Multnomah County ARES 2021 Template V1.06 9/2/2021

Auxiliary Channels

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
481	CLRK48	144.9200					RMS K7YFJ-10 - KA7CTT-10 (1200Bd) / Clark Co. EOC: k7cll@winlink.org
482	W7LT	144.9100					RMS W7LT-10 (1200Bd) - Mt Scott
483	CLAC 6	145.5700					RMS KD7ZDO-10 packet gateway / EOC: kd7zdo@winlink.org
484	WC 8	144.9800					RMS WC7EOC-10 Washington Co. EOC: wc7eoc@winlink.org
485	WC 11	145.0500					RMS K7TRP-10 - N7OGM-10 (1200 Bd)
486	WC 9	145.0200					RMS W7BVT-10 - Beaverton EOC - VARA Wide
487	KF7LJH	432.5500					RMS KF7LJH-12 - NE Portland - VARA Wide
488							
489							

Personal Use Section

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
490							
491							
492							
493							
494							
495							
496							
497							
498	NVCALL	146.5200	146.5200				National VHF Calling Frequency
499	NUCALL	446.0000	446.0000				National UHF Calling Frequency
500	STD106	146.5200	146.5200				MCARES 2021 Template V1.06 - 9/2/2021

Oregon 2021 Regional Ham VHF/UHF Template

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
0							
1	MC 1	146.8400	-0.6000				Multnomah Primary Repeater - Command Net - Larch Mt. - WA
2	MC 2	147.2800	0.6000	167.9			Multnomah Secondary Repeater - Resource Net - Mt. Scott
3	MC 3	146.9400	-0.6000				Multnomah Tertiary Repeater - Mt. Scott
4	MC 4	146.4800					Multnomah Primary Simplex - Command
5	MC 5	147.4600					Multnomah Secondary Simplex - Tactical
6	MC 6	147.0400	0.6000	100			Multnomah Delta Repeater - KOIN Tower
7	MC 7	147.5200					Gresham Simplex
8	MC 8	147.5800					NET-Tac 1 Portland Bureau of Emergency Management
9	MC 9	146.4600					NET-Tac 2 Portland Bureau of Emergency Management
10	MC 10	145.0700					RMS K7MCE-10 / EOC: k7mce@winlink.org - KF7LJH-10 NE PDX
11	MC 11	432.1500					Multnomah UHF Simplex
12	MC 12	147.2800	147.2800				Multnomah Resource Net Simplex if MC2 is off-line
13	MC 13	440.2750	5.0000	151.4	151.4		Multnomah Portable UHF Repeater - T SQL RX
14	MC 14	446.1500	446.1500	151.4			Multnomah Crossband Repeater - Tone only for user
15	APRS	144.3900					Automatic Packet Reporting System
16	W7RAT	440.4000	5.0000	123.0			MMSSTV - ARES Digital - KOIN Tower
17	MC14X	446.1500	446.1500	151.4	151.4		Multnomah Crossband Repeater - TSQL for XBand Repeater
18							
19							
20							

