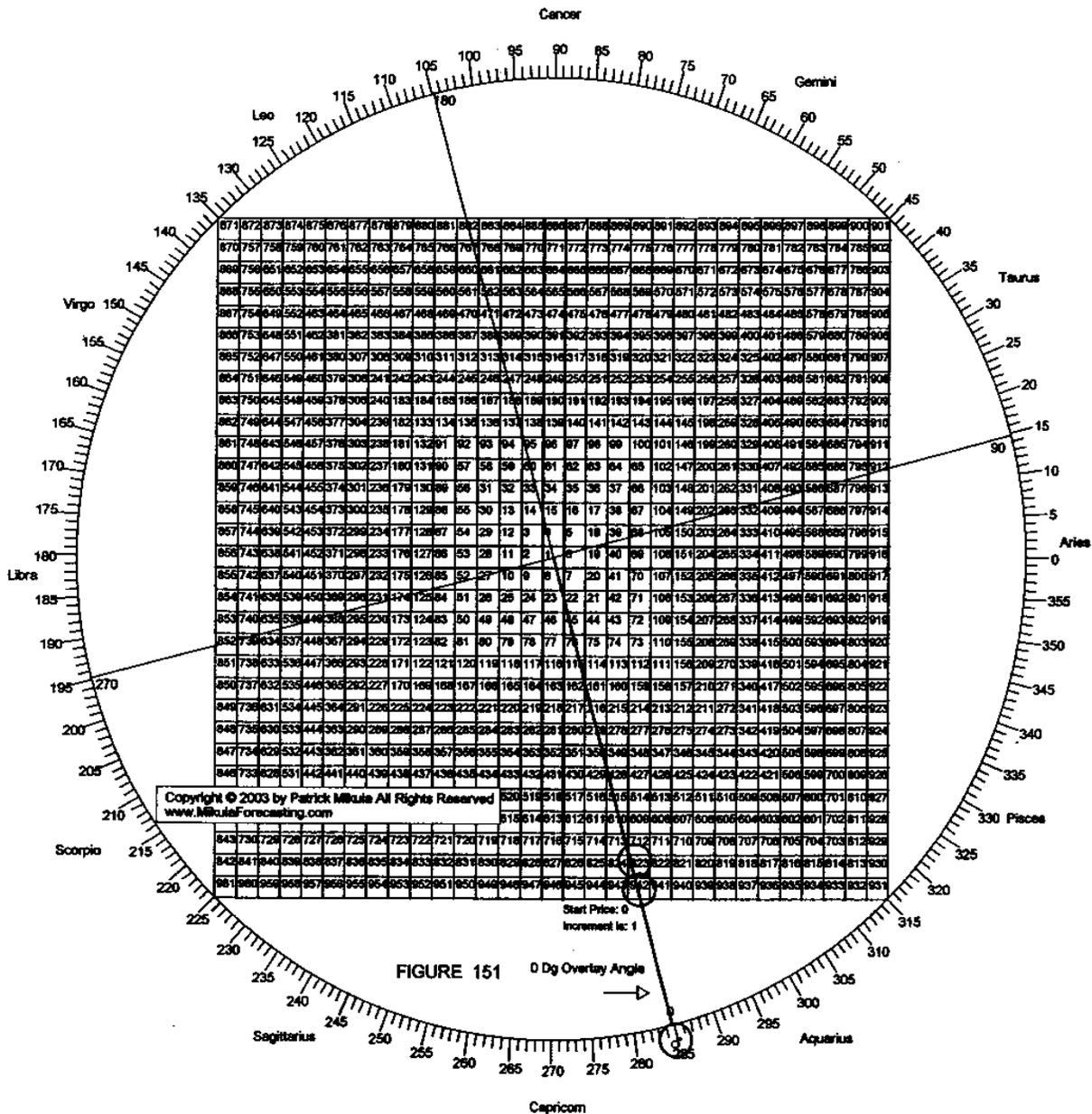
Figure 152 shows the S&P500 chart after this process is repeated for every bar on the chart. The two angles on the S&P500 chart represent the planetary angles for geocentric Mars from the overlay's 0° angle.
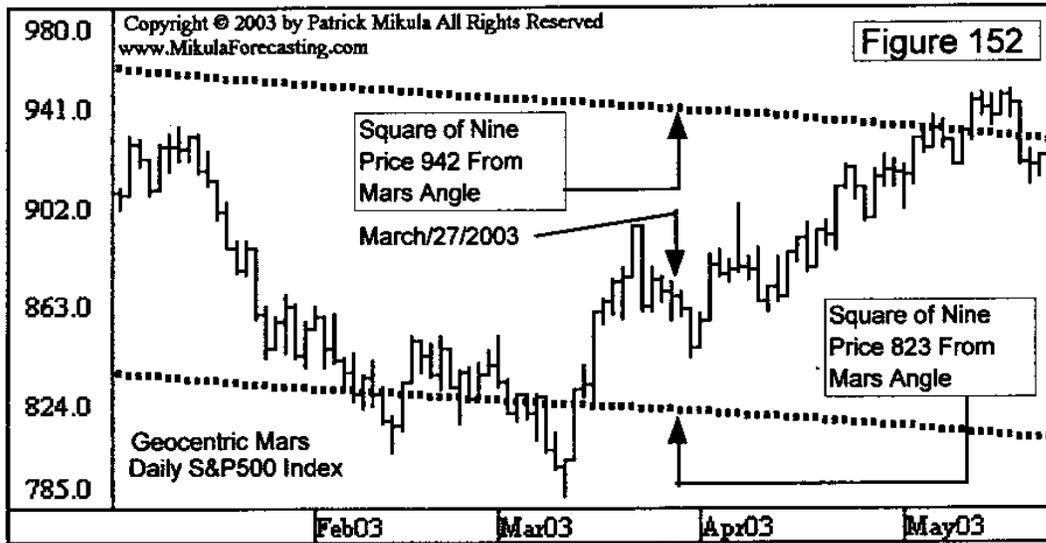
Figure 152

This process can be repeated for the other angles on the overlay. Figure 153 shows two additional angles which are calculated using the overlay's 180° angle.
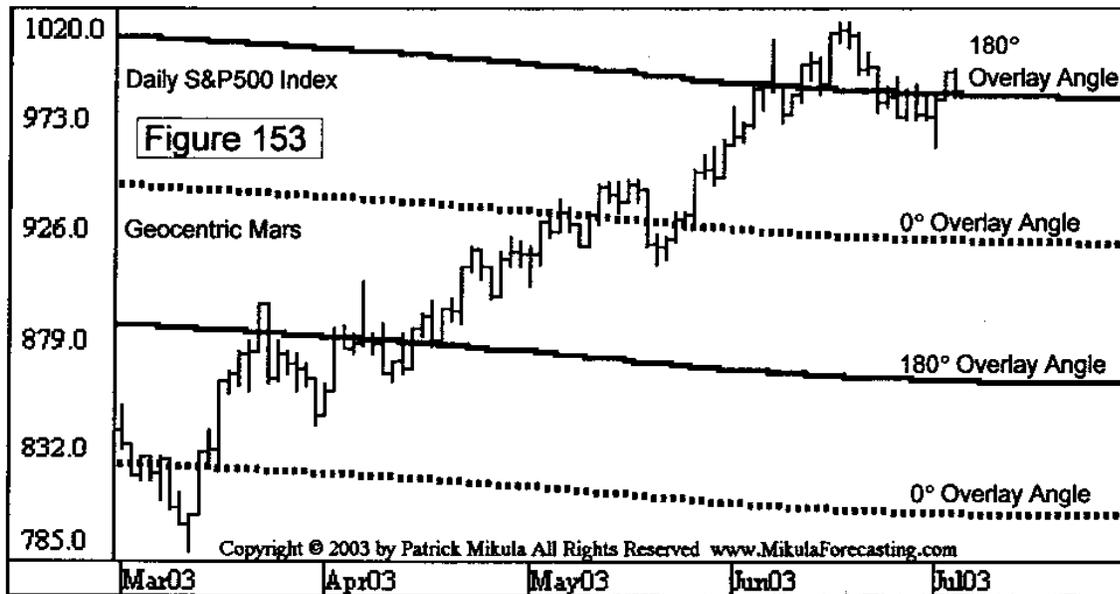

