OSHAWA TI
99/4A
COMPUTER
USERS GROUP

PEACE ON EARTH

DEC 1990

# OSHTI

## NOV. MEETING:

The Nov. OSHTI meeting again saw a gathering of the clan from OSHTI and from Peterboro's Kawartha Club. Although I put on more coffee, the 35 cups did not slake this thirsty group. The Kawartha group has invited all of us to their Dec. 12th (Wed.) meeting. Bob Boone will be down from North Bay to sell his TI wares at this meeting. If you are interested contact Tom or simply show up at Tom's place before 6 pm on Dec. 12. We can form a group and take fewer vehicles. That's Wed. Dec. 12th.

Everyone is reminded to bring their COMPLETED TI SURVEY to the next OSHTI meeting on Mon. Dec. 19th. We will mail it to Paul Arnold in Louisiana en masse to save some postage.

There were a few items of business to take care of. A thank you letter and a short survey regarding the recent Nov. 4th Computer Exhibition was received from Jim Creighton. They are having another exhibition (name is changed to a COMPUTER FAIR) in Bowmanville on Sun.June 2 1991.

We also received a letter from CULLEN GARDENS regarding a group rate for tours during the winter. Although it was suggested that we could make this a group evening for members and families, it didn't receive much interest. Christmas is hectic enough, I guess.

Thank you to Bob Young for submitting a newsletter item. If everyone contributes a little, it will make your editor's job a little easier and add to the flavour of our newsletter.

Bob also gave a brief description of this article. The basis of it is that you can "piggy-back" the basic GROM chips in your mother board. This will then make room for other popular GROM chips to be inserted into the vacated space. This could include things like MULTI PLAN, EDITOR/ASSEMBLE etc. I don't think that it would allow EX-BASIC to be installed since there are ROMS as well as GROMS involved.

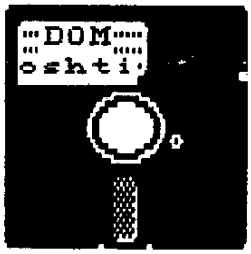
I know you are probably asking yourself, what the heck's a GROM and a ROM. A GROM is a Graphics Read Only Memory chip. GROMS cannot be written to, they are permanently burned into the chip with a variety of things, mainly programmes written in the GPL(Graphics Programming Language). In fact GROM chips can even have programmes written in BASIC.

The ROMS are Read Only Memory chips which are usually written in machine code for fast processing. EXTENDED BASIC has 2 ROMS in it to add extra commands to the machine. Both of these chips are preprogrammed.

The contents of GROMS or ROMS can be transported to GRAM chips (Graphics Read And

write Memory). These chips are found in hardware add-ons like the 'GRAM-KRACKER' and the 'P-GRAM' (available from HORIZON). Currently , only Gary Majer in our club has such a device. If you had one of these then you could save the contents of a GROM or ROM to disk and re-write it when it is placed in your GRAM devise. There is no copy-write broken here since YOU MUST OWN the cartridge before you can do this, RIGHT !

I hope that explains it a bit anyway. For those interested there are some articles I can lead you to.




The November Disk of the month (DOM OSHTI)contained a couple of very good games and a UTILITY program called ARCHIE. ARCHIE allows you run E/A 5 (a particular type of programme type) programs from an ARCHived version of it. For example, an E/A 5 game cannot exceed 33 sectors in length. If they do, then they re-chained together using consecutive files which end in the next highest ascii symbol. For example, the game ZAXXON is made from 3 files ZAXXON,ZAXXO0 and ZAXXOP. Each of these files can be 33 sector maximum. What ARCHIE allows you to do is to put ZAXXON as ONE file on your disk. It then loads the game as 3 segments so it performs exactly the same.

What are the advantages of using ARCHIE. Well for one, you save some disk space and only have ONE NAME FILE for a GAME. It appears to run this game from start-up a little faster, but this is just my observation.

What do you have to do to get the game as one file ? The answer is to ARCHIUE or compact the 2 or 3 or 4 etc files into 1. To do this you use the ARCHIVER program by Barry Boone (vsn 3.03). However, when you do this, DO NOT COMPRESS the files only PACK them together. Compression further reduces space, but ARCHIE cannot, at the moment (vsn 1.0) do compressed files. I would think that this will eventually be possible in the future, but only if there is no great loss in time.

