BULLETIN

NO:	23-116
DATE:	July 31, 2023
FROM:	Roger M. Fisher, Deputy Fire Chief, Emergency Command & Data Center
SUBJECT:	Rollout of New APX8000 Radio Equipment REVISED

ECDC and City Wireless staff are nearly complete with the roll out of the APX 8000 radio equipment. This equipment includes new portable radios, batteries, charging equipment, collar microphones and other materials which will be delivered in staged phases. Although the APX 8000 works much the same as the APX 6000 radio, several changes have been made based upon operations feedback, research, availability of new options and safety concerns. This bulletin addresses some of these changes, however ongoing radio training will be provided as features and systems are activated.

Summary of Changes

- The addition of a second direct channel SNDDIR2 which can be found in position "N" in each zone. This direct channel should not be used until a subsequent bulletin is released and the full radio roll out is completed.
- The APX 8000 radio now includes an advanced noise cancelling feature that can be changed via profiles called "normal" and "loud" via the keypad. Until additional training is provided, this feature should be left in the normal position.
- The APX 8000 collar mic has a flashlight built into the front of the collar mic.
- The radio is programmed with 3 preset options on the keypad MS1, MS2 and MS3. These can be set to a specific talk group/channel location for quickly jumping to these channels (as with the "home" button, users must remain aware of the safety issue of channel disassociation when doing so. For example, if the preset is set to 7E, but the channel knob is in the "A" location, the channel knob will move the radio to 7B if the channel knob is rotated clockwise one click, not to 7F.)
- APX 8000 radios were purchased as "dual band" units and the department's VHF channels were programmed into the radios in zones after our 700/800Mhz channels. The APX 8000 radio is limited to 16 channels and as a result, the user must use the keypad to go to channels 17-20. More training will be provided on this feature.
  - **Crews <u>should not</u> use the APX 8000 radios for incidents working on VHF at this time.**
  - **Crews <u>should</u> and will continue to use their dedicated VHF radios for incidents on VHF channels (MTZ, etc.)**

The roll out of these radios also addressed two safety concerns that were identified by multiple operations personnel during the APX 6000 radio roll out several years ago:
- The two buttons below the Push to Talk button are no longer programmed to zone up and zone down. This was solved programmatically and has been rolled out over the past several years as APX 6000 radios were programmed and is now fully corrected in the APX 8000 programming.
- The channel knob on the collar mic has been eliminated. Although not as convenient, this collar mic channel knob does not associate with the channel knob on the radio

and has resulted in numerous reports from operations of incorrect channel selection in an IDLH environment. For example, if a user sets their radio channel knob on the radio to 8A but the channel knob on the collar mic is set to 8G, rotating the channel knob on the collar mic clockwise will change the radio to 8H, not 8B as would be expected. There have also been numerous reports from other agencies of the collar mic changing channels randomly, with some agencies returning hundreds of those collar mics back to Motorola. The FEMA issued USAR cache of APX 8000s have also incorporated this change.

All the XTS 5000 radios will be replaced by APX 6000 radios later. Emergency Operations should be complete on the rollout. Any concerns should be addressed to Jason McKeon jmckeon@sandiego.gov

The selection of these radio features was vetted through the health and safety committee, as well as a multi-disciplinary review committee. Any questions regarding the rollout or equipment should be forwarded through your chain of command.