Figure 154 shows the angles for geocentric Mars which are calculated using the overlay's +90° angle and -90° angle.
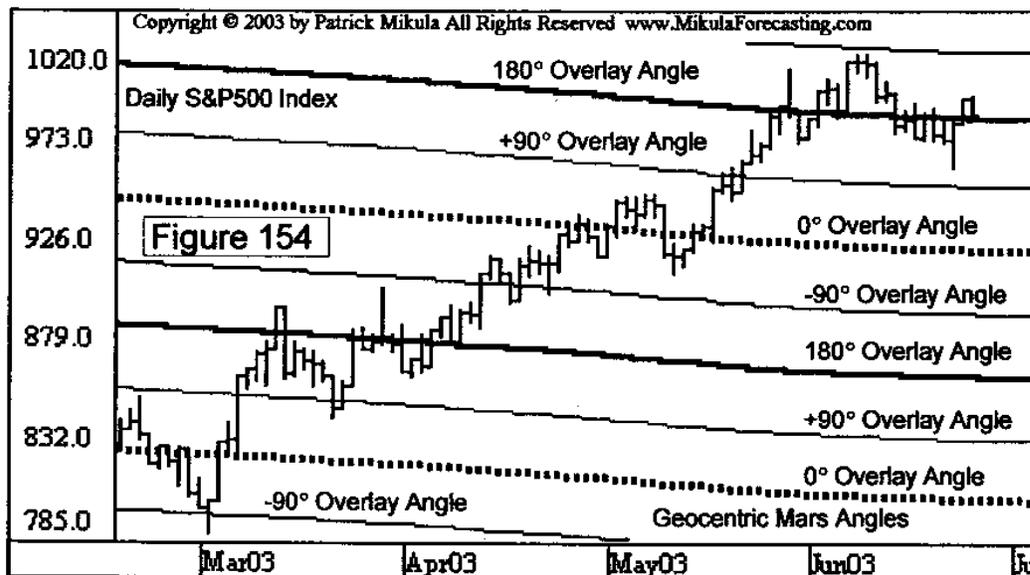
On Figures 152, 153 and 154, the planetary angles are sloping downward. This is because the numbers on the Square of Nine move clock wise while the degrees on the outer ring around the square move counter-clock wise. It is possible to invert the angles so they move upward. Figure 155 shows an S&P500 chart with the geocentric Mars angles now drawn inverted so they slope upward.

This introduction has used geocentric Mars but it is, of course, possible to use any of the planets with this method.

Figure 155

Daily S&P500 Index
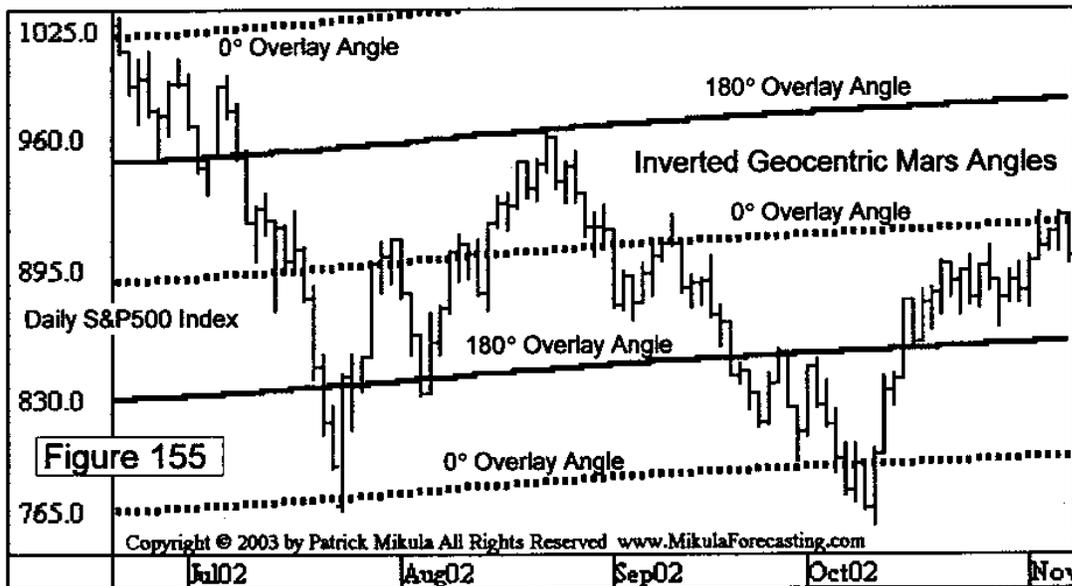
Example 1 of Mikula's Square of Nine Planetary Angles:
Daily NASDAQ Index

Figure 156 shows the daily NASDAQ index. The planetary angles drawn on this chart are the inverted geocentric Mars angles from the overlay's 0° angle and 180° angle. The prices based on the overlay's 0° angle are drawn as heavy lines. The prices based on the overlay's 180° angle are drawn as thin lines.

Figure 156 shows that a lot of market pivots have formed on these planetary angles. There are pivot bottoms on these planetary angles at points A, B, C, E, G and I. There are pivot tops on these planetary angles at points D, F, H, J and K.

It is common for a market to start a swing on one planetary angle and end the swing on the next higher planetary angle which is calculated with the same overlay angle. For example, notice that a swing starts at the bottom point E, on a planetary angle calculated with the 0° overlay angle. The market then moves up to the next higher planetary angle at point F, which is also calculated with the 0° angle. This occurs again between two angles calculated with the 180° overlay angle as the price moves from point I to J.
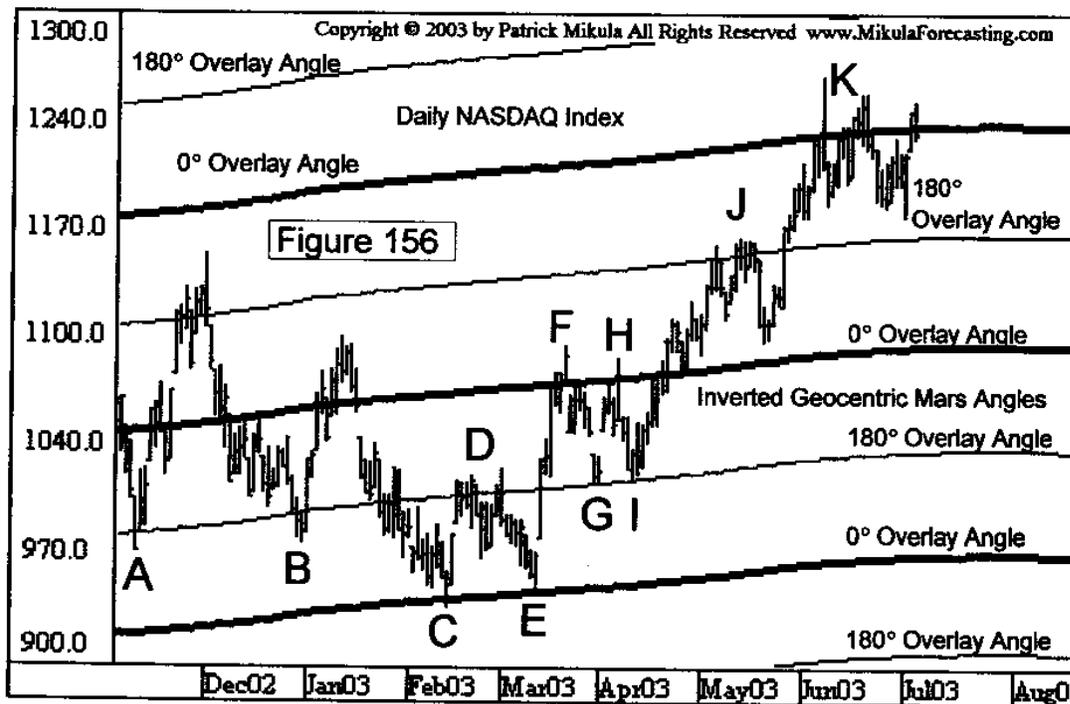
Figure 156

