

A proposal for Australian Digital Radio and TV rollout

By Chris Brendon Agpasa's
Pre-Budget Submission 2021-22

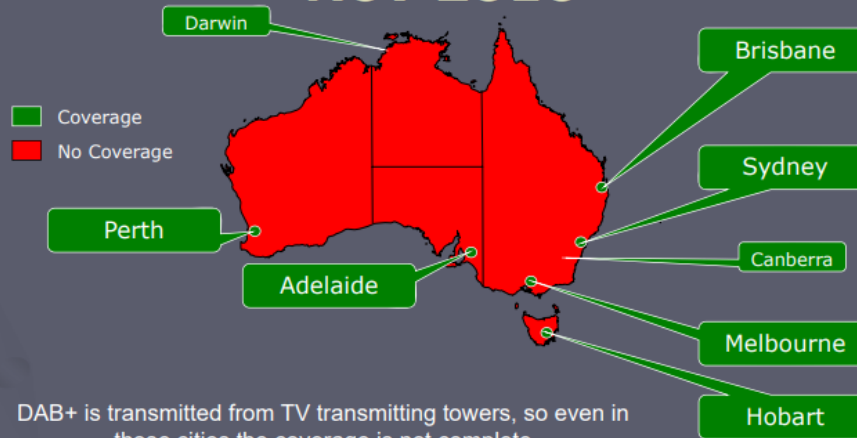
Transmission Systems Available

- ▶ Old Analog
 - ▶ AM
 - ▶ Short Wave
 - ▶ FM
- ▶ New Digital
 - ▶ MF DRM30
 - ▶ HF DRM30
 - ▶ DRM+
 - ▶ Band 3 DAB+
 - ▶ L Band DAB+
 - ▶ L Band DAB+ from Satellite

22/79

4

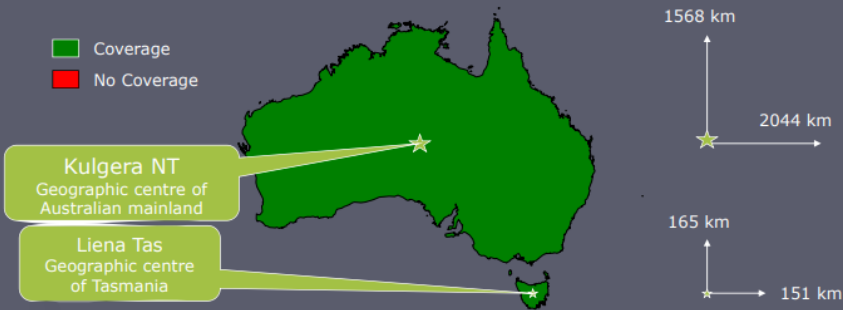
DAB+ Network Nov 2010



23/79

5

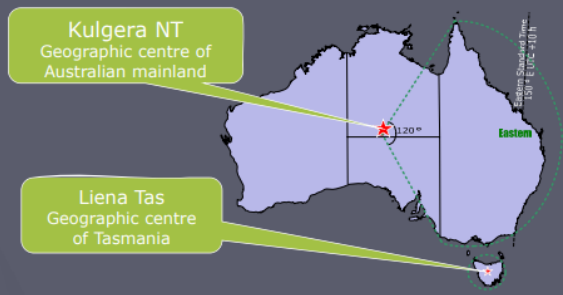
Total Coverage



★ HF DRM transmitter

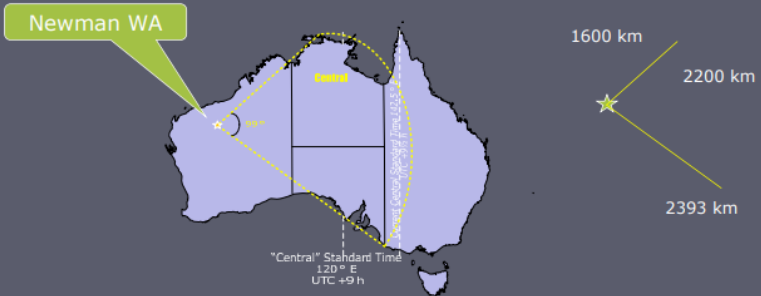
This coverage is suitable for live national coverage such as **Parliamentary NewsRadio**

Eastern Time Zone Coverage



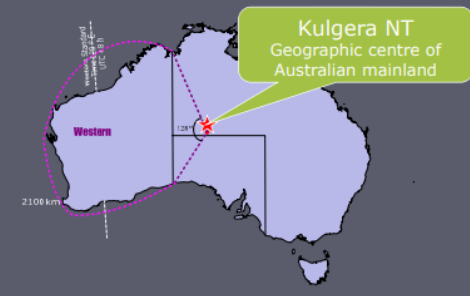
This coverage is suitable for national programs for coverage in Eastern Australia
 For example SBS Radio 1 & 2, Radio National, JJJ, ABC Classics,
 Dig, ABC Jazz, ABC country & Grandstand
 No program delays