	ZONE	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15	MODE 16
1	01	1A DISP	1B ZONE	1C	1D	1E	1F	1G	1H	1-I	1J	1K	1L	1M	1N	XSD 8DIR	1P EMG
2	02	2A	2B	2C	2D	2E	2F	2G	2H	2-I	2J	2K	2L	2M	2N	XSD 8DIR	2P EMG
3	03	3A DISP	3B ADMIN	3C	3D	3E	3F	3G	3H	3-I	3J	3K	3L	3M	3N	XSD 8DIR	3P EMG
4	04	4A	4B	4C	4D	4E	4F	4G	4H	4-I	4J	4K	4L	4M	4N	XSD 8DIR	4P EMG
5	05	5A DISP	5B	5C	5D	5E	5F	5G	5H	5-I	5J	5K	5L	5M	5N	XSD 8DIR	5P EMG
6	06	6A ADMN	6B DISP	6C	6D	6E	6F	6G	6H	6-I	6J	6K	6L	6M	6N	XSD 8DIR	6P EMG
7	07	7A ADMN	7B DISP	7C SSC	7D	7E	7F	7G	7H	7-I	7J	7K	7L	7M	SND 8DIR2	SND 8DIR	7P EMG
8	08	8A	8B	8C	8D	8E	8F	8G	8H	8-I	8J	8K	8L	8M	SND 8DIR2	SND 8DIR	8P EMG
9	09	9A	9B	9C	9D	9E	9F	9G	9H	9-I	9J	9K	9L	9M	SND 8DIR2	SND 8DIR	9P EMG
10	10	10A DISP	10B	10C	10D	10E	10F	10G	10H	10-I	10J	10K	10L	10M	10N	XSD 8DIR	10P EMG
11	11	11A	11B	11C	11D	11E	11F	11G	11H	11-I	11J	11K	11L	11M	11N	XSD 8DIR	11P EMG
12	12	12A TRVL	CARS 4	FIRE TRVL	LE TRVL	12E	12F	12G	12H	12-I	LT GRN	SD M/AIR 1	SD M/AIR 2	SD L/AIR	SD F/AIR	XSD 8A/G	RCS ACCESS
13	RMA	SDCoCALL	SDCoTAC1	SDCoTAC2	SDCoTAC3	SDCoTAC4	SD ICS1	SD ICS2	SD ICS3	SD ICS4	SD ICS5	SD ICS6	SD ICS7	SD ICS8	SD ICS9	SD ICS10	SD ICS11
14	EMS	TRI ALS	SLJ ALS	PAL ALS	UCSD ALS	MERCY ALS	SHARP ALS	GRSMT ALS	BASE 1	BASE 2	MEDGRP	SD M/AIR1	SD M/AIR2	SD L/AIR	SD F/AIR	XSD 8A/G	REWARD
15	TRN	TRN A	TRN B	TRN C	TRN D	TRN E	TRN F	TRN G	TRN H	TRN I	TRN J	TRN K	TRN L	TRN M	TRN N	XSD 8DIR	TRN P EMG
16	IMA	IMCoCALL	IMCoTAC1	IMCoTAC2	IMCoTAC3	IMCoTAC4	IM ICS1	IM ICS2	IM ICS3	IM ICS4	IM ICS5	IM ICS6	IM ICS7	IM ICS8	IM ICS9	IM ICS10	IM ICS11
17	IFM	IFM CALL	CMD1	TAC1	TAC2	CMD2	TAC3	TAC4	CMD3	TAC5	TAC6	CMD4	TAC7	TAC8	CMD5	TAC9	TAC10
18	7M1	7CALL50	7TAC55	7LAW61	7FIRE63	7MED65	7GTAC57	7TAC56	7LAW62	7FIRE64	7MED66	7TAC51	7TAC52	7TAC53	7TAC54	FIRE TRVL	LE TRVL
19	7M2	7CALL50	7TAC76	7LAW82	7FIRE84	7MED87	7GTAC77	7TAC75	7LAW81	7FIRE83	7MED 86	7TAC71	7TAC72	7TAC73	7TAC74	(option)	(option)
20	8M1	8CALL90	8TAC91	8TAC92	8TAC93	8TAC94	CALAW8	LT GRN	CARS 1	CARS 2	CARS 3	CARS 4	CARS 5	XSD 8A/G	CAFIRE1	XSD 8DIR	RCS ACCESS
21	8M2	8CALL90	8TAC91	8TAC92	8TAC93	8TAC94	CALAW8	CALAW9	CAFIRE1	CAFIRE2	(option)	(option)	(option)	(option)	(option)	(option)	(option)
22	YY	CALL YY	CMD YY	TAC YY3	TAC YY4	TAC YY5	TAC YY6	TAC YY7	TAC YY8	TAC YY9	TAC YY10	TAC YY11	TAC YY12	TAC YY13	TAC YY14	TAC YY15	EMER YY
