

Date: June 6, 2019

TO: All OPRA Market Data Subscribers

FROM: OPRA, LLC

RE: New OPRA Symbol Distribution— Effective July 15, 2019

Dear OPRA Market Data Subscribers:

What You Need To Know

For optimal symbol balancing and line capacity utilization, the symbol distribution for the Options Price Reporting Authority (OPRA) will be modified.

Changes Being Made

The security symbol range over the OPRA multicast lines will be redistributed. Reference the attached charts for current and new OPRA symbol routing.

When is it Changing

OPRA will employ a new symbol distribution at the start of day <u>Monday</u>, <u>July 15</u>, <u>2019</u>. A Confidence test will be conducted on <u>Saturday</u>, <u>July 13</u>, <u>2019</u>, <u>from 9:00 am ET to 11:00 am ET</u>, prior to implementation.

Evening Test Schedule

An OPRA replay file with test data including the new symbol distribution will be available beginning Thursday, June 13th, and will be disseminated business weekdays from **9:15 – 9:30 p.m. ET** from the multicast Playback Test channels (not over Production channels).

To coordinate testing, and to provide verbal or written confirmation of testing (**required of all Data Subscribers**), please register in one of the following ways:

E-mail your name, organization name, phone number, and date of test(s) to: CQS-CTS-OPRA@siac.com

Indirect Data Subscribers must contact their service provider to coordinate testing.

Documentation

The revised OPRA Data Recipient Interface Specification, Appendix B, Version 3.4, has been posted to the www.opraplan.com website.