This utility is a FAIREWARE offering by JIM REISS. There is a ARCHIE/DOC file on the DOM to explain how to use and REINBURSE Jim for his work.

IF YOU USE IT, PLEASE make a CONTRIBUTION; they are usually very small.

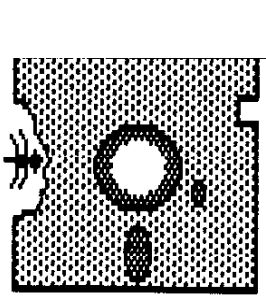
The Toronto DOM contained the GAME of BARRAGE, one of the fastest joystick games around. It offers an interesting option for playing the 2 player game. One of the options is 2-player CO OPERATIVELY and the other is 2-player COMPETITIVELY.

There were also a number of PRINTER utilities on the 9T9er DOM. One of these allows you to put up to 20 TI ARTIST pictures on one page. Another utility allows you to print out a disk cover. These were both faireware offerings; read the Docs to find out who to send contributions to, if you use it.

There is a correction to the SLINKY game on the Nov. DOM. It will be available on the Christmas disk.

I hope everyone had a chance to get one of the bargoons offered during this meeting. If you have any cartridges you wish to sell or swap, bring them to the next meeting.

The next meeting, Monday Dec. 19th is a GUY'S in Whitby, a 'suburb' of Oshawa ? Guy has had an extension so that he can finish off his basement. I can't wait to see it.



# FIXING A BAD DISK:

Here is a trick for fixing disks that just stop turning. Yes, it just stops turning in its jacket. The cause of this may simply be age or a bend in the plastic jacket. I have had this happen to me about once a year with a Commodore disk drive and a disk I use once or twice a week. It just stops turning.

Of course, I have a BACK UP <somewhere ?> but, if the back up is at home and I am at work what to do ???

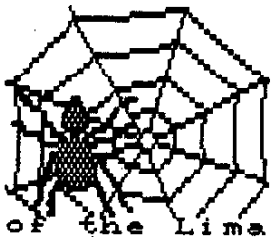
Take a sharp knife, exacto et al and open up the disk jacket (that black plastic envelope) CAREFULLY. Take another diskette, preferably NEW and open it up. Do this so that the NEW disk jacket can be taped shut. I suggest prying up the flaps by wedging the exacto blade under the sealed flaps. Lift up two(2) of the flaps and slide the new disk out touching it only at the central hub. You are not going to really use the new disk just the jacket. Take the 'jammed' disk out of its jacket and place it in the new jacket; be careful to put it RIGHT SIDE up. If it has a hub which is harder on one side this will be easy. Tape the jacket closed and place it in the disk drive and do a catalog. If it doesn't work, then maybe it is in backwards. If it doesn't turn then you have not seated it correctly.

The two or three times that I have done this, it has worked. The next thing I suggest is to make a(nother) BACK UP of this valuable disk. Use the retaped diskette as a backup or make another copy.

What do you do with the new disk and the old jacket ? Frizbees maybe. I usually trash both. I haven't seen anyone out there selling those plastic jackets by themselves.

For those people who know me, I will no doubt save the disk sleeve.

Tom



# FUNNELWEB vsn 4.31

Charles Good of the Lima group has sent out newsletter subscribers and exchanges the latest version of FUNNELWEB, Vsn, 4.31.

This contains the vastly improved DISKREVIEW program which will virtually eliminate the need for DISKU and DM-1000. DISKREVIEW is a comprehensive programme enabling you to do most disk operations and sector editing. It is also accessible from the MAIN XB LOAD menu and from the EDITOR screens.

It is also windowed and menued for userfriendliness minutes I was able to access most functions easily without reading the DOCS.

While the DISKREVIEW programme takes up a lot of space on the disk, things like DISKPATCH and DSKU can be eliminated. Although, I think most people will want to keep DISKU for adding and reading file comments.

T H A N K Y O U !
C H A R L I E G O O D.
LIMA USERS'GROUP

# Northern Dancer:

Who was NORTHERN DANCER ? Just one of the greatest race horses who ever ran is all.

Happily he past away after many gleeful years at stud. No doubt, he died with a <grin> on his face. When I retire, I would like to go that route too ! Dreamer.

