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THE BULLSHEET

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Texas DX Society

An ARRL Affiliated Club



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The Texas DX Society, P. O. Box 540291, Houston, TX 77254-0291

President	Bill Bradford, K5GA
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The Prez Sez - de Bill, K5GA

Greetings to all. I hope this month's editorial finds all well and dry after our flood. I have heard that swimming is good exercise, but not when one is competing with cars!

I want to personally thank all the "dead-beats" who finally sent in their dues. At this time there are just a handful of "no-goods" left. The club appreciates all the support, as there are projects with needed expenditures. Most of all, I hope the members will enjoy being active members supporting the TDXS in fun and friendship.

Great news from XE2 land! It appears that our friends at CRAN-TAC see no problem with us continuing to contest from the contest station at XE2FU. In fact Rick, XE2KB has turned into quite an operator and has been recruiting other XE2s to join him in the fun. Maybe it is time to do another big multi-multi with our friends in Mexico again operating right along beside us. Chuck, K5LZO is thinking about putting an operation together for CQ WPX PHONE. If anyone is interested in going, talk to Chuck. If nothing else, whoever goes will get a head start on his/her suntan for this year.

On a personal note, I want to thank all members/nonmembers who participated in the Sprint contests. The TDXS teams did extremely well this time around. The effort certainly demonstrated our club's ability to compete on a national level. Thanks to Bob, N5DU for organizing these teams and taking care of the tedious work necessary to enter them. GO TDXS!

The program for this month's meeting is going to be a great one! Many clubs would envy the chance to have a NASA official as our speaker, so let's honor this man for taking time out of his heavy schedule to speak to us, and BE THERE. Details of the program can be found elsewhere in the Bullsheet. Thanks to Jim, NN5O for his continued abilities to land SPACEMEN. If I did not know any better, I'd swear that Jim is a SPACE-CADET!! Jim, you are a bit young in ham radio to truly understand that. Talk to one of us salty dogs for further explanation.

Announcements

Meeting Notice - The Texas DX Society meets on the second Friday of each month except when the date is changed by the Board of Directors. **The March TDXS meeting will be held on Friday, March 13, 1992 at St. Johns School** at the corner of Claremont and Westheimer Roads. Claremont is the name of Buffalo Speedway after it crosses to the north of Westheimer. There is a parking lot entrance just north of Westheimer. Park in the lot and follow the walkway to enter the school building. The meeting will get underway around 7:15 P.M. Visitors are welcome to attend the meeting and may obtain help in finding the location by checking in on 147.96/36 MHz.

Program - The program this month will feature Lou McFaddin, W5DID, who is the NASA official responsible for the SAREX (Space Amateur Radio Experiment) activities aboard the STS-45 shuttle mission due up later this month. Lou has a slide presentation of the SAREX program and will bring us up to date on the plans for amateur radio on this upcoming mission. Of particular interest will be his coordination of the effort by our recent guests Musa, U2MIR/UV3AM and Boris, UW3AX in establishing communications between the shuttle and the MIR space station. With our recent contacts at NASA during Musa and Boris' visit we now have friends active on both ends of this unique communications link. Don't miss it!

Bullsheet Mailing List - TDXS wishes to provide the Bullsheet to those amateurs in the Houston area with an active interest in DXing and contesting. Donations to help defray publication and mailing costs are appreciated. Visitors to our club meetings will receive the Bullsheet for three months free of charge simply by signing the Attendance List and including their mailing address. Articles or other newsworthy items are hereby solicited by your editor. Articles should be submitted in the form of either ASCII files or as MS Word or WordPerfect word processor files. Files may be uploaded to the TDXS area on K2TNO's Bulletin Board at 713-798-4955, or sent to the Editor on either 5 1/4" or 3 1/2" diskette, either DS/DD or DS/HD. If necessary, text may be sent to via FAX to the editor at the number listed below. Files or other messages may be sent via E-Mail to: Schrader @ BCM.TMC.EDU. For those with VHF Packet and having access to any of the local Digipeaters, or able connect directly, ASCII text can be sent directly to the Editor. Contact W5ASP at 713-974-3455 to arrange for either fax or packet transfers. Publication deadline is the first Friday of the month.

For Sale - Two (2) 4-1000A transmitting tubes; used, but still good. \$55.00 each.

Wanted - Any type straight keys, bugs, keyer paddles for my collection.

