NABAcaster
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In This Issue

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is published by and for members and friends of the North American Broadcasters Association (NABA)

P.O. Box 500, Station A
Toronto, ON M5W 1E6
Canada
Tel.: +1 416-598-9877
Fax: +1 416-598-9774
Email: contact@nabanet.com

NABA-RADIO COMMITTEE
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[Teleconference]

What's Next for the WIPO Broadcaster Treaty

Erica Redler, NABA

The future of the Broadcaster Treaty will be considered at WIPO's annual General Assembly in October. Notwithstanding the absence of a consensus recommendation from the Standing Committee on Copyright and Related Rights (SCCR), it is expected that a proposal will be made to set a timeline for a Diplomatic Conference (DipCon) for final negotiations on this longstanding proposed treaty.

The SCCR has met once this year in late June. In unusually hot weather for Geneva, the meeting was uncharacteristically cool and civil. Work on the Broadcaster Treaty commenced with a panel of broadcasters from developing countries making presentations on the state of technology in their regions. These presentations confirmed that broadcasters in these regions are now using essentially the same technologies as broadcasters in developed countries, and that they share the same concerns of unauthorized exploitation and/or piracy of their signals. The president of the Caribbean Broadcasting Union (CBU) talked about the widespread piracy of broadcast signals and the low visibility of its negative consequences. A representative of Brazil's TV Globo spoke to the ease of pirating perfect quality digital signals and the absence of efficient tools to curtail it. Of particular interest, given the traditional opposition of India to the Broadcaster Treaty, was the passionate support *for* it by the president of India's ZEE TV Network. He described instances of piracy of ZEE TV signals, including in North America via the internet. An international solution, he said, is needed to address cross-border piracy. He endorsed a technologically neutral basis for protections, a position not endorsed by his own government. His views underlined that the Indian delegation's positions at the SCCR are not reflecting the views of its own broadcast industry. The general take away of the presentations was the unity of broadcasters in developed and developing regions on the need for updated legal protections for their signals at the international level. Unlike with some other issues at WIPO, there is no North/South divide with respect to the Broadcaster Treaty.

The panel also included presentation of a study by IHS Technology, entitled "Current Market and Technology Trends in the Broadcasting Sector" commissioned by WIPO to update earlier similar reports. This quite comprehensive report looks at new technologies and platforms, advertising revenues and other funding sources, OTT and catch-up services, mobile TV, consumer viewing habits, and piracy in its myriad forms. It includes cases studies on a number of countries such as the U.S. and Mexico. A theme of the report is the threat of ever easier digital piracy to the fundamental economics of the broadcasting industry.

The committee discussed issues of substance with little discord. A technologically-neutral basis for protection as broadly supported, with only the

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delegation of India demurring and stating that it needed more time to consider its position. A review of definitions revealed no significant divergence of views. Given the apparent emerging consensus, the committee requested the Chair prepare a consolidated text for the next meeting. Moving to text-based deliberations represents progress and is a critical step towards preparing a draft treaty proposal suitable for final negotiations at a DipCon.

The timing of a DipCon was also discussed. Many delegations proposed a 2016 date, but the U.S. preferred a timeframe of "the next biennium." The final draft recommendation proposed a 2017 DipCon, to be confirmed by the 2016 General Assembly. This recommendation was presented in a package with two recommendations on the limitations and exceptions. While there was minimal opposition to the recommendation on broadcasting, dissatisfaction with the latter blocked adoption of any recommendations. So yet again, progress on the Broadcaster Treaty was precluded by linkage to the much more controversial matters of exceptions and limitations.

The problem of linkages between issues has plagued WIPO at the SCCR and other committees for years. The failure to conclude a treaty on broadcasting after years of deliberations is one of the more embarrassing illustrations of the problem. Despite broad support, progress is blocked by a few countries holding it hostage to demands on the limitations and exceptions that are totally unacceptable to the key delegations, including the E.U. and the U.S.

The pervasive problem of stalemated committees has led some delegates to the conclusion that a structural reform of the committee process is needed. Several ideas are being discussed and the U.S. even suggested returning to the pre-1998 system of single issue, ad-hoc Committees of Experts. These committees are recalled as having provided for more focused expert work on substance with less direct political and procedural wrangling. While politics is an inevitable part of WIPO, the view is that it should be contained to the highest level of decision making at the General Assembly, and should not impede the specialized legal and policy work expected at the committee level.

