

IEEE

Broadcast Technology IEEE Society

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NEWSLETTER

Society Description: Providing the technologies to deliver information and entertainment over the air, satellite and Internet to audiences worldwide, at home and on the go.

From the President

Dear BTS Members:

We are putting this issue of the Newsletter to bed just after returning from our annual trek to Las Vegas for the National Association of Broadcasters Convention. This year's attendance was up considerably from last year's,

and the excellent spot that NAB provided for our BTS membership booth on the Grand Concourse enabled us to greet many on their way to and from the Broadcast Engineering Conference sessions just around the corner. We enticed non-members to complete a survey by offering a flashing bouncing

ball as a reward. The ball sported the IEEE logo and our new BTS tagline – "Tune In Tomorrow." More than two hundred people took the bait, no doubt delighting their spouses, children, and pets upon their return home. (None admitted wanting the ball for themselves.) About two-dozen also applied for membership or promised to send in their applications after the show. This represents a membership increase of about 1.4 percent – not bad for a few days' work, but a very small start toward rebuilding from the 30 percent of last year's Society members who did not renew for 2004. We'll use the survey results in our all-important strategic planning – I'll fill you in on them next time.

Our activities at NAB got off to a fine start on Saturday with the Digital Television University tutorial session, which we co-produced with ATSC. Look for Jerry Whitaker's report in this Newsletter, a prelude to a regular column we'll be adding to each issue. The presentations on Advanced Video and Audio Coding, updated from last October's Broadcast Symposium, concluded the daylong event, which "sold out" all 250 copies of the handout materials. Both Jerry and I noticed an increase in attendance for these last two presentations, testimony to the interest in these topics and a relief to the planners, who had feared the audience might dwindle late in the day.

From the Editor

In the March issue I mentioned that the AdCom was contemplating an improved and expanded Newsletter. At the recent meeting held during the NAB Convention in Las Vegas the AdCom voted to provide additional funding to move ahead with that initiative. The details are still being worked out but it is expected that the first improvements will be evident in the September issue.

At this time we already have commitments for regular columns on issues relating to digital television from around the world, and a series of practical articles related to broadcast antennas and towers. In the coming months we will be lining up additional authors to address other topics we believe are relevant to our membership. In that regard, we welcome suggestions for topics and of course any offers to contribute.

Unlike the excellent, but scholarly, material that appears in our other society publication the IEEE Transac-

tions on Broadcasting, we expect those intended for the Newsletter to be of a more practical nature and useful in the day-to-day work of the practicing engineers within our membership. This is a great opportunity to share your knowledge, experience and stories with others in our industry on various topics so please seriously consider making a contribution.

You may have also noticed our new Society description appearing on the front page. It is intended to help overcome the perception that our Society has a narrow focus and hopefully broaden our appeal to prospective members. Also as discussed by Tom Gurley in his president's letter, the Society has a new tagline "*Tune In Tomorrow*" and the AdCom is working on a logo. We hope to introduce the logo with our September issue and at the same time move to color in the newsletter - either a single color (in addition to the current black on white)

continued on page 2

continued on page 2

BTS Newsletter June 2004

From the President	1
From the Editor	1
IEEE BTS and ATSC Join Forces for "Digital Television University" ...	3
Brain Teaser	3
Past-Member Survey Results	4
54th Annual Broadcast Symposium Looking for Volunteers	5
Activity Report of the BTS Taipei Chapter	5
Report on CSTB'2004 Exhibition and Conference	6
AdCom Meeting Summary	7
The BTS New York Chapter Meeting Reports	10

Newsletter Deadlines

The BTS Newsletter welcomes contributions from every member. Please forward materials you would like included to the editor at wmeintel@computer.org. Here are our deadlines for upcoming issues:

Issue	Due Date
September, 2004	July 20, 2004
December, 2004	October 20, 2004
March, 2005	January 20, 2005
June, 2005	April 20, 2005

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From the Editor continued

or possibly to full color if it seems appropriate to do so. As the tagline says Tune in Tomorrow to find out.

It sounds like our booth at NAB (see photo on page 10) was a big success signing up several new members. Our thanks go out to our society administrator April Nakamura for "managing" the booth and to the NAB for a great location. Also the all day DTV University at NAB that was cosponsored with the Advanced Television Systems Committee (ATSC) was very successful – see the full report inside.

In this issue we have our usual features along with a report on a survey taken concerning our loss in membership that I touched on in my column in the March issue. We also have reports

from the active Taipei Chapter and from the recently revitalized New York chapter thanks to Warner Johnston – keep up the good work. And I hope you members in the New York area will get out there and lend your support – it's a member benefit take advantage of it.

