



Switching to digital television

Japan turns off analogue television

Contributed by the Ministry of Internal Affairs and Communications, Government of Japan

- *On 24 July 2011, as planned, Japan switched off its analogue television network in all areas, except those worst hit by the March 11 earthquake and tsunami. Because of damage from the disaster, the Japanese government has postponed the move to digital terrestrial television in the prefectures of Iwate, Miyagi and Fukushima until the end of March 2012.*

In Japan, the government, broadcasters, manufacturers and many other stakeholders have made great efforts to achieve the complete digitization of terrestrial television broadcasting.

Various types of digital terrestrial television technology are used around the world. Japan uses integrated services digital broadcasting — terrestrial (ISDB-T*).

Digital television allows for better picture and sound quality, as well as more choice of channels and programmes. Broadcasters can offer several programmes simultaneously, using the amount of spectrum required for only one analogue channel. Moreover, moving to digital technologies reduces greenhouse-gas emissions due to a massive — almost tenfold — reduction in the power consumption of broadcasting transmitters. The number of transmitters can also be reduced by transmitting several programmes in one frequency channel.

* This standard is described as System C in Recommendation ITU-R BT.1306.

In Japan, along with ISDB-T, a mobile broadcasting service called “One-Seg” offers a new viewing experience without any additional cost. The attractiveness of digital television broadcasting and the easy access to its advantages have won the trust of Japanese citizens.

Japan suffered serious damage from the unprecedented earthquake and tsunami on 11 March, just before the analogue switch-off date. Now the country is striving to reconstruct the damaged infrastructure, with the help of its friends from all over the world and by deploying an unbeatable national effort (“Ganbaro, Nippon!!”). Many lives were saved by informing people of the tsunami alert through One-Seg.

Despite the damage caused by the disaster, the digitization of terrestrial television broadcasting in Japan largely took place on the initial target date. By Sunday, 24 July 2011, Japan had completed the digitization of terrestrial television broadcasting by terminating analogue broadcasting (except in the regions that suffered massive damage caused by the earthquake and tsunami).

Tips for success

Digitization of terrestrial television broadcasting is a worldwide trend. In Japan, more than 120 million people, almost the entire population, watch television via terrestrial broadcasting. Japan is the first country in the world to implement such a large-scale analogue switch-off.

In this article, the country’s Ministry of Internal Affairs and Communications share its tips for success.

Success Tip 1: Offer comprehensive advice to citizens (through the government, broadcasters, manufacturers and electricians working together)

Television broadcasting is a universal service and an important infrastructure, which most people rely on as an information source. It is therefore essential to make television accessible to people who are unfamiliar with digital technology, especially elderly people and people with low incomes. With this in mind, the Ministry of Internal Affairs and Communications in cooperation with broadcasters, manufacturers and electricians, put in place a total of 51 support centres (called Digi-Suppos) for digital terrestrial viewers. These support centres were located in every prefecture, allowing for easy access and enabling people to ask questions. In addition, just before the analogue switch-off, temporary booths were set up in cooperation with local governments to support people who had not yet switched to digital broadcasting. Volunteers also helped by calling elderly people to confirm that they had switched to digital.

Success Tip 2: Implement measures according to a schedule and a target date

In order to prepare transmission networks, a “master plan” was publicly announced setting out a schedule for starting digital broadcasting in each region. The master plan indicated that digital broadcasting would start in three metropolitan areas (Tokyo, Nagoya and Osaka) by 2003 and in mid-size cities by 2006. The starting dates for the other regions were also indicated in the plan.

When most of the transmission stations had been built, the Ministry of Internal Affairs and Communications turned its attention to preparing the social environment for digital broadcasting. The Digi-Suppos helped



Metropolitan train (Yamanote) promoting digitization

MIC/Japan

citizens to resolve any difficulties in reception, for example where signals are blocked by mountainous terrain or high-rise buildings.

In areas bordering on analogue broadcasting coverage, where the received signal level is very weak, additional measures were taken, such as installing shared receiving facilities or replacing antennas with high-gain antennas. Where these measures could not be implemented before the analogue switch-off, the Ministry of Internal Affairs and Communications and broadcasters delivered satellite networks as a temporary measure to broadcast terrestrial television programmes.

Success Tip 3: Increase the availability of digital receivers

Standardizing the minimum functional requirements for set-top boxes, added to efforts by manufacturers to improve the technology, have resulted in cheaper products and hence the spread of digital receivers. In addition, the government offered incentives for consumers to purchase and switch to digital televisions (called the “eco-point” programme). This accelerated the spread of digital receivers. As a result, there were 25 million

shipments of flat panel televisions in 2010 (compared with 10 million shipments in 2009). Sales in November 2010 were more than 5 times higher than in November 2009, sparked by an announcement that half the eco-points would be closed.

As a safety network for people without digital receivers, set-top boxes have been distributed free of charge to low-income households since 2009.

Success Tip 4: Publicize the digital spread rate and the analogue switch-off date through the analogue broadcasting system

The government shared statistics on digitization via the media. These included the results of a survey on the spread of household digital receivers and a survey on viewer’s awareness of the timing of the analogue switch-off. Reports on the use of shared receiving systems in apartment complexes were also published. Viewers were therefore aware that the change-over to digital television broadcasting was making steady progress.

Suzu city (with approximately 10 thousand households) in Ishikawa prefecture switched off analogue

broadcasting one year prior to the nationwide analogue switch-off date. This experience helped in preparing for the nationwide switch-off of analogue.

Broadcasters notified viewers via an analogue programme broadcast on all channels that analogue broadcasting would end on 24 July 2011. The word “analogue” on the screen informed viewers that they were watching an analogue programme. From 1 July 2011, in a final effort to raise awareness, broadcasters superimposed an image on the screen showing the number of days remaining until the analogue switch-off. These measures prevented confusion when analogue television broadcasting was switched off.

Success Tip 5: Promote the change-over to digital terrestrial television broadcasting using characters and personalities as part of the media strategy

The industry developed various campaigns and commercials using an animal mascot (see box) as well as celebrities in different age-groups to act as cheerleaders to promote the switch-over to digital television. Promotional clips were screened for fans at professional baseball and football stadiums, and at horse-racing tracks. These publicity campaigns created nationwide familiarity with the switch to digital terrestrial television broadcasting. Not only that, but also, the spin-off products based on the animal mascot were great hits! ■

CHIDEJKA is the mascot for the terrestrial digital television campaign in Japan.

“CHIDEJI” means “terrestrial digital television” and “-KA” is the suffix for “-ization”. “JIKI” also means “deer”. So “CHIDEJI”+“JIKI”=“CHIDEJKA” is a play on words for the campaign symbolized by a deer. The horns of CHIDEJKA are in the shape of antennas.