Example 2 of Mikula's Square of Nine Planetary Angles:
Daily Euro-Currency

This example uses a futures contract for the Euro-Currency Unit which has a very low price scale. This chart price scale can be seen in Figure 157.

Figure 157

Daily Euro-Currency
September 2003 Future

Price scale is to low
for the Square of Nine

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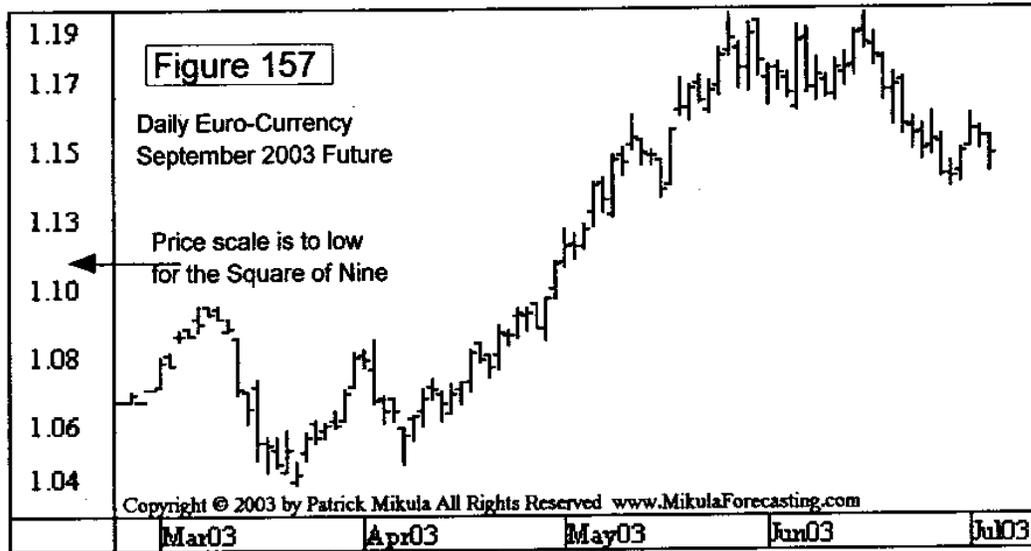
To use a financial instrument with a low price scale, the price scale can be multiplied by 100. Figure 158 shows the same Euro-Currency chart in Figure 157 except the price scale has been multiplied by 100 to create higher price values.

Figure 158

Daily Euro-Currency
September 2003 Future

Price scale can now be
used with Square of Nine

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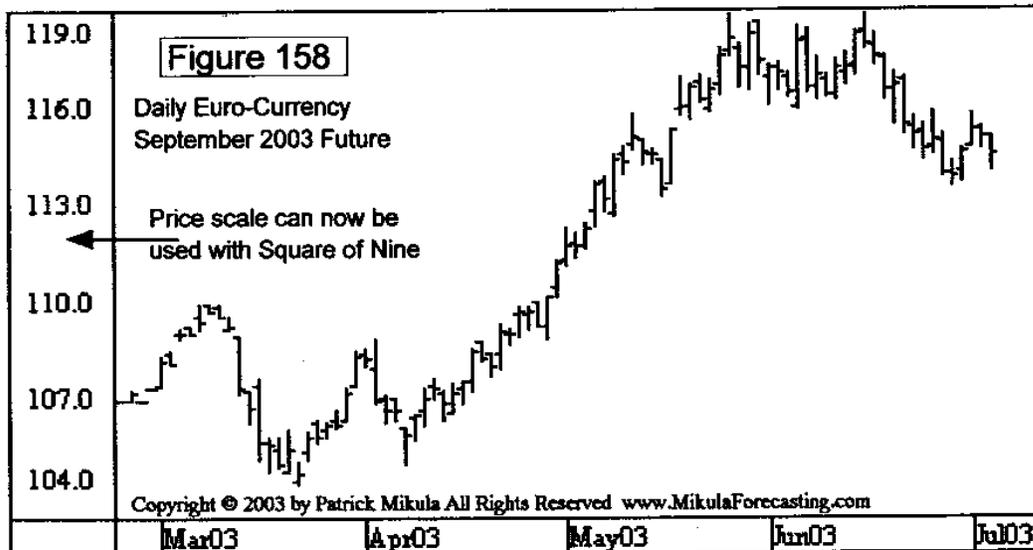
Figure 159 shows the Euro-Currency chart with the higher price scale. The inverted planetary angles for geocentric Mars are added to this chart. The angles on this chart are calculated using the overlay's 0° angle, +90° angle, 180° angle and -90° angle.

Figure 159 shows this market makes a bottom on the -90° planetary angle at point A. Then the market moves up and makes a top slightly below the next higher -90° planetary angle at point B. It is a common occurrence for a market to move between two planetary angles calculated with the same overlay angle.
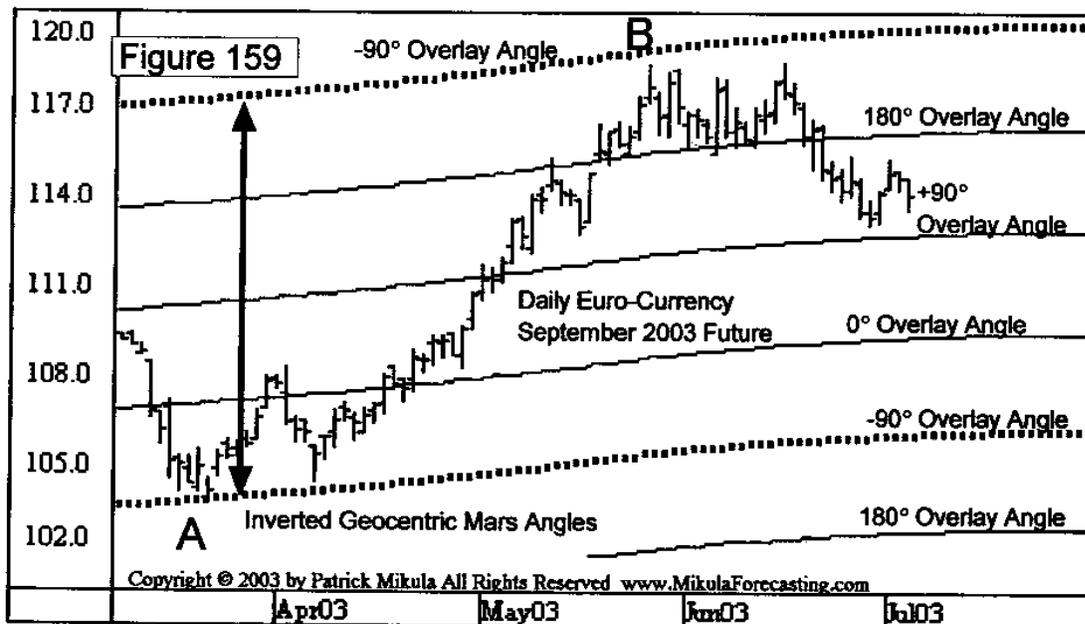
Example 3 of Mikula's Square of Nine Planetary Angles:
Daily Soybean Futures