Central Time Zone Coverage



This coverage is suitable for national programs for coverage in Central Australia
 For example SBS Radio 1 & 2, Radio National, JJJ, ABC Classics,
 Dig, ABC Jazz, ABC country & Grandstand
 All programs are delayed 1 hour from Eastern Time

Western Time Zone Coverage



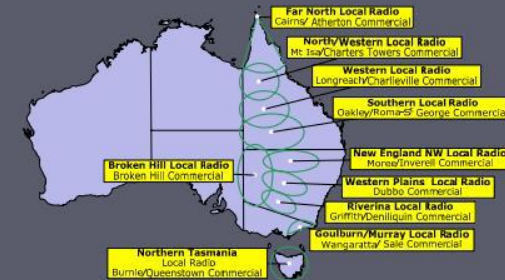
This coverage is suitable for national programs for coverage in Western Australia
 For example SBS Radio 1 & 2, Radio National, JJJ, ABC Classics,
 Dig, ABC Jazz, ABC country & Grandstand
 All programs are delayed 2 or 3 hours from Eastern Time

Remote "Local" Radio

- ▶ An ABC Local Radio program and a pair of commercial radio programs from the nearest station can be received



Eastern Remote "Local" Coverage



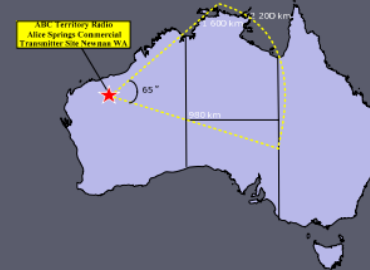
Currently, there are some areas with no coverage. The map shows "local" programs in remote eastern areas. This will provide car coverage anywhere. 26 MHz DRM30 shower transmissions (NVIS) are best for these areas.

Remote "Local" Coverage SA



This coverage is suitable for "local" programs for coverage in South Australia. This will provide car coverage anywhere in SA. There are currently large areas with no coverage.

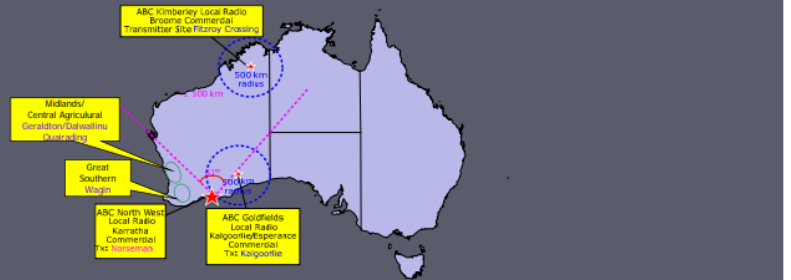
Remote "Local" Coverage NT



This coverage is suitable for "local" programs for coverage in Northern Territory.

This will provide car coverage anywhere in NT.

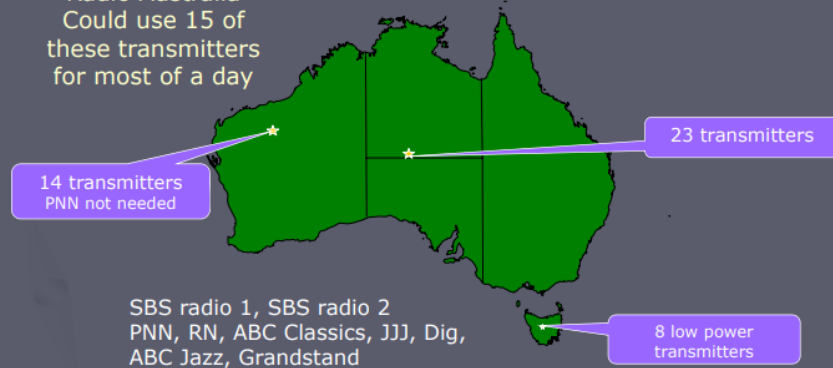
Remote "Local" Coverage WA



This coverage is suitable for "local" programs for coverage in Western Australia. This will provide car coverage anywhere in WA. There are currently large areas with no coverage.

53 Transmitters give national coverage of 9 programs

Radio Australia
 Could use 15 of these transmitters for most of a day



SBS radio 1, SBS radio 2
 PNN, RN, ABC Classics, JJJ, Dig, ABC Jazz, Grandstand

Digital Radio data services

Text Messages (DLS)

Slideshow

Electronic Programme Guide

Digital Radio EWF –
Emergency Warning Feature

TPEG

Journaline® –

Text Based Information Service for Digital Radio

The AM Signalling System:

AMSS



DRM Text Messages



Service and Programme Information (SPI)



High Powered TV/FM transmitter sites, ideal for DAB+ or DRM+

- A single commercial broadcaster with twin programs
- Two or more commercial broadcasters
Community and High powered Open Narrowcasting omitted

