



RF



ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. L NO. 11

P.O. BOX 3454, TUSTIN, CA 92781-3454

November 2009

The Prez Sez.....

by Nicholas AF6CF



Greetings to all!

We are approaching the busy time of the year, so prepare your calendars early for all the Club's activities.

Speaking of activities, last month's Club auction was one of the best ever, with proceeds of over seven hundred dollars. My personal thanks to Chip K7JA, our Auctioneer in charge and his helpers and minions for a terrific job.

The annual Potluck at the PEQ's QTH was another outstanding activity, with plenty food and conversation for everybody to enjoy.

You should see the shack at the QTH of the PEQs!! For any HAM, just visiting one of the best radio stations in Tustin, if not in the whole country, is in itself a great experience. So many thanks to Kristen K6PEQ and Dan N6PEQ for your hospitality.

This month's speaker will be the legendary Gordon West, WB6NOA, so be sure to attend. Also we will have our annual Board Of Directors elections. So if you feel that you want to help the Club, you can run for one of the yearly positions.

Finally, the Christmas Party will be on December 11th this year, a little early to accommodate everybody's end of the year agenda.

73 DE AF6CF



--- OCARC---

Nov. 20th Meeting

The Speaker for the Nov. 20th is Gordon West WB6NOA. Gordon always brings a lot of knowledge and excitement for our great hobby when he speaks. You never know what Gordon has planned up his sleeve, so come and listen and enjoy!

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The next general meeting will be:

**Friday, Nov. 20th
@ 7:00 PM**

We will be meeting in Room 208
In the east Red Cross Building



2009 Board of Directors:

President:

Nicholas Haban, AF6CF
(714) 693-9778

AF6CF@w6ze.org

Vice President:

Kristin Dankert, K6PEQ
(714) 544-9846

K6PEQ@w6ze.org

Secretary:

Kris Jacobs, KC6TOD
(562) 691-7898

KC6TOD@w6ze.org

Treasurer:

Paul Gussow, W6GMU
(714) 624-1717

W6GMU@w6ze.org

Membership:

Bob Eckweiler, AF6C
(714) 639-5074

AF6C@w6ze.org

Activities:

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(714) 544-9846

N6PEQ@w6ze.net

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W6HHC@w6ze.org

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(562) 697-2239

W6HTW@w6ze.org

Director-At-Large:

Rich Helmick, KE6WWK
(714) 343-4522

KE6WWK@w6ze.net

George Jacob, N6VNI
(562) 691-7898

N6VNI@w6ze.net

2009 Club Appointments:

W6ZE Club License Trustee:

Bob Eckweiler, AF6C
(714) 639-5074

AF6C@w6ze.org

Club Historian:

Bob Evans, WB6IXN
(714) 543-9111

bobev@netzero.net

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W6HHC@w6ze.org

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Bob Eckweiler, AF6C
(714) 639-5074

AF6C@w6ze.org

ARRL Awards Appointee:

Arnie Shatz, N6HC
(714) 573-2965

N6HC@aol.com

Larry Beilin, K6VDP
(714) 557-7217

K6VDP@aol.com

OCCARO Delegate:

Steve Brody, N1AB
(714) 974-0338

stevebrody@sbcglobal.net

Monthly Events:

General Meeting:

Third Friday of the month
at 7:00 PM

American Red Cross
601 N. Golden Circle Dr.
(Near Tustin Ave. & 4th St.)
Santa Ana, CA

Club Breakfast:

First Saturday of the month
at 8:00 AM

Jagerhaus Restaurant
2525 E. Ball Road
(Ball exit off 57-Freeway)
Anaheim, CA

Club Nets (Listen for W6ZE):

7.086 ± MHz CW **OCWN**
Sun- 9:00 AM – 10 AM
Rick KF6UEB, Net Control

28.375 ± MHz SSB
Wed- 7:30 PM - 8:30 PM
Bob AF6C, Net Control

146.55 MHz Simplex FM
Wed- 8:30 PM - 9:30 PM
Bob, WB6IXN, Net Control

VISIT OUR WEB SITE

<http://www.w6ze.org>

for up-to-the-minute club information, the latest membership rosters, special activities, back issues of RF, links to ham-related sites, vendors and manufacturers, pictures of club events and much more.