Figure 160 shows a chart for November 2003 Soybeans. The inverted planetary angles for Heliocentric Jupiter are added to the chart. The planetary angles are calculated with the overlay's 0° angle and the overlay's 180° angle. Tops form on these angles at points A, B, D and E. A bottom forms on the 180° angle at point C. These angles are very easy to use and have stood the test of time. They can consistently locate prices where pivots form if they are drawn on a chart.

Figure 160
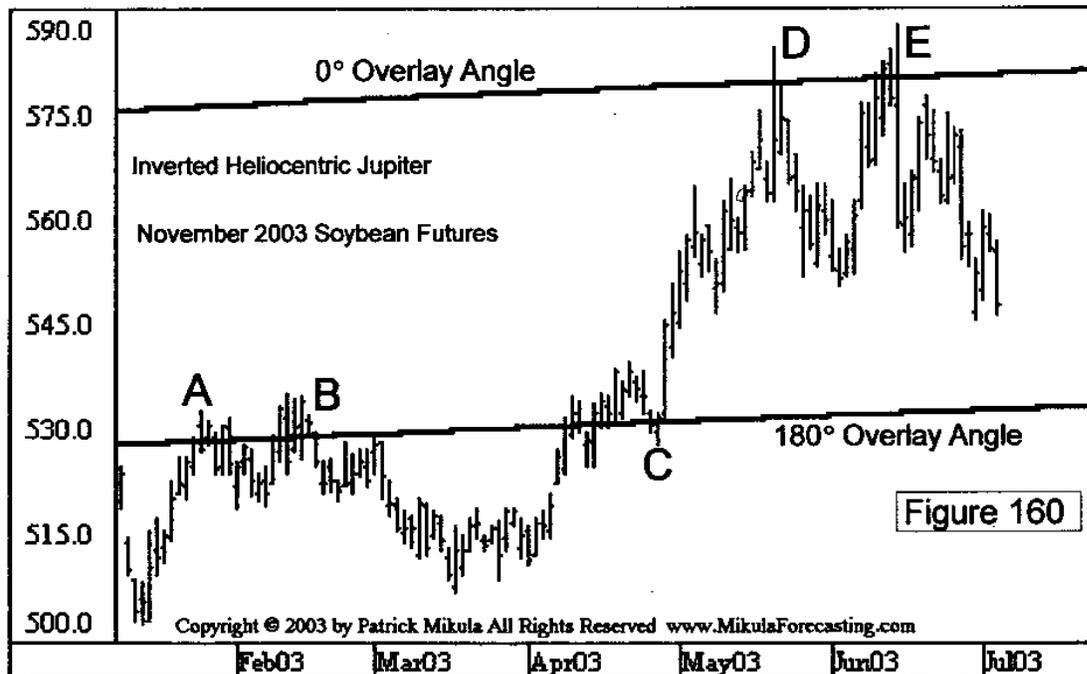
Chapter 15 Review

Objective:
Use Square of Nine planetary angles to locate pivot price levels.

Step 1:
Select a planet to use and mark it's longitude on the outer ring on the Square of Nine.

Step 2:
Align the overlay's 0° angle on the planet's longitude.

Step 3:
Identify the prices which fall on the overlay's angles and are also in the chart price range. The normal overlay angles to use with this method are the 0° angle, the +90° angle, 180° angle and the -90° angle. Using more overlay angles than this, such as the 45° angles, usually creates planetary lines on the chart which are too close together to be of any value.

Step 4:
Drawn the prices found in Step 3 on the chart to create the planetary angles. Watch for pivots to form around these planetary angles.

CHAPTER 16: Mikula's Square of Nine
High-Low Forecast Indicator

*This chapter shows how to use the mathematics of the Square of Nine to
forecast the next bar's high - low range*

In the introduction of this book, there is a section entitled "Formula for Moving Around
The Square of Nine." Another application of that formula is to calculate technical
indicators for forecasting and trading. In this chapter that formula will be used to
calculate a forecast for the next bar's high and low. This indicator can be calculated by
any program which allows formulas to be written such as a spreadsheet.

Required User Inputs

There are three user inputs for this indicator which are listed below. The *Price
Multiplier* input is used for low priced items. If a stock price's whole number has less
than three digits, the decimal point is moved to the right by setting this value to 10 or
100. For example if a stock price is 21, this input would be set to 10 so the price used
would be 210. If the price is very low such as 1.02, the *Price Multiplier* is set to 100 so
the price used would be 102. Using a price which has at least 3 digits in the whole
number often works better than the low prices.

The input *High Forecast in Degrees*, is the number of degrees that are moved on the
Square of Nine to calculate the forecast for the next bar's high price.

The input *Low Forecast in Degrees*, is the number of degrees moved on the Square of
Nine to calculate the forecast for the next bar's low price.

User Inputs	———
Price Multiplier	1
High Forecast in Degrees	+45 Deg
Low Forecast in Degrees	-45 Deg

Formula and Calculation Procedure

Step 1: Convert the input *High Forecast in Degrees* to a square root value. This is
done by dividing the input by 360°, then multiplying by 2. The resulting number is the
"High Offset Value". $(45° / 360°) * 2 = 0.25$

Step 2: Convert the input *Low Forecast in Degrees* to a square root value. This is done
by dividing the input by 360°, then multiplying by 2. The resulting number is the "Low
Offset Value". $(-45° / 360°) * 2 = -0.25$

Step 3: If the input *Price Multiplier* is set to 10 or 100, then multiply it by the current closing price. This moves the decimal place to the right to create a higher price.

Step 4: Calculate the square root of the current bar's closing price.
Square root $\sqrt{}$, 1191.70 = 34.521

Step 5: Add the High Offset Value (Step 1) to the square root of the price (Step 4).
0.25 (Step 1) + 34.521 (Step 4) = 34.771

Step 6: Add Low Offset Value (Step 2) to the square root of the price (Step 4).
-0.25 (Step 2) + 34.521 (Step 4) = 34.271

Step 7: Calculate the 2nd exponent of Step 5. This is the next bar forecast high price.
34.771^2 or (34.771 * 34.771) = 1209.023

Step 8: Calculate the 2nd exponent of Step 6. This is the next bar forecast low price.
34.271^2 or (34.271 * 34.271) = 1174.502

