RADIO REPLACEMENT PROGRAM



1. How are the new radios different to the old ones?

These new radios will introduce a technology refresh with enhanced features and functionality, including full integration into CFA's resource tracking system and enhanced noise cancelling for clearer transmissions. Being Phase 2 radios, all new radios will deliver network efficiencies, benefiting all Emergency Service Organisations.

2. What will happen to the Tait radios?

Upon receiving new radios as allocated, the Taits will be collected and disposed of appropriately through ewaste. Any Taits existing in the field will be remotely inhibited to prevent further use.

3. How are additional radios obtained?

Priority will be to rollout the radios as they are allocated in the Radio Allocation policy. There will be an opportunity to obtain more through an Operational Justification form at a later date.

4. What radios are being included in the Radio Replacement program?

The tables to the right are snapshots of the radios trialed in the pilot and evaluated to be fit for purpose for the CFA fleet.

5. When does the rollout commence and how long will it take?

Possible timelines for delivery will be based on Motorola with rollout anticipated to start by April 2024. All products will be delivered into CFA, configured specific to CFA's 21 Districts and rolled out over a 12–18-month period.

PORTABLE RADIOS				
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FEATURES		APXNEXT	APX8000HXE	
4G / LTE capable				
Dual band (VHF/UHF)		~	~	
Voice commands		~		
Touchscreen		~		
Enhanced noise cancellation		~	~	
Large knobs / buttons for use with gloves		~	~	
Intrinsically Safe		C1D2	C1D1	
MOBILE RADIOS				
FEATURES	APX8500 E5 control head	APX8500 O3 handheld control head	APX6500 E5 control head	
Dual band (VHF/UHF)	~	~		
Single band (VHF only)			~	
Compatible with Bluetooth RSM for pump operator	~			
Day/Night modes	~		~	
Wi-fi capability	/	/	~	
Location GPS enabled	~	~	~	



SUMMARISED DRAFT RADIO ALLOCATION POLICY

Radio type	Allocation Rationale
Local Base VHF/UHF	If a station currently has a local base radio and supports SA or NSW that has coverage or falls within the coverage area, it will be allocated dual band.
Local Base VHF only	 To only be applied to brigades with use cases for supporting Operations via LCF, Group and/or District where there is no requirement for UHF frequency interaction or monitoring. FIB business centers for situational awareness monitoring.
Mobile Remote Mount Head	 All Truck based cab chassis appliances, e.g. Tankers, pumpers, and Specialist appliances.
Mobile HHCH	 Domestic type vehicles, e.g. Utes, cars, 4WD, FCV, supports (current totals include all light tankers <2000ltrs).
Bag Radios	 Allocation is based on current allocation for brigades/group issued bags. District HQs will receive a cache to be used at the discretion and flexibly by the District ACFO. Actual final numbers pending the District HQ allocation numbers being finalised across all Districts state-wide.
Portables (Brigades with BA)	 All brigades with BA will be allocated a portable per BA set. Primary appliances will have TWO portables for command-and-control purposes.
Portables (Brigades without BA)	All brigades without BA will be allocated based on each primary appliance having TWO portables for command-and-control purposes.
Portables C1D1 Environments	 FOV, MCV and Hazmat that are in the risk profile of C1D1 may receive a cache. Brigades that require C1D1 radios will have HXE allocation within the brigade.
Pump Operator comms	 A device for all mobile radios in truck-based cab chassis appliances, e.g. Tankers, pumpers and Specialist appliances that have a pump operator.

Accessories offered based on the portables allocated		
Multi Charger	Multi charger at every station with 1 slot for every portable.	
In-vehicle Charger	 1 for every 4 portables and an additional for every 2 thereafter. ALL FCV's will have one IV charger. 	
Single Charger	1 for every brigade/group issued portable.	
Standard portable issue	 As standard allocation, portable radios will include: 2x batteries 1x holster or belt clip 1 RSM. 	



6. What will happen to the current APX8000HXEs that are being used to support FRV?

They will be recovered and replaced with CFA configuration.

7. What will the Allocation be for an FCV?

They will receive 2 mobiles, 2 portables with an in-vehicle charger.

8. Can you put other applications on the APXNEXT?

While the APXNEXT has an Android operating system, it is different to that of an Android mobile phone. External applications cannot be downloaded onto an APXNEXT.

9. Will all APXNEXTs have 4G enabled?

Yes, all portables will be LTE enabled.

10. Can we talk on SES channels?

SES channels are programmed into the new Motorola radios and are listed on the channel plan.

11. Will there be an update to enable # to be part of a channel change?

The program initially asked Motorola for this functionality, unfortunately, Motorola are unable to perform this as an enhancement request.

12. What locations will receive a C1D1 radio?

Only those that are a C1D1 location and have a need for a C1D1 in their response area.

13. How does the touch screen of the APXNEXT cope with gloves?

This was tested widely in evaluations completed in and prior to the operational pilot. It was found that using the pad of the gloved finger was effective, the side of the finger where there is leather proved more difficult.

14. Is there a lock button on the radios?

The portables have a keypad lock at the base of the 16-position channel knob that renders buttons and knobs inactive. The voice control functionality for the APXNEXT, however, remains active.

15. Do I have to have the radio on the right ABC selection to transmit on a channel in that section?

You do not. The radio can access any channel programmed within the radio, despite the position of the ABC selector.