Club Dues:

Regular Members ...\$20
Family Members* ...\$10
Teenage Members ..\$10
Club Badge**\$3

Dues run from Jan thru Dec and are prorated for new members.

*Additional members in the family of a regular member pay the family rate up to \$30 per family.

**There is a \$1.50 charge if you'd like to have your badge mailed to you.



OCARC HOLIDAY PARTY December 11th, 7 p.m.

You are invited to the OCARC Holiday Party to enjoy some great food, enter a great raffle and support our club! The **grand prize** this year is a terrific FT-857: Mobile HF/VHF/UHF Rig!



HF + 6M + 2M + 440 MHz

We will also be raffling off an "A" stock IC-92AD: D-Star HT, an IC-2820H: Dual Band Mobile and an IC-R5 Sport: Handheld RCVR and many other great prizes! You must be present to claim the raffle prize so don't miss out!

See Kristin, K6PEQ, at an OCARC general meeting or club breakfast or contact her at **714-544-9846** or via email at k6peq@w6ze.org to arrange purchasing your holiday party dinner tickets. Remember to bring your spouse and friends too! Dinner tickets are only \$24 per person and include a great meal and 1 free raffle ticket!

Mark the date on your calendar!

Friday, December 11th at 7:00 p.m.

RSVP to Kristin, K6PEQ by Friday, December 4th!

Location: Jagerhaus Restaurant

2525 East Ball Road, Anaheim CA 92806

Located on Ball Road, just west of the 57 Freeway

www.jagerhaus.net, 714-520-9500

Raffle tickets will be sold at the door. So RSVP now for a great night of friends, food and prizes!



Heathkit of the Month

by Bob Eckweiler, AF6C

The IT-1 Isolation Transformer.

The IT-1 is a simple kit that is worthwhile for anyone who plays with electronics or does service work. It is a necessity if you work on any AC-DC devices such as an old five-tube AC-DC AM radios that was in just about every American household in the fifties and sixties, It will also provide additional safety if you are working directly with the AC line voltage.



Heathkit IT-1 Isolation Transformer

To understand the purpose of an isolation transformer, a fundamental understanding of typical house wiring is needed. Most of today's modern homes have two phase 234 volt* connections to the power grid. The power is delivered from the

utility pole through a step-down transformer mounted on a nearby power-pole by three wires; two are insulated and usually wrapped around the third which may or may not be insulated. The third wire is heavy and also provides structural support for the other two wires. The voltage between the two insulated wires is nominally 234 volts AC RMS; these two leads are called the **hot** leads. The third wire is the center-tap off the transformer and is called the **neutral** lead. The voltage between the neutral wire and each of the other wires is nominally 117 VAC. The two hot leads are 180° out of phase, thus the term *two phase* power. (When one of the two insulated wires is positive the other is negative.) Figure one shows typical power-pole to home circuitry.

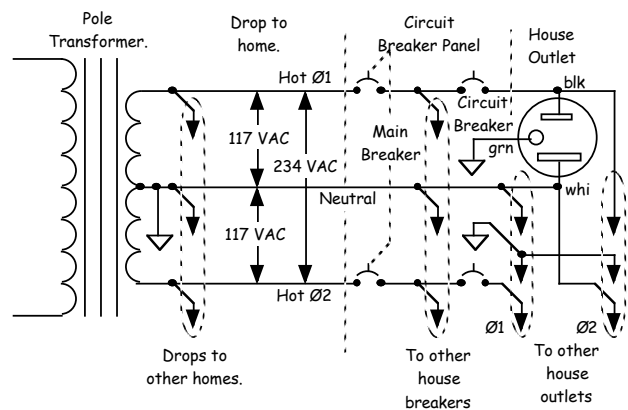


Figure 1: Typical Home Power Drop Wiring

The typical Orange County outlet has three connections. The Hot terminal is the shorter of the two slots and is identified with a brass colored screw; the Neutral terminal is the longer of the two slots and is identified with a silver colored screw; and the Ground terminal is the round-like contact and is identified with a green colored screw (often with a hex head). Measuring between the hot and neutral terminals of a properly wired outlet yields 117 VAC nominal. Measuring between the neutral and ground terminals should yield just a few volts, or ideally 0 VAC. This is because the neutral and ground are connected

nearby, and any voltage measured is from IR drops between the outlet and the ground point.