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
							CLACKAMAS COUNTY
21	CLAC 1	147.1200	0.6000	100.0			Clackamas Primary Repeater [OEM Monitored] - Mt Hood
22	CLAC 2	147.1400	0.6000	107.2			Clackamas Secondary Repeater
23	CLAC 3	146.4150					Clackamas Primary Simplex
24	CLAC 4	146.9600	-0.6000	127.3			Clackamas Tertiary Repeater (W7OTV)
25	CLAC 5	146.9200	-0.6000	107.2			Clackamas South County ARES Repeater
26	CLAC 6	145.5700					RMS KD7ZDO-10 / Clackamas Co. EOC: kd7zdo@winlink.org
27	CLAC 7	442.0750	5.0000	103.5			Oregon City ARES Repeater
28	CLAC 8	146.5600					Oregon City ARES Simplex
29	CLAC 9	146.5000					Lake Oswego ARES Simplex
30	CLAC10	146.5400					Clackamas East County ARES Simplex
31	CLAC11	145.5200					P2P VARA-FM and VARA digipeater KD7ZDO-5
32	CLAC12	147.5100					Clackamas West County ARES Simplex
33	CLAC13	146.9200	-0.6000	107.2			Clackamas West County ARES Repeater
							CLARK COUNTY
34	CLRK 1	147.2400	0.6000	94.8			EYEWARN Primary Repeater / Clark Traffic Repeater W7AIA
35	CLRK 2	443.9250	5.0000	94.8			Clark Primary Repeater - W7AIA
36	CLRK31	443.9000	5.0000	94.8			Clark Secondary Repeater - W7AIA
37	CLRK 3	443.1250	5.0000	94.8			Clark Tertiary Repeater - W7AIA
38	CLRK 4	147.2400	147.2400				Clark No-Repeater Simplex - (Talk-Around for Repeater.)
39	CLRK 5	147.5300					Clark Leadership Simplex
40	CLRK26	442.3750	5.0000	123			Clark Traffic Repeater - AB7F
41	CLRK27	443.6750	5.0000	107.2			Clark Traffic Repeater - KE7FUW
42							
43							
44	CLRK46	144.9900					Packet BBS K7CLL-8 / K7CLL-15 (1200Bd)
45	CLRK47	441.0600					Packet BBS K7CLL-8 / K7CLL-15 (9600Bd)
46	CLRK48	144.9200					RMS K7YFJ-10 / KA7CTT-10 (1200Bd) / Clark Co. EOC: k7cll@winlink.org
47	CLRK49	441.5250					RMS K7YFJ-12 / K7GJT-12 (9600Bd)
48	CLRK50	144.9400					RMS K7GJT-10 / KB7APU-10 (1200Bd)
49							
							COLUMBIA COUNTY
50	COL 1	146.8800	-0.6000	114.8			Columbia Primary Repeater
51	COL 2	444.6250	5.0000	107.2			Columbia Secondary Repeater
52	COL 3	146.5000					Columbia Primary Simplex
53	COL 4	147.4700					Columbia Secondary Simplex
54	COL 5	146.4400					Columbia Tactical Simplex
55	COL 6	146.6800	-0.6000	114.8			Columbia South County
56	COL 7						
57	COL 8	145.2700	-0.6000	107.2			Timber Repeater (Clatsop - Tillamook Co. D1 link)
58	COL 9	145.2500	-0.6000	114.8			Vernonia Repeater
59	COL 10						
60	COL 11						
61	COL 12						
62	COL 13						RMS KC7COL Pactor/Winmor EOC HF gateway (3.596 dial frequency)