Don't forget the BTS Symposium is fast approaching – don't just mark your calendar – be there October 13-15 – see details inside this issue.

As always – let me hear from you – comments, suggestions and criticism are all welcome.

Bill Meintel
wmeintel@computer.org

From the President continued

The third major activity for us in Las Vegas was our AdCom meeting on Tuesday evening. Our special guest was IBC Chairman Michael Bunce, with whom we discussed ways in which BTS might contribute more to the IBC program, in recognition of our 11-percent share of its profits – the primary source of income to BTS. Later in the meeting, the AdCom approved a substantial expansion of the Newsletter, discussed other possible opportunities to apply the IBC funds to provide enhanced information and educational benefits to our members, and reviewed several proposed designs for a BTS logo. You'll be seeing our new look and our expanded offerings in the coming months.

As I mentioned earlier, we have a catchy new tagline – "Tune In Tomorrow" – with a double meaning that evokes both our roots in the Golden Age of radio and our future, through

enabling our members to keep up with emerging broadcast technologies. We also have a new Society description – perhaps you've already noticed it on the front page of this Newsletter. But we know that taglines, descriptions, logos – and the new color and graphics we'll be adding soon – are only "window dressing," intended to entice non-members or former members to take a closer look. The content is key, and the real work of improving the value proposition for BTS membership lies ahead. We'll be discussing this more in the next Newsletter. Meanwhile, please let us hear your concerns and ideas.

Best regards,

Tom Gurley
President
IEEE Broadcast Technology Society
tgurley@ieec.org

IEEE BTS and ATSC Join Forces for "Digital Television University"

The annual National Association of Broadcasters Convention was the site of a day-long educational seminar sponsored by the Advanced Television Systems Committee and the IEEE Broadcast Technology Society. Billed as the "Digital Television University," the program, held Saturday April 17 at the Las Vegas Convention Center, included 15 tutorial papers on two key topics relating to digital television:

- Implementation of the ATSC Program and System Information Protocol (PSIP)
- Advanced audio and video coding, focusing on Dolby Digital Plus (Enhanced-AC-3), AVC/H.264, and Windows Media 9 (VC-9)

The program was well attended, with more than 300 engineers and technical managers in the audience. The NAB office of Science and Technology provided program guidance and logistics support for the 8-hour program.

One of the highlights of the PSIP element of the seminar was an update on important new work within ATSC to develop a standard to enable automated updates to PSIP. One of the implementation problems facing broadcasters has been that PSIP and other DTV metadata (information about the program essence) is origi-

nated, processed, and stored in several separate systems and equipment. The new ATSC Programming Metadata Communication Protocol (PMCP) will enable manufacturers and broadcasters to implement systems that automatically communicate this information quickly and accurately between different systems such as traffic, program management, listing service, automation, MPEG encoder, and the PSIP generator. This will help ensure that transmitted PSIP information is complete and correct, with minimum manual intervention by the broadcaster.

The PMCP specification was developed by the ATSC Specialist Group on PSIP Metadata Communication (T3/S1), with contributions from a wide range of broadcasters, service providers, and manufacturers. Working over the last 24 months, they have produced a protocol based on XML (extensible markup language) message documents that is flexible, usable for various system architectures, and is capable of deployment in the near future. Graham Jones of NAB chairs T3/S1. He provided for attendees an extensive outline of the basic architecture of PMCP and possible implementation scenarios. The PMCP specification is currently at Candidate

Standard status within the ATSC.

Among the audio/video coding papers of note was a detailed description of the Dolby Digital Plus (Enhanced-AC-3) system provided by Craig Todd of Dolby Laboratories. E-AC-3 was recently elevated to Candidate Standard by ATSC.

Enhanced-AC-3 will provide the industry with expanded audio capabilities that can be used for broadcast, cable, satellite, and DVD applications. It is another example of the ongoing efforts to evolve ATSC standards in response to market place requirements.

Mr. Todd outlined the overall architecture of E-AC-3 and provided a detailed summary of the feature set of the new coding system. Key technical capabilities of E-AC-3 covered in his presentation included:

- Expanded data rate flexibility
- Spectral extension
- Transient pre-noise processing
- Adaptive hybrid transform processing
- Enhanced coupling
- Channel and program extensions
- Sample rate processing
- Mixing control processing

Both the E-AC-3 and PMCP Candidate Standards documents can be downloaded from the ATSC Web site, http://www.atsc.org/standards/candidate_standards.html.