Now here is the problem. Should you be somewhat grounded while working on a piece of electronic equipment and touch a part of the circuit connected to the hot AC lead you will receive a shock. This might seem easy to avoid, but many AC-DC devices can have a hot chassis, especially the older ones that have plugs that may be inserted either way. Servicing one of these with the plug in one of the two possible directions, if you accidentally touch the chassis - Zap. If you should accidentally grasp the chassis to pick it up and move it, you may not be able to let go, resulting in serious injury or electrocution. That kind of takes the fun out of the hobby.

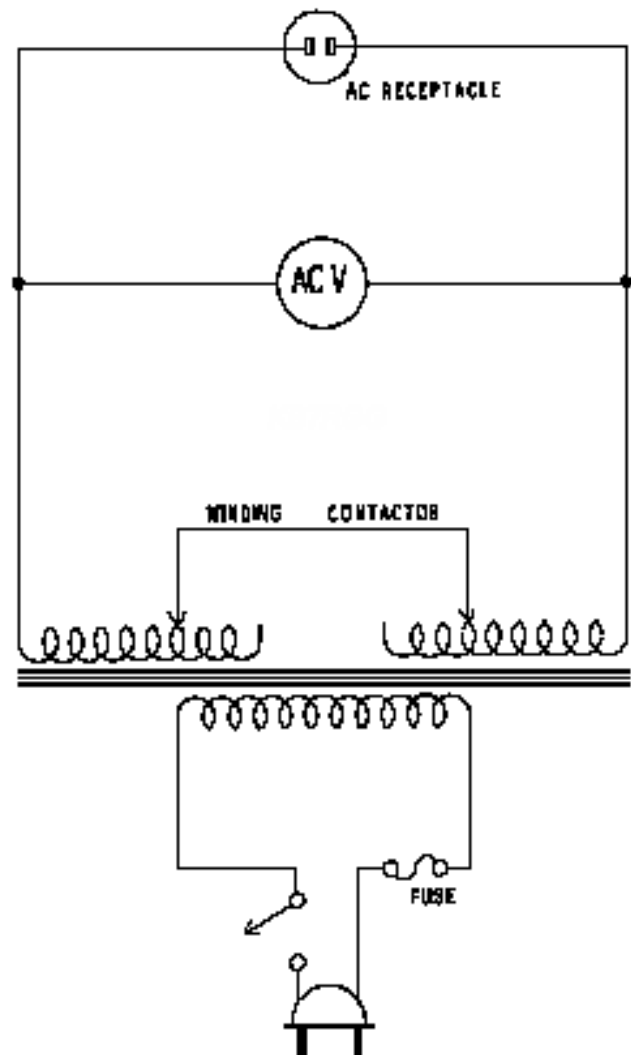
An isolation transformer provides a power source that is isolated from ground, helping to protect you from this type of shock. It often has other features such as an electrostatic shield between the transformer windings to reduce the transfer of noise on the power line and sometimes a way to change or adjust the voltage \pm a significant percentage.

Isolation transformers can also provide voltage transformation. Some have identical voltages on the primary and secondary; other can step up or step down the voltage. Common isolation transformers have inputs and outputs of 117V/117V, 234V/234V (often with a center-tap for two 117V outputs, 234V/117V and 117V/234V again often with a center-tap). The transformers are rated for their volt-amp capability.

The Heathkit IT-1:

In 1953 Heathkit introduced the IT-1 Isolation Transformer Kit. It sold for \$16.50 in their 1956 catalog. The Heath IT-1 is small: 8"H x 4-1/4"W x 4-3/4"D excluding knobs, so it takes up very little space on the workbench. The transformer

has an adjustable slider that allows the output voltage to be adjusted between about 90 VAC and 130 VAC. The front panel includes a 0 - 150 **AC VOLTS** meter that measures the output voltage, a FUSE holder for a **2 AMP** 3AG slow-blow fuse, an **OFF / ON** toggle switch and a two prong non-polarized **VARIABLE AC VOLTAGE** outlet. A control marked **VOLTAGE** varies the transformer output. The IT-1 is rated for 100 watts continuous and 200 watts intermittent.