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
							MULTNOMAH COUNTY
63	MC 1	146.8400	-0.6000				Multnomah Primary Repeater
64	MC 2	147.2800	0.6000	167.9			Multnomah Secondary Repeater
65	MC 3	146.9400	-0.6000				Multnomah Tertiary Repeater
66	MC 4	146.4800					Multnomah Primary Simplex
67	MC 5	147.4600					Multnomah Secondary Simplex
68	MC 6	147.0400	0.6000	100.0			Multnomah Delta Repeater
69	MC 7	147.5200					Gresham Simplex
70	MC 8	147.5800					NET-Tac 1 Portland Bureau of Emergency Management
71	MC 9	146.4600					NET-Tac 2 Portland Bureau of Emergency Management
72	MC 10	145.0700					RMS K7MCE-10 / Multnomah Co. EOC: k7mce@winlink.org
73	MC 11	432.1500					Multnomah UHF Simplex
74	MC 12	147.2800	147.2800				Multnomah Resource Net Simplex if MC2 is off-line
75	MC 13	440.2750	5.0000	151.4			Multnomah Portable UHF Repeater - RX TSQL off
76	MC 14	446.1500	446.1500	151.4			Multnomah Crossband Repeater - RX TSQL off
							WASHINGTON COUNTY
77	WC 1	146.9000	-0.6000	127.3			Washington Primary Repeater
78	WC 2	440.3500	5.0000	127.3			Washington Secondary Repeater
79	WC 3	147.3600	0.6000	107.2			Washington Tertiary Repeater
80	WC 4	146.9000		127.3			Simplex Talk-Around of Primary Repeater
81	WC 5	147.4000					Washington Tac 1 Simplex
82	WC 6	147.5000					Washington Tac 2 Simplex
83	WC 7	446.0250					Washington Tac 3 Simplex
84	WC 8	144.9800					RMS WC7EOC-10 / Washington Co. EOC: wc7eoc@winlink.org
85	WC 9	145.0200					RMS W7BVT-10 / Beaverton
86	WC 10	145.0400					RMS KD7REX-10 / WCCCA
87	WC 11	145.0500					RMS N7OGM-10
88	WC 12	145.6500					RMS KX7YT-10 (VARA-FM only)
89	WC 13	145.6000					P2P-1
90	WC 14	145.6800					P2P-2
91	WC 15	145.7000					P2P-3
92	WC 16	145.7200					P2P-4
93	WC 17	444.9750	5.0000	107.2			INTEL (IEARS) Repeater
94	WC 18	444.7500	5.0000	123			Beaverton CERT Repeater
95	WC 19	440.1750	5.0000	110.9			Tigard CERT Repeater
96	WC 20	444.5250	5.0000	136.5			Tualatin CERT Repeater
							OTHER AGENCIES
97	OEM 1	145.3300	-0.6000	186.2			Oregon Emergency Management (OEM Salem)
98	OEM 2	147.0200	0.6000	186.2			Oregon Emergency Management (OEM Salem)
99	OEM 3	144.9900					RMS W7ODN-10 / OEM EOC: w7oem@winlink.org
100							
101							
102	REDC1	146.9800	-0.6000	D023			Red Cross Repeater (Portland)
103	RED CR	147.4200					Red Cross Simplex
104							
105	D1-1	147.3200	0.6000	100.0			District-1 Primary Net Repeater [OEM Monitored]
106	D1-2	146.8400	-0.6000				District-1 Secondary / Multnomah Co. ARES Primary Repeater
107	INTEL1	147.5200					Intel Emergency Amateur Radio Service (IEARS)
108							

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
TILLAMOOK COUNTY						

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
							TILLAMOOK COUNTY
109	TLMK 1	147.2200	0.6000	100.0			Tillamook Primary Repeater [OEM Monitored] - Mt Hebo
110	TLMK 2	147.1600	0.6000	118.8			Tillamook Central Repeater
111	TLMK 3	440.1750	5.0000	100.0			Tillamook North Repeater
112	TLMK 4	441.2500	5.0000	118.8			Tillamook South Repeater
113	TLMK 5	444.4250	5.0000	107.2			Tillamook Nehalem Bay Repeater
114	TLMK 6	146.5600					Tillamook North Simplex
115	TLMK 7	147.4200					Tillamook Central Simplex
116	TLMK 8	147.5000					Tillamook South Simplex
117	TLMK 9	144.9500					RMS KB7EOC-10 / Tillamook Co. EOC: kb7eoc@winlink.org
							CLATSOP COUNTY
118	CLAT 1	145.4500	-0.6000	118.8			Clatsop Primary Repeater - Megler Mt - NE of Astoria
119	CLAT 2	146.7600	-0.6000	118.8			Clatsop Secondary Repeater
120	CLAT 3	145.4900	-0.6000	118.8			Clatsop Tertiary Repeater
121	CLAT 4	147.5800					Clatsop County Simplex
122	CLAT 5	147.4200					Clatsop Warrenton Simplex
123	CLAT 6	146.4000	146.4000				Clatsop Seaside Simplex
124	CLAT 7	146.4800					Cannon Beach / Arch Cape Simplex
125	CLAT 8	144.9900					RMS W7CLA-10 / Clatsop Co. EOC: w7cla@winlink.org satellite
126	CLAT 9	144.9900					RMS WA7VE-10 Seaside satellite link
							LINCOLN COUNTY
127	LINC 1	145.3700	-0.6000	167.9			Lincoln Primary Repeater - Cape Foulweather
128	LINC 2	147.0400	0.6000	100.0			Lincoln Secondary Repeater
129	LINC 3	147.0000	0.6000	136.5			Lincoln Tertiary Repeater
130	LINC 4	146.7800	-0.6000	156.7			Lincoln Alternate Repeater - Mary's Peak [OEM Monitored]
131	LINC 5	146.5800					Lincoln Primary Simplex
132	LINC 6	145.0900					RMS W7LCS-10 / Lincoln Co. EOC: w7lcs@winlink.org / W7GC-10 Lincoln City
133	LINC 7	144.9500					Alternate RMS Gateway Mt. Hebo W7GC-11
134	LINC 8						
							YAMHILL COUNTY
135	YMHL 1	441.8000	5.0000	114.8			Yamhill Primary Repeater W7YAM - McMinnville - Eola Hill
136	YMHL 2	146.6400	-0.6000	100.0			Yamhill Secondary Repeater W7RXJ
137	YMHL 3	442.5500	5.0000	114.8			Yamhill Tertiary Repeater WA7RGO
138	YMHL 4	146.4000	146.4000				Yamhill Primary Simplex
139	YMHL 5	147.5200					Yamhill Secondary Simplex
140	YAM-10	144.9600					RMS W7YAM-10 Yamhill Gateway Eola Hill
141	YAM-11	144.9200					RMS W7YAM-11 Yamhill Gateway / Yamhill Co. EOC: w7yam@winlink.org
							POLK COUNTY
142	POLK 1	147.0200	0.6000	186.2			Polk Primary Repeater [OEM Monitored] - Laurel Mt
143	POLK 2	145.3300	Minus	186.2			Polk Secondary Repeater
144	POLK 3	145.3300	-0.6000	186.2			Polk Tertiary Repeater
145	POLK 4	146.5000					Polk Primary Simplex
146	POLK 5	144.9700					RMS W7PLK-10 Polk Gateway / Polk Co. EOC: w7plk@winlink.org
147	POLK 6						
							MARION COUNTY
148	MARN 1	145.2900	-0.6000				Marion Primary Repeater - WA7ABU - Silver Falls
149	MARN 2	145.1900	-0.6000	100.0			Marion Secondary Repeater
150	MARN 3	146.4600					Marion Primary Simplex
151	MARN 4	145.0700					RMS K7MAR-10 Marion Gateway / Marion Co. EOC: k7mar@winlink.org
152	MARN 5	431.2000	Simplex				Marion UHF Simplex