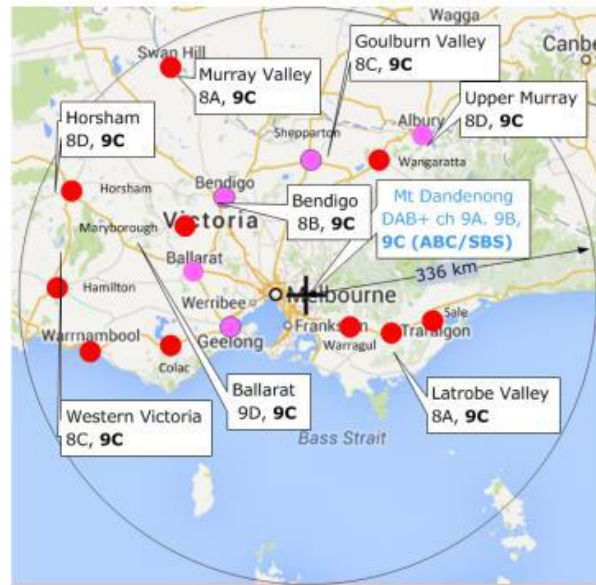
High powered transmissions cannot use any site within 336 km on the same channel without interference.
DAB+ channel 9C is a single frequency network with totally identical programs.

Latrobe Valley is more than 336 km from Murray Valley to use the same channel. Goulburn Valley is far enough away from Western Victoria to use a common channel.

Only DAB+ No spare transmission channels within interference zone for Melbourne Band 3 DTV

Sydney: HSC6, SBS7, GTV8, Unassigned 10, ATV11, ABV12
Upper Murray: UA6, SB57, GLVB, VTV10, ABAV11, AMV12
Western Victoria: ABWV6, SB57, UA8, VTV10, BCV11, AMV12,

All UHF only sites omitted



High Powered TV/FM transmitter sites, ideal for DAB+ or DRM+

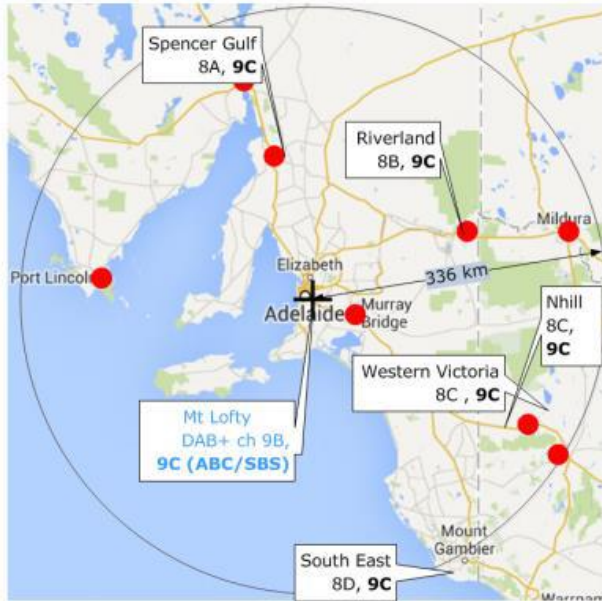
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High powered transmissions cannot use any site within 336 km on the same channel without interference.
DAB+ channel 9C is a single frequency network with totally identical programs.

Only DAB+ channel 9A, 9D are vacant for future use within the circle

Band 3 DTV
Adelaide: SAS6, SBS7, NWS8, Unassigned 10, ADS11, ABS12
Mildura/Sunraysia: PTV6, STV7, S8S8, MDV10, ABMV11, UA12
Western Victoria: ABWV6, SB57, UA, VTV10, BCV11, AMV12

All UHF only sites omitted



High Powered TV/FM transmitter sites, ideal for DAB+ or DRM+

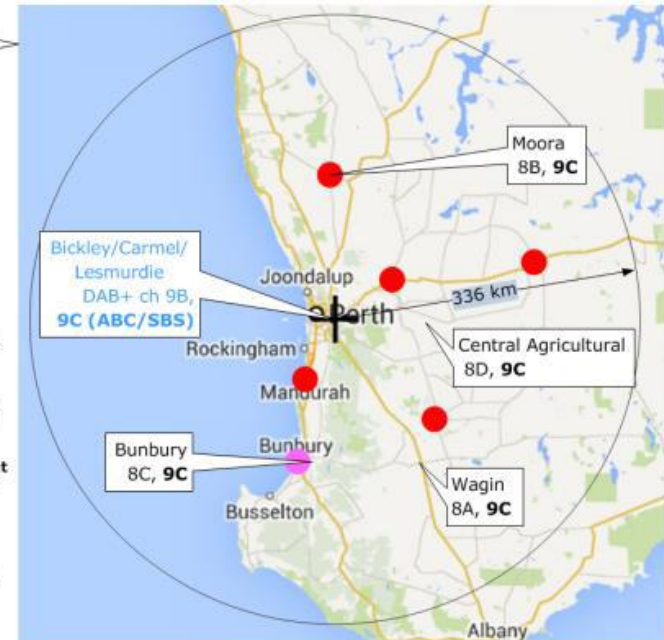
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High powered transmissions cannot use any site within 336 km on the same channel without interference.
DAB+ channel 9C is a single frequency network with totally identical programs.