APPENDIX B: OPRA TRAFFIC DISTRIBUTION

Line Sereta Se		Current Symbol Distribution												
2 A B C	Line													
3 A L U U A A U Z N L A U Z Z Z X	1	Α							A	В	В	Z	Z	X
4 A M Z N D M A U Z Z Z X 5 A V U C C B D Z Z Z X X 6 B E C D D B E Z Z Z Z X 7 B K N N G M B Z Z Z Z X 8 C Q U L L M C P Z Z Z Z X 10 C Q U L L D D M Z Z Z Z X 11 C Q D D D D D D X X X X X X X X X X X X	2	Α	В	C					Α	K	Z	Z	Z	X
5 A V L L L B B C Z	3	Α	L						Α	M	Z	N		L
6 B E L L B B K N G L 7 B K N G L M B Z Z Z Z Z X X 8 C I L L L C H Z Z Z X 9 C I L L L C P Z Z Z X 10 C Q L L L L C P Z Z Z X 11 C W L L L D D D D D D Z Z Z X X 12 D N L L L D D D X X X Z Z Z Z Z Z Z Z Z	4	Α	M	Z	N		M		Α	U	Z	Z	Z	X
7 8 K N G L M 8 Z Z Z Z X 8 C I	5	Α	V						В	D	Z	Z	Z	X
8 C I I I I C H Z Z Z X 9 C I	6	В	Е						В	K	N	G		L
9 C I L L C P Z Z Z X 10 C Q L L L L C V Z Z Z X 11 C W L L L L D H Z Z Z X 12 D N L L L D M Z Z Z X 13 D N L L L E V Z Z Z X 14 E F L L L E V Z <td>7</td> <td>В</td> <td>K</td> <td>N</td> <td>G</td> <td></td> <td>M</td> <td></td> <td>В</td> <td>Z</td> <td>Z</td> <td>Z</td> <td>Z</td> <td>X</td>	7	В	K	N	G		M		В	Z	Z	Z	Z	X
10	8	C							C	Н	Z	Z	Z	X
11 C W L L L L D H Z Z Z X 12 D 1 L L L L D M Z Z Z X 13 D N L L L L E E Z Z Z X 14 E F W L L L E E Z Z Z X 15 E W L L L L E E T Z Z Z X 16 F C L L L D D D D D X X Z </td <td>9</td> <td>C</td> <td>I</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>C</td> <td>P</td> <td>Z</td> <td>Z</td> <td>Z</td> <td>X</td>	9	C	I						C	P	Z	Z	Z	X
12	10	C	Q						C	V	Z	Z	Z	X
13	11	С	W						D	Н	Z	Z	Z	X
144 E F I I I E V Z Z Z Z X 15 E W I I I F B Z Z Z X 16 F C I I I F T Z Z Z X 17 F U I I I G C C Z Z Z X 18 G M I I G G O O G X 19 G O O G A I G C Z Z Z X 20 H V I I H U Z Z Z Z X 21 H V I I I H U Z Z Z Z Z	12	D	I						D	M	Z	Z	Z	X
15	13	D	N						Е	Е	Z	Z	Z	X
16 F C U	14	Е	F						Е	V	Z	Z	Z	X
17 F U	15	Е	W						F	В	Z	Z	Z	X
18 G M C C A C G O O G X 19 G O O G A C G Z Z Z Z X 20 H V C C H U Z Z Z X 21 H V C C I H U Z Z Z X 22 I P C C M J N Z Z Z X 23 I W M M J N Z Z Z Z X 24 J O C C D M D T Z Z X X 25 L S C C D M D T Z Z Z Z X X	16	F	С						F	Т	Z	Z	Z	X
19 G O O G A I G Z Z Z Z Z X 20 H V I I I U Z Z Z X 21 H V I I I O Z Z Z X 22 I P I I M J IN Z Z Z X 23 I W M I I M J N Z Z Z X 24 J O I I I I R Z Z Z X X 25 L I	17	F	U						G	L	Z	Z	Z	X
20 H V I	18	G	M						G	О	О	G		X
21 H V G G I I O Z Z Z X 22 I P G G I I W M I L X Z Z Z Z X X 24 J O G G G K Z Z Z Z X X 25 L G G G M D T Z Z X X Z Z Z Z X X Z Z Z Z X X Z Z Z X X Z Z Z X X Z Z Z X X Z Z Z X X Z Z Z X X Z Z Z X X Z Z Z X X Z Z <td>19</td> <td>G</td> <td>О</td> <td>О</td> <td>G</td> <td>A</td> <td></td> <td></td> <td>G</td> <td>Z</td> <td>Z</td> <td>Z</td> <td>Z</td> <td>X</td>	19	G	О	О	G	A			G	Z	Z	Z	Z	X
22 I P W M M J N Z Z Z X 23 I W M M J N Z Z Z X 24 J O C W M L R Z Z Z Z X 25 L S W W M D T Z Z X 26 L S W W M D T Z Z X 27 M D U W M O Z Z Z Z X 28 M P W W W N C Z Z Z Z X X 29 N D W W N F Z Z Z X X 31 N	20	Н							Н	U	Z	Z	Z	X