IP matters are among the most controversial of international issues as evidenced by difficult proceedings at other fora such as the WTO (World Trade Organization) and trade negotiations like the TPP (Trans-Pacific Partnership). Hence, it is not surprising that norm-setting at WIPO is difficult. WIPO, however, was created as the UN organization mandated to protect intellectual property and it should be mindful of this mandate in embarking on new norm-setting projects. The proposed Broadcaster Treaty is merely an update of the last unrevised sections of the 1961 Rome Convention to the current digital environment and is consistent with the mandate. In contrast, proposals for binding agreements on limitations and exceptions represent a complete overhaul and remaking of the longstanding and accepted framework for IP law. Linking these matters and expecting lock step progress to the same goal of legally binding treaties is illogical and doomed to failure. The link must be broken.

So what is next for the Broadcaster Treaty? Broadcasters are hoping that the General Assembly will move to accelerate the pace of progress by setting a roadmap and timetable for the final work and a Diplomatic Conference. The General Assembly meetings take place October 5-14 in Geneva. ■

Director-General's Report

Michael McEwen, NABA

It's summertime and you'd think that things would slow down a bit, but it certainly doesn't seem that way from my viewpoint.

Three major projects have been dominating our summer schedule.

1.) The NABA/DPP Working Group is charged with developing a common File Format Standard beginning with defining their technical specifications. They have been meeting every week with lots of homework for those involved. This is a partnership that suits all our interests very well – if we can successfully conclude our work, it will ease our member companies' workflows enormously. Clyde Smith will provide an update on this effort in the October-November *NABAcaster*. When he does you will appreciate what a major impact this work may have on how we both ingest and distribute content in the future.

2.) ABC/Disney's Michael Chiarulli is now Chair of a group focused on programming a day-long seminar on all the aspects of OTT services. Everything from regulatory/rights issues, to business challenges, to the technology itself, and the associated workflows. Most of our network members are already doing OTT and the technology is maturing quickly, but how we make it into a profitable business remains to be seen. There are lots of challenges to OTT, but lots of promise too. Michael and his group will send a proposal to the Technical Committee for their September 3rd meeting and from there it will go to the Board of Directors on October 1st. Assuming approval, the Seminar would take place in early December in NYC. Stay tuned to *NABAcaster* for updates on this project.

3.) The final effort has been on spectrum and preparations for the August meeting of CITEL in Ottawa (August 17th to 21st) and the World Radio Conference (WRC-15) in Geneva this November. The primary issue is the pressure on UHF broadcast spectrum and satellite C-Band spectrum by the mobile industry. From the broadcaster perspective the issue is how we can preserve over-the-air services, particularly the Next Generation of Television, if the mobile industry is given even part of the broadcast band. The mobile industry continues to argue that it needs access to this spectrum to meet the growing consumer demand for mobile services.

Winston Caldwell from FOX Networks (who has been leading the NABA efforts) along with many of his NABA colleagues has been joined by our two newest members, Pearl TV and Sinclair Broadcast Group, to take an active role at CITEL.

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A lot of good work has been done including scientific studies and attempts to find mutual accommodation for both industries. The bottom line for most of our members is that there needs to be enough interference-free spectrum for existing services and to make the transition to the Next Generation Television utilizing the ATSC 3.0 platform. The coming four months will see the culmination of more than three years worth of work and a lot of time and treasure spent. Again, stay tuned to *NABAcaster* for the latest information.

In addition to the above, NABA has participated in recent WBU events including a meeting of the WBU-TC chaired by NABA's Bob Plummer (FOX Networks) in Krakow, Poland. Bob and his colleagues from the other broadcast unions again discussed spectrum and WRC-15. It truly is a global issue for broadcasters. The WBU-TC agenda featured an opportunity for each of the unions to share their priority items, and it was remarkable how much in common was found around the table beyond spectrum, including: training, file formats, digital radio and smart chip technology, next-generation television, frame rates, closed captioning, intentional interference to satellite services, and funding of participation from unions without the resources to do so themselves. This Committee is in the process of renewal and a good start was made at their mid-June meeting.

The Director and Secretary Generals of the WBU met in Prague a few weeks later. The agenda included a review of the WBU-TC work on spectrum and coordination for our presence at WRC-15 in November.

The meeting also focused on deliberations at the World Intellectual Property Organization (WIPO) on the Broadcaster Treaty. Readers of *NABAcaster* will recall the occasional rant by this author, and others, on the length of time it is taking to move from discussions to the point where a Diplomatic Conference on a new treaty may be scheduled (including Erica Redler's cover piece in this very issue). Our hope is that at this year's WIPO General Assembly (Oct. 5-14), such an event will be scheduled for 2016/17. This has been more than 15 years in the making and while no one wishes for a treaty that is flawed by limitations and exceptions (rendering the protections given to broadcaster's signals ineffective) it is equally important to conclude this work.