Only DAB+ channel 9A, 9D are vacant for future use in one locality within the circle

Band 3 DTV
Perth: TVW6, SB57, STW8, Unassigned 10, NEW11, ABW12

All UHF only sites omitted





R 200



R 201



R 202



NSW | R 203



NSW | R 204



SE | R 205



R 206



R 207



R 208



R 209



R 210



R 211



SE | R 37



NSW | R 38



NSW | R 39



R 34



R 35



R 36



R 32



R 33



R 600



R 632



R 630



R 631



R 613



R 633



R 617



R 629



R 621



R 622



R 623



R 624



R 601



R 602



R 603



R 604



R 910



R 911



R 912



R 913



R 914



R 916



R 917



R 918



R 919



R 920



R 921



R 922



Vic. | R 235



Qld | R 245



SA | R 255



WA | R 265



Tas. | R 275



NT | R 285



Vic./Tas. | R 238



Qld | R 246



SA | R 256



WA | R 267



NT | R 268



Qld | R 247



SA | R 257



WA | R 268



NT | R 267



774 Melbourne
R 237



612 Brisbane
R 248



891 Adelaide
R 258



720 Perth
R 269



Launceston
R 276



105.7 Darwin
R 288



R 238



R 259



R 289



R 290



R 291



R 292



R 293



R 294



R 295



R 296



R 297



Qld | R 347



SA | R 357



WA | R 367



NT | R 387



Vic. | R 338



Qld | R 348



SA | R 358



WA | R 368



NT | R 388



Vic. | R 339



Qld | R 349



SA | R 359



WA | R 369



NT | R 389

Digital Radio stations

Commercial stations on digital radio

Sydney

The stations you know and love...



Plus new stations...



Melbourne

The stations you know and love...



Plus new stations...



Perth

The stations you know and love...



Plus new stations...



Brisbane

The stations you know and love...



Plus new stations...



Adelaide

The stations you know and love...

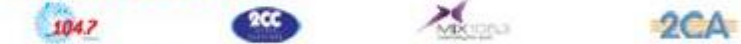


Plus new stations...



Canberra Trial Broadcast

The stations you know and love...



Plus new stations...



Darwin Trial Broadcast

The stations you know and love...



Plus new stations...

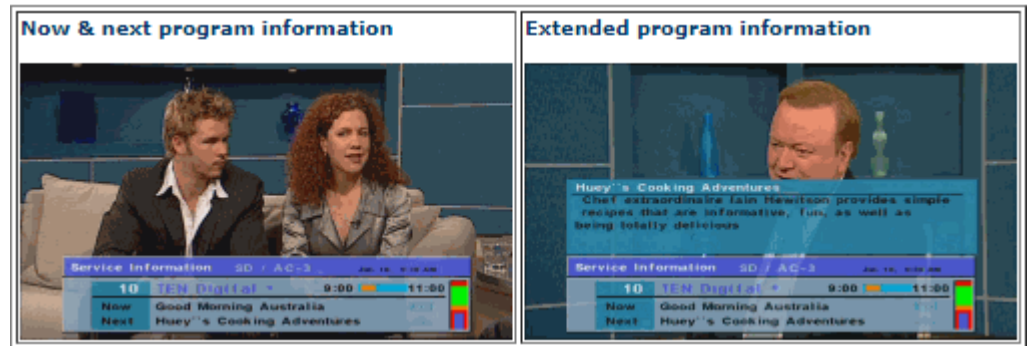




Widescreen

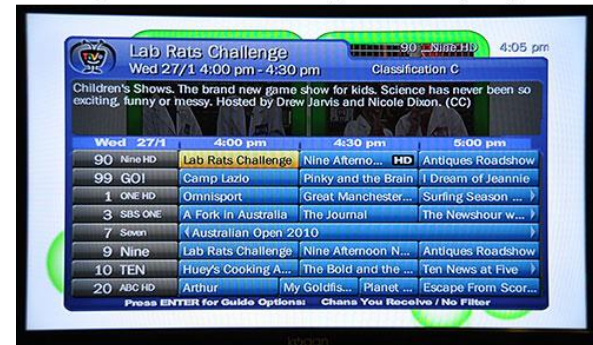


Audio



Extra Channels

Digital TV Electronic Program Guide (EPG)



Electronic Program Guide

digital tv 4: free to view 11:33 pm
Tuesday 16 March

NOW ON

- 11:05 Live At The Basement
- 11:30 Who Wants To Marry My Dad?
- 11:20 Nightline
- 11:15 Sports Tonight
- 10:35 Around The Pink House (Al-Beit Al-Zahr)

