

“The Australian Broadcasting Corporation ceased shortwave broadcasting in the Asia-Pacific region in January 2017 ahead of a transition to FM transmission.

The review is assessing the reach of Australia’s media in the Asia-Pacific region, including examining whether shortwave radio technology should be used.

All media distribution platforms – television, radio and online – are being examined including commercial, community and publicly funded services.

The review is also looking at different types of technologies such as analogue, digital and satellite radio and television services and online services.”

Submission:

Since the abrupt cessation of ABC shortwave broadcasting in 2017 there is a void of reach. I previously used both the international programme and the domestic ABC shortwave service. RNZI is now the best in region provider of public radio services. I am aware of the alternatives suggested for affected peoples however none of these have the reach, feasibility or cost effectiveness of broadcast radio, be it either the traditional Shortwave AM service; or the more advanced Shortwave Digital (DRM mode) as used by countries such as India and New Zealand.

In detail, it is not practical to suggest peoples of the islands, or travellers of the outback, be expected to use a satellite terminal – or satphone service – or fixed internet - to remain in “free to air” reception of the ABC service which used to include weather alerts, health information and news. Although the policy states a “transition to FM” I don't see any evidence that this can be achieved. The provision of an FM transmitter for every place that previously had (SW) reception and the maintaining and linking and powering of these transmitters to give same or better coverage needs proper costing. There is also the question of who has control of the broadcast at times of emergency, natural disaster or unrest.

Shortwave delivery – both AM and the digital (DRM) version is unaffected because there need only be one – possibly two - high power transmitters located within Australian territory which can cover the service area without interruption, continuously.

Until recently, the digital use of Shortwave was limited because although transmissions have been running 10+ years there was poor consumer uptake of radios.

India (AIR) has now achieved a rollout to their population 1.3 billion peoples with DRM car radios being standard fitment in new vehicles and tabletop / portable radios being manufactured using digital radio chipsets.

This is a significant development because the radio digital chipsets include all the existing analogue bands including Shortwave, therefore any radio for the India market will also get ABC Shortwave, in either AM or digital reception. Campers in the outback and offshore boats would have service restored.

It would be advisable for the appropriate Ministry to specify this type of radio for the Australian market, possibly adding the earlier DAB+ reception standard to maintain backward compatibility with its existing networks in the main cities. Both these digital systems were developed with the BBC and use transmission techniques from CSIRO.

Furthermore, as some ABC transmitters already have DRM capability, it could resume Shortwave services in simulcast mode.

Technically, the digital service is added to the existing transmitter on a frequency 2 channels higher (or lower) and uses the same antenna. By selecting Dynamic Power Control of the AM signal there is enough capacity in the transmitter to carry the enhanced digital service(s) without any increase in transmitter size or electricity consumption. This is how the transmissions are achieved in India for the interim.

Old and new receivers will both reach the programme, over time the analogue could be phased out if it is determined that all users have the new devices. The advantage being the digital radio does not require manual changing of the channel during the day and night and generally is not affected by atmospherics and static, the receiver automatically retunes itself. The digital standard includes emergency text modes and other enhancements.

Submission Summary:

1/ Shortwave is cost effective and reliable for reaching the Pacific. Plain old analogue is still effective

2/ Shortwave can be digitalised at little cost while retaining the existing analogue service as simulcast until it is no longer applicable, preferably the receiver manufacturers are enabled for digital such as with India's specification. There is no risk to this rollout because even if uptake is poor there is no additional infrastructure required. Opportunity to include it from the outset should be utilised.

3/ Alternatives such as online, & satellite radio do not have equivalent coverage
FM is not cost effective to transmit to every place and modern smartphones increasingly don't have the FM chipset, forcing online listeners to pay data charges for "reception"

Thank you for considering these ideas

Aetheradio