
MICROWAVE UPDATE 2004

The North Texas Microwave Society is the proud sponsor of Microwave Update 2004 being held in Dallas, Texas on October 15 and 16, 2004. The conference will be held at the beautiful Harvey Hotel DFW Airport, just minutes from the north end of DFW Airport.

Microwave Update is the premier technical conference for the amateur radio operator interested in pursuing activities on the frequencies above 900 MHz. This year's event will host technical presentations on both Friday and Saturday from your friends and peers pursuing projects in the microwave bands. This will be an ideal event for you to meet with and talk to your fellow microwave hams from around the world. As usual, the ARRL will be publishing the conference proceedings. The list of speakers is quite long as there were a considerable number of volunteers. As a result we were not able to accommodate several people this year for which we apologize.

Experiences with the CT1DMK reflock board by Wes Atchison WA5TKU

Microwaving in the UK by Peter Day G3PHO

Building and using the DSP-10 as a microwave IF by Dave Robinson WW2R

A 10 GHz linear translator by Gary Lauterbach, AD6FP

Millimeter-wave LO references & phase noise considerations by Brian Justin WA1ZMS

Introduction to 802.11 HSMM (High Speed Multi Media) by John Beadles N5OOM

Using WR-28 waveguide at 47 GHz by Barry Mallowanchuk VE4MA

Joining the fun on 1296 EME by Jay Liebmann K5JL

Multi-band microwave operation at K4TO by Dave Sublette K4TO

Contest operation at K8GP by Gene Zimmerman, W3ZZ

Multiple-reflector dishes and feeds by Paul Wade, W1GHZ

Extra-Terrestrial LASER Communication by Paul Perryman, WA5WCP

ARRL Forum to discuss the regulatory environment as it applies to the microwave bands by Joel Harrison W5ZN, Dave Sumner K1ZZ and Chris Imlay W3KD

Tropospheric enhancement VHF and Up by Joe Jurecka N5PYK

Building beam lead diode multipliers for 80 and 120 GHz by Will Jensby W0EOM

Writing code for DDS and PLL chips for microwave synthesizers by John Miles KE5FX (tentative)

Update on microwave capabilities of AMSAT's newest and future satellites by Keith Pugh W5IU

Rainscatter in Europe by Sam Jewell G4DDK and Jonathan Naylor, G4KLX

Demonstration of Software Defined Radios by FlexRadio Systems by Gerald Youngblood AC5GO

The latest list will be kept current on www.ntms.org

The usual surplus tour hosted by the ultimate junk hound, Kent Britain, WA5VJB, will be conducted on Thursday. Kent's world famous surplus and electronic store tour will visit such places as TESCO, Nortex, Texas Towers, Altex, Tanner Electronics, several small parts stores, Fry's Electronics just to name a few. Maps will be available Thursday morning at the hotel at 8:00AM. As always, drivers with extra seating will help those that flew in to the area and are without a car. If you will have space for extra people, please contact Kent. Your help is appreciated.

Kent, WA5VJB will again head up the customary auction which in past years has been very helpful in bringing in extra money to help keep conference costs low. If you have any extra unwanted equipment that you would like to donate, please let Kent know.

We are expecting several microwave component and microwave surplus companies to be present during the conference. The tentative list includes Down East Microwave, TESCO, Holtzman Electronics, Hanger 18 (Phil Galloway) and Bogden Electronics.

As with most Microwave Updates, a test equipment table will be available to help tune up your equipment. Noise figure measurement capability will cover VHF through 47 GHz. This will be great for measuring those new microwave LNA's and converters. Network analysis capability will cover frequencies to 50 GHz. Tuning up filters and finding out the bandwidth of that unknown amplifier will be easy with the network analyzer. Spectrum analysis will cover frequencies to 26.5 GHz allowing one to take a look at the spectral output of a local oscillator. The spectrum analyzer also has a special phase noise module to measure and record the phase noise of your favorite LO(s). Power supplies will be available for your equipment. However, bring your special tools for opening and tuning your projects. We will also be hosting a Reflock tune-up session to help those that have built the CT1DMK reflock boards get them programmed and tuned up and de-bugged if need be. Antenna gain measuring will be available at frequencies from 902 MHz through 47 GHz. There is a possibility that we will be able to push our equipment limits to 74 GHz, however, if there is anyone that would like to bring signal sources, noise sources, etc for 74 GHz please let us know.