Ch. 44 Digital Forty Four Datacast

TONIGHT

- Ch. 41 Latest ABC News Sport & Weather
- Ch. 45 ServiceNSW: Traffic, Surf, What's On
- Ch. 48 TAB: Latest Sports Betting Prices
- Ch. 49 EXPO: A World On Show
- Ch.'s 401-407 Parliament Audio Services

Wait for ABC 2 Guide Thu 1st 1:59

ABC Television

NOW That's Right, You're Wrong G

- 03:25am National Press Club Address
- 04:30am The Weaker Sex G
- 06:00am Shoebox Zoo G
- 06:25am The Gnoufs G
- 06:35am Dragon Booster G

You are listening to:
SONG: Tantalized
ARTIST: The Church

Wait for ABC 2 Guide Thu 1st 1:58

ABC 2

Foreign Correspondent

Thursday 9:30pm
Tackling the subject of racial equality is always contentious and it was no exception when Africa correspondent Zoë Daniel began investigating the phenomenon of poverty-stricken whites in South Africa.

You are listening to:
SONG: Tantalized
ARTIST: The Church

Wait for ABC Weather Guide Thu 1st 1:59

ABC Weather

You are listening to:
SONG: Tantalized
ARTIST: The Church

Video Program Guides

ABC Radio
Hear it on your TV

abc.net.au/radioontv

SBS
Radio

Radio channels on TV –
ABC and SBS stations



VAST Radio Services	
32. Popdesi	613. VisionRadioAM
33. SBS Arabic24	614. VisionChristianRadio
34. SBS 3	617. RadioTAB
35. Chill	621. Niche Radio No1
36. Pop Asia	622. Niche Radio No2
37. SBS Nat WA Radio	623. Niche Radio No3
38. SBS 1 WA Radio	624. Niche Radio No4
39. SBS 2 WA Radio	629. BBC
200. Double J	630. CRN 1
201. ABC Jazz	631. CRN 2
202. ABC News	632. RPHA
203. ABC RN	633. HOPE RADIO
204. Classic FM	634. Vintage FM
205. triple j	910. ARDS
206. triple j Unearthed	911. CAAMA
207. ABC Grandstand	912. GUMALA
208. ABC Country	913. LARRAKIA
209. ABC KIDS	914. 2CUZ FM
210. 720 ABC Perth	915. C2
211. ABC Karr	916. NG Media
212. ABC Kalgoorlie	917. PAKAM
213. ABC Broome	918. PAW
214. ABC Bunbury	919. PY Media
215. Classic 2	920. Black Star
601. NIRS News	921. TEABBA
602. NIRS Music	922. TSIMA
603. NIRS Language	923. 6WR
604. NIRS Community	

VAST WA
2. ABC HD WA
3. SBS ONE WA
5. NINE
6. GWN7
8. WIN
21. ABC HD WA
22. ABCComedy/Kids WA
23. ABC ME WA
24. ABC NEWS WA
30. SBS HD WA
32. SBS VICELAND
33. Food Network
34. NITV
50. GEM
55. GO!
60. GWN7
61. GWN7
62. 7TWO
63. 7mate
65. ishopty
68. RACING.COM
80. WIN HD
81. ONE
82. ELEVEN
84. TVSN
85. GOLD

Freeview Digital Television Channels			
freeview more for free		freeview more for free	
ABC 1	2	SBSHD	30
SBS ONE	3	SBSTWO	32
Southern Cross Ten	5	one HD	50
PRIME	6	11	55
WIN	8	7 TWO PRIME	62
ABC 2	22	7mate	63
3 ABC HD	23	GEM	80
ABC NEWS 24	24	GO!	88
Freeview Digital Radio Channels			
freeview more for free		freeview more for free	
SBS Radio 1	38	ABC Dig Music	200
SBS Radio 2	39	ABC Jazz	201

Digital TV channels

New national community TV service in metro, regional and remote areas



A new metropolitan and regional free-to-air TV channel in Melbourne, Adelaide, Perth, Sydney, Brisbane and regional Australia that is a community focused national broadcaster aiming to reflect Australia's multicultural diversity and provide an alternative local view platform, UHF channel 32 digital in metro areas, as well as UHF channel 35 digital in regional areas.

We bring you the best content from community TV in Australia and other content in overseas



Channel 44 (metro areas)
Channel 46 (regional areas)

This will be transitioned from C31, C44 and WTV in metro areas as well as Bushvision in regional areas to become a new statewide versions of national community TV service in the near future.