Heathkit IT-1 Schematic

For the low price of \$16.50, Heath had to cut some costs to bring it to the market. Most noticeable is the meter which is of the inexpensive type with no movement damping, similar in style to

the meters on the AT-1, DX-20 and DX-35 ham transmitters. Still the accuracy of the meter on the unit reviewed is amazingly precise and has an expanded scale so 90 VAC is center scale and voltages between 90 and 130 VAC are easy to read. Also noticeable is transformer noise. The transformer "sings" at higher voltages, which can be distracting.

Heathkit manufactured the IT-1 through 1960, after which a succession of "improved" isolation transformers were produced among which are:

- Heathkit IP-10 Isolation Transformer - Circa 1961 - 1962
- Heathkit IP-22 Isolation Transformer - Circa 1963 - 1964
- Heathkit IP-5220 Variable Isolated AC Power Supply - Circa 1975 - 1983

Each has some improvements and higher power capability as well as styling changes.



Later Heathkit IP-22 Isolation transformer

Uses:

Uses for the IT-1 Isolation Transformer include:

1. Isolating the AC mains power from the equipment under test to prevent shock from the AC power to ground - especially important when servicing AC-DC electronic equipment.
2. Troubleshooting equipment that is intermittent due to under or over-voltage conditions.
3. Plugging-in for the first time that piece of unknown equipment you just bought or built.
4. As a safe variable calibration source for AC voltmeters.
5. For isolating equipment that may be radiating RF into the power lines.

Finally:

This column features a different Heathkit each month. Sometimes it features ham gear, other times, test equipment, or one of the household products, and occasionally it features one of the more unusual Heathkit products.

If you'd like to see a specific kit discussed contact me at rf_feedback@w6ze.org and it will be seriously considered.

Also, if you have any old Heathkit manuals you no longer need please consider passing them along so I can use them for reference.

Next month we'll look at the V-7A VTVM and the numerous earlier Heathkit VTVMs that led up to this classic kit.

Bob Eckweiler, AF6C

* **Note:** 234V and 117V values are used as the AC house voltages; they are the nominal voltage the power company delivers. Often they are referred to as 240V/120V or 220V/110V. These all refer to the same USA household electric service.

The Annual OCARC Fall Potluck – October 31st, 2009 at the home of the PEQ's Dan & Kristin, it was a terrific party... as you can see by all who attended.



Now look at Abbey from NCIS... Everyone did a double take... Of course we all love the French Maid and her beautiful assistant!



The Grim Reaper and his Geek Friend!



Where is Dr. Watson????



The Vikings still live!!!



“Typical” OC Ham Radio Family

**David-KG6RWU with his daughter and wife
Sarah-KI6CUJ and Polly-KI6CUK**

It’s now time for Turkey Day!



Happy Thanksgiving

New QSL Cards for OCARC

Are Being Printed

(or... "Your QSL is almost in the mail")

Orange County, California, U.S.A



W6ZE



OP. _____

STATION		DATE	
GMT	FREQ	RST	MODE

73, PSE QSL TNX

Orange County A.R.C.
P.O. Box 3454
Tustin, CA. 92781-3454

UX5UO print

OCARC Publicity Director, Ken W6HHC, announced that the long awaited W6ZE QSL cards are on order. The club's old cards were of terrible quality (we were ashamed to send them out). So our club call-trustee has been on a campaign to get a replacement QSL card on order for OCARC, because the QSL backlog for W6ZE was growing huge!

The design of the new QSL card was created by Bob AF6C (unofficial club artist). The new cards are being printed by UX5UO Printing in the Ukraine, www.UX5UOqsl.com. The QSL company was recommended by Dan N6PEQ. Ken reported that it was "super easy" to work with UX5UO printing over the internet and to have a proof JPEG sent by e-mail. Cost of the full-color card is \$76/1000 (with shipping). The new OCARC cards will take a few weeks to arrive.