23	ZZ	CALL ZZ	CMD ZZ	TAC ZZ3	TAC ZZ4	TAC ZZ5	TAC ZZ6	TAC ZZ7	TAC ZZ8	TAC ZZ9	TAC ZZ10	TAC ZZ11	TAC ZZ12	TAC ZZ13	TAC ZZ14	TAC ZZ15	EMER ZZ
24	TRN	B1 TRN	B2 TRN	B3 TRN	B4 TRN	B5 TRN	B6 TRN	B7 TRN	B8 TRN	ECDC	TRN 1	TRN 2	NTC TRN1	NTC TRN2	NTC TRN3	SND 8DIR	TRN EMG
25	SDM	7A ADMN	7B DISP	7C SSC	7E	7F	7G	7H	7I	SD GRSMT	SD MERCY	SD PAL	SD SHARP	SD SLJ	SD UCSD	SND 8DIR	25P EMG
26	BL1	GRSMT BH	MERCY BH	PAL BH	SHARP BH	SLJ BH	TRICITY BH	UCSD BH	ALVR	BALBOA	CHILD	CPEN	CRD	EL CTR	FALB	KAIS	PARD
27	BL2	PION	POM	SCV	SENC	SHCV	THRN	VET	MEDGRP	SD M/AIR1	SD M/AIR2				TCRLY		FIRE CC
28	AST	AST CALL	AST 2	AST 3	AST 4	AST 5	AST 6	AST 7	AST 8	AST 9	AST 10	AST 11	AST 12	AST 13	AST 14	AST 15	AST 16
29	HLT	HLT DOC	HLT TAC1	HLT TAC2	HLT TAC3	HLT TAC4	EMS MOC	EMS CMD1	EMS TAC1	EMS TAC2	EMS CMD2	EMS TAC3	EMS TAC4	EMS CMD3	EMS TAC5	EMS TAC6	EMS ADM
30	CMA	IB LG D1	MARSAFE	IB LG T1	IB LG T2	LG DISP1	AQUA	COPPER	LT BLUE	LT GRN	SDLAKES	PALOMAR	BP CALL	HP DISP2	HP TAC2	SDMA 10	SDMA 20
31	LG1	LG DISP1	LG DISP2	LG DIR	LG D2 TAC	LG T1 OB	LG T2 BAY	LG T3 BSU	LG T5 MB	LG T6 PB	LG T7 COV	LG T8 LJS	LG ADMN	LG INQ		PD WEST	PD NORTH
32	LG2	LG DISP1	LG DISP3	SND 8DIR	LG D3 TAC	RIV COM	RIV TAC	LG TRN1	LG TRN2	LG SPEC1	LG SPEC2	LG JG OPS	LG JG TAC	SDFD 7E	SDFD 7F	PD WEST	PD NORTH
33	PD1	PD NOR D1	PD NOR D2	PD EAS D1	PD EAS D2	PD CEN D1	PD CEN D2	PD WES D1	PD WES D2	PD SOU D1	PD SOU D2	PD MID D1	PD MID D2	PD SE D1	PD SE D2	PD LOCAL	31P EMG
34	PD2	PD N/E D1	PD N/E D2	PD N/W D1	PD N/W D2	PD EVT D1	PD EVT T1	PD EVT T2	PD EVT T3	PD EVT T4	PD TAC1	PD TAC2	PD TAC3	PD TAC4	PD TAC5	PD TAC6	PD TAC7
35	PD1*	PD NOR D1*	PD NOR D2*	PD EAS D1*	PD EAS D2*	PD CEN D1*	PD CEN D2*	PD WES D1*	PD WES D2*	PD SOU D1*	PD SOU D2*	PD MID D1*	PD MID D2*	PD SE D1*	PD SE D2*	PD LOCAL*	33P EMG*
36	PD2*	PD N/E D1*	PD N/E D2*	PD N/W D1*	PD N/W D2*	PD EVT D1*	PD EVT T1*	PD EVT T2*	PD EVT T3*	PD EVT T4*	PD TAC1*	PD TAC2*	PD TAC3*	PD TAC4*	PD TAC5*	PD TAC6*	PD TAC7*
37	AIR OP	7A ADMN	8A	8B	8G	8H	9A	9B	9G	9H	5K	5L	SD F/AIR	LG DISP1	LG DISP2	LG DIR	LT GRN
38	FD EVT	FD EVT1	FD EVT2	FD EVT3	FD EVT4	FD EVT5	FD EVT6	PD EVT D1	PD EVT D2	PD EVT T1	PD EVT T2	PD EVT T3	PD EVT T4	PD EVT T5	HP DISP2	HP TAC2	EVT EMG
39	FD EVT*	FD EVT1*	FD EVT2*	FD EVT3*	FD EVT4*	FD EVT5*	FD EVT6*	PD EVT D1*	PD EVT D2*	PD EVT T1*	PD EVT T2*	PD EVT T3*	PD EVT T4*	PD EVT T5*	HP DISP2*	HP TAC2*	EVT EMG*