Other topics on the agenda focused on Committee Reports including the new name for the long standing International Satellite Operations Group (ISOG) now called the International Media Connectivity Group (IMCG) and their new logo (which appears on Page 5 of this *NABAcaster*). By focusing their work on a connected world, this body is sure to deliver relevant and timely work for broadcasters and carriers alike. We have come a long way from the days when international program exchange was only done by satellite; today it is satellite, fibre, mobile phone, the internet and everything in between, where the common thread is media and connectivity.

The meeting went on to consider a proposal by the Asia-Pacific Broadcast Union (ABU) to host a WBU Conference October 26th, 2016 in Jakarta, Indonesia. The ABU proposal was accepted and the ABU Secretary General - Dr. Javad Mottaghi - will be the Conference Chair. Sessions will feature the Next Generation of Television, Digital Radio, and OTT. It will also focus on issues from emerging nations. The complex and difficult task of pulling the sessions and panelists together begins in September of this year.

Finally the long time Director-General of the African Union of Broadcasters announced his retirement. In the ten years he has held the job Lawrence Atiase has brought financial stability to that union and broadened the benefits of membership including training and spectrum management. He leaves a fine legacy, a strong association of broadcasters and a stable platform for future growth. Well done Sir!

So all to say, summer is here but some of us who escaped to the sunny south this past winter have our noses to the grindstone this season. For those taking some holidays, enjoy and we'll see you all in September as NABA Committees gear up for fall meetings and project work. ■

How CID Works for Broadcasters

Martin Coleman, Satellite Interference Reduction Group (IRG)

Satellite interference has been a hot topic in the industry over recent years. Although only a small number of services are actually affected, the satellite operators have been working together, along with equipment manufacturers and service providers, to reduce instances of satellite interference, as well as improve the resolution of interference when it occurs.

The result of all that activity is that we now have a number of technology, tools, and processes in place to help at every part of the chain and it is now up to the broadcasters, and other users, to implement them and ensure they are benefiting from that effort.

CID – The Basics

For anyone who doesn't already know, Carrier ID (CID) is essentially an embedded code containing contact information, which enables the satellite operator to quickly and efficiently identify the source of the interference, therefore reducing the effect for the correct carrier.

The concept of Carrier Identification (CID) is nothing new, just ask the FCC – they've required an Automatic Transmitter Identification System (ATIS) for decades. A few years ago, thanks to an industry push ahead of the 2012 Olympics, we witnessed a sizeable rise in the proportion of carriers using CID, and a greater awareness of the technology and how it can help drastically reduce satellite interference.

The DVB standard, based on an original development by Comtech EF Data, and following a great deal of input from other manufacturers, including Newtec, adds a

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low power spread spectrum carrier on top of the carrier it will identify. This means that the feed doesn't need to be interrupted to find the interfering carrier, enabling the operator to drastically minimize the effect on the correct user. Also, the CID carrier has no real effect on the carrier and consumes just 0.1dB of energy from that carrier. In dual illumination situations, multiple over-lapping CIDs can be decoded at the same time, allowing for efficient resolution.

The CID Process

There are three main stages involved in the process of CID:

1. Transmit

The *Transmit* stage is handled by the encoders and modulators:

1. An Identifier is injected into the Carrier by the modulator

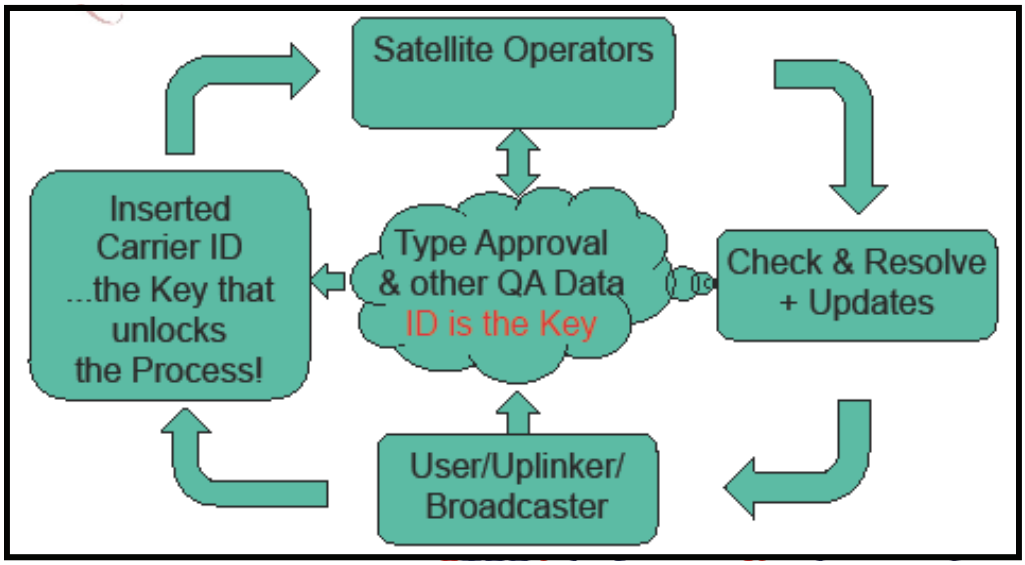
The identifier contains mandatory information such as a 64-bit MAC address and a vendor serial number in combination with optional user configurable data such as GPS coordinates, the carrier name and user contact coordinates. This information is injected into the carrier by the modulator at the uplink site and can be decoded by the satellite operator.

