

New Satellite Policy will improve Digital TV in the UK

Dave Robson, Astrium, 29th Feb 2008, Contact:- david.robson@astrium.eads.net

Background

Astrium was surprised to learn in 2006 that digital terrestrial TV (*DTT transmitters are more expensive*), have lower geographic coverage, provide fewer channels and produce significantly greater carbon emissions than satellite TV systems. *Satellites are powered by sunshine* and the rocket launcher produces lower carbon emissions than a single transatlantic flight.

Despite these advantages *satellite technology had been discounted* as part of the UK analogue switch off strategy. This was not only because of the legacy terminal issues but also because High Definition TV (HDTV) had been excluded in the options appraisal. The only satellite option available at the time was Sky, which concentrated on marketing its subscription services, and this may also have been a consideration.

The *agreed policy of Digital Switchover (DSO) as a standard definition upgrade* to increase consumer choice and release UHF spectrum (the Digital Dividend) had been *settled by 2006*. Astrium did raise the issue, based on cost and failure to address HDTV policy, but was too late.

New Factors Require a New Policy

There are *three new factors* that suggest *an opportunity to improve the DSO outcome by* adapting public policy to make *better use of satellite technology*.

Firstly, the speed of uptake of HDTV appears to have caught the policy makers by surprise. Sales of HD ready flat panel TVs have been growing and it is clear to the public that *all TV will become HD just as all TV became colour*. A public perception has grown, despite contrary publicity, that DSO would bring HD content to recently acquired HD Ready sets. To avoid public disappointment *a change in policy has now been proposed* whilst DSO is underway. Ofcom has announced its plan to use new technology (still on the drawing board) which will enable 20 programmes to be squeezed into two Public Service Broadcast (PSB) multiplexes rather than three. The spare multiplex created will carry three or four HD channels and will need to be competed between interested broadcasters. The first region to be offered HD over DTT will be Granada in 2009; a challenging target given the new technology required. The *Digital TV Group describes this plan as ill conceived* and calls for a plan to switch all 40 Freeview channels to HD, requiring Ofcom to give up some or all of the Digital Dividend.

Secondly, *analogue switch off* has begun in Whitehaven and lessons can be learned. Given the poor service prior to DSO, some 70% of households in the area had already chosen Sky. Following DSO the proportion of households now relying on Sky exceeds 80%. The cost of delivering DTT to less than 20% of the households (Astrium estimates this to exceed £350 per household in Cumbria) appears now to be unjustifiable. Of those viewers persuaded to choose Freeview, many are upset that they only get 20 programmes (from the three PSB multiplexes) whilst neighbouring areas receive the additional commercial multiplexes making a total of 40 programmes. The Whitehaven News has now delivered a petition to Ofcom. A policy that allows commercial operators to decide that only 85% of the UK's households can be reached economically, whilst the BBC is forced to match the existing 98.5% analogue coverage, has been *shown to be a divisive policy* unfair to the viewers (licence payers and voters).

Thirdly, *Freesat has been created to reach the most remote viewers* and will soon commence operation, probably in April this year. *Freesat contains all the Freeview channels* and will distinguish itself from the free to air offer of Sky by having its own dedicated Electronic

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Programme Guide (EPG). *Freesat will offer HD content free-to-air from the start*, using the already available DVBS2 and MPEG4 technology. It could follow the example of DirecTV in the United States to develop a platform with hundreds of channels in HD, including all 40 Freeview channels. As noted by the Digital TV Group, *satellite HD will be of higher quality* than DTT HD as there will be more compression applied to the latter.

Proposed Policy Amendments

The consumer would benefit from *an alternative new policy to promote satellite* solutions for HD and for rural areas in the UK and to encourage competition in satellite TV.

The currently proposed new policy to incorporate HDTV belatedly in the digital switchover plan will cause confusion and unnecessary expense at best and could lead to chaos. There is simply not enough bandwidth available at UHF frequencies to make DTT a sustainable competitive platform for the world of HDTV. The new UK DSO policy (now including HD) should be changed to one *recommending satellite or cable to users wanting the HD content*. Such users already need an HD Ready TV and HD Set Top Box so the additional requirement for a satellite dish or cable modem is marginal. This recommendation *would increase choice and quality in HD programming*. It would also be beneficial to the environment and to the economy. The Ofcom proposal to incorporate an HD upgrade to the transmitter network would result in a doubling of electrical power requirements (by an additional £10M per year in electricity charges) and a corresponding doubling of power generation CO₂ emissions (by an additional 250 kilotonnes of CO₂ per year). Set top box *manufacturers would* have policy certainty and would be able to *invest with confidence in production rather than R&D*.

Secondly, it will be interesting to follow the progress of the *Whitehaven News' petition* to Ofcom *demanding access to all 40 Freeview channels*. Indeed it is unfair and divisive not to deliver the full 40 programmes to the whole of the UK. Whilst some may propose a subsidy to the commercial operators to extend their coverage on DTT *the cost effective solution would be to recommend only satellite in all areas affected (the rural 15%)*. At the same time the BBC should be released from its obligation to reach 98.5% of households by DTT means. The next affected transmitter is Selkirk in the Borders, which should be targeted for the new policy.

Thirdly, we need to encourage satellite operators such as Freesat and Sky to develop their offers. In particular *there should be no constraints on Freesat*, which should be free to take any opportunities to develop its user base. For example it could seek to lease additional capacity from either Eutelsat or Astra at the Sky location to increase choice. In addition it could offer leased capacity (or its own satellite) at a location not too distant from 29E with a two-feed dish as is common in the USA. Options would include the Eutelsat Ka satellite allowing Freesat to provide local content, further HD channels and two way services.

Comment

As a respected exporter of broadcast satellites *Astrium is pleased to offer* this positive contribution to help ensure the future health of British Broadcasting. If these three steps were implemented then the end result for the UK would be a smoother switchover and *a healthier and more competitive TV market*, ready to meet the future challenges posed by broadband access technologies such as Fibre to the Home.

Furthermore the many competing demands for UHF spectrum could more easily be accommodated if DTT is limited to standard definition digital TV in the metropolitan areas. Having created *Freesat* for the most remote viewers its *benefits should be marketed to all*.