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*IN THIS ISSUE:*

Hainan HFCC Report HCJB 75 <sup>th</sup> Anniversary DRM at the NAB NASB 2006 Annual Meeting
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## Hainan HFCC Report

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The HFCC conference for the A-06 season was held in Sanya, Hainan Island, China. The location at the Sanya Resort Hotel was spectacular, with beautifully groomed grounds, white sandy beaches, clear skies and plenty of sun.

The staff at the Sanya Gloria Resort Hotel along with the RTPRC (Radio Television Peoples Republic of China) were very hospitable and gracious hosts to the 160 visiting frequency coordination delegates.

This was the fourth Global Shortwave Coordination Conference. This includes HFCC, ASBU, and ABU. It was decided that there will be global conferences once a year now, taking place for the A season coordination meetings.

There was a pre-conference workshop on Sunday afternoon by Geoff Spells of VT-Merlin. This workshop went over the usage of fieldplotting software VOACAP and FIELDPLOT. These software tools are used by many of the frequency coordinators.



*Welcome speech at the beginning of the conference*

As the conference began Monday morning, there was a welcome and introduction by RTPRC president/director Mr. Li Zhi, and Mr. Cao Yin, also of RTPRC.

Jeff Lecureux and I were there to work through our collisions for KTWR and represent the NASB as well as avail ourselves for support to Tom Lucey for any collision work. Glen Tapley and Edward Mathis were also present at the conference representing EWTN. We were very pleased that we only had minor changes to make to our schedule that resulted in our collision list diminishing considerably by the end of the conference.

Monday evening a banquet was hosted by RTPRC on the green of the hotel. A well-prepared 12 course meal was hosted right there on the lawn. The Director of RTPRC, Mr. Li Zhi, welcomed the international delegates.

At the beginning of the conference there were 7355 requirements to the A-06 schedule. At the close of the conference there were 7327 requirements. (Today it is 7245 requirements) Occupation of the HF spectrum is very much congested. An indication of the congestion of shortwave spectrum was the 1837 out of band frequencies listed.

Thursday evening a cultural show was presented as part of the farewell banquet, again on the green of the hotel. There were dances and singing by different ethnic groups, including the Miao ethnic group, and the Li ethnic group. A fashion show of the different ethnic colors and costumes was quite fascinating. The cultural show ended with a traditional bamboo dance.

Three familiar faces were bid farewell to at this conference. Before the conference began, Doug Weber of HCJB contacted the delegates to bid farewell and to mention that his colleague Allen Graham would be taking his place. Peter Hsu announced during the Thursday Plenary that this was his final conference as well, as frequency coordinator for FEBC. He mentioned what a pleasure it has been to be a part of the coordination process for the last 8 years. Chris Cooper will be taking his place for the future conferences. And, of course, Dennis Thompson officially announced his retirement. Dennis was one of the original members of the HFCC. He started with BBC in 1956. He has been active 50 years in the shortwave industry. He retired from BBC in 1995. He has been a consultant for BBC and VT Merlin since then.

Dennis has been to every HFCC conference since 1990-Bulgaria (the first one.) Dennis was presented with a gift and an announcement of appreciation by Richard Hurd of VT-Merlin. The only remaining original members are now Oldrich Cip and Jan Willem Drexhage. Oldrich proposed to elect Dennis as an honorary member of the HFCC steering board, which was unanimously confirmed.

The Group of Experts meeting took place on Wednesday, February 15.

Participants: Ms.Sedef Somaltin, Mr.Navid Homayouni, Mr.Yousef Ghadaksaz, Mr.Sharad Sadhu, Mr. Mahmood AL REDHA, Mr. Geoff Spells, Mr.Erno Czuprák, Mr.Vladislav Cip, Mr. Anthony Knowles, Mr. Jan Willem Drexhage (Chairman).

#### ***Collision identification method:***

Mr. Navid Homayouni, IRIB (ABU-HFC) demonstrated an improved method for collision identification he has developed. Instead of just absolute field strength values of 55 and 65 dB, the S/I (signal to interference) is calculated for each Ciraf zone quadrant.

The following points were discussed in the meeting after the demonstration:

- 1) What protection ratios need to be used?