2. The Carrier ID Is Transported over Satellite Below the Noise

In order to lower the impact on the throughput over the satellite the carrier ID information is spread below the noise floor of the carrier. By using robust modulation (BPSK spread spectrum at 112kHz or 224kHz & BCH Coding) the carrier ID can be easily determined and read out. The typical impact on the overall link budget degradation of the main carrier is 0.28dB or less. In real time, live testing this spread spectrum CID had virtually no negative impact on the clients' content being transmitted.

As a broadcaster, you simply need to ensure that your transmission equipment is CID-ready. If you are buying new equipment, it will more than likely already have CID, but make sure you check. For existing equipment, check the list (http://satirg.org/resources/cid-ready-products/) or ask your supplier. Once you know your equipment is compatible, you just need to ensure you have CID enabled. This is generally as quick as a flick of a button, but if you are unsure check with your manufacturer. You should also tell your satellite operator that you have CID enabled and let them know your ID.

After that, you can let the encoders and/or modulators handle the clever part!



2. Detect

Once the CID info has been transmitted, it is of course vital that it can be detected by the satellite operator so that interference can be resolved. Therefore, at the satellite operator's facilities special measurement receivers are installed. At any occurrence of interference these receivers can read out the contact information from the carrier and quickly point out the source of interference. Resolving the interference issue is in most cases only a phone call away.

As a broadcaster, you can sit back and leave it at that, knowing your satellite operator will be detecting that signal. However, being able to verify you are displaying the correct ID info can be extremely important as an extra check. It is especially challenging for uplinkers that move or reconfigure carriers routinely, as it is not a simple case of checking once. If you have a lot of 'ad hoc' live coverage transmissions, such as sporting events, news or concerts, then you need to be sure that for each event the CID info is present and displaying correctly, so that interference can be resolved quickly should it occur.

There are a number of CID detection products available that are specifically aimed at this use, rather than needing to equip your facilities with an entire full-scale system.

3. Resolve

Resolution is down to the satellite operators! Once the CID has been detected, the Satellite Operators will use the CID database to determine which is the interfering carrier and take measures to resolve them.

The CID Database

As for the database itself, this will be managed by the Space Data Association (SDA).

The database has in itself been a topic for debate, with many satellite users concerned about the idea of their data being held in a central database. However, in actual fact the only people with access to that database will be the satellite operators, and the only information displayed will be the satellite operator responsible for the carrier identified and its ID number.

In its most elementary form the minimum

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information contained in an active CID data stream would typically be the MAC address or reference number of the modulator being used to make the transmission. So, when an earth station is registered with a satellite operator, this information needs to be added to the earth station registration information (for each modulator and updated by the earth station operator if it changes). The satellite operator will be implementing a mechanism where all the CID numbers that he has linked to earth stations in his database will be provided to the Space Data Center (SDC), which is the processing centre of the SDA.

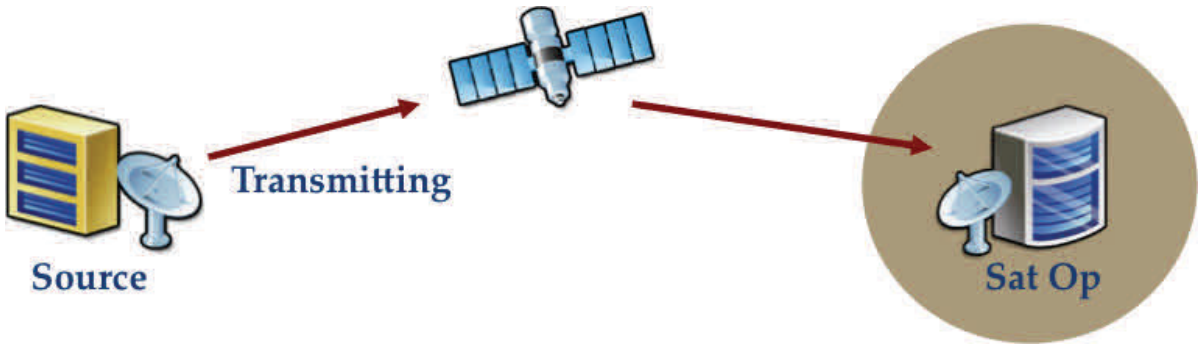
That said, there is the option to fill in more fields, which will enable a faster and more direct approach, but this additional information would still only be for your satellite operator's own records, not the shared database.