23 I W M M J N Z Z Z X 24 J O C K Z Z Z Z X 25 L C C L R Z Z Z X 26 L S C M D T Z Z X 27 M D U M O Z Z Z Z X 28 M P D M N C Z Z Z X X 29 N D D M N F Z Z Z X X 30 N G G M N H D Z Z Z X X 31 N V D D P B Z Z	21	Н	v						I	О	Z	Z	Z	X
24 J O I	22	I	P						I	W	M			L
25 L S	23	I	W	M			M		J	N	Z	Z	Z	X
26 L S L S L M D T Z Z X 27 M D U M O Z Z Z X 28 M P D M N C Z Z Z X 29 N D D N F Z Z Z X 30 N G D D N U Z Z Z Z X 31 N V D D P B Z Z Z X 32 P C D D P F Z Z Z X 33 P G D M R R Z Z Z X 34 P Y D M R R Z Z Z	24	J	О						K	Z	Z	Z	Z	X
27 M D U I M O Z Z Z Z X 28 M P I I N C Z Z Z Z X 29 N D I I N F Z Z Z X 30 N G I I I P B Z Z Z X 31 N V I I P B Z Z Z X 32 P C I I P F Z Z Z X 33 P G I I P F Z Z Z X 34 P Y I I Q Q Q Q Q I L 35 R S I I I	25	L							L	R	Z	Z	Z	X
28 M P N C Z Z Z X 29 N D N F Z Z Z X 30 N G N U Z Z Z X 31 N V P B Z Z Z X 32 P C P F Z Z Z X 33 P G P F Z Z Z X 34 P Y Q Q Q Q L L 35 Q Q Q M R R Z Z Z X 36 R S L S F X Z Z X 37 S L	26	L	S						M	D	Т	Z	Z	X
29 N D I I N F Z Z Z X 30 N G I N U Z Z Z X 31 N V I P B Z Z Z X 32 P C I I P F Z Z Z X 33 P G I I P F Z Z Z X 34 P Y I I Q Q Q Q L L 35 Q Q Q Q Q Q Q Q L X 36 R S L I S K Z Z Z X 38 S P Y I S P Y I L 39 <td< td=""><td>27</td><td>M</td><td>D</td><td>U</td><td></td><td></td><td></td><td></td><td>M</td><td>О</td><td>Z</td><td>Z</td><td>Z</td><td>X</td></td<>	27	M	D	U					M	О	Z	Z	Z	X
30 N G L N U Z Z Z X 31 N V L P B Z Z Z X 32 P C L P F Z Z Z X 33 P G L P X Z Z Z X 34 P Y L Q Q Q Q L L 35 Q Q Q Q Q Q Q L L 36 R S L L S K Z Z Z X 37 S L L S P X Z Z X X 38 S P Y M S S M Z Z X X 40 S S <td< td=""><td>28</td><td>M</td><td>P</td><td></td><td></td><td></td><td></td><td></td><td>N</td><td>С</td><td>Z</td><td>Z</td><td>Z</td><td>X</td></td<>	28	M	P						N	С	Z	Z	Z	X
31 N V L L P B Z Z Z Z X 32 P C C C P F F Z Z Z Z X 33 P G C P Y Z Z Z Z X 34 P Y C D M R R Z Z Z Z X 36 R S C D M R R Z Z Z Z X 36 R S C D M R R Z Z Z X 37 S L D S P Y D L L Z Z X 38 S P Y M S S M Z Z Z X 40 S S N T H Z Z Z X	29	N	D						N	F	Z	Z	Z	X
32 P C S S P F Z Z Z X 33 P G S P X Z Z Z X 34 P Y S Q Q Q Q Q Q L L 35 Q Q Q M R R Z Z Z X 36 R S S K Z Z Z X 37 S L S P Y Z Z X 38 S P Y M S S P Y L L 39 S P Y M S S M Z Z X 40 S S N T H Z Z Z X 41 T I T T S L Z Z X 43 U N	30	N	G						N	U	Z	Z	Z	X
33 P G <td>31</td> <td>N</td> <td>v</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>P</td> <td>В</td> <td>Z</td> <td>Z</td> <td>Z</td> <td>X</td>	31	N	v						P	В	Z	Z	Z	X
34 P Y U Y U X U X U X X U X X U X U X X U X	32	P	С						P	F	Z	Z	Z	X
35 Q Q Q M R R Z Z Z Z X 36 R S L S K Z Z Z X 37 S L S P Y L Z X 38 S P Y M S P Y L L 39 S P Y M S S M Z Z X 40 S S N T H Z Z Z X 41 T I T T H Z Z Z X 42 T S M U U M Z Z Z X 43 U N U U U Z Z Z X 44 U V U <td< td=""><td>33</td><td>P</td><td>G</td><td></td><td></td><td></td><td></td><td></td><td>P</td><td>X</td><td>Z</td><td>Z</td><td>Z</td><td>X</td></td<>	33	P	G						P	X	Z	Z	Z	X
35 Q Q Q M R R Z Z Z X 36 R S L S K Z Z Z X 37 S L S P X Z Z X 38 S P Y M S P Y L L 39 S P Y M S S M Z Z X 40 S S N T H Z Z Z X 41 T I T H Z Z Z X 42 T S M W Z Z Z X 43 U N W D W Z Z Z X 44 U V W B Z Z Z <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Q</td><td></td><td></td><td></td><td></td><td></td></td<>									Q					