It is necessary to experiment with the values to be used. If too stringent values are used the number of generated collisions might be too much to handle. The aim is again to produce two lists: one with the most urgent collisions with a low protection ratio (around 0 – 5 dB) and another with a slightly better protection ratio of around 10-17 dB.

Test points where E-min is not reached will be ignored and not be taken into account for collision identification.

To assist members to identify requirements with errors, e.g. a wrongly entered bearing, the BSR (Basic Service Reliability) of each transmission will be calculated and printed in the collision list as well.

- 2) Higher protection ratios in the frequency ranges above 17 MHz?

These bands are less congested, so higher protection ratios can probably be applied. This will also be tested and implemented.

- 3) Which months to calculate propagation?

As a starting point, 2 months will be taken into account. For example in the A seasons, the 7th and 9th months. If there is the need this can later be changed to three months.

- 4) Should quadrants where E-min is not reached be taken into account for collision identification?

They will be excluded for the identification. It is not possible to provide protection to a service which does not perform itself.

- 5) Minimum part of a target area affected as an additional requirement for collision identification?

It will be tested if it is useful to identify a collision only when at least a certain minimum percentage of the target area is affected. This will eliminate those collisions for which only a very small part of the target area is effected.

- 6) What needs to be indicated in the printed collision lists:

Worst case S/I in each quadrant and best S/I. For the average value there is probably no space. It might be that the average S/I in a quadrant will be used for the collision identification process though. Field strength values can probably not be indicated because of the lack of space.

- 7) Are separate information files with more collision details useful?

Yes, this would be useful. It might be needed in the future to design special programs for members to access the details. Another option is that the propagation and collision identification is done on personal notebooks of members.

- 8) How to implement in the web application?

The aim is automating the whole process on the HFCC website. Mr. Vladislav Cip and Mr. Navid Homayouni will contact each other to do this work. IRIB will kindly make more time available for the work.

- 9) Is it feasible to distribute the calculated propagation data files (or database) for use in stand-alone programs by members?

The database that will be provided should be operable by various programs of users. The collision list will still be needed on paper. The extra data can be separately detailed and only electronically distributed.

Another point mentioned was regarding out-of-band frequencies: Should we take the frequencies used for safety and distress frequencies used by countries out of the list? This was affirmed by vote. The frequencies are 2182 kHz, 3023 kHz, 6215 kHz, and 8364 kHz.

HFCC Elections (4 year terms): Oldrich Cip accepted the nomination for chairman.

Jan Willem Drexhage accepted nomination for software and systems. Geoff Spells accepted nomination for rapporteur (taking the place vacated by Dennis Thompson.)

The topic of DRM was covered by a discussion panel this time. The panel consisted of Burkard Beyer, T-Systems, Eugene Mueller - Tech. Director for TV and Radio RTL, Michel Penneroux – France, Horst Scholz - DWL (chairing), Sharad Sadhu - chairman of ABU, Rachel Staviskaya - Chief Engineer VOR, and Mrs. Fang Wang- Senior Engineer, RTC

Sharad Sadhu, ABU (Asia Broadcast Union) speaking for the Asia Pacific region, said the region is following DRM development closely. At this point they are concentrating mostly on DRM for MW. He wants to leave DRM for SW to international broadcasters. The big issue is lack of DRM receivers. The Asia Region is seriously looking into single carrier simulcast.

Michel Penneroux (France) is optimistic about receivers, and about global acceptance of DRM. There seems to be a rising interest in the US. There is a strong interest in SFN (Single Frequency Network), and DRM on 26 MHz. Brazil and Mexico are seriously looking into DRM on 26 MHz for major cities. That is currently their preferred technology to provide spectrum for more local stations. DRM on 26 MHz would complement analog FM. On the topic of receivers, he mentioned to expect higher quantities to appear in 4th quarter of 2006. Regarding price, he said they would be comparable to present receivers, but no price was given.

Mrs. Fang Wang, (RTC) stated, "DRM is still in experimental phase in China. Eighty percent of the population are peasants. Most people do not have enough money to pay current DRM receiver prices. It is not whether the audience is able to afford it but if it is able to buy it or not. Right now it is still uncertain if DRM will succeed in China."