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
							HOOD RIVER COUNTY
153	HOOD 1	147.2000	0.6000	100.0			Hood River Primary Repeater - Underwood Mt
154	HOOD 2	444.9000	5.0000	100.0			Hood River Secondary Repeater
155	HOOD 3	147.1000	0.6000	100.0			Hood River Tertiary Repeater
156	HOOD 4	147.5000					Hood River Primary Simplex
157	HOOD 5	146.4600					Hood River Secondary Simplex
158	HOOD 6	445.5000	445.5000				Hood River UHF Simplex
159	HOOD 7	145.7500	145.7500				RMS KA7HRC-10 gateway / Hood River EOC: ka7hrc@winlink.org
160	HOOD 8	440.7500	440.7500				RMS KA7HRC-10 / gateway Hood River (1200 Bd)
							VHF SIMPLEX CHANNELS
161	SMPX01	146.4000					Seaside / Yamhill / LDS Primary
162	SMPX02	146.4200					Clackamas Primary / PBEM NET-Tac 4
163	SMPX03	146.4400					Columbia Tactical
164	SMPX04	146.4600					OR ARES State simplex / Marion Primary / PBEM NET-Tac 2
165	SMPX05	146.4800					Multnomah Primary / Clatsop Cannon Beach - Arch Cape
166	SMPX06	146.5000					Polk Primary / Columbia Primary / PBEM NET-Tac 7
167	SMPX07	146.5200					National VHF Simplex Calling Frequency
168	SMPX08	146.5400					Clackamas East Primary / PBEM NET-Tac 5
169	SMPX09	146.5600					Oregon City ARES Primary / PBEM NET-Tac 9
170	SMPX10	146.5800					Lincoln Primary / Clackamas S. / PBEM NET-Tac 12
171	SMPX11	146.6000					
172	SMPX12	147.4000					WashCo. TAC-1
173	SMPX13	147.4200					Tillamook Central / Clatsop Warrenton / Red Cross Primary
174	SMPX14	147.4400					
175	SMPX15	147.4600					Yamhill Primary / Hood River Secondary / Multnomah Secondary
176	SMPX16	147.4800					Beaverton CERT Primary
177	SMPX17	147.5000					WashCo. TAC-2 / Tillamook S / Hood R. Primary
178	SMPX18	147.5200					Intel EARS / Yamhill Secondary / Gresham Simplex
179	SMPX19	147.5400					PBEM NET-Tac 3
180	SMPX20	147.5600					Beaverton CERT Secondary
181	SMPX21	147.5800					Clatsop / PBEM NET-Tac 1
							UHF SIMPLEX CHANNELS *(a partial list)*
182	SMPX22	431.0250					Beaverton CERT Blue 1
183	SMPX23	431.0500					
184	SMPX24	431.0750					Beaverton CERT Teal 1
185	SMPX25	431.1000					Hillsboro CERT Simplex 1 / PBEM NET UHF-1
186	SMPX26	431.1250					Beaverton CERT Orange 1
187	SMPX27	431.1500					Tualatin CERT Simplex 2
188	SMPX28	431.1750					Beaverton CERT Yellow 1
189	SMPX29	431.2000					Marion Co. UHF / PBEM NET UHF-2
190	SMPX30	431.2250					
191	SMPX31	431.2500					Hillsboro CERT Simplex 2 / Tualatin CERT Simplex 3
192	SMPX32	431.2750					Beaverton CERT Green 1 / Grey 1
193	SMPX33	431.3000					Hillsboro CERT Simplex 3 / PBEM NET UHF-3
194	SMPX34	432.1250					
195	SMPX35	432.1500					Multnomah Co. UHF Simplex / Beaverton CERT Red 1
196	SMPX36	432.1750					
197	SMPX37	432.2000					
198	SMPX38	432.2250					
199	NUCALL	446.0000	446.0000				National UHF Simplex Calling Frequency