36 R S L S K Z Z Z X 37 S L S P X Z Z X 38 S P Y S P Y L L 39 S P Y M S S M Z Z X 40 S S N T H Z Z Z X 41 T I T T S L Z Z X 42 T S M M U U M Z Z Z X 43 U N U U U Z Z Z X 44 U V L O W B Z Z Z X 45 V L O W B Z Z Z X 46 W C X X	35	Q	Q	Q			M					Z	Z	X
37 S L S P X Z Z X 38 S P Y S P Y L 39 S P Y M S S M Z Z X 40 S S N T H Z Z Z X 41 T I T S L Z Z Z X 42 T S M U M Z Z Z Z X 43 U N U U U Z Z Z X 44 U V L O W B Z Z Z X 45 V L O X B I X X 46 W C <								T						
38 S P Y L L 39 S P Y M S S M Z Z X 40 S S N T H Z Z Z X 41 T I T S L Z Z X 42 T S M U U M Z Z Z X 43 U N U U U Z Z Z X 44 U V L O W B Z Z Z X 45 V L O W B Z Z Z X 46 W C C X X B I X X														
39 S P Y M S S M Z Z X 40 S S N T H Z Z Z X 41 T I T S L Z Z X 42 T S M U U M Z Z Z X 43 U N U U U Z Z Z X 44 U V L O W B Z Z Z X 45 V L O W B Z Z Z X 46 W C X B I X X 47 X B I A X X L V Z Z X				Y										
40 S S N N T H Z Z Z X 41 T I T S L Z Z X 42 T S M U W Z Z Z X 43 U N U U U Z Z Z X 44 U V L O W B Z Z Z X 45 V L O W B Z Z Z X 46 W C X B I X X 47 X B I A X L V Z Z Z X							M	t				Z	Z	
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42 T S M . U M Z Z Z Z X 43 U N . U U U Z Z Z X 44 U V L N Z Z X 45 V L O W B Z Z Z X 46 W C . X B I X X 47 X B I A X L V Z Z X														
43 U N U U U Z Z Z X 44 U V L N Z Z X 45 V L O W B Z Z Z X 46 W C U X B I X X 47 X B I A X X L V Z Z X				М				H						
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45 V L O W B Z Z Z X 46 W C X B I X X 47 X B I A X L V Z Z X								H						
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	Revised Symbol Distribution - Effective: July 15, 2019												
Line	Security Symbol					Exp Mo			Exp Mo				
1	A							A	В	S	Z	Z	X
2	A	В	T					Α	G	N	Z	Z	X
3	A	G	О					A	M	Z	M	Z	X
4	A	M	Z	N				Α	M	Z	N		L
5	A	M	Z	N		M		Α	M	Z	N		X
6	A	M	Z	N	Α			Α	Y	Q	Z	Z	X
7	A	Y	R					В	Α	В	Α		L
8	В	Α	В	Α		M		В	K	N	G		L
9	В	K	N	G		M		С	Α	S	Z	Z	X
10	C	Α	T					С	L	R			L
11	C	L	R			M		С	R	L	Z	Z	X
12	C	R	M					D	A	Т			X
13	D	Α	T	A				D	N	K	M	Z	X
14	D	N	K	N				Е	О	F	Z	Z	X
15	Е	О	G					F	В				L
16	F	В				M		G	D				X
17	G	D	A					G	О	О	G		L
18	G	О	О	G		M		G	О	О	G	L	X
19	G	О	О	G	M			Н	L	Н	Z	Z	X
20	Н	L	I					I	Q	D	Е	Z	X
21	I	Q	D	F				I	W	M			L
22	I	W	M			M		J	N	J			X
23	J	N	J	Α				L	N	G			L
24	L	N	G			M		M	D	L	Y	Z	X
25	M	D	L	Z				M	S	F	S	Z	X
26	M	S	F	Т				N	D	X	О	Z	X
27	N	D	X	P				N	J	Q	Z	Z	X
28	N	J	R					N	V	С	Z	Z	X
29	N	V	D					О	I	Н	Z	Z	X
30	О	I	I					P	L	Α	X	Z	X
31	P	L	Α	Y				Q	Q	P	Z	Z	X
32	Q	Q	Q					Q	Q	Q			X
33	Q	Q	Q	Α				R	V	L	S	Z	X
34	R	V	L	Т				S	N	Α	О	Z	X
35	S	N	Α	P				S	P	X	Z	Z	X
36	S	P	Y					S	P	Y			L
37	S	P	Y			M		S	P	Y			X
38	S	P	Y	Α				S	W	M	Z	Z	X
39	S	w	N					Т	N				X
40	T	N	Α					Т	S	L	Α		L
41	T	S	L	Α		M		Т	W	Т	R		L
42	T	W	T	R		M		U	P	R	N	Z	X
43	U	P	R	О				V	Α	В	Z	Z	X
44	V	A	С					W	В	A	Н	Z	X
45	W	В	A	I				W	Z	Z	Z	Z	X
46	X							X	L	Н	Z	Z	X
47	X	L	I					X	M	L	U	Z	X
48	X	М	L	V				Z	Z	Z	Z	Z	X