Sample Calculation For Mikula's Square of Nine
High-Low Forecast Indicator

Date	Close	Step 4	Step 5	Step 6	Step 7 Forecast High	Step 8 Forecast Low
2003/06/02	1185.13	34.426	34.676	34.176	————	————
2003/06/03	1198.57	34.620	34.870	34.370	1202.405	1167.980
2003/06/04	1224.76	34.997	35.247	34.747	1215.943	1181.322
2003/06/05	1231.72	35.096	35.346	34.846	1242.321	1207.324
2003/06/06	1213.11	34.830	35.080	34.580	1249.330	1214.235
2003/06/09	1195.55	34.577	34.827	34.327	1230.587	1195.758
2003/06/10	1212.99	34.828	35.078	34.578	1212.901	1178.324
2003/06/11	1228.24	35.046	35.296	34.796	1230.467	1195.638
2003/06/12	1229.32	35.062	35.312	34.812	1245.826	1210.779
2003/06/13	1203.91	34.697	34.947	34.447	1246.913	1211.852
2003/06/16	1241.58	35.236	35.486	34.986	1221.321	1186.624
2003/06/17	1239.63	35.208	35.458	34.958	1259.261	1224.024
2003/06/18	1247.90	35.326	35.576	35.076	1257.297	1222.088
2003/06/19	1225.89	35.013	35.263	34.763	1265.625	1230.300
2003/06/20	1223.06	34.972	35.222	34.722	1243.459	1208.446
2003/06/23	1200.17	34.643	34.893	34.393	1240.609	1205.636
2003/06/24	1191.70	34.521	34.771	34.271	1217.554	1182.911
2003/06/25	————	————	————	————	1209.023	1174.502

Figure 161 is a graphic example of how this indicator forecasts the high and low. Let's assume the input *High Forecast in Degrees* is +45° and the input *Low Forecast in Degrees* is -45°. If the closing price is 268, a move on the face of the Square of Nine of +45° yields a high forecast of 276. A move of -45° on the face of the Square of Nine yields a low forecast of 260.
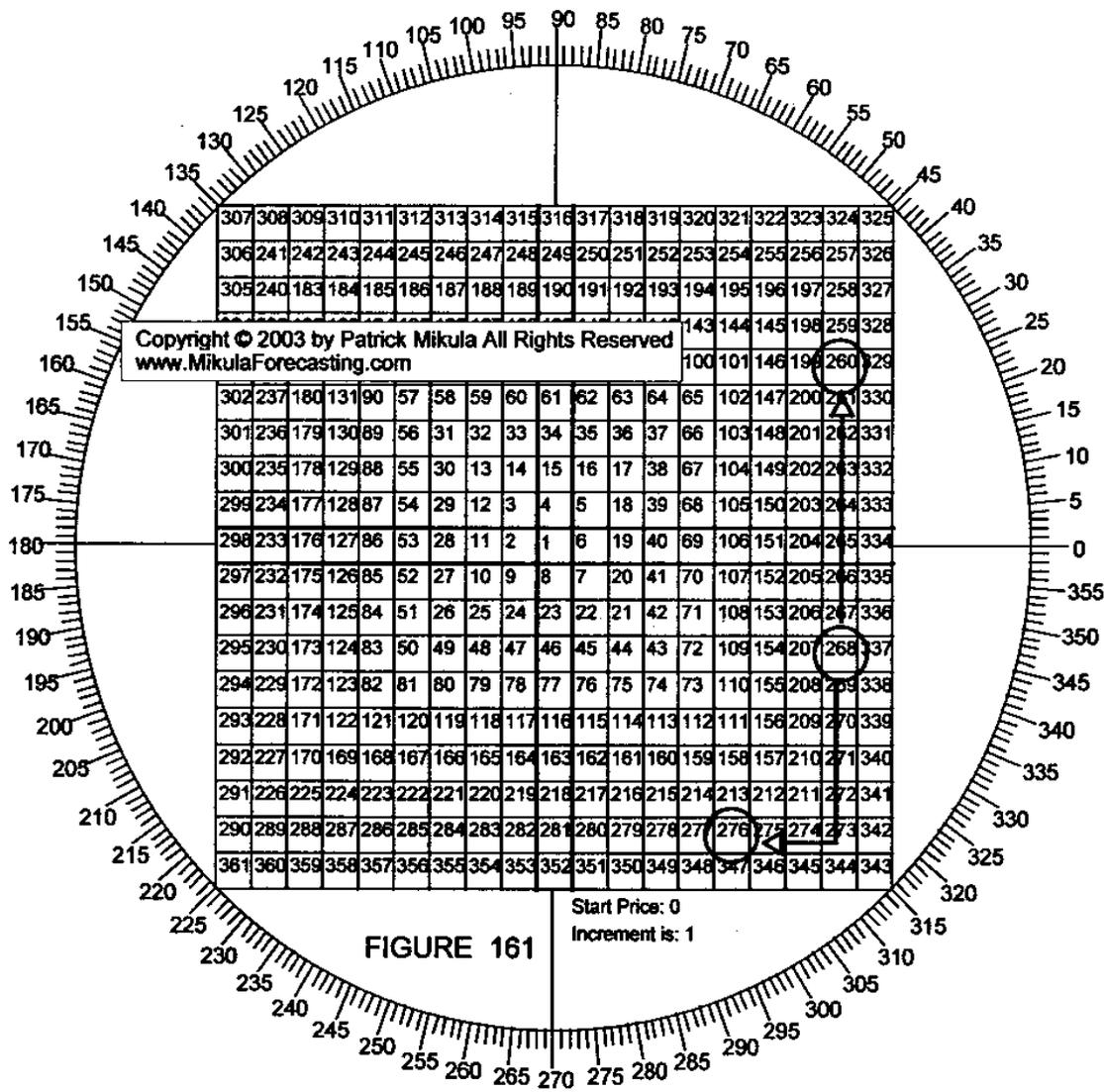

FIGURE 161

Example 1 of Mikula's Square of Nine High-Low Forecast Indicator:
Daily NASDAQ Index

Figure 162 shows the NASDAQ index with the forecast high and low on the chart. In the majority of cases, a bar's high - low range falls between the forecast high - low range. The forecast high - low range provides an expectation of where the next bar should form under normal circumstances.

If a bar's high price moves above the forecast high price, it is a show of market strength. If a bar's closing price is above the forecast high, it is a very strong indication. When this occurs, watch the market for more upward movement.

If a bar's low price moves below the forecast low price, it is a show of market weakness. If a bar's closing price is below the low forecast, it is a very weak showing. This weakness in the market is often followed by a downswing.

When these forecast high and low values are calculated on a daily chart, they can be used as the expected price range by intraday traders. An intraday trader can use these values as the support and resistance levels on the intraday chart.