Rachel Staviskaya, (VOR): "There is lots of interest in DRM. Lots of people try to develop specific programming to fit DRM. I am hoping that in the next two years we will see some development before national standards are applied for DRM. We use Russian transmitters that have been reconstructed. We are broadcasting on two transmitters and already have two more transmitters in St. Petersburg. The problem is the bands (spectrum) are too congested. Because of this the development is much weaker. People in the country wonder why they should spend so much money on this. For them it would be better to have domestic broadcasts." In Moscow, two weeks ago, plans were mentioned for two companies to produce inexpensive DRM receivers.

Burkard Beyer, (T-Systems Germany): "Most DRM broadcasts in the world are SW and MW. We have three DRM MW transmitters in Berlin. We have many programs on the air, but no receivers. We might get into problems if we aren't able to produce inexpensive receivers."

Eugene Mueller, (Luxembourg – RTL) "We considered DRM as it was developing to be a new (ideal) tool for advertisement. This is our main interest in it. We are doing a full range of DRM broadcasts using MW & SW transmitters. We are also testing our LW transmissions for DRM. We are broadcasting in MW and SW. We own 26 radio stations in Europe. Our intent is to re-value our radio broadcasting. We are also very concerned about the availability of receivers – this is a problem. If the price doesn't come down, DRM will be in trouble."

Horst Scholtz (DWL): "Why did DRM start in Europe? Because Europe was ready for the technology and willing to pay for the radios. (However figures of analog receivers continue to grow as opposed to DRM.) For frequency coordination, "DRM" broadcasts are a problem and harder to coordinate around. Is it practical to separate the SW bands with analog/DRM with two separate systems? It would narrow the band usage if we did this (especially in the lower bands.) Should the ITU decide, or will the HFCC-ABU?"

Horst noted that most complaints are from DX clubs.

Rachel noted that one of the goals years ago was to work on the same frequencies.

Sharad noted we would lose flexibility dealing with SSN activity.

Note: The primary concern among the members at the HFCC conference is whether or not we will see affordable receivers for DRM. There are yet to be potential receivers for international usage.

WRC 2007

Geoff Spells of VT-Merlin reported on the status for the WRC 07 meetings. Some important notes he mentioned:

This month (March) is the last opportunity to make any substantial changes to the documents (i.e Revised HF broadcasting statistics.) The process will be completed in September.

Many people think that shortwave radio is dead. This is not the case. Transmitter hours had fallen since A03, that is until A05 and it continued to go up again. In the 4 - 10 MHz, the B season is quite a bit more congested. There is no detection of a major downward trend. Less than 50% of the 7 MHz band is without collision.

The amount of spectrum required is the addition of 250 – 800 kHz in total to HF broadcasting service from 4-10 MHz.

Oldrich Cip mentioned that we need to discuss how we can get this information to our organizations and start lobbying our administrations as soon as possible, (Many administrations aren't aware of any or how many broadcasters are operating from their territory.)

Sharad Sadhu mentioned that the ABU has also prepared these documents from cooperating broadcasters in the Asia region.

The resolution recommended is to use 7350-7650 kHz.

European BC corporations are working to allocate additional spectrum to broadcasters. They are looking at the potential of using non-used maritime mobile spectrum allocation (8 MHz range.)

Jan Willem Drexhage put some monitoring spectograms on the screen that clearly showed the congestion in the broadcast bands as measured in Europe. This document has been sent as an input to the ITU Working Party meetings WP6E, WP8A, 8B and 9C for the discussion on agenda item 1.13.

The documents for WRC07 meetings and the ITU Monitoring spectograms are available to HFCC members.

The next HFCC conference for the B-06 season will take place in Greece from August 28 – September 01, 2006.

See the HFCC website for more photos taken at the Hainan HFCC:  
<http://www.hfcc.org/hainan/photo1/>

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## **HCJB World Radio Celebrates 75th Anniversary in 2006**

*Ralph Kurtenbach of NASB Associate Member HCJB sent us the following information about HCJB's 75th anniversary celebrations.*

Pioneer missionary radio broadcaster HCJB World Radio is celebrating its 75th anniversary in 2006, holding a variety of activities throughout the year to commemorate its initial broadcast from Quito, Ecuador, on Christmas Day, 1931.

HCJB World Radio President Dave Johnson launched the year of special events with a program in Colorado Springs, Colo., on Jan. 11, in combination with the mission's monthly day of prayer.

