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RG 01-51

To: CBOE Members and DPMs

From: Equity Floor Procedure Committee

Re: Overview of RAES 100-spoke Functionality

This document is in response to several questions that have been posed to staff and to the Equity Floor Procedure Committee. An example describing the full 100-spoke process is provided at the end of this circular. If you have any questions, please contact Michael Hollerman at x7197 or Ellen Schroer at x8076.

How does the system determine the percentage of RAES contracts allocated to each trader?

Each day, the system counts the total customer and non-customer contracts represented by all floor brokers in all option symbols associated with an underlying security over the most recent 10 trading days (called the "10-day LOOKBACK"). The percentage of the total traded by each member is the number of spokes for that individual. Spokes assigned to any individual that is part of a DPM are aggregated and given to a single DPM badge, which is logged in each day.

The 10-day LOOKBACK seems to penalize traders for taking vacations. Is there anything that can be done?

Since the LOOKBACK simply reviews trades over the previous 10 business days, there is nothing that can be done to eliminate this situation immediately. Staff is, however, working with the Equity Floor Procedure Committee on a new design of the LOOKBACK that will eliminate or reduce the "vacation penalty".

How does the 100-spoke Wheel Distribute RAES Trades?

By the end of each day, the number of contracts executed by RAES in a class should be distributed in a proportion that matches the traders' participation on all non-RAES customer and non-customer orders.

Trades of 1 or 2 contracts are hard to hedge. Is there anything that can be done to help traders who are allocated only 1 or 2 spokes?

Yes. The SPOKE SIZE is adjustable upon request. In crowds where this has been reported as a problem, the spoke size has been increased to "5". A 1-spoke trader will then be eligible to receive 5-lot RAES trades.

What are the procedures for getting the SPOKE SIZE increased?

First, discuss the situation with the DPM. If the DPM agrees, simply phone Michael Hollerman at x7197 or Ellen Schroer at x8076. If the DPM feels the increase is not appropriate, submit your written request to the Equity Floor Procedure Committee. The request can be given to Ben Klein (MBK) at Post 4/Station 5.

Why is the number of spokes allocated to the DPM sometimes greater than the DPM's entitlement?

Often, the DPM is the only participant on certain trades because those trades are not attractive to the crowd members. Since these large trades are included in the 10-day LOOKBACK just as are any other trades, the DPM is given credit.

Example of 100-spoke Processing

At the end of each trading day, the 100 Spoke process is executed. For this example we will follow Market Maker XPX and the DPM ZZZ. Market Maker XPX's trading volume and the DPM's Trading Volume from the last 10 trading days that clear in the "M" range are accumulated.

- ⇒ The volume from all included days is summed by acronym.
- ⇒ For DPMs an additional step is added. For every Z-badge that exists there is a table that holds the DPM participants and a table that assigns classes to a Z-badge. Using the data from these tables, all volume for a Z-badge is derived by adding the volume of DPM Participants together. Lastly, the Z-badge is linked to a badge that the DPM chooses to receive RAES trades.
- ⇒ Volumes are converted into Spokes or really percentages (XPX's volume in AAA divided by the total volume in AAA).

The calculation is now complete and before the trading day starts the Spokes are downloaded into the MM's or DPM's acronym Broker Profile.

Variables That Control 100 Spoke Trade Distribution

⇒ Wedge Size

- The Wedge Size is the number of consecutive contracts that will be assigned to an acronym on the RAES Wheel before it moves on to the next acronym, unless there are no other acronyms on the wheel. For example:

Acronyms:	Spokes:
AAA	5
BBB	15

Wedge Size: 10

Class: RRR

An order comes in to BUY 20 RRR Calls at MKT

Trades are assigned as follows:

AAA gets 5 contracts

BBB gets 10 contracts

BBB gets 5 contracts

If BBB were the only acronym on the wheel

BBB would have had the following:

BBB gets 10 contracts

BBB gets 5 contracts

BBB gets 5 contracts

- If an acronym is allocated a number of spokes less than the Wedge Size, the Wedge Size variable will have no effect for that acronym.

⇒ Spoke Size

- The Spoke Size is the number of contracts per Spoke. The Spoke Size can also be looked at as a multiplier. With a Spoke Size of 1, each Spoke is one contract of a 100 Spoke wheel. If you have a Spoke Size of 5, each spoke is 5 contracts out of a 500 Spoke wheel. The size of the wheel is the total number of contracts executed on RAES that will give each trader their full spoke allotment.