Figure 162

NASDAQ Index
Daily Chart

Forecast
High
+45°

-45°
Forecast
Low

2 Jun   9 Jun   16 Jun   23 Jun   30 Jun   7 Jul
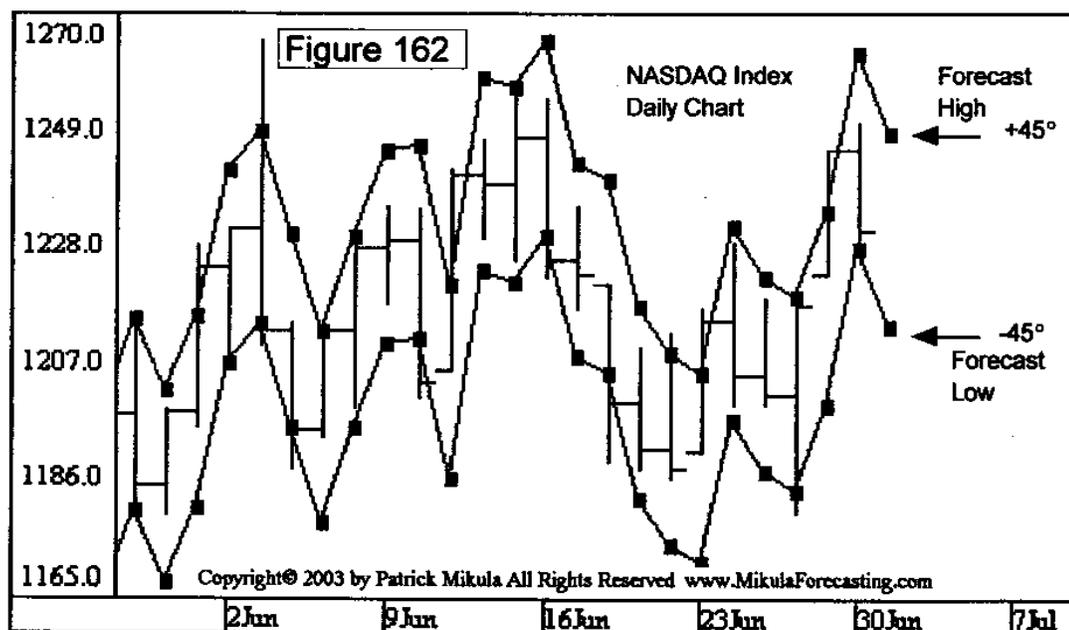
Example 2 of Mikula's Square of Nine High-Low Forecast Indicator:
Daily Soybeans

Figure 163 shows the November 2003 Soybean market. The High - Low Forecast Indicator, is applied with the input *High Forecast in Degrees* set to +30° and the input *Low Forecast in Degrees* set to -30°. This indicator provides the trader with a good expectation as to the location of the next bar's high low range. The majority of the price bars are inside the forecast high low range. When a price bar closes below the low forecast, it shows weakness. When a price bar closes above the high forecast, it shows market strength.

Figure 163

November 2003 Soybean Future
Daily Chart

Forecast High
+30°

-30°
Forecast Low
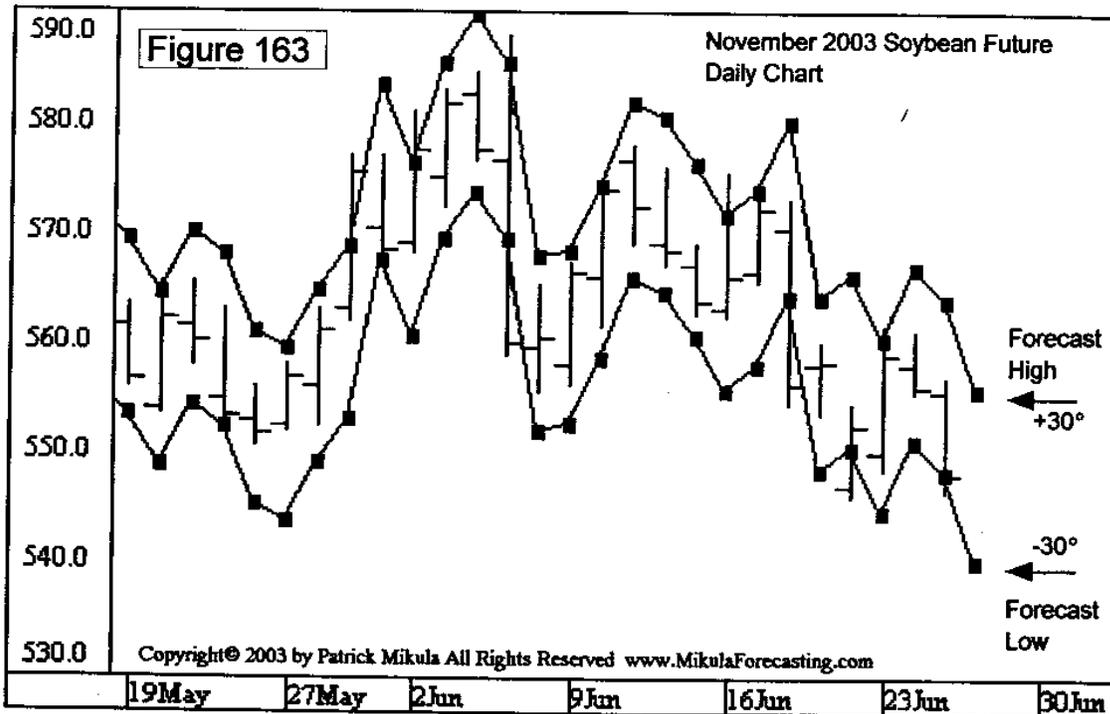
Chapter 16 Review

Objective:
Forecast the high low range for the next price bar.

Rule 1.) The majority of price bars form between the forecast high and low.

Rule 2.) When a bar's high price moves above the high forecast, there is an indication of strength.

Rule 3.) When a bar's low price moves below the low forecast, there is an indication of weakness.

Rule 4.) When a bar closes above the high forecast, there is an indication of an upward breakout and an upswing may follow.

Rule 5.) When a bar closes below the low forecast, there is an indication of a downward breakout and a downswing may follow.

CHAPTER 17: Mikula's Square of Nine Overextended Indicator

This chapter shows how to use the mathematics of the Square of Nine to determine when a market is overextended

This chapter again uses the mathematics which is explained in the introductory section, "Formula for Moving Around The Square of Nine" on page 15. The formula is used to calculate the distance traveled around the face of the Square of Nine that a market has moved above or below a moving average. This allows a trader to determine when the market has moved 45°, 90° or 180° above or below the moving average. Such a movement indicates the market is overextended. When the market is overextended a reversal can be expected.

Required User Inputs

This indicator has five inputs which must be set by the user. The input named *Price Multiplier* is set at either 10 or 100 to move the decimal point of low priced stocks. The inputs named *Upper Line 2 in Degrees* and *Upper Line 1 in Degrees* are the upper boundaries which are used to determine how far above the moving average the price moves. The inputs named *Lower Line 1 in Degrees* and *Lower Line 2 in Degrees* are the lower boundaries used to determine how far below the moving average the price moves. The input named *Moving Average Size* is the sample size for the moving average.

User Inputs	———
Price Multiplier	10
Upper Line 2 in Degrees	+90 Deg
Upper Line 1 in Degrees	+45 Deg
Lower Line 1 in Degrees	–45 Deg
Lower Line 2 in Degrees	–90 Deg
Moving Average Size	9

Formula and Calculation Procedure

Step 1: Use the input *Moving Average Size* to calculate a simple moving average of the closing price.

Step 2: Multiply the input *Price Multiplier* and the closing price. This step moves the decimal point in the stock's price. For example, if the stock price is below 100, the price multiplier should be 10.

Step 3: Multiply the *Price Multiplier* and the moving average calculated in step 1. This step will move the decimal point in the moving average.

Step 4: Calculate the square root $\sqrt{}$ of the value from Step 2.

Step 5: Calculate the square root $\sqrt{}$ of the value from Step 3.

Step 6: Subtract the value derived in Step 4 from the value found in Step 5. This is the difference between the closing price and the moving average calculated as the difference between their respective square roots.

Step 7: Multiply the value from Step 6 by 360 and divide the result by 2. This converts the square root value back to degrees. This value is the degrees on the face of the Square of Nine between the closing price and the moving average.

Step 8: Calculate a 2 period moving average of the value found in step 7. This is done to smooth the result.