Contact Wes Spence, (409) 755-4753

DX Report

de Mike, AA5NK

We saw some good conditions for the ARRL DX CW contest. The KE5IV PacketCluster had 665 spots with 379 band countries. Ten meters had the most countries spotted with 166. Both 160 and 80 Meters were light on spots and consequent countries. There were 23 countries with 30 spots on 160 M. I feel comfortable that these were "local" spots. This sounds good for South Texas. (See the detailed breakdown elsewhere in this issue..ed)

Some good DX was heard this past month: **HV3SJ** on 40 M, **3B8CF** on 30 M, **9X5NH** on 75 M, **3D2UU** on 80 M, **ZD8Z** on any and all bands, including an outstanding signal on 160 M. Also worked/heard was **SU7NU** on 15 M, **ZD7KT** on 17 M, and of course our friends from Dallas: **VK9XM** and **VK9XN** on Christmas Island. **N6BFM/4U** (UN) was active from Iraq.

KD7P/NH7 was quite active from Kure Island..on all bands. Word has it that Kure will revert back to Hawaii very soon.

I think everybody has to be pleased with the conditions, lately. With all the rain we have been having, it has been a good time to stay inside and "radio".

If you need the **Ivory Coast**, **TU** be looking for **TU4SR** on all bands including WARC. QSL via **OH8SR**.

The period February 28th through March 2nd saw **YX0AI** from **Aves Island** holding court for the Deserving. There was some CW but mostly SSB on all bands, including 6 meters. QSL via: SSB - **YV4ARV** and CW - **YV5A**.

4K2CC, **Franz Josef Land** has advised recent contacts to hold up sending any QSLs to his home in Moscow for a month or so until their postal service problems are settled. This will probably hold true for any UA QSLs. What's another month or two for a UA card!

This brings to mind a couple of suggestions. The first one would be to start using the new and preferred English language spellings of the names of the various CIS (ex. USSR) Republics. You might also want to put the older name on the envelope too, in consideration of our U.S. Postal Service employees, who may not be up to speed on these matters. You want to be respectful of the new Republics and their new names, but you also want your card to arrive at the right destination!

Some of the new names I have picked up are:

- Byelorussia, **UC** is now **Belarus**;
- Kirghiza, **UM** is now **Kyrgyzstan**;
- Moldavia, **UO** is now **Moldova**;
- Tadzhikistan, **UJ** is now **Tajikistan**.

Also, as you come across the new CIS QSL Bureau addresses, it may be well to use these for UA QSLs. We may be spinning our wheels sending cards to Box 88, when they ought to go to the new Republic's bureau. The ARRL is supposed to be routing QSLs that way. We have already been instructed to sort our ARRL Outgoing cards for Lithuania, LY Latvia, YL and Estonia, ES separately. I have received several direct QSLs from various new Republics with their own new stamps.

Two French operators, **FINYQ** and **F6IMS** will be active from **Cocos Keeling Island** from March 17th thru April 6th. All bands including WARC and all modes are planned. Send your QSL to **F6IMS**.

As we all expected, the self ordained station, **C1A** was not authorized/legal. I guess he is in a world of hurt with his home country (Australia) for this activity. The Papua New Guinea government appealed to Australia for "assistance" in this matter.

The government of Denmark will now allow their amateurs the use of 160 meters beginning on April 1st. SSB will be from 1830-1850 KHz and CW will be from 1820-1850 KHz. Later they will be able to go lower in frequency.

UA0, Wrangel Island is now considered by the Russians to be a "new and separate country", according to their equivalent of the DXCC Desk.

The **Clipperton** group was operating maritime mobile on February 29 as they made their way towards the island. The call will be **FO0CI**. They should be active as you receive this report. "QooSLie" via **N7QQ**.

The **Laccadives, VU7** is a go. The DX newsletters say "end of February". It is reported that they have their license in hand.

Look for activity by **S92AA** from **Sao Tome** in the near future. Send your QSL to **F6AXX**.

It appears that the IARU will participate in helping to set up Amateur Radio in the Democratic People's Republic of Korea (**North Korea**). This will be an operation very similar to the recent Albania, **ZA** project. (I was informed by a reliable source that no operation will take place until Kenny, **K5YCP** has sent in his last QSL for "all of them".)

JA2NQG will operate from the **Maldives, 8Q** March 17-22. Call is unknown at this time. It will be mostly a CW operation, 80-6 meters. QSL to his home call.

FR/T, Tromelin will be active at the end of March to April 10th. The operator will be **FR5ZU**. QSL to his home call.