# Good NEWS Bad:

To give you an idea of how word about our club travels you can ask Liz Conlin. She phoned me from Pickering one night last month and wondered how she could get some TI stuff. She had received my phone number from Steve Michelson of the Toronto 9T9er group. Liz had been refered to them by TEXAS INSTRUMENTS in Richmond Hill. Liz and her husband have three school aged children and she was looking for modules to go with her TI 99. She had even placed an order with TRITON (before they sold out to T.M. Direct Product Marketing as reported in our last newsletter). TRITON wrote her back a letter informing her that she would have to deal with T.M. instead. When she got thru to T.M. they told her that they WILL NO SHIP TO CANADA. In fact their 800 number, also reported in last month's newsletter, will NOT WORK FROM CANADA either.

However, because Liz had placed her order prior to the transfer, T.M. will ship her order, but not any others.

Looks like us CANUCKS are out of luck. What happened to that FREE-TRADE agreement anyway ?

We better find a relative in Buffalo, eh ?

On the plus side, we hope that the Conlin's will join our club and make use of the cassette library until we can find them a disk system.


# OPA's 80columns

OPA (aka Gary Bowser) reports that he is still working on the TIM (80 column card). Gary wants the expansion port to be usable for future periferals like GEN-LOCK devices and image digitizers. Gary has also had a slow time getting the 9958 video chips as well. Gary still hopes to be able to deliver the goods before St.Nick flies.

Yours truly is on the list so here's hoping.


Interested in other area meetings ? The KAWARTHA group will be meeting on Dec. 12th (Wed.) and the Toronto Grp. on Dec. 13th. If you want to get to the KAWARTHA meeting be at Tom's place by 6 pm SHARP! We will POOL-UP to save the cost of each of us driving.

P.S. Tom finally brought a 'new' 1986 car. Yea. I said new... when compared to a 1979 Volvo anything is new. This is our first GM product. I now am a true -blue collar OSHAWAN, er' OSHAWANIAN ?

# MYARC Floppy Controller: 2

For those people with a MYARC disk controller (not many but a few). There is a nice utility built into it that allows you to get a catalog of any drive from 1 to 4 by doing a CALL DIR(#) from basic or Xbasic (#=1,2,3,4). Works just fine. It will not access drives above 4. It helps to to read your manual, eh?

# "And the winner is.."

Congratulations to Keith for winning the 50-50 draw at the last OSHTI meeting. It shows what can be done if you have to write a quick program to generate a random number.

```
100 RANDOMIZE
110 MX=24
120 X=INT(RND*MX+1)
140 PRINT X
```

RANDOMIZE in line 100 sets the random number generator to an unpredictable sequence. The value MX in line 110 is the largest value we want for our answer; in our case 24. In line 120 we use RND the actual random number to make our selection. RND is a number chosen from the generator such that the number is BETWEEN 0 and 1; for example 0.210340543.

The multiplication by MX gives us the correct rang of numbers. The addition of 1 makes sure that we never end up with a number less than 1.

This is the working part of any game which selects a random number for such things as what to use in a math expression such that you have a different number each time or what position to set an attacking ship at.

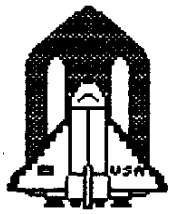
The next variation of setting a random number is one used in card games so that the same card is not selected.

Use the same lines as above but adapt them slightly to make sure that the card has not already been picked.

```
100 RANDOMIZE
105 DIM FL(52)
110 MX=52
120 X=INT(RND*MX+1)
130 IF FL(X)=1 THEN 120
    ELSE 135
135 FL(X)=1
140 PRINT X
150 GOTO 120
```

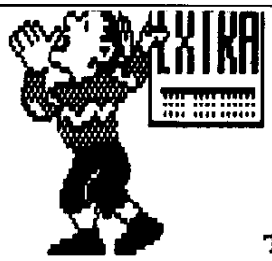
This programme uses the flag (FL( )) to make sure that the same number between 1 and 52 is not selected. When the array FL is dimensioned in line 105, all of is elements (FL(1),FL(2) )etc. are set to ZERO. When the flag(eg. FL(10)=1 for X=10 ) is set in 135 you cannot use that number again. When you run this programme the time to print X in line 140 increases since your choice is limited after the number has been selected. This is a slow but effective way to check for the pre-selection of numbers, I am sure that there are other ways. Some which might be faster. If you think of one let me know.