16. Can we scan on these radios?

There is no scanning active in these radios. Scanning limits the radio's ability to work properly as there is a high risk of missing important information on any channel. There was found to be no operational use for scanning in CFA.

17. Does the pump operator RSM say when it is going flat?

It will announce when it is running low on battery and a button on the side of the RSM will have it speak its battery percentage. A charger will be supplied with every pump operator RSM.

18. What is the range for the pump operator RSM?

20 metres. Its use case is only for the pump operator.



19. Will the pump operator RSM re-pair if moved out of range?

It will. The pump operator RSM will also vocalise when it has disconnected from being out of range as well as when it is back in range and able to reconnect.

20. How do you change channel with the pump operator RSM?

As the pump operator RSM is connected to the mobile radio within the truck, the channel will need to be changed on the mobile radio itself. When paired, all audio from the mobile radio will come through the pump operator RSM.

21. How many multibank chargers would a brigade receive if they are allocated 7 portables total?

They would receive 2 multibank chargers. Each charger has a bank of 6 slots and as per the draft Radio Allocation principles, each portable will be given a slot in a charger. This is for future planning for any radio increases within a brigade and also to provide slots for spare batteries.

22. Does duress transmit on all channels?

Duress transmits similarly to current practices and only appears on the channel the duress was activated on.

23. Can water points be added to the APXNEXT mapping feature?

Not in scope currently. The program is wary of adding too many incident management tools to the radios when there will be other means available. Could be undertaken at a later stage.

24. Can you replay a duress message?

Yes, using the audio playback feature the last 60 seconds of received audio can be saved and replayed.

25. Does audio playback have to be manually set to record or is it automatic?

Audio playback does not have to be manually enabled. A long press of the audio playback button is required before the last received messages can be replayed or navigating to the Recent menu will allow manual selection.

26. What internet provider is the 4G of the APXNEXT through?

Telstra.

27. What wi-fi networks will the radios be able to utilise?

The connected brigades wi-fi network will be added to the radios.

28. Do ESOs get priority over the network?

Not at this stage. The radios operate like a personal use mobile in terms of network priority.

29. Is there a procedure for the use of SmartConnect?

There is no written procedure for the use of SmartConnect. SmartConnect cannot be guaranteed for any particular use, such as being in a blackspot area. Interest in SmartConnect came through observation report feedback, highlighting the importance of sending in observation reports.



30. If being sent to another State such as Queensland, would the programming of the radios be changed?

Not necessarily. If it is a long-term deployment, technicians may be sent alongside any Strike Teams to reprogram the radios.

31. Will satellite stations be taken into account with charger allocations?

Yes, any satellite station needs to be indicated in the Fleet Allocation map to count for a charger to be placed in that location.

32. Will SmartConnect work on MMR and RMR?

Technically it can but it isn't enabled today. There will be further discussions with Firecom and FRV on possibly doing so. FRV radios currently do not have the capability.

33. Do the new radios use satellite GPS or triangulation via the mobile network??

The radios use satellite GPS.

34. Do the vehicle radios have 4G cellular back up?

No, they don't.

35. Is the person who activated the duress able to receive communications after their 10 seconds of open microphone?

Yes, they are, as long as they are not pressing the PTT button.

36. Will in-vehicle chargers and in-vehicle radio holders be installed at the same time we provide the new portables?

The portable radio holder will be installed in the vehicles when portables are supplied. However, the In-Vehicle Charger will be installed when the mobile radio is installed in the vehicle.

37. Do all appliances get the pump operator remote RSM?

No, only heavy vehicles with the E5 radio head (e.g. Pumpers & Tankers) will receive pump operator wireless RSM's. The exception to this is if a vehicle has 6 portables allocated to it, then it won't receive a pump operator wireless RSM.

38. Will the remote heads be able to be unplugged from the cab and plugged into the canopy or rear of the vehicle (FCV & Rehab) like how the Taits are currently set up?

If the vehicle has existing capability to move the handheld control head to the rear of the vehicle, e.g. standard build FCV's, then that capability will be provided with the new Motorola O3 head.

39. Will there be mobile trunking capabilities for FCV's like the existing Tait mobiles currently have?

Yes, the current functionality within FCV's for radio-to-radio and telephone calling will be available with the new mobile radios.

40. Can the APXNEXT radio be in standby mode when connecting / disconnecting radios?

Yes, it is fine for the radio to be in standby mode.



41. Is there a locator on the pump operator remote wireless RSM?

No.

42. Can the pump operator remote wireless RSM pair with radios in different appliances?

Yes, the remote wireless RSM can pair with the E5 radio in any appliance. However, it can only pair to 1 radio at a time and each radio can only pair with 1 RSM at a time.

43. How can we identify which radios are for which appliance?

Coloured silicon rings that can be slipped onto the antenna, are available for purchase from the SLC. The radio alias can also be used to identify which appliance it belongs to.

44. Is the APXNEXT touchscreen prone to breaking and is it necessary to have the belt clip on the protect the screen?

The APXNEXT screen is not like a mobile phone screen. It is made of toughed glass. There were no screen breakages through the testing and piloting of the radios.

So, it is not necessary to have the belt clip on to protect the screen. While a belt clip is provided with every APXNEXT radio, their use is at the discretion of the brigade.

45. When listening to playback of audio, can I hear incoming comms?

Yes, the audio playback will stop automatically and prioritise the incoming communication.