The DXCC Desk is now accepting QSLs from **ZAIHA**, **ZAIQA** (Quick AID:HA Boys) and **ZAIDX** for their operations in **Albania**. But in the future only those operations licensed by the Albanian PTT will be accepted. The newly trained and licensed **ZA** ops have been fairly active of late. Even heard one calling **CQ** with no takers...my, what a difference a year makes! That's it for now folks, **CUL es 73**.

DX Odds & Ends

(The following is taken from a recent issue of the *Long Island DX Bulletin*..de **N5DC**)

"The **So. Sandwich** DXpedition-team, comprising: **JE3MAS**, **KO1R**, **KJ9I**, **OH2BH**, **WA3YVN**, **WA4JQS**, **W6MKB** and **W7KNT** will leave London on 9 March, fly to Port Stanley by way of Ascension Island and board their chartered ship, the **ABEL-J** (an American research and scientific vessel of 108', especially outfitted for Antarctic missions). Their equipment, already on board, includes 4 Kenwood Transceivers, 3 Linear Amps, beams and dipoles for all bands, 3 power generators, 800 gallons of fuel, RTTY equipment and food for 24 days on the Island plus the 14 days at sea. Operation is scheduled for 21 March to 15 April. If you have not yet contributed to this long-awaited airing of **So. Sandwich**, please send a donation NOW to **G. Branson, AABB, 93787 Dorsey Lane, Junction City, OR 97448**."

(This comment by **Tony, N2SS** appeared in the March 1992 issue of the *FRC DX News*..ed)

"...status of **Wrangel Island**. Evidently, **UA0KG**, who is currently active from there has been claiming it is a new country. At this writing, there is no application or agenda item before the DXAC regarding **Wrangel Island**. The interesting thing, however, about **Wrangel Island** is that it actually once did appear on the ARRL DXCC Countries List but was removed. Note, it was removed, not deleted. Interesting! I would suspect we have not heard that last about this one."

Contest Corner

de Bob, N5DU

Mike, AA5NK wins my vote for most active contester this month. Mike drops me his contest results via USPS and it is very much appreciated. Mike had 290 QSO/47 states/5 continents for 32,396 points in the CQ 160 SSB contest. He also had 40,320 points as SO/AB in the ARRL DX CW contest. Keep those cards coming Mike.

Anybody else that wants to drop me their score by mail or DUBOX is certainly welcome. For you out of town guys, DUBOX is on 14105 MHz packet most of the time. Drop me some E-mail of your activities. Also, my FAX at the house is (713) 937-9013 for you yuppies.

We have gotten pretty spoiled by Joe, W5ASP who usually has a pencil and paper ready to take down contest scores at his home while listening to the repeater. I'm usually carbound and lose the scrap of paper I scribble your score on, so help me out here a bit and Joe won't have to work so hard.

Preliminary Sprint CW and Phone scores look pretty good for TDXS. I'm sure we will be well represented when the scores hit the NCJ. We missed out on K5GN's CW score due to Dave leaving me a message on my office voice-mail at 4 PM Friday afternoon stating his intention of participating. Dave, a young engineer, hasn't yet learned that the office (sic.) is the last place to find a salesman (of anything) on a Friday afternoon. Dave ended up with the number 1 or 2 score for CW and would have helped us a lot. Oh well, maybe next time.

CQ WW WPX SSB contest is March 28-29th. Details are in the January CQ and February QST. (The QST listing appeared under the wrong date, but contained the right information.) The CQWW WPX CW contest is May 30. Good luck to anyone firing up for those contests.

Hope everybody is getting ready for the Texas QSO Party to be run the weekend of May 2-3. Get those Hustler coil connections and joints all cleaned up for maximum mobile radiation. You might even need a new Tenna-hitch! You don't really need a trailer to pull the generator for a 2 KW amp, if the antenna is running correctly, but then some people will do both so their frequency can't be stolen!

I would be glad to be the middleman in driver/operator matching. If you don't have someone to team up with, let me know and I can let you know who is available. We need all the **Armadillos** on the road!

On the contest computer front, I see that K1EA has jumped ahead again with CT Version 8. A voice-keyer on an internally mounted card is the latest addition. See the big add on page 37 of the March/April NCJ.

Keep XE2FU in mind for a close DX contest site when you can't stand to be just another W. (Note the possibility of an XE2 trip for WPX Phone mentioned in K5GA's column..ed)

That's all I've got for now. Keep the rate up!