When interference occurs, the satellite operator experiencing interference will use the database to identify which operator they need to contact to resolve it. The satellite operator whose customer is causing the interference will then use their own internal database to determine who that customer is and how to contact them in order to resolve it.

Over to you!

CID is here and it can have a huge impact on the time it takes to resolve interference. For broadcasters, the effort to be CID ready is relatively minimal and often you may even already have the necessary equipment. However, it is essential that you update your registration data with your satellite operator to include the updated CID information, to ensure the process happens.

So at the very least: check your kit, get CID enabled, and tell your satellite operator your ID! ■



WBU-ISOG's New Mandate, Name and Logo

As reported in our previous issue, a very important announcement was made at the WBU-ISOG Forum this May in New York as a new mandate and name for the group were approved. They define a stronger "big tent" approach as ISOG will now be known as the World Broadcasting Unions - International Media Connectivity Group (WBU-IMCG).

It will be IMCG's mission to unify broadcasters together to solve problems with the help of technology partners, regulators and other associations.

WBU IMCG
WORLD BROADCASTING UNIONS
International Media Connectivity Group

We are technologically well connected, but are we 'really' connected? How we deal with the continuing influx of innovations without losing our insights as broadcasting unions is central to our new name and mission. As IMCG, we are committed to becoming the central platform for tackling all the issues that the digital era is bringing us by reaching out to all players.
-Akira Ogawa, Chair, WBU-IMCG

The second part of this equation was to commission a new logo. We are pleased to introduce that logo (on the left). It was designed in-house by the Secretariat's Kevin La and was voted on by IMCG membership as their first choice overwhelmingly. We feel it provides a sense of continuity with ISOG's satellite-dominated past, while being more open to all the many other forms of connectivity and program exchange in this modern age.

WBU-IMCG will meet next in London, UK this Fall (December 1st & 2nd) and be hosted by the BBC.

Members & Issues in the News

- Playing a Game of Chicken in the Biggest Spectrum Auction in History
- Radio's Reach Hits All-Time High Note
- The Future of Television: HBO's Big Push to Become the Only Channel You'll Ever Need
- AT&T to "Light Up" FM Chips in Android Phones
- Broadcast is Still Video's Best, Biggest Platform
- FCC Approves AT&T's Merger with DIRECTV, but Imposes Conditions
- Faster than Expected Penetration Makes 4KTV Protection a Growing Concern
- Radio DJs Offer Comfort and Community After Charleston Church Killings
- US Radio Remains Strong — Reaches 223 Million Listeners Each Week
- How Television Won the Internet
- TV is Not Dead, but Evolving: A Look at On-Demand

Looking Ahead — Key Dates & Upcoming Events

Date	Event	Location
August 17-20	CBU's General Assembly	St. George's, GRENADA
August 17-21	CITEL XXVI Meeting of PCC.II	Ottawa, ON, CANADA
September 2	NABA-Radio Committee Meeting	[Teleconference]
September 3	NABA-Technical Committee Meeting (Hosted by NAB)	Washington, DC, USA
September 9	NABA-Legal Committee Meeting	[Teleconference]
September 10-14	IBC Show 2015	Amsterdam, NETHERLANDS
Sept. 30-02	NAB Radio Show	Atlanta, GA, USA
October 1	NABA-Board of Directors (Hosted by ABC/Disney)	Los Angeles, CA, USA
October 4-8	AIR/IAB 45th General Assembly	San Salvador, EL SALVADOR
October 5-14	WIPO Assemblies of the Member States (55th Series)	Geneva, SWITZERLAND
October 25-31	52nd ABU General Assembly	Istanbul, TURKEY

A complete list of upcoming events is available at: www.nabanet.com/nabaweb/calendar/calendar.asp

The *NABAcaster* newsletter is available online at:
www.nabanet.com/nabaweb/newsletter/NABAcaster.asp