“To me this anniversary is a wonderful milestone of reflecting on God’s faithfulness and a legacy of a number of generations that have been faithful in impacting the world through radio in so many languages,” he said. “We can be absolutely confident that God wants to continue using us in the future. The key is realizing that all that has been accomplished has been done in the power of Christ—working through people.

“When you look at the history of HCJB World Radio, people have always been willing to take a risk to do what God is calling them to do,” Johnson explained. “We’ve never been in ‘maintenance mode,’ whether it’s establishing a hydroelectric plant in Ecuador, putting up huge transmitters and antennas, building clinics and hospitals, or setting the ‘World by 2000’ challenge, working with other broadcasters to make Christian radio programs available in all of the world’s major languages. All of these things caused people to start asking questions, pushing us beyond our resources. But when we look back, these are the stories we like to tell because God worked in incredible ways!”

The theme for the anniversary year is, “Great Is Thy Faithfulness,” and the key verse is Isaiah 26:12, “Lord . . . all that we have accomplished you have done for us.”

On Sunday, Jan. 1, HCJB World Radio launched its 75th anniversary website in English

([www.hcjb.org/75](http://www.hcjb.org/75)) while a Spanish site ([www.vozandes.org/75](http://www.vozandes.org/75)) will begin at a later date.

Public events planned for Ecuador include the Quito Day concerts Dec. 1-3, 2006; an open house and sharathon Dec. 7-9, 2006; and a special Spanish service at 4 p.m. EST Dec. 25, 2006, the time of the first actual broadcast on Radio Station HCJB. A series of events for donors will also be held across the U.S. at cities and dates to be announced.

Events for the staff include the annual HCJB World Radio Prayer Retreat on May 3 and “Forever Family” reunions for all former HCJB World Radio staff members in Colorado Springs May 9-13 and Quito Sept. 8-18. Special receptions are also planned for staff members and government dignitaries in Quito in December.

A 75th anniversary book will be released in September, highlighting not only the history of HCJB World Radio, but today’s ministries and the future vision. It will be a hard-cover, 9-by-12-inch, 96-page full-color book with many high-quality photos. A Vision Video in both Spanish and English will also be available to celebrate the vision through the mission’s various presidents, past and present.

How will the next 75 years look different than the past 75 years at HCJB World Radio? “What began with co-founder Clarence Jones playing ‘Great Is Thy Faithfulness’ on his trombone to a handful of radio receivers in Quito on Dec. 25, 1931, has led to focusing on discipling local believers and training them in mass media and healthcare around the world,” explained 75th Anniversary Coordinator Cheri Birkey.

“In the last 75 years the mission has developed a unique mix of radio and healthcare ministries, working together to reach all nations for Christ. In order to enhance these ministries, we want to integrate passionate discipleship and practical tools so that national believers are trained and equipped to complete the Great Commission. What began in Latin America has expanded to other parts of the world. Lord willing, we will continue partnering with local believers and equipping them to do what we’ve been doing for 75 years—reaching people for Christ through mass media and healthcare.”

Together with local partners, HCJB World Radio now has ministries in more than 200 cities in more than 100 countries with Christian broadcasts in more than 120 languages and dialects. Thousands of healthcare patients are also meeting Jesus. Believers are being trained as missionaries, pastors, broadcasters and healthcare providers. HCJB World Radio’s desire is to integrate discipleship with practical tools to equip the growing church around the world and see lives transformed.

“What we are as a mission today is directly related to our past,” Birkey adds. “The 75th anniversary is the perfect opportunity to celebrate God’s faithfulness. Throughout the Old

Testament the Israelites were encouraged to remember God's goodness. We hope not only to remember what God has done in the past through HCJB World Radio, but to celebrate what He is doing today and the mission's vision for the future."

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## **DRM AT THE NAB**

For those who will be attending the National Association of Broadcasters Convention in Las Vegas in April, there will be three talks by members of the DRM (Digital Radio Mondiale) Consortium at the NAB Broadcast Engineering Conference at the Las Vegas Convention Center, Room S227.

On Monday, April 24, there will be a session entitled "Digital Radio Worldwide" from 10:30 am-12:00 noon local time. During that session, Don Messer, Chairman of the DRM Technical Committee and NASB Consultant, will give a talk entitled "DRM Progress in Developing a Capability in Broadcasting Bands above 25 MHz" from 10:30-11:00 am. Andy Giefer of Deutsche Welle will present "Digital Shortwave Reliability Analysed with Deutsche Welle's Monitoring" from 11:30 am-12:00 pm at the same session.

