

Atmospheric ducting and TV reception in the Shoalhaven area

If you live in the Shoalhaven area, your digital television coverage is provided by several broadcasting stations. These include Knights Hill (Illawarra), Cambewarra Lookout (Nowra North), Brokers Nose (Wollongong), and Little Forest Trig (Ulladulla).

In early 2014, the ACMA investigated reception issues in the Shoalhaven area following a number of complaints from viewers.

We not only found that many viewers would benefit from improving their antenna systems (see the 'More information' box), but also that some of the reception difficulties were caused by interference as a result of 'seasonal ducting' from Newcastle.

What is atmospheric ducting?

Atmospheric ducting can cause distant television transmissions operating on the same channels (in this case, Newcastle services) to travel further than they normally would and cause interference to reception of services from Knights Hill.

Ducting is seasonal in nature. It is more common during summer but can happen during other seasons on warmer days. It occurs in many parts of Australia—predominately coastal regions—and is not unique to the Shoalhaven area.

The television services from the Knights Hill (Illawarra) site are prone to interference due to ducting.

Households affected by interference from ducting should in the first instance check to see if there is an alternative TV tower that they can obtain their television services. The TV services from Brokers Nose and Little Forest Trig are not affected by ducting.

Recent upgrade to the Nowra North (Cambewarra Lookout) site

The commercial broadcasters implemented an upgrade to the Cambewarra Lookout site towards the end of 2015.

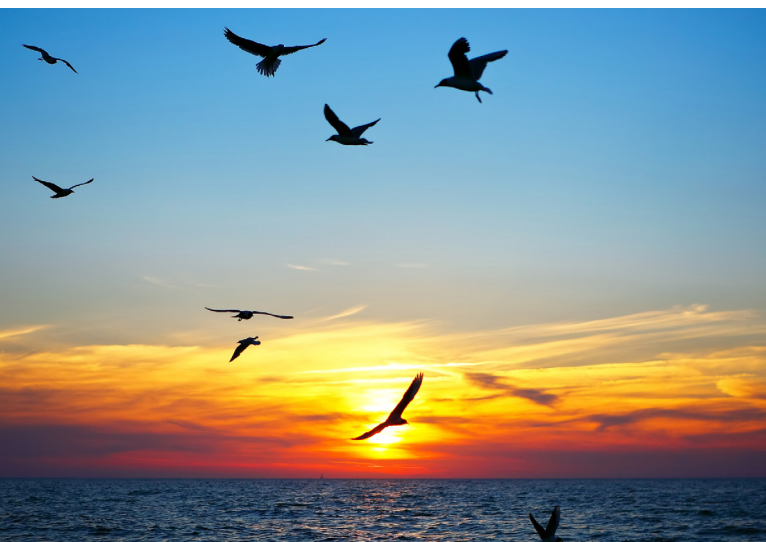
This should resolve the ducting issue for commercial services for viewers receiving (or capable of receiving) services broadcast from the Nowra North site. However, because Nowra North ABC and SBS services come from Knights Hill, they will continue to be affected by ducting.

The ACMA understands that the broadcasters are implementing further upgrades to the Nowra North (Cambewarra Lookout) site in June 2016, which will increase the coverage of this site, enabling more viewers to have ducting-free TV reception.

Options to improve your reception

Point your antenna to the right service

Depending on your location, you should try to position your antenna to receive TV services from Cambewarra Lookout (Nowra North), Brokers Nose (Wollongong) or Little Forest Trig (Ulladulla) sites if adequate signals from any of these



sites are available at your location, even if the signals from the Knights Hill tower appear to be stronger. Picking up the alternative signals reduces the chance of interference from ducting, as these services are not affected by ducting.

Viewers can check out the mySwitch website (refer to the 'More information' box) for information on the best available TV signals for your location, including signal level, frequencies and the best TV tower at which to point your antenna.

Tune your receiver to the right channels

As multiple transmission sites provide coverage to this area, some TVs or set-top boxes may automatically tune into services that are affected by ducting, which still gives poor coverage, even once your antenna is pointed at a TV tower that is free from ducting.

If you're getting multiple, different versions of the same channel, try re-tuning your TV—the manual tuning option may be the best way to do this.

On the next page, you'll find information about ducting-free channels in the Shoalhaven area.

Alternative reception

There may be some television reception issues that you simply can't control. If you have tried every fix available and you're still unable to receive reliable reception, you can join 200,000 households across Australia and apply for the government's Viewer Access Satellite Television (VAST) service.

VAST provides an alternative reception option for individual households who are unable to receive terrestrial digital TV services. While there are no subscription costs, reception of the VAST service requires the installation of satellite reception equipment and a VAST set-top box. Refer to the VAST contact details below.



More information about TV reception

General TV reception information

- > Visit www.acma.gov.au/tvreception.
- > Download the factsheet *Getting the most out of your digital reception* from www.acma.gov.au/tvreception.
- > Call the ACMA's Customer Service Centre on 1300 850 115 or email info@acma.gov.au.
- > Check the [mySwitch](http://myswitch.gov.au) website.

Accessing VAST services

- > Call the VAST administration centre on 1300 993 376 or go to www.mysattv.com.au.

Ducting-free channels

Little Forest Trig channels (Ulladulla)

Service	Freq (MHz)	Channel	Polarisation
ABC	529.5	28	Vertical
SBS	550.5	31	Vertical
Prime	543.5	30	Vertical
WIN	564.5	33	Vertical
Southern Cross	557.5	32	Vertical

Brokers Nose channels (Wollongong)

Service	Freq (MHz)	Channel	Polarisation
ABC	620.5	41	Horizontal
SBS	641.5	44	Horizontal
Prime	627.5	42	Horizontal
WIN	613.5	40	Horizontal
Southern Cross	634.5	43	Horizontal

Cambewarra Lookout channels (Nowra North)

Service	Freq (MHz)	Channel	Polarisation
ABC*	662.5	47	Vertical
SBS*	655.5	46	Vertical
Prime	669.5	48	Vertical
WIN	676.5	49	Vertical
Southern Cross	683.5	50	Vertical

*These channels may still be affected by ducting.

Channels to use if signals from other sites are not available

Knights Hill channels (Illawarra)

Service	Freq (MHz)	Channel	Polarisation
ABC	578.5	35	Horizontal
SBS	606.5	39	Horizontal
Prime	599.5	38	Horizontal
WIN	585.5	36	Horizontal
Southern Cross	592.5	37	Horizontal

Viewers watching Knights Hill services in marginal coverage areas, who have an inadequate antenna system or are located in an elevated position with clear views in the northerly direction, are more likely to be affected by ducting.

If this is the case, you're encouraged to contact an antenna installer to get advice about whether your receiving system can be improved to reduce the impact of interference from the Newcastle services.