## Sample Calculation For Mikula's Square of Nine
Overextended Indicator

Date	Close	Step 1	Step 2	Step 3	Step 4	Step 5
2003/06/02	11.07					
2003/06/03	10.69					
2003/06/04	10.56					
2003/06/05	10.60					
2003/06/06	10.71					
2003/06/09	10.52					
2003/06/10	11.00					
2003/06/11	11.33					
2003/06/12	11.27	10.861	112.700	108.611	10.616	10.422
2003/06/13	10.97	10.850	109.700	108.500	10.474	10.416
2003/06/16	11.23	10.910	112.300	109.100	10.597	10.445
2003/06/17	11.68	11.034	116.800	110.344	10.807	10.504
2003/06/18	11.52	11.137	115.200	111.367	10.733	10.553
2003/06/19	11.28	11.200	112.800	112.000	10.621	10.583
2003/06/20	11.52	11.311	115.200	113.111	10.733	10.635
2003/06/23	11.30	11.344	113.000	113.444	10.630	10.651
2003/06/24	11.35	11.347	113.500	113.467	10.654	10.652
2003/06/25	11.21	11.340	112.100	113.400	10.588	10.649

Date	Step 6	Step 7	Step 8
2003/06/02			
2003/06/03			
2003/06/04			
2003/06/05			
2003/06/06			
2003/06/09			
2003/06/10			
2003/06/11			
2003/06/12	0.19	34.98	
2003/06/13	0.06	10.34	22.66
2003/06/16	0.15	27.37	18.86
2003/06/17	0.30	54.52	40.95
2003/06/18	0.18	32.42	43.47
2003/06/19	0.04	6.79	19.60
2003/06/20	0.10	17.60	12.19
2003/06/23	-0.02	-3.76	6.92
2003/06/24	0.00	0.28	-1.74
2003/06/25	-0.06	-11.02	-5.37

Example 1 of Mikula's Square of Nine Overextended Indicator:
Daily Corn

Figure 164 shows this indicator applied to the December 2003 Corn contract. The two upper boundaries are set at +45° and +90°. The two lower boundaries are set at -45° and -90°. The moving average sample size is set to 15. The flat horizontal line drawn through the middle of the subgraph represents the position of the moving average. The oscillator represents how many degrees the current price is above or below the 15 bar moving average on the face of the Square of Nine.

When the oscillator moves above the first upper boundary at point A, it is 45° above the moving average. This signals that the market is becoming overextended to the upside and a market pull back can be expected. At point B, the market moves below the first lower boundary. This indicates the price is -45° below the moving average on the face of the Square of Nine. This means the market is overextended to the downside and a market rally should be expected over the next series of bars.

Figure 164

December 2003 Corn
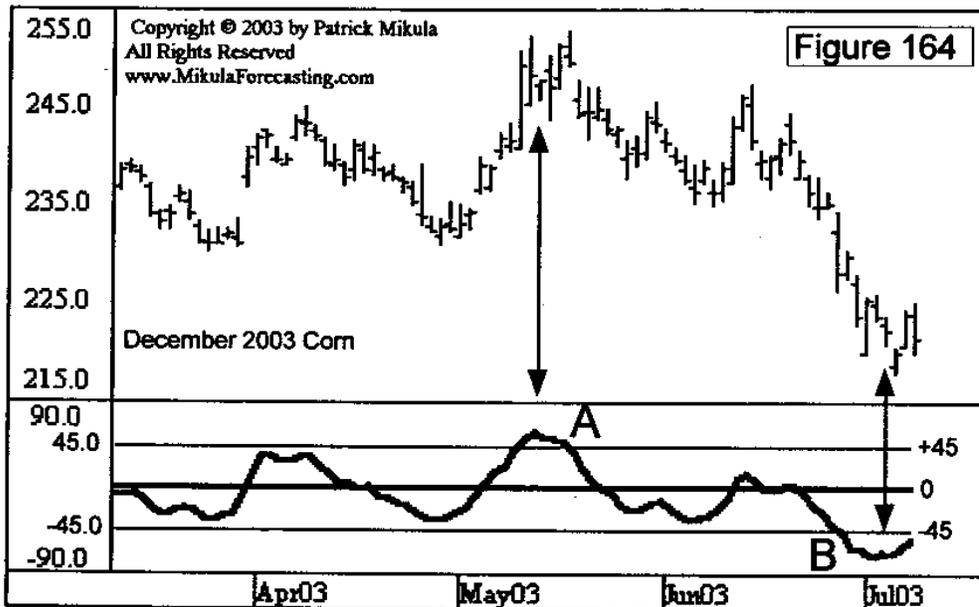
Example 2 of Mikula's Square of Nine Overextended Indicator:
Daily Johnson & Johnson, JNJ

Figure 165 shows a daily chart for Johnson and Johnson. The user inputs are set as follows. The price of this stock is below 100 so the input Price Multiplier is set to 10. The moving average sample size is set to 15. The upper boundaries are set to +90° and +180° and the lower boundaries are set to -180° and -90°. The flat horizontal line in the center of the subgraph illustrates the position of the moving average on the Square of Nine.

At point A, the oscillator moves above the first upper boundary. This indicates the price is now 90° above the moving average on the face of the Square of Nine and the market is becoming overextended. At point B, the oscillator falls to the first lower boundary. This indicates the price is now -90° below the moving average on the Square of Nine and this means the market is becoming overextended to the downside. For a second time, at point C, the price is -90° below the moving average on the Square of Nine. When the price becomes overextended, a swing reversal can be expected.
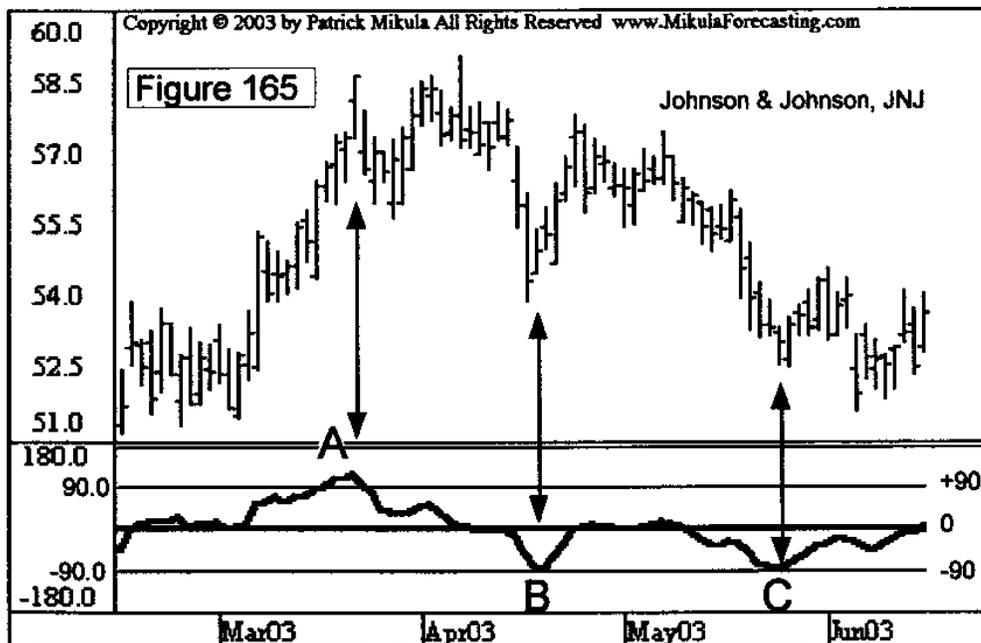
Example 3 of Mikula's Square of Nine Overextended Indicator:
Daily Baker Hughs Inc. BHI

Figure 166 shows this indicator applied to Baker Hughes, BHI, which is an oil exploration and services firm. The indicator inputs are set as follows. The moving average sample size set to 15. The price of this stock is below 100 so the Price Multiplier input is set to 10. The upper boundaries are set to +90° and +180°. The lower boundaries are set to -90° and -180°.