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description

Community/Public							
Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
388							
389	MC8	147.5800					PBEM NET-Tac 1 (MC-8)
390	MC9	146.4600					PBEM NET-Tac 2 (MC-9)
391	PNTC03	147.5400					PBEM NET-Tac 3
392	PNTC04	146.4200					PBEM NET-Tac 4
393	PNTC05	146.5400					PBEM NET-Tac 5
394	PNTC06	145.6200					PBEM NET-Tac 6
395	PNTC07	146.5000					PBEM NET-Tac 7
396	PNTC08	145.5300					PBEM NET-Tac 8
397	PNTC09	146.5600					PBEM NET-Tac 9
398	PNTC10	145.7900					PBEM NET-Tac 10
399	PNTC11	145.7400					PBEM NET-Tac 11
400	PNTC12	146.5800					PBEM NET-Tac 12
401							
402	PNTM02	431.4000					Portland NET Teams Ch. 2
403	PNTM03	431.4250					Portland NET Teams Ch. 3
404	PNTM04	431.4500					Portland NET Teams Ch. 4
405	PNTM05	431.4750					Portland NET Teams Ch. 5
406	PNTM06	431.5000					Portland NET Teams Ch. 6
407	PNTM07	431.5250					Portland NET Teams Ch. 7
408	PNTM08	431.5500					Portland NET Teams Ch. 8
409	PNTM09	431.5750					Portland NET Teams Ch. 9
410	PNTM10	431.6000					Portland NET Teams Ch. 10
411	PNTM11	431.6250					Portland NET Teams Ch. 11
412	PNTM12	431.6500					Portland NET Teams Ch. 12
413	PNTM13	431.6750					Portland NET Teams Ch. 13
414	PNTM14	431.7000					Portland NET Teams Ch. 14
415	PNTM15	431.7250					Portland NET Teams Ch. 15
416	PNTM16	431.7500					Portland NET Teams Ch. 16
417	PNTM17	431.7750					Portland NET Teams Ch. 17
418	PNTM18	431.8000					Portland NET Teams Ch. 18
419	PNTM19	431.8250					Portland NET Teams Ch. 19
420	PNTM20	431.8500					Portland NET Teams Ch. 20
421	PNTM21	431.8750					Portland NET Teams Ch. 21
422	PNTM22	431.9000					Portland NET Teams Ch. 22
AUXILARY CHANNELS							
Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
423							
424	CLACLO	444.3000	5.0000	82.5			Lake Oswego ARES UHF Repeater
425	TRNGLP	440.5250	5.0000	77.0			Tillamook County - Triangulationn Point
426	K7GDS	443.5500	5.0000	100.0			SW Portland
427	K7NE	443.3000	5.0000	100.0			Portland NET UHF Repeater - Council Crest
428	N7LF	145.4100	-0.6000	100.0			Corbett - Lookout Point
429	WXPDX	162.5500					NOAA Weather KIG98 Portland
430	WXSLM	162.4750					NOAA Weather WXL96 Salem