On Tuesday, April 25, there will be a session called "Emerging Technologies for Radio" from 1:00-5:00 pm in the same location. As part of this event, John Sykes of the BBC World Service will talk about "An AM Signalling System (AMSS)" from 3:00-3:30 pm.

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### **An AM Signalling System (AMSS)**

**by John Sykes, Project Director Digital Radio, BBC World Service, U.K.**

#### **SUMMARY**

This paper describes a simple signaling system designed for use with AM broadcasts on frequencies below 30MHz. It is reasonable to ask right up front "Why bother with AM signaling?" and in particular, "Why now?", given that

AM broadcasting has survived for upwards of 80 years without any form of signaling,

and

Digital broadcasting is currently rolling out across much of the developed world.

Ironically, the answer is rooted not so much in a belated attempt to play catch up with our privileged FM friends (who've now benefited from the joys of RDS/RBDS for nearly two decades), but more in the realization that tuning a digital radio is a very different matter to what may be termed the "analogue experience" of finding radio stations. This listener-centered approach to radio design is explored more fully in Section 2, but in essence AMSS was developed in order to facilitate the search, identification and tuning of AM broadcasts on the next generation of digital radio receivers.

The AM Signaling System (AMSS), now a published ETSI standard, uses low bit-rate phase modulation of the AM carrier to add a small amount of digital information to existing analogue AM broadcasts on both medium-and short-wave bands, and provides broadly similar (but constrained) functionality to that offered by the RBDS and European Radio Data System (RDS) on the FM bands.

The additional digital information allows a receiver to positively identify the AM station, making it possible for the listener to select the station by name as well as offering the choice of switching over to a digital, AM or FM version of the same service, if available.

The system development was triggered initially by a requirement within the Digital Radio Mondiale Consortium (DRM) to provide a mechanism for handing listeners between analogue and digital versions of a particular radio service. At least some of the first consumer DRM receivers, due to be available in 2006, will implement AMSS.

This paper goes on to explore in more detail:

- The business rationale for AMSS
- Its main features
- A brief outline of how the system works, and
- The BBC's initial deployment of the system.

*John adds that "The application and implementation of AMSS is completely independent of DRM (or any other digital radio system). It's just really easy to add AMSS to digital radios in the first instance, as it is only a matter of software." Those who would like a copy of John Sykes' complete paper need only send an e-mail message to Jeff White, Chairman of the USA DRM Group, at: radiomiami9@cs.com.*

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**NASB 2006 Annual Meeting**

The 2006 annual meetings of the NASB and the USA DRM Group will be held on Thursday and Friday, May 11 and 12, in Silver Spring, Maryland -- just outside of Washington DC. NASB member Adventist World Radio has offered to host both of the annual meetings at its world headquarters building at 12501 Old Columbia Pike in Silver Spring.

Below you will find the tentative agendas for both the US DRM meeting on Thursday and the NASB meeting on Friday. Please note that lunch will be catered by AWR on both Thursday and Friday, and we are planning a banquet (for those attending either or both meetings) on Thursday evening which will be sponsored, i.e. no charge to participants. TCI International will be one of the co-sponsors of the banquet. Two more co-sponsors are needed at \$300 each. If your company or organization would like to be one of the co-sponsors, please contact Jeff White at radiomiami9@cs.com.

Once again this year, there is no registration charge for either of the two meetings. So come to either or both. But it is necessary to pre-register by sending an e-mail (to radiomiami9@cs.com) indicating that you plan to attend on Thursday, Friday, or both days.

Hotels are always full in the DC area in early May, and they are getting more expensive each year. However, a block of rooms has been booked at the Holiday Inn in Laurel, Maryland for \$99 per room per night for the nights of May 10 and 11, and this rate is available up to three days before and after the meetings as well. The \$99 rate is for a single room with king-size bed, or for a double room with two beds. It also includes continental breakfast for up to two persons per room.

The closest airport is Baltimore Washington International (BWI). A shuttle bus from the airport to the hotel is about \$20 per person. The Holiday Inn in Laurel is about 7 miles from AWR headquarters, and the organizers are attempting to arrange complimentary transportation between the hotel and AWR HQ on both Thursday and Friday for participants. The Thursday evening banquet will be at the Holiday Inn, so no transportation will be needed.