An realignment of regional TV stations in Australia – Nine to SCA, 10 to WIN

The renewal of regional TV affiliates in affected areas

Northern New South Wales	NRN	Network Ten (WIN)
Southern New South Wales and ACT	CTC	Nine Network (Channel 9)
	WIN	Network Ten (WIN)
Griffith and MIA	AMN	Network Ten (WIN)
	MDN	Nine Network (Channel 9)

Regional Queensland	RTQ	Network Ten (WIN)
	TNQ	Nine Network (Channel 9)

Regional Victoria	GLV BCV	Nine Network (Channel 9)
	VTV	Network Ten (WIN)
Mildura and Sunraysia	MDV	Nine Network (Channel 9)
	STV	Network Ten (WIN)

Tasmania	TDT	Nine Network (Channel 9)
	TVT	Network Ten (WIN)

Mount Gambier and Riverland	MGS LRS	Network Ten (WIN Ten)
	SDS RDS	Nine Network (Channel 9)

Regional and Remote Western Australia	SDW VDW GDW WDW	Nine Network (Channel 9)
	WOW	Network Ten (WIN)

The extended multi-year affiliation deals with Nine to Southern Cross Austereo's Nine Regional stations, Mildura Digital Television, Tasmanian Digital Television, West Digital Television, WIN SA's Nine SA and WIN Griffith's Nine Griffith, as well as WIN Television was an affiliation deal with Network 10 were renewed from July 1 2021, as well as new home of their multi-channels 9Life and 9Rush to join Nine's regional affiliates and then, 10 Shake joins WIN Television channels.

The affiliation deals of regional TV stations for next few years until 2037.

An lot of Free-to-air and satellite channels



International TV Channels



FOXTEL

Pay TV is going digital cable via satellite
For any subscription required

Drama and Entertainment



Movies



Sport



News



Documentaries



Kids & Music



Foxtel and Fetch TV also re-transmits free-to-air channels: ABC, SBS, Seven, Nine, 10

Pay TV providers coupled with free-to-air satellite services will also carry subscription channels



RESORT

TELEVISION SANCTUARY COVE

The digital resort television channel will help many local and rural communities to accommodation venues, Your hotel, motel and resort can have an in-house digital TV channel complete with its own Resort TV service to provide tourist information, in-house movies, a Lifestyle channel features great music, entertainment programs and classic films, as well as a list of TV channels and other services, a digital resort TV channel is part of hotel TV systems will be able to be displayed on any digital television or set-top-box and at digital ready motels, hotels, resorts and caravan parks within few number of kilometres of any transmission site.

Resort TV Lifestyle Plus

The Resort TV Lifestyle Plus channel is broadcast to all homes in Sanctuary Cove. This channel plays your favourite movies, the latest music videos, lifestyle programs including The Goodlife and Gold Coasting as well as cooking programs, documentaries, short films and much more. Lifestyle Plus is broadcast 24 hours a day, 365 days a year.

Stateroom Television Guide



- 18.0 Inside Disney
- 19.1 Entertainment Guide
- 20.1 TV Guide
- 21.1 Voyage Map
- 22.1 Safety Information / Ship Tips
- 22.2 Virtual Tours
- 22.3 Port Adventures Information
- 22.4 Mickey Mouse Cartoons

Channel availability and reception are subject to weather conditions and location. Channel line up is subject to change without notice.