# GERMAN TI FAIRE & NASA:



I thought that everyone might benefit from the articles that I found in two Nov. 1990 TI User Group newsletters- The LA TopIcs and the CONNI (Central Ohio newsletter). The article by Jim Peterson on the European TI Faire in Germany makes great reading and tells us a lot about how different things are there. It also gives us an insight into the American point of view.

The second article (from LA) gives the frequencies used by NASA when it communicated with the astronauts. Any HAM radio operators out there like Keith and Bill Watts might be interested in this info. I found it interesting that they were even available to the layman.(p.7,8.10,11)



# CONTEST CONTEST CONTEST PRIZE!

This is an easy one. All you have to do is to select a name for the OSHTI newsletter. Didn't you notice, we don't have one.

For example, the Pittsburgh User Group newsletter is call the THE PUG PERIFERAL, the Los Angeles newsletter is called the LA TopICs and the Lima newsletter is called, BITS BYTES and PIXELS.... but ours has NO NAME!

This contest will be open till a name is selected by a majority vote of OSHTI members (a run-off may be needed).

What will be the prize you say. I think a suitable one might be the OSHTI disk of the month for 1991 or a piece of TI software, like PAGE PRO or TIBase or even a yearGs subscription to the OSHTI group. The choice will be up to the winner.

We invite entries from any of our OSHTI members as well as anyone from the User groups that we correspond with.

Let's have an idea FROM YOU !

Send your newsletter name to OSHTI as printed on page 10, or bring them to the next OSHTI meeting.

You can also phone them into Tom or Ray or Guy.

# salute to our forces

I was sorry to hear about the comments regarding a recent EAR (East Anglia Region) newsletter. It seems that some people took offense to the US eagle printed on the frontpage along with a message of encouragement to US and British serviceman in the Persian Gulf.

I would like to add my positive comment toward the front page, it was very tasteful, timely and nicely done. I am not one who supports war but the ones who are over there "in the trenches" are not there because they want to fight and kill either.

There has been a tremendous response in this country (Canada) for the servicepeople there. There have been thousands of letters and extra food etc. sent by many people, even people who are against the war. This is for the people who are on the firing line, if a war does break out. I think we wish these people well at this time rather than complain about why their governments sent them there.

I wish everyone PEACE and HARMONY at this time of year, whichever side of this issue you may be on. ArenGt you glad you are not there.

Tom Jakabfy
OSHTI Dec. 1990.

# 1991 LIMA FAIRE:


The LIMA Users' Group will be holding their Multi-Users' Group (MUG) Faire on Friday and Saturday May 17,18 of 1991. This proved to be an excellent one last year and it was chosen as THE BEST of the 1990 Faires by The Asgard newsletter-REFLECTIONS.

I, for one am planning on attending this one. If you're interested let me know.

Tom.

# TIs in Europe
# A report from Germany

(The following is an excerpt of a conference on the TIFORUM concerning a European Texas Instruments show on the eve of German unification in October. The conference features comments from Chris Bobbitt, who attended the European show, except where noted. This excerpt was edited for publication by Jim Peterson. It can be freely distributed on all nets, user groups publications, commercial publications or other media as long as credit to TIFORUM is provided.)

I had the pleasure to attend the Fall '90 All-European TI Show in Weisbaden, Germany, last weekend. Beery Miller, who also attended, and I were the first vendors from North America to make it.

It was a pleasant experience. Jim Reiss invited me here tonight to tell about what I saw and did. Though, honestly, I'm still trying to put everything in order in my mind. A 3-day show is an overwhelming experience. In other words, I'm a bit burned-out still.

In any case, I will endeavor. After 8 hours of "cattle car" class on Pan Am I arrived in Germany tired, and was picked up by two U.S. servicemen I know over there, one of whom was actually my host--Dee Turner. The other was Jim Fetzner, who is fluent in German. (a TIFORUM member-Jim Horn).

Dee's club in the Frankfort area (where Weisbaden is sort of a "suburb") was sponsoring the show. In any case, they whisked me from the airport directly to the show, which was held at the Burgerhaus (sort of the town hall of, believe it or not, in a suburb of the suburb). The first day was set aside for "setup," though there were about 100 people in the hall--many of whom were playing with computers and talking--the actual setup had started on Thursday.