Channel	Alias	RX Freq	TX Freq	Tone	T SQL	DCS	Description
AUXILARY CHANNELS							
6 Meter FM Patch Additions							
431	6MCALL	52.5250					6 Meter FM Calling Simplex Frequency
432	MC6M	52.4000					MCARES 6 Meter FM Primary Simplex
433	WORC6S	52.8300	-1.7000	107.2			WORC Sherwood Repeater - KR7IS
434	WORC6H	52.9700	-1.7000	107.2			WORC Mt Hood Repeater - WB7DZG
435	WORC6T	52.8500	-1.7000	107.2			WORC Timber Repeater - KR7IS
436	C6M1	52.3300					Clackamas 6M Simplex 1
437	C6M2	52.3500					Clackamas 6M Simplex 2
438	C6M2	52.3700					Clackamas 6M Simplex 3
439	C6M1	52.3900					Clackamas 6M Simplex 4
440	AB7F V	145.3700	-0.6000	123.0			Vancouver WA
441	AB7F U	442.3750	5.0000	123.0			Vancouver WA
442	AB7F S	441.3750	5.0000	123.0			Salem OR
443							
444							
445							
446	PGE1	444.6750	5.0000	100.0			PGE - Downed Line
447							
448	PROV1	443.6250	5.0000	77.0			Providence
449	LEGCY1	440.8250	5.0000	110.9			Legacy - Emanuel Hospital
450	LMHMC	443.2500	5.0000	100.0			Legacy Mount Hood Medical Center
451	BAWFAW	147.0600	0.6000	110.9			WA7UHD Chehalis - WA
452	PKSLM	145.4900	-0.6000	136.5			Salem Prospect Hill - linked to Portland REDC1 #102
453	N7PIRG	443.7000	5.0000	103.5			Goat Mt.
454	N7PIRH	443.8750	5.0000	103.5			Mt. Hood
455	N7PIRS	440.4500	5.0000	103.5			Skyline
456							
457	WORC H	146.8000	-0.6000	107.2			WORC - Mt Hood
458	WORCCU	443.1500	5.0000	107.2			WORC - Clackamas
459	WORC T	442.5250	5.0000	107.2			WORC - Aloha
460	WORC S	145.4300	-0.6000	107.2			WORC - Sandy
461	WORCSH	145.4700	-0.6000	107.2			WORC - Sherwood
462	WORCTI	145.2700	-0.6000	107.2			WORC - Timber
463	WORCHU	442.9250	5.0000	107.2			WORC - Mt Hood UHF
464	WORCCO	145.4300	5.0000	107.2			WORC - Colton
465							
466	ARRGCR	147.3800	0.6000	100.0			ARRG Chehalem Ridge
467	ARRGWL	444.4000	5.0000	100.0			ARRG Wilsonville linked to D1 (147.32)
468	ARRGSY	442.2250	5.0000	103.5			ARRG Sylvan - Tech Support - C4FM capable
469	ARRGCL	443.7500	5.0000	100.0			ARRG Chehalem Ridge - to be linked to Sylvan
470	ARRGSU	442.3250	5.0000	100.0			ARRG South Saddle - linked to 147.320
471	ARRGHU	444.2250	5.0000	100.0			ARRG Mt. Hood - linked to 147.120
472	PARC C	147.1800	0.6000	103.5			PARC Fusion - Mt. Scott
473							
474							
475							
476							
477							
478							
479							
480							