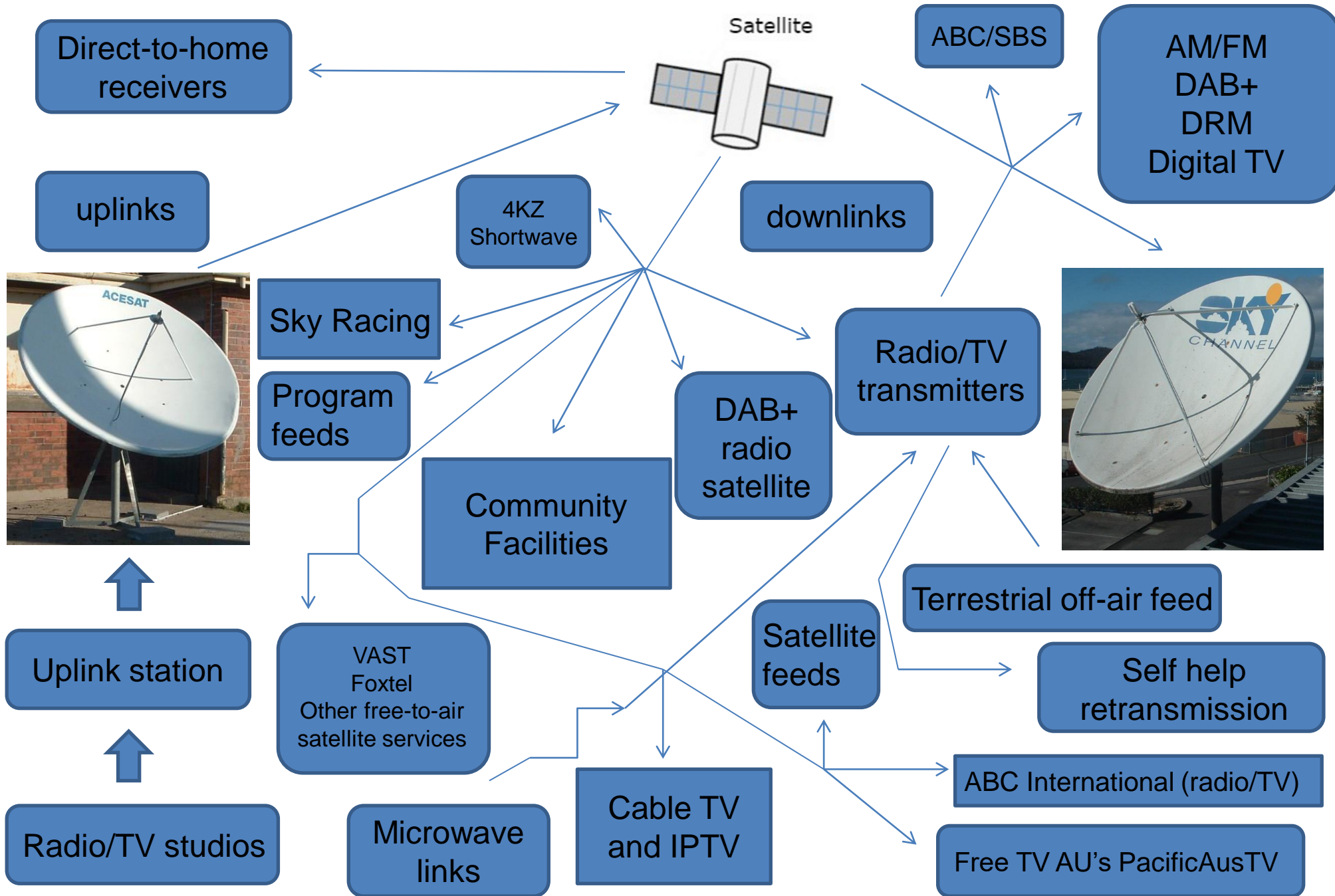


Digital TV receivers



Digital Radio receivers





An example of the Digital Radio transmitter

Main/Standby Transmitter



Microwave link, Studio to transmitter link

DAB+ Digital Radio Transmitter

VAST radio via satellite to transmitter downlinks

Satellite Radio Distribution

DRMT – Categories 1 to 3

Antenna systems

Relays of AM and FM transmitters

Self-help relay transmitter

A transmitter can transmit up to 68 DRM+ channels

HF DRM transmitter

ABC/SBS radio distribution to DAB+ and DRM sites

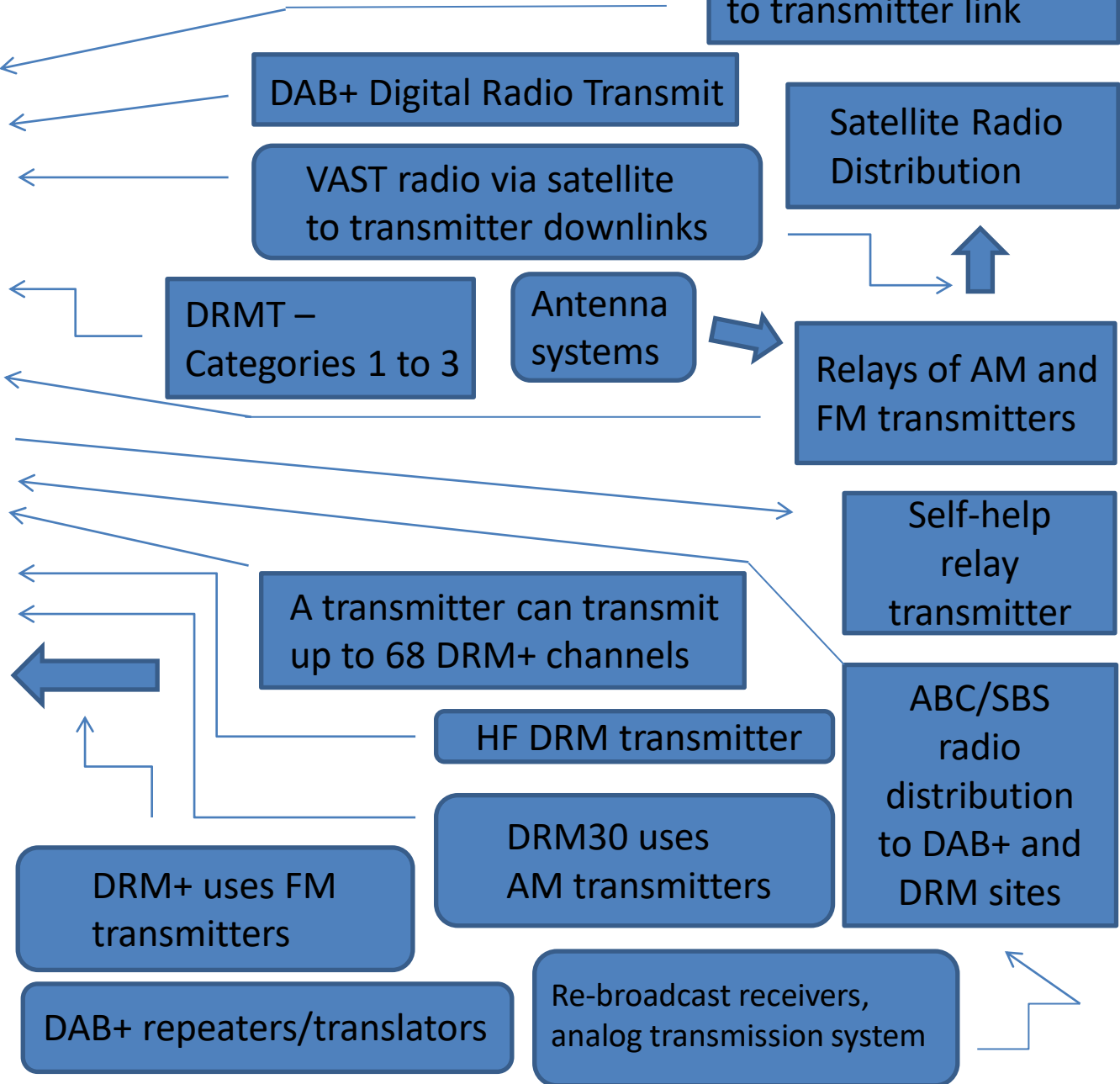
DRM+ uses FM transmitters

DRM30 uses AM transmitters

DAB+ satellite

DAB+ repeaters/translators

Re-broadcast receivers, analog transmission system



An example of the Digital TV transmitter

Main Transmitter



Playout facilities

Studio to transmitter link

UHF Digital TV

VHF Digital TV

Microwave link and transmitter

New Gap Filler

Sent via cable

Translator

Self-help Re-transmitter

Satellite downlinks