Please make hotel reservations directly with the Holiday Inn in Laurel (not through the Holiday Inn 800-number) before April 25, as the room block will be released on that day and will undoubtedly be booked up almost immediately. To make a reservation, call the Holiday Inn-Laurel reservations department at (301) 776-5300 (or fax them at 301-776-8164) Monday through Friday from 8 am to 5 pm Eastern Time and be sure to ask for the "NASB" group rate of \$99.00 per night. (Note: You may find a slightly lower rate on the Holiday Inn website of about \$89, but this rate must be prepaid in advance for the entire time of your stay, is not refundable, cannot be cancelled, and does not include breakfast. The NASB rate just needs to be guaranteed with a credit card, is fully refundable if cancelled up to 6 pm on the day of arrival, and includes continental breakfast daily for up to two persons.) If you have any problems or need any assistance with hotel reservations, please let us know.

Please send any questions, comments, and suggestions for the meetings to Jeff White at radiomiami9@cs.com.

Tentative  
American Shortwave Conference - NASB & DRM 2006 Agenda

Location: Adventist World Radio Headquarters - Silver Spring, Maryland, USA

Thursday May 11 - USA DRM Group Annual Meeting

8:15 am Arrival in time for a prompt start, check in through security, meet in Foyer.

8:30 am Begin tour of AWR building

9:00 am DRM-NASB registration in appointed meeting room.

9:15 am Welcome by AWR, announcements & information about procedures, day's activities, etc, followed by AWR presentation of Adventist worldwide media outreach - AM, FM, additional SW, TV, satellite, Internet.

9:45 am DRM meetings under DRM leadership. Talks will include an update from DRM Consortium Technical Committee Chairman Don Messer, including results of recent DRM tests in Mexico and Brazil, and possibilities for DRM in the U.S.; a presentation about DRM antennas by Gordon Sinclair of TCI International; and a report about the DRM Demonstration at the recent Shortwave Listeners Winter Fest by Kim Elliott. If possible, there will be an exhibit/demonstration of DRM receivers.

12:00 pm Lunch - catered in meeting room - sponsored by AWR

1:00 pm Afternoon DRM meetings

5:00 pm Conclusion of DRM meetings

5:30 pm Transportation to hotel Holiday Inn-Laurel

7:00 pm Banquet at Holiday Inn, co-sponsored by TCI International

Friday, May 12 - NASB Annual Meeting

8:15 am Arrive in time for prompt start, check through security, meet in appointed meeting room, registration

8:30 am The AWR Story - History & Current Activity

9:00 am Welcome from Doug Garlinger, NASB President; notes from Secretary-Treasurer Dan Elyea and Asst. Secretary-Treasurer Jeff White

9:15 am Don Messer, NASB Consultant and Chairman of the DRM Technical Committee - Status of the U.S. Position on WRC07 Matters, and DRM Update

9:40 am Walt Ireland of the ARRL, Chairman of US WP-6E and Vice Chair of IWG-4, with a report on the results of recent IWG-4, ITU-R, WP-6E and SG-6 meetings.

10:00 am Susan Gigli, VP of InterMedia - Shortwave Audience Research Update, including "Who Listens to Shortwave in North America?"

10:30 am Break for Refreshments

10:45 am Presentation about Comet North America by Larry Broome

11:00 am FCC International Bureau Update - Thomas Lucey and/or Thomas Polzin

11:15 am IBB Update

11:45 am Adrian Peterson, AWR International Relations - Traveling the World with a Radio

12:30 pm Lunch - catered in meeting room - sponsored by AWR

1:30 pm Report on the 2006 Shortwave Listeners Winter Fest by Gary McAvin and Solomon Meyer of WMLK

1:45 pm NASB Business Meeting

3:00	pm			Break	for	Refreshments	
3:15	pm			Business	Meeting	continues	
4:45	pm	AWR	-	Announcements,	"thank yous",	and "goodbyes"	
5:00	pm	End	of	meeting	- Brief NASB	Board Meeting	
5:30	pm	Transportation back to hotel					

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**NASB Members:**

Adventist World Radio  
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 Family Stations Inc.  
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