OCARC General Meeting Minutes

October 16th, 2009

The OCARC October General Meeting was held at the Red Cross complex in Santa Ana on Friday evening, October 16th, at 7 PM. There were a total of 44 members and visitors present.

This evening was our yearly auction. Our Auctioneer was Chip Margelli K7JA who always adds to the event. Everyone had a tremendous time with lots of laughter and good humor as well as some tremendous bargains.

So many of the club members donated ham gear which filled many tables, as well as the generous donation from Janet Margelli KL6MF, who cleaned out HRO's back room. Thanks to all who donated.

The club made over \$500 net profit from this action. Paul W6GMU and Ken W6HHC kept the accounting and sales for the event. Great job! They even let Kris KC6TOD help!

Reminder of the OCARC Potluck on October 31, 2009 at 1:00 PM – Halloween, so wear your costumes.

Rich - KE6WWK also reminded everyone of the upcoming election and that he is putting together the slate of officers for 2010. If you would like to volunteer, please contact Rich.

Respectfully submitted,
Kristine Jacob
KC6TOD



Chip-K7JA did a terrific job as auctioneer, emptying the tables of ham gear

HOLIDAY DINNER 2009

LET'S ALL GET BEHIND THE PLANS BEING MADE FOR THE 2009 HOLIDAY DINNER. WE HAVE THE MEMBERSHIP TO PULL THIS OFF. I HOPE TO SEE EVERYONE THERE.

BEST WISHES FOR A WONDERFUL HOLIDAY SEASON!

*DE
GEORGE T. JACOB JR.
N6VNI MEMBER-AT-LARGE.*

Tribute to a Silent Key



Silent Key – Franklin R. Suggs, Sr. WF1A

Frank was my best friend for over 30 years. I met him before I had a driver's license. Frank died of heart disease while staying at the Slabs in Nilan, CA. Frank was cremated in California, and his ashes were sent to his family in Rhode Island. Frank and I used to play with computers back in the TRS-80 days, I later became a ham and we were both members of the Pine Hill ARC in Cranston. I got Frank hired on to a couple of jobs over the years. Frank was a great technician and I always brought him on board when there was a need for computer repair. Frank was always invited to be part of any Field Day operation where I was involved. He first came to California to attend Field Day with me when I was the President of the Escondido ARC. Frank and I also did the Baker to Vegas run for several years. Franklin was planning on coming to visit me in Annapolis, MD and stay a few weeks here. He was putting together some funds and would be leaving soon. I generally spoke on the telephone with Frank about once a week. I became suspicious when I was unable to get in touch with him for a couple weeks. That is when I learned the sad news that he passed away in his sleep. I really miss Frank and all the corny jokes I heard a thousand times. Franklin R. Suggs, Sr. ARS WF1A made new friends every day and I am sure we all miss him.

73,

Willie N8WP
ex-President OCARC

OCARC**Board Meeting Minutes****11-7-2009**

The OCARC Board meeting was held at the JagerHaus Restaurant, 2525 East Ball Road, Anaheim, at 8:15AM Saturday, November 7, 2009. There were a total of 8 directors and 7 visitors – Diane Konechy, Larry Mallek K6YUI, Earle Craig AB6WL & Steve Brody N1AB, Robert KG6WTQ and two nephews attending. There was a quorum of directors present, with the following directors absent: Dan N6PEQ, Nicholas AF6CF. In Nicholas' absence Kristin conducted the meeting.

DIRECTOR REPORTS:

- Treasurer Paul W6GMU reported \$4894.50 and we are solvent, profit from the raffle was \$507.00.
- Kristin K6PEQ updated the board as to the Christmas party, the menu has been chosen, she and Dan are working on the raffle prizes. The cost will be \$24.00 per person. The November guest speaker is Gordon West WB6NOA. The annual potluck was a huge success.
- Bob AF6C reported our membership is over 80 hams at this time. Earle Craig AB6WL joined at the board meeting.
- Ken W6HHC reported that the QSL cards have been ordered.
- Hank W6HTW reported some soldering issues have been remedied.
- Rich KE6WWK said that he the election nominees for 2010 has been completed.