Here, for those who've been to a TI faire, things were immediately different. Instead of the traditional layout over here with user groups selling stuff from booths and local, regional and national vendors, the get-togethers in Germany are just that--informal get-togethers.

The chairs were on the OUTSIDE of the booths, and massive tables were set up to hold the most bizarre collection of equipment I've ever seen. User groups set up multiple systems and showed off group projects; individuals showed off their own work; and the 2-3 dealers of TI stuff were consigned to the flea market area.

Beery and I, as honored overseas guests, got tables roughly in the center of the hall.

As I said above, the equipment was bizarre. As Jim Fetzner aptly put it, every one in Europe has a "mutant" system. No two were alike. Few peripherals used over here were in evidence and most of the software in use was unrecognizable. Virtually everything in use other than the console was highly personalized, including the software. This presented some problems in demoing stuff on the system provided to me. It was tantamount to taking every unusual piece of hardware shown at all the fairs in the States and throwing it into one room.

Listing it all would take too long, so I'll just hit the highlights. There are very few 9640s in Germany (they are really POed about supply, far more than in the States) but everyone else had a Mechatronics 80-column card. Some were highly modified--additional ports, etc. The EPROM in them, owners over here may be interested to know, is about 3 versions beyond what's here.

Most people had IBM keyboards sticking off (literally) their consoles. Evidently there are 5-6 different interfaces floating around over there for attaching them--many of them quite elegant and cheap. (I'm working on importing one in particular).

Most people had GRAM devices or "super cartridges," not traditional 8k or 32k supercarts, mind you, but cartridges with dozens of modules and several banks of GROM, or GRAM devices smaller than a cartridge. I picked up a 40k GRAM, 8k RAM device that emulates a GramKracker for about $75.

There is a wide variety of software for manipulating that sort of thing, including a truly fascinating memory manager utility, a universal GROM loader utility, etc. Some of these I intend to upload in the coming weeks (copyrights respecting).

Barry Traver would be in literal ecstasy at all the flavors of XB in attendance. There was an "XB 3" widely in use, and versions of 99/8 Basic for the 4A, etc. Some of the Basics were quite rich, many were huge programs taking up 40-50k in GRAM.

In that area, I caused quite a stir with the 99/8 I brought. Evidently it was the first one ever seen in Europe, and by the end of the 2nd day it was up and running (I forgot the power supply--which isn't a standard unit) and everything of value had been sucked out of it--including the 32k ROM and the 16k Pascal ROM.

I expect to see it running on a 9640 any day now - at least that is what they told me they were going to do with it. Amazing, the similarity between the 99/8 XB and the Myarc 2 XB (knowing smile).

While it was an all-Europe show (attendees from Holland, Belgium, Austria, Switzerland, Denmark, France and Germany) every country had its own style. TI had maintained a laboratory in Holland for 4A development and the Dutch, being the pirates at heart they sometimes are, took every scrap of technical information not nailed down after Oct. '83. They did the same in the U.S. but the difference is that here the stuff was sat upon by its owners. The Dutch decided to spread it all over Europe.

In essence, they had their hands on all these technical docs 2 years before it really started to get out over here. It has endowed their software development with a substantial head start, and shows in their projects. We aren't just talking technical manuals, mind you, but detailed copies, commented, of original TI source code for everything. The

# TIs in Europe

( continued from page 7 )

Intern manual seems a bit primitive by comparison.

I tried to pick up a bit, but I had to settle for promises from owners. It was considered so "old hat" that people didn't bring extra copies of anything; everyone already had them (for several years).

Other strange hardware included custom P-boxes. It seems I saw only 4 TI P-boxes in the whole place. The most unusual was a 6x2x3 FOOT steel case housing an ungodly number of disk drives, 14 or so slots, and a power supply big enough to power Berlin.

The widely rumored TI-IBM card interface didn't make it there, but I saw a preliminary design that "almost worked."

I saw several hardware MIDI interfaces, but the demo of Mike Maksimik's largely software interface fascinated them. In fact, I got requests from the builders for enough information to make them software compatible--a promising start.

The software was fascinating. I saw a very well-done stock management package running on a 9640, but I think Beery Miller will be publishing it (he knew the author via 9640 News). I picked up an excellent CAD package from a gentleman who seemed to be looking for a U.S. publisher (we'll see on this). It does work on a 4A with a 192k video RAM card (perhaps updating my 9640 to 192k may make it boot). The most fascinating part of it is that it looked like a Mac program right down to the little TI menu (complete with map of Texas instead of an apple), that when pulled down got you 2 desk accessories and an "About" menu or window.