Brain Teaser

Answers to questions in the last issue

1. A woman pushing her car stopped outside a hotel and immediately went bankrupt. Explain. She was playing Monopoly™
2. A glass of water is sitting on a perfectly balanced scale. You put your finger into the glass and into the water. Your finger does not touch the glass, it only is submerged in the water. It makes the water go higher up the sides of the glass but it does

not overflow. What happens to the scale? The glass side will go down.

3. You come across a man digging a deep hole. "How deep is your hole" you ask. He replies "You'll have to guess but I can tell you that I'm 2 meters (200cm) tall". You then say "How much deeper are you going?" He answers, "I am half done. When the hole is done my head will be twice as far below ground as it is now above ground." How deep is the current hole in centimeters? 150 cm

New Teasers

1. A zoo keeper claims that he has 30 heads and 100 feet in his zoo. How many beasts and how many birds does he have?
2. You have 10 gray socks and 20 blue socks in your drawer. If you reach into it in the dark, how many socks must you take out to be sure that you have a matching pair?

Answers and/or contributions can be emailed to elnass@cbs.com

Past-Member Survey Results

As mentioned in the “From the President” column in the March Newsletter, we mailed questionnaires in February to those who dropped BTS membership in 2003 or 2004, but retained their IEEE membership. Only 5 questions were asked, but comments were also solicited. Of the 305 surveys distributed in the United States, with return postage paid, 36 (11.8%) were returned. The results are presented in the chart below:

Note that 72% of the respondents dropped their BTS membership because they had “moved on to new pursuits not related to broadcasting.” Several commented that they were retired. It is also noteworthy that 36% of the respondents cited the cost of being a BTS Member as influencing their decision. One explained that “IEEE raised its rates, so I had to drop a society membership to keep my cost level.” The quality of the technical content in BTS publications, seminars, and symposia was not indicated as a signifi-

cant factor, nor was a perception that BTS is not keeping up with changes in the industry.

Of the 298 surveys distributed outside the United States, which required the respondents to provide the return postage, only three (1%) were returned. Although not statistically significant, it is interesting to note that, of the three respondents, two cited cost and the other had moved on to new pursuits. We may attempt to survey these past members again – electronically this time to circumvent the postage issue.

With regard to our publications, some of the comments received from the United States respondents are more revealing than the raw numbers of yes/no answers:

“The documents were too technical. I am looking for broader descriptions of coming trends [rather than] obsolete technologies and applications of technology.”

“I left because the content in BTS publications was irrelevant to the type of work I perform within the broadcast industry.”

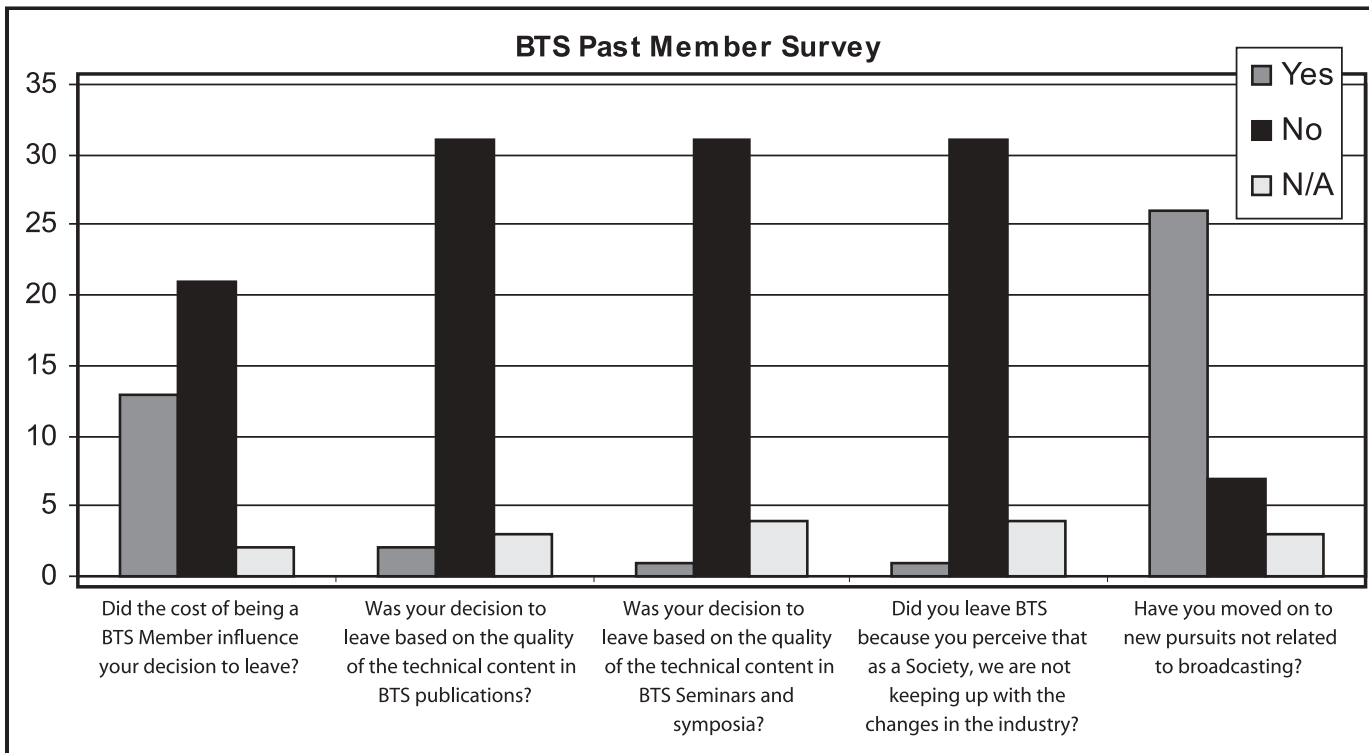
“Articles were too technical. I’m still interested in broadcasting but would prefer to read something like a story rather than the technical jargon and formulas.”