Satellite uplinks to transmitter downlinks

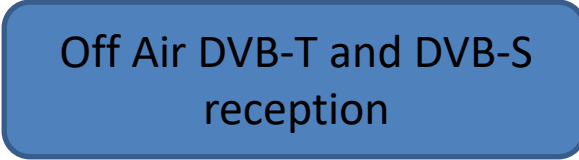
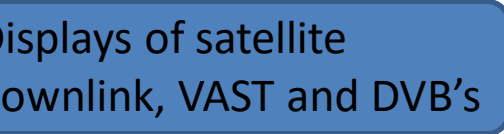
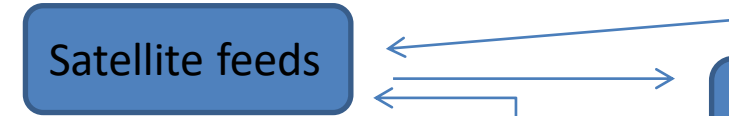
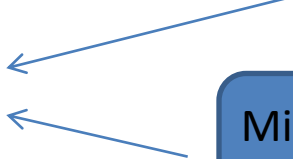
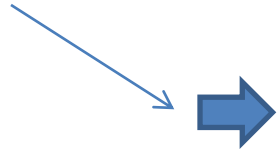
Satellite feeds

Displays of satellite downlink, VAST and DVB's

TV antenna

Re-transmitted via pay TV providers

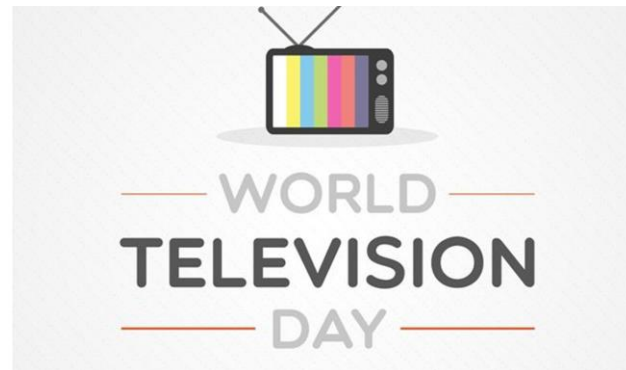
Off Air DVB-T and DVB-S reception



World Radio Day 13th February 2022



World Television Day 21st November 2021



The hundreds and thousands of radio stations all over the world will reach 1 billion listeners in 2021, coupled with the TV households worldwide will rise 1.74 billion by 2023.

For more information:
Contact Paul Fletcher MP

Parliament Office:
PO Box 6022
House of Representatives
Parliament House
Canberra ACT 2600

Electorate Office:
Suite 1, Level 2
280 Pacific Highway
Lindfield NSW 2070

Phone: (02) 6277 7480, (02) 9465 3950

Email: paul.fletcher.mp@aph.gov.au,
minister@communications.gov.au

Website: www.paulfletcher.com.au