80-column card owners will appreciate the 2 disks of utilities and programs I will be uploading in the coming week or so. In terms of application software, there is a bit of a shortage over there, and as a result my sales were very good - I more than paid for the trip (sigh of relief), though the much smaller 9640 market hurt Beery's sales (since he primarily sells 9640 stuff).

However, there was tons of systems software, including (hold your breath, everyone) a version of the P-system that doesn't require a P-code card and will run on a stock 4A, or in 80 columns on a 9640 or a 4A properly equipped. Since it only uses the contents of the P-code card, it doesn't seem to be in apparent violation of Pecan's copyrights. As a result, I may be in a position to distribute it soon (at least once I get a final version).

A 9640 version is expected shortly. I guess the Germans are going to save Lou's hide on that score so on. By the way--it runs 6 times faster than it used to, this way. GROM is awfully slow.

Also, I saw a number of highly modified versions of the operating system. Including one gentleman who, in an amazing example of Teutonic patience, ingenuity and perhaps futility, completely rebuilt a 99/4A from scratch (mind you, no faster or better) completely in wire-wrap. He had a custom operating system he called "Proton" running on it that seemed quite ingenious. He DID have to download it over the joystick port from another machine (at 600 baud) but once up and running it was very intuitive. It DID emit so much RFI noise that he had to house it in a chicken-wire frame. Otherwise the Bundespost (just think of the post office, the phone company, Western Union and the FCC all wrapped up in one) would destroy it for him.

An aside, in Germany you have to register your modem with the government (well, the Bundespost) and speeds higher than 2400 baud are illegal and punishable with steep fines. Also, you have to pay for the specific privilege of using your modem (Southwestern Bell wanted to do that once). This sort of setup is the same in all telecommunications. Until they get rid of that sort of thing, the U.S. has a huge advantage over Germany in this area (and over many other countries in Europe for the same reason).

Oh, well, back to the story. Despite the language barrier, "tech talk" is a universal language. But I spent three days ogling software and hardware. Like U.S. shows, these things tend to be almost stag affairs (rats). But it was fascinating. This is the only TI show I've been to with beer bottles littering the floor and all the tables, and the catering served home-made struedel, espresso and cake, and for lunch a very nice schnitzel.

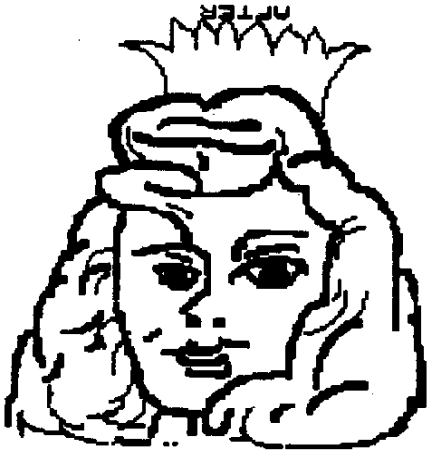
There were a few Americans present, all U.S. servicemen or dependents. I even met a guy who, until last month, was in my local user group.

The morale over there among TI people is very high. The enthusiasm was infectious. I feel much better about the TI community. It certainly improved my morale. There is a sort of "can do" spirit--probably because they were less dependent on TI from the start.

(The SYSOP asked Chris's views on the future of the Geneve and other follow on items): Well, software-wise I think we are on the verge of a lot of breakthroughs on the 9640. Hardware-wise, I'm in a sort of "wait and see" mode. It is widely known that Myarc hasn't shipped anything in months, and it is next to impossible to reach them nowadays. The Germans have written them off and a number of new computers seem to be in mid-development over there. The 99/8 I brought caused a major commotion in that respect (please remember that they have duplicated every peripheral used in the States and most people own thoroughly non-TI equipment there; as a result, there is a lot of hardware expertise). . .they had never SEEN one before. They didn't realize the relative simplicity of the design, and guys took pictures of the boards and counted chips. The existence of another 99/4A compatible in the flesh, I believe, added credence to their own efforts to develop one.