A Friday night flea market for the microwaver will provide the opportunity to both buy and sell. So ..bring your goodies!

The women will have a chance to do some local shopping including antiques, touring a local winery and participating in some craft projects if they would like. Here is what we are working on so far. Friday morning will start off by caravanning to Grapevine where there are a multitude of shops, antique stores, wine tasting rooms and some nice restaurants for lunch. On Friday afternoon, the plan is to meet at the hotel and then venture out to tour the Delaney Vineyard in local Grapevine. The cost of the wine tasting tour is \$7.50 per person and is set up only for the wives. On Saturday morning, the women will have an option of attending a "Holiday Card & Gift tag Craft Project" to be held at the Hotel. Attendance is free and is limited to about 20 women. Saturday afternoon has been reserved for local shopping like the Grapevine Mills mall....Or you can venture out to other attractions in the DFW area.

For those that would like to spend some extra time in the DFW area, there are plenty of attractions to take in, including the Ft. Worth Stock Yards, Billy Bob's, Dallas West End, Dallas Arboretum, Kennedy museum, Gilley's in downtown Dallas, Six Flags over Texas, the Meyerson Center and numerous great golf courses in the DFW area.

On Saturday evening following the last of the technical sessions will be our usual Microwave Update banquet. With the help of the Harvey catering

service, we are pleased to present a wonderful Italian Buffet for our guests. The buffet dinner will include:

Fresh Garden Salad with a selection of Homemade Dressings
Traditional Beef-and-Cheese Lasagna
Chicken Parmigiana
Fresh Pasta with Marinara Sauce and Parmesan Cream Sauce
Antipasto Tray includes: Fresh and Smoked Cheeses, Olives, Cured Meats, Roasted Peppers, Marinated Mushrooms and Artichoke Hearts
Served with Italian Bread and Crackers, Warm Garlic Bread Sticks and a Vegetable Medley
Tiramisu and Mini Cannolis
Iced Tea, Coffee (regular and decaffeinated)

The cost of the buffet dinner is \$30 per person.

Prior to dinner, our guests are invited to an informal cocktail hour. The hotel will provide a cash bar serving your favorite drinks.

Bob, WA5YWC, will be coordinating the prize drawings. As usual all prize donations are greatly appreciated. If you have something to donate, please indicate so on the registration form or contact WA5YWC. The prize table will offer both ham and women's prizes.

The Harvey Hotel is within minutes of the DFW airport and provides exceptional conference facilities. The hotel offers free shuttle service to and from the DFW airport. Due to the popularity of the hotel for corporate functions during the week, the nightly rate for Thursday night is \$89.00 plus taxes and \$65.00 plus taxes per night for both Friday and Saturday nights. These rates are considerably reduced from the usual corporate rates, so we are real fortunate to be able to take advantage of the Harvey Hotel facilities for Microwave Update.

The Harvey Hotel will provide on-line registration. Go to www.dfwairport.harveyhotels.com/ and click the *Reservations* box (the Boeing 747 picture). Once on the Reservations page, enter the dates you will be staying and 10606 in the *Group/Event ID* box. Scroll to the bottom of the page and click the *Begin Search* button. On the next information page, click the *View Rates* button. Then click *Detail* to see the rates for the following nights. These are the Microwave Update discounted room rates. Failure to mention Microwave Update will make it difficult for us to get the discounts on the meeting rooms which are based on the number of room nights that we book for our attendees. If you have not already

picked the room type then click the Select button next to the desired room type. On the next page, Click-check the box "Accept Guarantee/Deposit & Cancellation Policy" and click Enter Guest Info button. Fill in your personal information and click the Complete Reservation button. It's that easy! For those wishing to call the Harvey Hotel reservations direct, the telephone number is 972-929-4500. Please mention Microwave Update.

Please register for the conference as soon as possible. The registration form is up on our web site www.ntms.org. Pre-registration cost is \$40.00 and is due to W5LUA by October 1. Regular registration after October 1 and at the door will be \$45.00. Make checks payable to the North Texas Microwave Society.

We will have special prize drawings for pre-registered attendees.

Also, check out the NTMS website www.ntms.org often for further information about MUD 2004.

This conference will be the microwave event for 2004. Don't miss it! Come join the fun and camaraderie in Big-D.

Al Ward W5LUA
Bob Gormley WA5YWC
Kent Britain WA5VJB
August 5, 2004