NOTES:
BLACK-RCS DIGITAL
BLUE-TRANSPORTABLE RADIO FACILITY
ORANGE-SD City 700MHz System
RED-CONVENTIONAL ANALOG
PURPLE-CONVENTIONAL - Digital (P25)
LAVENDER-RECEIVE ONLY

DISPATCH FACILITY
NCD
ESC
METRO
HCF
MVU
ALL

7M2 AND 8M2 ARE FOR USE OUTSIDE OF SD AND IMP COUNTIES ONLY
FIRE TRVL AND LE TRVL ARE SIMPLEX ONLY. THE RADIOS WILL DISPLAY 'FIRE TRVL (7DATA69D)' AND 'LE TRVL (7DATA89D)'.
MOTOROLA COMMAND GROUP FEATURE TO BE ENABLED ON ALL RADIOS (APX with firmware of 9.00)
EMERGENCY BUTTON ON PORTABLES TO GO TO PAPA POSITION OF THE ZONE THAT THE USER IS IN WHILE IN 01 THRU 11, ALL OTHER HOME AGENCY DISPATCH EMER TG
NOTE: EMERGENCY BUTTON FOR TRN ZONE (15) TO GO TO TRN P EMG TALKGROUP

SAN DIEGO COUNTY VHF FLEETMAP

BLACK= LOCAL GOV, GREEN= USFS/ FED

RED= STATE, ORANGE= INTEROP

ZONE	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15	MODE 16	MODE 17	MODE 18	MODE 19	MODE 20
40 V-1	XSD C5	XSD T5	XSD C6	XSD T6	XSD T10	XSD C7	XSD T7	XSD T11	ESC DSPV	XSD C13	XSD T8	VFIRE 26	XSD C8	XSD C16	XSD T17	AIRGARD	XSD T15	XSD T14	XSD T12	XSD A/G1
41 V-2	SDU 1	SDU 2	CDF C1	CDF C2	CDF C3	CDF T1	CDF T5	CDF T8	CDF A/G2	XSD C1	XSD C2	XSD C3	XSD T11	XSD T12	FS CNF	AIRGARD	CNF ADM	R5 T6	NIFC T2	A/G 59
42 V-3	XSD C4	XSD C14	XSD T3	XSD T4	XSD C10	XSD T10	XSD A/G3	VFIRE 22	VFIRE 23	SDU 2	CDF C1	CDF C2	CDF C3	CDF T1	CDF T5	AIRGARD	XSD T11	XSD C1	XSD C2	CDF A/G2
43 V-4	XSD C9	XSD T1	XSD T2	XSD C15	XSD T6	XSD T18	XSD A/G2	SDU 2	CDF C1	CDF C2	CDF C3	CDF T1	CDF T5	XSD C16	XSD C2	XSD C3	VFIRE 22	VFIRE 23	XSD T11	CDF A/G2
44 V-5	CDF C1	CDF C3	SDU 2	RRU 2	FS CNF	XSD C1	XSD C11	FIRE OC	VFIRE 22	VFIRE 23	CDF T8	NIFC T2	A/G 59	A/G 53	CDF A/G1	AIRGARD	CDF A/G2	XSD C21	CDF C2	OC ACCES
45 V-6	CDF C4	CDF C6	CDF C7	CDF C8	CDF C9	CDF C10	CDF C11	CDF C12	CDF T1	CDF T2	CDF T3	CDF T4	CDF T5	CDF T6	CDF T7	CDF T8	CDF T9	CDF T10	CDF T11	CDF T12
46 V-7	CDF T13	CDF T14	CDF T15	CDF T16	CDF T17	CDF T18	CDF T19	CDF T20	CDF T21	CDF T22	CDF T23	CDF T24	CDF T25	CDF T26	CDF T27	CDF T28	CDF T29	CDF T30	CDF T31	CDF T32
47 V-8	CDF T33	CDF T34	CDF T35	CDF T36	CDF T37	CDF T38	CDF T39	CDF T40	SDU 1	SDU 2	RRU 1W	RRU 2	RRU 3E	BDU 1	BDU 2	BDU 3	SLU L	BEU E	BEU W	
48 V-9	FKU 1	FKU 2	TUU L	MMU 1	MMU 2	TCU L	CZU L	SCU L	LNU E	LNU W	AEU L	NEU W	NEU E	MEU L	TGU L	BTU L	HUU L	SHU L	LMU L	SKU L
49 V-10	AIRGARD	CDF A/G1	CDF A/G2	CDF A/G3	CDF A/G4	CDF A/G5	CDF A/G6	CDF A/G7	CDF A/G8	CDF A/G9	CDF AG10	CDF AG11	CDF AG12	CDF AG13	CDF AG14	CDF AG15	CDF AG16			AIRGARD