(The SYSOP asked if Asgard would become a bridge to the European community): I am not really in a position to be a bridge outside of my own commercial interests. Ideally, user

 Continued on page 10





# IBM NOT USER-FRIENDLY:

Today I asked a computer teacher at our school to use a programme for the IBM. Well, it seems that he couldn't do it since I had 5.25" diskettes and his system needed 3.5" diskettes. So he had to format some 3.5" diskettes. But because he had 1.4 Meg drives he had to format the diskettes to 720K so that they could be copied in a room down the hall that had both types of drive.

After several frustrating minutes of trying to remember the proper DOS commands he gave up.

Next we decided to use the IBM to run a programme we had on 3.5" disk. We got this up and running after a minute or two.

In this programme the arrow keys are used to move around a 'sprite' representing 'you'. You move from room to room in a chemistry building either reading information, picking up chemicals or going into the lab and working with them.

The 'you' sprite is a hollow rectangular box ! Hum, you would think that it could have been a little more like a person, eh?

The second thing I didn't like were the chemical formulas. There were NO SUBSCRIPTS for things like chlorine (Cl . Chlorine was
2)
just written Cl2.

There was better graphics for the laboratory bench and the logic was excellent throughout.

The session ended rather abruptly when all of a sudden the screen went blank and there was no programme to work.

At this point we turned the system off and on. It took several minutes for the system to again get back to it's screen (it is NETWORKED, you see and DOS etc. has to reboot). We tried to access the system but could not get passed second the PASSWORD. How clever of the teacher to be out of the room at this time , I thought.

Alas we gave up. I left muttering things like," ##!?#% IBM . This kind of thing seldom if ever happens on my TI. Why would anyone who has used a TI want to complicate his life with an IBM ?" Tom.

# NASA FREQUENCIES

Edited by Henry Badon

This file was downloaded from the HAMTEXT BBS in Memphis. Call: (901)327-9834. Full duplex & 8N1. Joey (N4DMI) is the sysop.

The following are frequencies used by NASA, during a shuttle flight:

| | |
|---|---|
| 2.622 | NASA BOOSTER ROCKET RECOVERY |
| 2.678 | CAPE RADIO RANGE |
| 3.385 | NASA TRACKING |
| 5.518 | TRACKING |
| 5.810 | BOOSTER RECOVERY VESSELS |
| 6.693 | NASA AIRCRAFT |
| 6.708 | AIRCRAFT |
| 6.783 | TRACKING |
| 6.896 | AIRCRAFT |
| 6.983 | TRACKING |
| 7.461 | AIRPORT |
| 7.675 | KENNEDY OPERATIONS |
| 7.765 | TRACKING |

All frequencies are USB unless noted.

| | |
|---|---|
| 10.780 | USAF CAPE RADIO (PRIMARY) |
| 20.390 | USAF CAPE RADIO (SECONDARY) |
| 11.205 | NASA PACIFIC OPERATIONS |
| 11.407 | NASA BOOSTER RECOVERY |
| 13.170 | AIRCRAFT |
| 14.456 | TRACKING |
| 20.186 | TRACKING (ASCENSION Is.) |
| 20.191 | TRACKING (ASCENSION Is.) |
| 20.197 | ASCENSION ISLAND (LSB) |
| 20.393 | TRACKING |

To listen to real time air-to-ground conversations of the crew, and it's ground control, the following frequencies are broadcast by the Goddard Amateur Radio Club, WA3NAN SSB mode:

| | |
|---|---|
| 3860 | NIGHTS 6 PM - 10 AM |
| 7185 | DAYS 8 AM - 6 PM |
| 14295 | CONTINUOUS |
| 21390 | INTERMITTENT |
| 28650 | INTERMITTENT |
| 147.45 | If close enough for FM simplex. |

NOTE...D.O.D. MISSIONS ARE NOT BROADCAST. BROADCASTS BEGIN 1 Hr BEFORE THE SCHEDULED LAUNCH.