“More and more, societies seem to be nothing more than channels for academic publishing, very little relates to everyday industry issues.”

These comments, along with others we received at NAB, will be folded into the planning for our enhanced Newsletter. We would also appreciate additional comments from you – our members and readers.

Thanks are due to our Society Administrator, April Nakamura, who prepared, distributed, and tabulated the responses to this survey.

– Tom Gurley



54th Annual Broadcast Symposium looking for Volunteers

The BTS AdCom is presently working on the arrangements for the 54th Annual Broadcast Symposium, to be held from October 13-15, 2004 at The Hotel Washington in Washington, DC, and is actively soliciting participation from the BTS membership in this endeavor.

This is a good opportunity for BTS members who are interested in becoming more active in the society and making some good contacts within the industry. As with many professional societies, it is often the case that a small group of people end up working on things from year to year and the BTS is no exception. David Layer, Symposium chairman for the third year running now, is encouraging a broader involvement, and is



BTS members listen attentively at a session from last year's Symposium, also held at The Hotel Washington.

looking for volunteers to be session chairmen as well as volunteers to help out with publicity, budgeting, and even someone to serve as Symposium vice-chair (rumor has it he

would like to give someone else a shot at being Symposium chairman for 2005!).

Of particular interest is obtaining involvement from members outside of the U.S. who have historically had some difficulty participating due to the logistics of working with the DC-based AdCom. Thanks to the proliferation of the Internet and through the magic of teleconferencing, it is entirely possible for a motivated society member to become an active part of the Symposium planning process in spite of the great distances involved. Please consider becoming a part of this important society event – for more information you can contact David Layer by email at dlayer@nab.org.

Activity Report of IEEE – Broadcast Technology Society Taipei

The 10th Radio Technology Conference of Mainland China and Taiwan, was held 2 April, 2004 at Tatung University, Taipei, Taiwan.

The Co-Hosts were:

- CRA (China Radio Association), Taipei, Taiwan.
<http://www.cra.org.tw/>
- IEEE BTS–Taipei, Taiwan.

<http://www.ieee.org.tw/>

- Tatung University, Taipei, Taiwan.
<http://www.ttu.edu.tw/>
- Yuan Ze University, Jung-Li, Taiwan
<http://www.yzu.edu.tw/>
- Yo-Hsin Communication.

Title of Papers:

1. The Mobile Communication in Mainland China

2. The Bluetooth Development in Taiwan.
3. Certification & Test on Taiwan Wireless Communication Products.
4. Trunking Radio Applications and Development.
5. Information Technology in Mainland China.
6. Information Technology in Taiwan.
7. Applications on Wireless Multimedia.



Pictured here are the conference presenters.



Report on CSTB'2004 EXHIBITION AND CONFERENCE

(FEBRUARY 10-13, 2004)

Submitted by: Dmitry Tkachenko

The VI annual International exhibition and conference CSTB (Cable and Satellite, TV and Radio Broadcasting and Broadband) was held in Moscow at Sokolniki exhibition center on February 10-13 2004.