The oscillator falls to the first lower boundary at point A. This means the price is -90° below the moving average on the Square of Nine. This is a sign that the market may have a rally soon. The same situation occurs at point B and again the oscillator indicates the market may form a bottom pivot.

At both points C and D, the oscillator moves up to the first upper boundary. This means the oscillator is +90° above the moving average on the Square of Nine. At points C and D, watch for the market to make a pivot top because the indicator shows the market is overextended.

Figure 166   Baker Hughes Inc. BHI
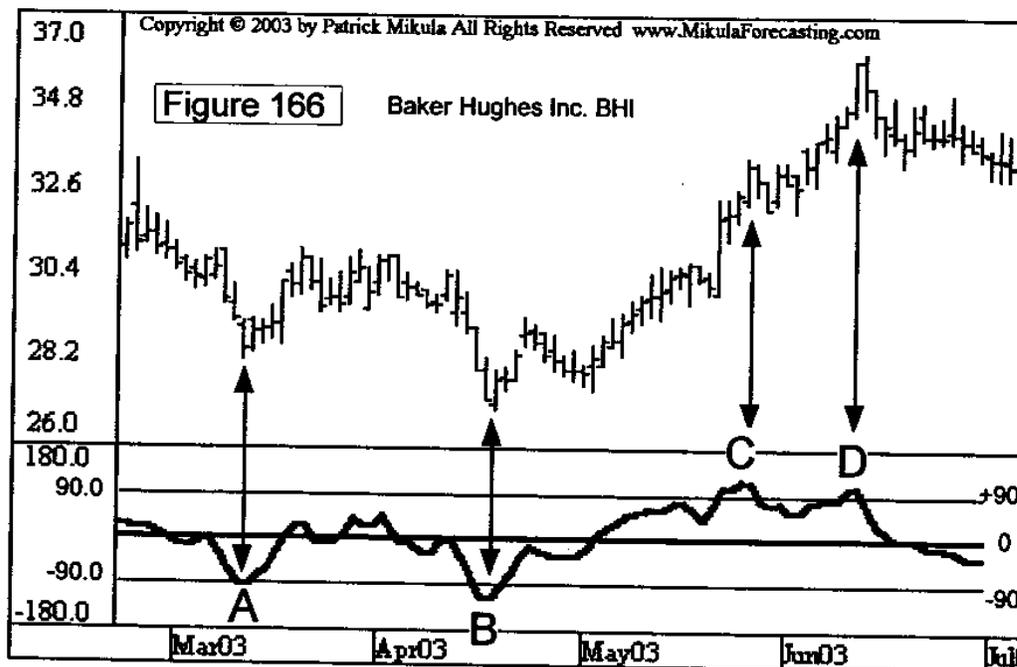
Chapter 17 Review

Objective:
Determine if a market is overextended too far upward or downward.

Rule 1.) When the oscillator moves +45°, +90° or +180° above the moving average, there is an indication that the market is overextended upward. When this occurs, watch for a pivot reversal.

Rule 2.) When the oscillator moves -45°, -90° or -180° below the moving average, there is an indication the market is overextended too far downward. Watch for a pivot reversal.

APPENDIX 1: Index of Commodity Values

Contract	Symbol	Exchange	Contract Size	Trading Hours in CT	Minimum Tick
Grains					
Soymeal	SM	CBOT	100 ton	9:30 am - 1:15 pm	10 pts = $10
Bean Oil	BO	CBOT	60,000 lbs	9:30 am - 1:15 pm	1 pt = $6
Corn	C	CBOT	5,000 bu	9:30 am - 1:15 pm	1/4 ct = $12.50
Oats	O	CBOT	5,000 bu	9:30 am - 1:15 pm	1/4 ct = $12.50
Soybeans	S	CBOT	5,000 bu	9:30 am - 1:15 pm	1/4 ct = $12.50
Wheat (CBOT)	W	CBOT	5,000 bu	9:30 am - 1:15 pm	1/4 ct = $12.50
Metals					
Gold	GC	COMEX	100 Troy oz	7:20 am - 12:30 pm	10 cts = $10
Copper	HG	COMEX	25,000 lbs	7:10 am - 12:00 pm	5 pts = $12.50
Palladium	PA	COMEX	100 Troy oz	7:30 am - 12:00 pm	5 pts = $5
Platinum	PL	COMEX	50 Troy oz	7:20 am - 12:05 pm	10 cts = $5
Silver	SI	COMEX	5,000 Troy oz	7:25 am - 12:25 pm	1/2 ct = $25
Currencies					
Australian Dollar	AD	CME	100,000 AD	7:20 am - 2:00 pm	1 pt = $10
British Pound	BP	CME	62,500 BP	7:20 am - 2:00 pm	2 pts = $12.50
Canadian Dollar	CD	CME	100,000 CD	7:20 am - 2:00 pm	1 pt = $10
US Dollar Index	DX	NYBOT	1,000 x index	7:20 am - 2:00 pm	1 pt = $10
Euro Currency	EC	CME	125,000 euro	7:20 am - 2:00 pm	1 pt = $12.50
Japanese Yen	JY	CME	12.5 M yen	7:20 am - 2:00 pm	1 pt = $12.50
Swiss Franc	SF	CME	125,000 SF	7:20 am - 2:00 pm	1 pt = $12.50
Financials					
Dow Jones	DJ	CBOT	$10 x DJIA	7:20 am - 3:15 pm	1 pt = $10
Eurodollar	ED	CME	1000000	7:20 am - 2:00 pm	1/2 pt = $12.50
Nasdaq 100	ND	CME	$100 x index	8:30 am - 3:15 pm	5 pts = $5
S&P 500	SP	CME	$250 x index	8:30 am - 3:15 pm	10 pts = $25
30-Year Bond	US	CBOT	100000	7:20 am - 2:00 pm	1 pt = $31.25

Contract	Symbol	Exchange	Contract Size	Trading Hours in CT	Minimum Tick
Energies					
Crude Oil	CL	NYMEX	1,000 barrels	9:00 am - 1:30 pm	1 ct = $10
Heating Oil	HO	NYMEX	42,000 gallons	9:05 am - 1:30 pm	1 pt = $4.20
Natural Gas	NG	NYMEX	10,000 MMBTU	9:00 am - 1:30 pm	1 pt = $10
Unleaded Gas	HU	NYMEX	42,000 gallons	9:05 am - 1:30 pm	1 pt = $4.20
Softs					
Cocoa	CO	CSCE	10 tonnes	7:00 am - 10:50 am	1 pt = $10
Coffee	KC	CSCE	37,500 lbs	8:00 am - 10:45 am	5 pts = $18.75
Cotton	CT	Cotton Exc	50,000 lbs	11:15 am - 2:00 pm	1 pt = $5
FCOJ	OJ	Cotton Exc	15,000 lbs	11:30 am - 1:45 pm	5 pts = $7.50
Sugar	SB	CSCE	112,000 lbs	8:00 am - 11:00 am	1 pt = $11.20
Meats					
Feeder Cattle	FC	CME	50,000 lbs	9:05 am - 1:00 pm	2.5 pts = $12.50
Lean Hogs	LH	CME	40,000 lbs	9:10 am - 1:00 pm	2.5 pts = $10
Live Cattle	LC	CME	40,000 lbs	9:05 am - 1:00 pm	2.5 pts = $10
Pork Bellies	PB	CME	40,000 lbs	9:10 am - 1:00 pm	2.5 pts = $10