TROPICAL BANDS - BEST IN EVENINGS

| | | |
|---|---|---|
| 2300-2500 | KHZ | 120 MTR BAND |
| 3200-3400 | KHZ | 90 MTR BAND |
| 3900-4000 | KHZ | 75 MTR BAND |
| 4750-5100 | KHZ | 60 MTR BAND |
| 5900-6250 | KHZ | 49 MTR BAND |

MIDDLE SW BANDS CROSS-OVER (EVENINGS & DAYTIME)

| | | |
|---|---|---|
| 7100-7500 | KHZ | 41 MTR BAND |
| 9400-10000 | KHZ | 31 MTR BAND |
| 11600-12000 | KHZ | 25 MTR BAND |

INTERNATIONAL BANDS (DAYTIME)

| | | |
|---|---|---|
| 13600-13900 | KHZ | 22 MTR BAND |
| 15000-19600 | KHZ | 19 MTR BAND |
| 17600-17900 | KHZ | 16 MTR BAND |
| 21460-21850 | KHZ | 13 MTR BAND |
| 25600-26100 | KHZ | 11 MTR BAND |

THESE FREQUENCIES-SHIP TO SHIP

8.825.0
8.846.0
8.843.0
8.891.0
8.216.5
8.828.0
8.240.0
12.435.5
12.339.2

THESE FREQUENCIES CAN BE RECEIVED WITH EITHER A GENERAL COVERAGE RECEIVER OR A HAM TRANSCIEVER CAPABLE OF RECEIVING GENERAL BROADCAST BANDS.

For those interested in NASA and the shuttle flights, NASA has a BBS online. It is called:
NASA SPACE LINK BBS (I don't know the system parameters, the phone number is (205)895-0028 in Huntsville, AL.

Have fun and good DX'ing....
Henry - WB4VDN

NEXT

# OSHTI MEETING

Mon. DEC 17th

7:30 pm

Guy's Place : See map

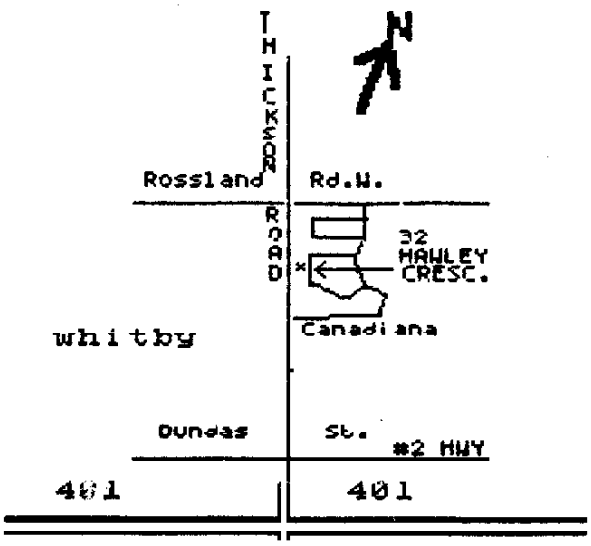
-TIPrintShop (TIPS) (demonstration)

-Planning for 1991

-DOM-special Christmas package

-GOOD CHEER !

map to Guy's



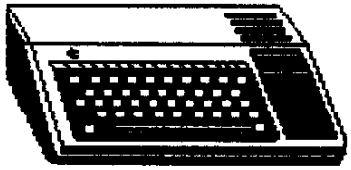

OSHAWA TEXAS INSTRUMENTS HOME COMPUTER USERS' GROUP

| | |
|---|---|
| CHAIRMAN: | RAY BLODGETT (579-1767) |
| VICE CHAIRMAN: | JOHN EASTHAM (728-9994) |
| TREASURER: | GUY LAFONTAINE (576-5910) |
| LIBRARY/SEC.: | DOUG BURLEIGH (579-5109) |
| NEWSLETTER EDITOR: | TOM JAKABFY (725-7298) |
| MEMBER-AT-LARGE: | ---------- |

MEETING TIMES:

The OSHAWA TI USERS' GROUP (OSHTI) meets between the hours of 7:30 and 10:30 pm Location to be named in the newsletter.

OshTI



MEMBERSHIP FEES:

The OSHTI membership is $15 per family per year. Members receive ten(10) newsletters per year.(Jan.-Jun. Sep.-Dec.). Members also have the use of the club library (CASSETTE + DISK). VISITORS to club meetings are WELCOME. Copying charges for disks-of-the-Month are $1(your disk) or $2(our disk).

MAILING ADDRESS:

OSHTI
c/o Tom Jakabfy
660 Given Rd.
OSHAWA,Ont.
L1G 8L7

The OSHTI Users' Group is a Non-profit organization dedicated to encouraging the continued use of the TI/994A for education, entertainment and data management. The club also supports the MYARC 9640 or GENEVE(TI compatible) computer.