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| **Radiocommunication Study Groups** |  |
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| Received: 7 April 2010  Subject: Question ITU-R 125/6  Reference: Document 6C/299 | **Document 6C/307-E** |
| **9 April 2010** |
| **English only** |
| CBS., Inc.  Psychophysical ASPECTS ON StereoscopiC three dimensional television system STUDIES | |

CBS Broadcasting is a major broadcasting network in the United States providing television and radio news, sports and entertainment to the general population through its network and its owned and affiliated stations. CBS is a major producer of digital television programs for worldwide distribution and was the major U.S. broadcaster initiating and launching the American High Definition Television Broadcast Service based on the original NHK development and on the ATSC DTV/HDTV Standard devised by the FCC Advisory Committee on Advanced Television Service (ACATS).

Today, CBS is deeply involved in regular digital high definition video and audio production and broadcasting. Thus, CBS has significant technical expertise in digital television and sound program production including ongoing development in broadcast technologies and 3D television.

CBS is a Sector Member of ITU-R and a long-time participant in ITU-R Study Groups, Working Parties, Task Groups, Rapporteur Groups, etc. Since most CBS programs depend heavily on the use of radiocommunication devices in production, assembly, and in the final live broadcast, CBS participates widely in the ITU work on radio, television and multimedia services and has a strong interest in studies including DTV, HDTV and 3DTV program production and international program exchange.

CBS has studied Document 6C/299 from Italy which calls for attention to critical 3D broadcast television issues in viewing stereoscopic television including psychological and psychophysical problems, visual fatigue, and the danger of possible health hazards in viewing stereoscopic 3D television.

In Document 6/299 Italy proposes that ITU-R should inform the WHO of its activity on this topic and should ask the WHO to provide any information or guidance that they may have available.

CBS agrees with Italy’s proposal to inform the WHO on the SG 6 work on 3D stereoscopic television and on the topic of visual fatigue and other possible health hazards due to prolonged viewing of such 3D television presentations.

Beyond the visual fatigue and possible health hazards on viewing stereoscopic television, CBS notes further important technical studies that are required by Study Group 6 and its relevant Working Parties such as 3D depth distortion, spatial reproduction, image parallax effects, individual stereopsis differences, etc. Working Party 6C should continue to detail the Report BT.2160 “Features of Three-Dimensional Television (3DTV) video systems for broadcasting”.

When the Report is finally mature WP 6C should then turn to the preparation and approval of ITU‑R Recommendations on high quality stereoscopic 3D production, storage, distribution, radiocommunication transmission and broadcast systems to ensure uniform international 3D standards, especially for international program exchange.

CBS suggests that Study Group 6 and WP 6C place a high priority on this digital 3D broadcast television work for it is well known that common worldwide 3D television broadcast standards are essential to the success of 3D television broadcasting, and that such standards do not happen by accident.

In this effort, time is of the essence as some 3D services are planned to start later this year with a plethora of competing 3D proposals leading to a fragmented marketplace. 3D television broadcasting may become as successful as HDTV and Recommendation ITU-R BT.709. But if 3D television broadcasting is to be successful, it requires a solid technical foundation of ITU-R Recommendations on 3D TV.

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