CSTB-2004 was held with the support of The Ministry for Press, TV and Radio Broadcasting and Means of Mass Communication of Russia, IBC (International Broadcasting Convention), the International Association of Broadcasting Manufacturers (IABM) and Cable TV Association of Russia. The conference was also supported by a number of well-known organizations such as DVB and IEEE Broadcast Technology Society. General Information Sponsors: «Tele-Sputnik» Publishing House, «625» Publishing House.

More than 200 companies from 23 countries took part in CSTB-2004. Expositions occupied 2 pavilions with the general area of 11,000 Square meters. CSTB-2004 actions have interested more than 12,000 visitors - representatives of the state and financial and investment structures, the leaders and technical specialists of cable networks, TV and radio companies, TV studios, equipment suppliers, specialists in cable TV and hybrid networks design, system integrators, telecommunications operators, representatives of film industry, internet-providers, leaders of inter-sector holdings, banks and big industrial enterprises.

This year at the CSTB for the first time have been submitted the stands of Russian Television and Radio Broadcasting Network (RTRN), "Electronic Moscow" together with "Comcor" and "Comcor TV", Cable TV Association of Russia and the largest regional associations. The most actual questions about the future of the entire sphere of telecommunications of Russia were discussed in sections that were held by these organizations within the framework of conference ?STB.

New expositions and sections submitted at CSTB-2004 have reflected the most actual directions of development of modern Russian TV & radio broadcasting. The actuality of the "traditional" sections of CSTB exposition for telecommunications sphere is proved by the annual growth of their participants.

The exposition of the broadcasting companies annually continues to extend. This year its structure filled up with 15 new companies, among them are "RTRN", "Kramer Elektroniks", "Provideo Systems", "Discreet", "Pinnacle Systems", "Vidau Systems", "Annik-TV", "DIP", "S-PRO", "Studio-Service" and many others.

The tremendous success among visitors was the exposition of a content. In fact CSTB is the unique exhibition in Russia and Europe where TV channels for systems of paid TV are submitted so widely. And every year new TV channels represent their content at CSTB.

This year two new Russian TV channels with unique content for the internal Russian market have been submitted. "Rambler TV" created by an Internet-company is the first Russian TV channel presenting scientific-cognitive format. Also the first Russian TV channel of business information "RBC of TV" was submitted by holding Ros-BusinessConsulting". In addition, the first time submitted at the exposition of content CSTB-2004 was the Korean channel "Arirang TV". All of these channels are very popular in Russia.

Also "classics" of satellite TV presented their production in expositions of content at CSTB-2004: "Euronews",

"Fox Kids", "Discovery", "Fashion TV", "MTV Networks" and many others. Constant participants of an exhibition include "NTV-PLUS" and "Kosmos TV", representing to the Russian spectators variety of a content of satellite TV - from extreme sports up to "old kind" classic films.

The annually extending exposition of a satellite communication at CSTB-2004 shows the significant development of satellite TV and the substantial growth of number of operators of a satellite communication and the companies working in the field of space communication. Among the main participants of this exposition on CSTB-2004 are such companies as "RSCC", "Crosna-Internet", "Eutelsat", "Intelsat", "Teleport TP", "Datis Groups" and others.

Both participants and visitors to CSTB-2004 have noted positive dynamics of development of the exhibition and conference. The VI International Conference CSTB-2004 was devoted to the most actual questions of TV & radio broadcasting and broadband development. The CSTB conference is held with the support of IBC (International Broadcasting Convention) for the second year. The feature of the conference became Days of Digital Style of the Life where tendencies of development of digital broadcasting, multi-service networks and the new opportunities for the consumer were discussed. Russian and foreign experts exchanged opinions and presented results of the realized projects and new concepts of development at sections of CSTB-2004 conference.

Facts and Figures CSTB 2004

Number of Exhibition stands:	180 (150 in 2003)
Number of named Exhibitors:	200+ (Shared Stands)
Significant (non Russia/CIS) Countries represented:	
Asia: China, Korea	
Europe: UK, France, Scandinavia/Nordic, Italy, Germany, Poland	
North America: USA	
Number of Countries represented on own and distributor stands:	23
Number of New Broadcast Exhibitors:	15
Exhibition Space 11,000 square metres	
Number of registered visitors	12,000
Space already sold at end of show for 2005	60%
Web Site: www.cstb.ru	

IEEE Broadcast Technology Society AdCom Meeting Summary

22 January 2004
NAB Building, Washington DC

Attendees:

Richard Biby
Jules Cohen
Charles Einolf
Richard Friedel

Thomas Gurley
William Hayes
David H. Layer

William Meintel
April Nakamura
E. Lanny Nass

Sidney Shumate
Tom Silliman
Eric Wandel

Not Present:

Robert Baker
Walter S. Ciciora

Stephen Dukes
Alan Rosner

Dmitry Tkachenko
John Tollefson

Valentin Trainotti

1. Meeting called to order at: 10 AM

- 1.1. Problems with the teleconference set up caused a delay in the start of the meeting.
- 1.2. The meeting minutes from the October 2003 AdCom meeting were approved unanimously with three corrections.