OLD BUSINESS:

- **RF Newsletter "Rotating" Editors**
 - November – Kristine KC6TOD
 - December – Bob AF6C
 - January – TBD
 - February – Kristine KC6TOD
- **Guest Speakers** – Kristin has the remainder of the year covered and is looking into speakers for the first quarter 2010 to help incoming VP. George recommended Wayne Barringer (Dale's twin at HRO) to Kristin, she will follow up with Wayne.
- **Morse code Class:** Morse code class to

resume in February or March

- **2010 Field Day Plans & Suggestions** – We are in need of a Field Day Chairman and will solicit at our upcoming meeting. George N6VNI emphasized the importance of having Plan A & Plan B, to avoid any conflict in finding a location. Plan A being the first choice of location and Plan B – something to use as a backup just in case of a problem. Walter Knott School was suggested because of the location and the amenities (such as grass, shade, parking and overall comfort. 2009 Results are in and we as a group took 3rd place in the nation..... KUDO's to all who worked Field Day 2009
- Tremendous success of the auction with a nice profit for the club as well everyone having such a great time. Nothing but positive comments.
- **Christmas Dinner date and preparations** – The Christmas dinner will be held on Friday night December 11th at 7:00 pm at the Jagerhaus Restaurant on Ball Road in Anaheim. Cost will be \$24.00, the menu is planned. The budget is in place for the raffle and the ladies gifts.

NEW BUSINESS

Red Cross Donation: At the auction Nicholas donated to the Red Cross on behalf of the club an exterior HDTV antenna with amplifier, rotor and remote control. The club will also be donating a check for \$250.00 to the Santa Ana Red Cross chapter for their use. A motion was made by Kristine KC6TOD to authorize this donation and seconded by Rich KE6WWK.

It was announced at the meeting a frequent OCARC visitor and good club friend, WF1A Frank Suggs, passed away recently. Willie N8WP shared the sad news.

Meeting adjourned 9:05am

Respectfully submitted, Kristine Jacob,
KC6TOD - Secretary

2010 List of Nominees for OCARC BoardLIST OF THOSE RUNNING FOR THE 2010 BOARD
OF DIRECTORS

Others can be nominated to the list at the November
meeting

PRESIDENT -- KRISTIN K6PEQ

VICE PRESIDENT-- Paul W6GMU

SECRETARY-- KRISTINE KC6TOD

TREASURER-- KEN W6HHC

ACTIVITIES-- DAN N6PEQ

MEMBERSHIP-- LORAN AF6PS

PUBLICITY-- ROBBIE KB6CJZ

TECHNICAL-- BOB AF6C

DIRECTOR AT LARGE-- NICHOLAS AF6CF
(Nicholas is automatic)

(one more to be elected)

RICHARD N6RU
LARRY K6YUI
GEORGE N6VNI

PLEASE SUPPORT OUR SPONSORS

The following organizations support our club's events in numerous ways. Please consider them when making your Amateur Radio and Electronics purchases:

A&A Engineering

<http://www.a-aengineering.com/>

ADI / Pryme Radio Products

<http://www.pryme.com/>

The DX Store

<http://www.dxstore.com/>

Elecraft

<http://www.elecraft.com/>

Ford Electronics

<http://www.fordelectronics.com/>

Ham 4 Less.com

<http://ham4less.com/>

Ham Radio Outlet, Anaheim, CA

<http://www.hamradio.com/>

Hamstore.com

<http://www.hamstore.com/>

Heil Sound

<http://www.heilsound.com/>

Hobby Radio stop

<http://www.bearcat1.com/scanners.htm>

ICOM Elmer.Com

<http://www.icomelmer.com/>

M2 Antenna Systems

<http://www.M2inc.com/>

MFJ Enterprises

<http://www.MFJenterprises.com/>

NGC Company / Comet

<http://www.cometantenna.com/>

Nifty Ham Accessories

<http://www.niftyaccessories.com/>

Photo QSLs.com

<http://www.photoQSLs.com/>

Universal Radio

<http://www.universal-radio.com/>

Vibroplex

<http://www.vibroplex.com/>

Icom Elmer.Com

M2 Antenna Systems

Nifty! Ham Accessories

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ELECTRONIC COMPONENTS
COMMERCIAL EQUIPMENT
TEST EQUIPMENT