50 V-11	AIRGARD	A/G 08	A/G 14	A/G 24	A/G 41	A/G 43	A/G 53	A/G 59	XSD A/G1	XSD A/G2	XSD A/G3	RVC A/G	BDC A/G	LAC A/G	LFD A/G	XLC A/G	VNC A/G	SBC A/G	KRN A/G	AIRGARD
51 V-12	NIFC C1	NIFC C2	NIFC C3	NIFC C4	NIFC C5	NIFC C6	NIFC C8	NIFC C9	NIFC C10	NIFC C11	NIFC C12	NIFC T1	NIFC T2	NIFC T3	NIFC T4	NIFC T5	NIFC T6			
52 V-13	RVC T1	RVC T2	RVC T3	RVC T4	RVC T5	RVC T6	RVC T7	RVC T8	RVC T9	RVC T10	RVC T11	RVC C1	RVC C2	RVC C3	RVC C4	RVC C5	RVC C6	RVC C7	RVC C8	RVC C9
53 V-14	RVC C10	RVC C12	RIV C20	MUR DSP	MUR W	MUR E	MUR T1	MUR T2	HMT MAI	HMT T1	HMT T2	COR LOC	COR CMD	COR T1	COR T2	COR T3	COR T4			
54 V-15	WX2 23D	NC1	IR1	IR2	IR3	IR4	IR5	IR6	IR7	IR8	IR9									
55 V-16	FS R5 T4	FS R5 T5	FS R5 T6	R5 PRJT	R5 SRV A	R5 SRV B	R5 SRV C	R5 SRV D	FS CNF	CNF ADM	US FWS	FS BDF	BDF ADM	FS ANF	ANF ADM	FS LPF	LPF ADM	LPF T F3	FS INF N	FS INF S
56 V-17	FS SQF	SQF ADM	FS SNF	FS STF	FS ENF	FS HTF	FS TMU1	TNF ADM	FS TNF	FS MNF	FS PNF	FS SHF	FS LNF	FS SRF	SRF SRV	FS KNF	FS MDF			
57 V-18	BLM SOA	BLM ADM	BLMCND-	BLMCDD-	BLMNDW	BLMNDEF	BLM MLF	YNP	FED CM 1	FED CM 2	FED CM 3	FED CM 4	FED NIMS	WX 1	WX 2	WX 3	WX 4	WX 5	WX 6	WX 7
58 V-19	CESRS D	CALCORD	OES 1A	OES 1B	OES 2A	OES 2B	MRN 12	MRN 16	MRN 21A	MRN 22A	MRN 23A	MRN 83A	USCG127	CABRILO	CBRILO D	XSD T9	VSAR 16	VMED 28	VMED 29	CESRS R
59 V-20	VFIR 21	VFIR 22	VFIR 23	VFIR 24	VFIR 25	VFIR 26	VCALL 10	VTAC 11	VTAC 12	VTAC 13	VTAC 14	VTAC 33	VTAC 34	VTAC 35	VTAC 36	VTAC 37	VTAC 38	XSD C12	XSD C22	XSD T21
60 V-21	BDC V1	BDC V2	BDC V3	BDC V5	BDC V6	BDC V-7	BDC V-15	BDC V-16	BDC V-17	BDC V-18	BDC V-19	BDC V-20	BDC V4	OTO-V1	LAC V-1	LAC V-2	LAC V-3	LAC V-4	LAC V-5	LAC V-6D
61 V-22	LAC V-7D	LAC V-8D	LAC V-9D	LAC V-10D	LAC V-11D	LAC V-12D	LAC V-13D	LAC V-17D	LAC V-18	LAC V-19	LAC RIC	LRTCS 3V	LRTCS 4V	LRTCS 5V	FCA V-1D	FCA V-2D	FCA V-3D	FCA V-4D	LAC V-14D	LAC V-15D
62 V-23	LOB V-1	LOB V-2	LOB V-3	LOB V-4	LOB V-5D	LOB V-6D	LOB V-7D	LOB V-8D	LOB V-9D	SBC CH1	SBC C-2	SBC C-3	SBC C-4	SBC C-5	SBC C-6	SBC T-7	SBC T-8	SBC T-9	SBC T-10	SBC T-12
63 V-24	VNC DISP	VNC C2	VNC T3	VNC C5	VNC T6	VNC C8	VNC T9	VNC C12	VNC C17	KRN 1	KRN 2	KRN 3	KRN 4	KRN 5	KRN T V2	KRN T V3	KRN T V4	KRN T V5	KRN T 16	KRN 27
64 V-25	IMP BLUE	SLC L	XSL C4	FCO DST1	XMA CMD	TLC 1	SCC CMD	XSM C51	TLU CMD	CAL CMD	XED CMD	XAM CMD	VXCC C1	MRN L	XNA FIRE	STH CMD	XNV FIRE	YUBA FTL	YUBA CM	BTU SUP

65 CMD1

66 CMD2

67 CMD3

68 FPP1

69 FPP2