2. President's Report: Thomas M. Gurley

- 2.1. Charles Einolf attended the TAB meeting series in Seattle on behalf of BTS. Discussions at the meeting included a proposed "Conference Project Line Manager" which was voted down.

3. Treasurer's Report: Lanny Nass

- 3.1 The Society's finances are positive.
- 3.2 A large sum has been added to BTS' reserves at the end of each year. The reserves are becoming a significant amount of money. This security for the Society has built up to about \$300K since 2001.
- 3.3 The AdCom discussed ways that the extra money available each year could be spent to better serve the membership of the Society. Ideas included:
 - Training for young or new broadcast engineers
 - Expanding the newsletter or transactions by including tutorial papers
 - Increased Chapter support
 - Creating a formalized training program for broadcast engineers.
- 3.4 These ideas will be further expanded and funding for these projects shall be built in to the 2005 budget.

4. Symposium Report: David H. Layer

- 4.1. The 2003 Broadcast Symposium was a success. It appears that the proceeds will be approximately \$20 K. This is mainly from very economical arrangements with the hotel. The food and beverage estimates were very close and saved significant amounts of money.
- 4.2. The Symposium will be at the Hotel Washington again in 2004.
- 4.3. David Layer has worked out a contract with CMS for

full conference management for one year (2004) and hotel arrangements for two years (2005, 2006). The AdCom unanimously approved the contracts.

- 4.4. A discussion was held regarding symposium arrangements.

- 4.4.1. Reducing or eliminating the registration fee for members or presenters was considered, based on the significant reserves being created by the Society.

- 4.4.2. Formalizing the conference record so that it could be an official IEEE Conference Proceedings was addressed. Concern was raised that authors may be wary of publishing in a formal record because of proprietary business concern. April Nakamura will research IEEE rules regarding submission of papers.

5. Awards and Nominations Report: Sid Shumate

- 5.1. The 2004 Election has a full slate of candidates and need only be processed by IEEE. The ballots will be in the mail in a few weeks.
- 5.2. It was noted that there was a request for a press release related to one of the Awards given last year. In the future, a press release with a picture will be distributed immediately following the Symposium.

6. Publications Committee Report – Charles Einolf

- 6.1. Ted Kuligowski is the current Editor-in-Chief, and he is ready to retire from the post. He has a replacement in line who is doing 80% of the work at this time, however that person is unable to formally accept the position at this time.
- 6.2. The Transactions on Broadcasting ended 2003 within 5% of the IEEE page budget, so the Society will receive an ASPP bonus that should amount to \$70K.
- 6.3. Yves Chouinard has been added as a new Associate Editor.
- 6.4. In response to an e-mail from a Member, there was discussion regarding the relevance of the Transactions and the extent to which it meets the needs of

the Broadcast Engineer. Requirements from IEEE and the standards of the Transactions make it more academic by necessity.

- 6.5. Meeting our membership's needs is an important topic and it was suggested that expanding the Newsletter to include tutorial papers and applications-oriented content is an option.
 - 6.5.1. The addition of Associate Editors may be needed to help write and solicit papers. Even within the AdCom, there are people who could write important and interesting articles for inclusion in the Newsletter. Newsletter Editor W. Meintel seconded this plan, and agreed to expanding the Newsletter (with help).
 - 6.5.2. If it becomes popular and membership expands, we could eventually create a Magazine.
 - 6.5.3. The AdCom considered different ways to make both the Newsletter and Transactions more appealing to the majority of BTS members. Suggestions included:
 - offering prizes for articles in the Newsletter
 - a concerted effort to encourage Symposium presenters to submit their papers to the Transactions.
 - improved graphics for a re-design
 - 6.5.4. The Publications Committee was tasked with considering these options and presenting suggestions at the next AdCom meeting.

7. Membership Review and Discussion – Thomas M. Gurley

- 7.1. The Membership report for Dec2003 was distributed. IEEE membership is down 5.6% from 2002. IEEE Student memberships are down 11%. Life members are now required to return a renewal profile each year, so there is a drop in that category. Society memberships are down overall by 7.5 percent. Only two Societies saw a membership increase. Magnetics increased slightly, and Social Implications of Technology, a relatively new society, went up 11.8%.
- 7.2. BTS Membership went down 12.8%. We lost 300 members, comprising 290 higher-grade, nine students, and one affiliate This was the largest drop in our division – next largest was CES. To address this and outreach to our membership, a letter and survey have been mailed to members who did not renew last year. A couple of new bullets have been added to highlight discount registration at NAB and the Symposium.
- 7.3. All Society Research Project Report
 - 7.3.1. The AdCom reviewed the results of the ASRP by looking through the results quickly. As we knew, not all of our Members are happy. The plan to improve the Newsletter may address some of these issues. Perhaps we could publish the letter we recently received in the Newsletter along with a response. William

Meintel will contact the author of the letter.

- 7.3.2. The Society's membership is small, partially because broadcasting is a small industry despite its broad impact and the scope of its reach.

8. Strategic Planning Discussion – Eric Wandel

- 8.1. The Society Review is now scheduled for November 2004. The completion should be in the October timeframe and a new template is expected in the coming weeks. Section 13 of the last review on file provides an outline of weaknesses and strengths of the Society.
- 8.2. Eric Wandel distributed a Goal Tracking form for use at the meetings. He pointed out that this single sheet format might help each person focus and help the AdCom keep tabs on our goals and the tasks that we are hoping to accomplish. This form should be read from the bottom up; i.e., starting with the longer-term goals. Eric will create a form for each Committee and Chair.
- 8.3. Summary of discussion related to the Society's field of interest and strategic plan:
 - 8.3.1. Membership base: To whom are we looking to expand our membership? There is a problem of declining employment in broadcast engineering. As there are fewer chief engineers in the stations, contract engineers are largely relied upon for any bigger jobs. This is a mature business. There are 1500 TV stations in the US, and the companies that run those stations are consolidating. Our business is point-to-multipoint distribution of content, which includes not only over-the-air broadcasting but also cable, satellite, and Internet broadcasting. SCTE handles the cable engineers, and the satellite industry doesn't have many people. We've been moving into the area of cable, but we need to move more into satellite and Internet transmission. If we wanted to expand to baseband engineering, then we could grow our membership.
 - 8.3.2. Area of Interest: Broadcasting encompasses sending a signal from point to multipoint, including all aspects of transmission, propagation and reception. Over-the-air broadcasting used to be the only way to distribute media, but now there are many ways to do it. Our traditional turf has been eroded away by other societies' fields of interest. We need to somehow encompass the many ways to do it, but we need to deal carefully with the encroachment from other societies. For example, MPEG digital compression is in our area as well as in other societies'. Even in the wireless area, there are things happening that broadcasters need to know about. An example is sending HDTV over Wi-Fi or WiMax, which may be

considered broadcasting. Although these may be primarily in the domain of other societies, that doesn't mean we can't distribute information to our membership.

8.3.3. The perception of BTS: The public perception is that the Broadcast Technology Society is the RF Society, and that the IEEE is too R&D oriented. Broadcasters need more practical, applications-oriented material. One problem is that information on cutting-edge technology is often proprietary.

8.3.4. The possible response:

- Decide what all of the broadcasting technologies are and how we address them.
- Develop practical application courses for media casters that incorporate broadcasting technologies.
- Invite papers for new areas where we need more information.
- Looking to the next AdCom election, we need to stretch our boundaries. It seems clear that we need experts in the new methods of broadcasting in our AdCom.
- Strategic planning: Consider an outside facilitator to help guide discussion.
- Develop an ongoing outreach to our customer.
- Make the society more accessible to the average engineer.
- Create a formalized makeup of the AdCom, with each member representing a particular technology or industry segment. Perhaps we should include digital compression, cable, computer, satellite (video & audio), plant design, and manufacturing.

8.3.5. Outreach to Customers: Motion: Membership chair will work with April to develop a survey to be handed out at the NAB. Approved unanimously.

8.3.6. Identify areas of broadcasting.

ACTION ITEM: Eric will send out forms and request responses by end of February.

ACTION ITEM: Consider creating a call for papers that targets the other areas of broadcasting.

9. NAB 2004 – David H. Layer

- 9.1. IEEE members have a special registration rate which is \$200 off of the non-member rate.
- 9.2. We will have a booth there and distribute a survey to non-members. Our tutorial on advanced video and audio coding will be combined with the repeat of the PSIP University that ATSC will be presenting on Saturday. ATSC shortened their presentations to free up two hours, so we could get our tutorials in. The session is now called the ATSC Digital Television University, produced by ATSC and BTS. MPEG HE-AAC audio coding has been withdrawn from the ATSC standards process, so we have dropped the HE-AAC tutorial and replaced it with a Dolby

Enhanced AC-3 tutorial. During the 15-minute period that T.Gurley has on the program, he will promote BTS. Our traditional half-day or full-day spot at NAB was preempted this year. To avoid this in the future, we need to approach NAB with a strong and early proposal or, perhaps, an MOU spelling out our ongoing partnership for the conference.

10. Standards – William T. Hayes

- 10.1. Linley Gumm has done a lot of work to update a former EIA standard as an IEEE standard, a draft of which is out for review. Bill Hayes would like to move to a broader overview position and find someone to take over RF standards.
- 10.2. Rohde and Schwarz have indicated interest in participating.
- 10.3. Agilent has become involved and would like to have a comparison or demonstration.
- 10.4. One of our video standards, for camera measurement, was up for review in 2003. A one-year extension has been granted. This is an attempt to come up with a camera resolution chart for a solid-state imager. The work has been in limbo for a very long time.
- 10.5. The Society has money in the budget for Standards committee work and can afford to pay for travel when necessary.

11. COMAR Report – Jules Cohen

- 11.1. A written report was handed out. The Committee on Man and Radiation is sponsored by EMBS and, when COMAR completes a technical review, it is published in the EMBS journal. The committee is currently looking at electrophobia in consumers and exposure of medical technicians in MRI operation, microwaves and RF as generated by heaters and sealers. Heaters and sealers are the largest source of RF exposure to workers on production lines.

12. CCIP Committee Report - Rich Biby

- 12.1. A written report was handed out. There are four items on the CCIP agenda. A few months ago, it seemed that Spectrum Allocation and Management would be a top priority. Our concern is that computer interests want to take away spectrum from broadcasters and assign it to Wi-Fi. Now, however, VOIP seems to be the hot issue and, so long as there is no plan to address the spectrum issue at this time, we will simply keep tabs on this committee. Ultrawideband is a similar issue that needs to be observed.
- 12.2. A study group has been formed by the Computer Society, called 802.18, which addresses sharing unused TV broadcast spectrum by unlicensed devices. It is expected that they will prepare a PAR and a petition to the FCC on this topic. Yiyuan Wu will monitor this.

13. IBC2004 – William T. Hayes

- 13.1. Mike Bennett's written report was handed out.
- 13.2. There are people at Cisco who are interested in

presenting the BTS tutorial at IBC. Bill is waiting for a response from the Cisco people on that. He would like to find some more manufacturers so it is not perceived as a Cisco show. Methodologies for moving signals around in a plant is an international topic that is not otherwise being covered.

13.3. IBC Representation - follow up will take place between now and NAB

13.4. R. Friedel had a very positive meeting with IBC

Chairman Michael Bunce in the UK. We do need the BTS to have a greater presence in the IBC. They were quite surprised that BTS showed any interest in the show at all. There seems to be little guidance in any kind of editorial sense. They sincerely want our input.

13.5. A written invitation will be extended to Michael Bunce to attend our meeting at NAB to speak to the Society about IBC.

14. Meeting adjourned at 5:10.

The BTS New York Chapter Meeting Reports

The New York Chapter of the BTS met on March 2, 2004 at ABC-TV in New York.

The topic was the ATSC Conditional Access System as described in ATSC A70 which may be found at: <http://www.atsc.org/standards.html>

The speaker was Warner W. Johnston, chair of NY BTS. Mr. Johnston

was chair of the ATSC Working Group under ATSC T3S8 which developed the standard on Conditional Access.

On May 4, 2004 the New York chapter of the BTS was addressed by Michael Chiarulli, Director - Telecommunications Systems of ABC-TV. Mr.

Chiarulli addressed Network Program distribution via satellite for both

Standard and High Definition Digital Television. Also discussed were

Contribution Systems for both program quality video and news gathering as well as the ABC news disbursement system. While both fiber and wi-fi were touched on, the major consideration was satellite usage, both in C and Ku band.

The Booth at NAB



BTS President Tom Gurley (at left), BTS ATSC Representative Yiyuan Wu and Society Administrator April Nakamura at the BTS Booth during NAB2004



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