Due Dates

(Contest Logs must either be postmarked (*) or received (!) by the dates listed...**Get Your Logs In!**)

- March 31 (*).....CQ WW 160 Meter
- April 08 (*).....ARRL DX CW & SSB
- April 30 (*).....Japan Int'l DX CW
- May 10 (").....CQ WW WPX SSB

Contest Results

Results

1991 CQ WW WPX SSB

ZF2NE/ZF8 (W5ASP).....3004 Q x 686 M - 4.84M
 SO/AB 16th World
 KE5FI.....101 Q x 80 M - 12K SO/75M 3rd USA
 AK5B.....325 Q x 244 M - 143K SO/AB

Claimed

NA Sprint CW

K5TU.....215 x 39
 KE4GY....151 x 37

NA Sprint SSB

K5GA.....300 x 51
 KI3L.....275 x 42
 W5ASP.....274 x 47
 K5RC.....260 x 44
 KV6O.....268 x 45
 N5IVF.....228 x 42
 K5DX.....187 x 44
 KE4GY....184 x 40
 NZ5I.....159 x 39

ARRL DX CW

K5GN.....SO/AB.....2478 Q x 356 C
 K5MA.....SO/AB.....2368 Q x 355 C
 AC5K.....SO/AB.....756 Q x 235 C
 K5GA.....SO/15.....1402 Q x 125 C
 NM5M.....SO/15.....1400 Q x 110 C
 W5WMU...SO/15.....1350 Q x 110 C
 W5ASP.....SO/15.....670 Q x 90 C

ARRL DX SSB

KE5FI.....SO/10 1780 Q x 132 C
 KC5CP.....SO/10 282 Q x 95 C
 WB5RUS...SO/10 246 Q x 79 C
 W5ASP.....SO/15 370 Q x 91 C
 K5GA.....SO/AB 168 Q x 162 C
 K5RC.....SO/AB 200 Q x 70 C

CQ 160M DX SSB

AA5NK.....290 Q x 47 US x 5 DX

CQ 160M DX CW

K5MA.....177 Q x 48 US x 6 DX

Packet Cluster Results - ARRL DX CW

de Ken, KE5IV

The following is a summary of the DX spots put out on the KE5IV PacketCluster during the ARRL DX CW contest held the weekend of February 15-16, 1992. The total number of spots before cleaning up the file to run under K1EA's CT program for duping and scoring was 1137. After clean-up, but before removing duplicate spots, the number was 1072. The log after dupes showed a total of 665 stations reported. Here is the breakdown by band.

Band-Spots-Mults: 160M-30-23; 80M-76-44; 40M-124-67; 20M-132-68; 15M-137-87; 10M-166-90 for a total of 665 Spots and 379 Countries. The final score for the KE5IV PacketCluster was 751,557 points. Thanks everyone !

Clem Coleman, W5VQ - Silent Key

de Tom K5RC

There are certain images that are forever indelible in our minds. They are images of people and events that have made significant impact in our life experiences. I have several of those memories about Clem Coleman.

Chuck, K5LZO (his favorite son), and I went to FO8 in 1964. Shortly after our return, I went to their home in New Jersey for dinner. I wandered down to the ham shack. There was Clem, in front of the "S-Line", sitting side saddle (his legs were too long to go under the table), banging away on the Vibroplex paddle. The room was absolutely full of QSL cards. Clem sorted cards for the Incoming QSL Bureau and he had a mountain of our cards to answer from the trip. When he was done on the radio, he spooled around in the chair and, in one breath, looked at me and said; "I work that 4S7 every evening on 80 meters, and by the way, your hand writing stinks. I'm having a helluva time reading your FO8 logs!"

One of the best things about Sunday mornings used to be the coffee klatch in Brad Beard's (W5ADZ) kitchen alcove. Occasionally, we would have an honored guest like W4BPD or W9WNV or W6KG, but mostly, it was a time for long, tall DX tales and heavy duty donut philosophy. Clem would usually preside as the resident sage and would be the one to bring the truth to a tale that had become overly embellished. Some time during each session, Brad would make mention of some "FOC'er" activity. (pronounced "fahker").

Now the F.O.C. was one of Clem's true passions and he was a purist. Brad's is just as avid an F.O.C. member, but his playful and irreverent use of "FOC'er" would always cause Clem to wrinkle his forehead, cup his hand on his chin and try to change the subject. When Brad was certain that he had elevated Clem's blood pressure with the week's FOC'er story, he would pour another round of French-roast coffee and let Clem talk about the stock market.

In the mid 70's, our multi-op contest station was in full swing and Clem was our golden ears on 80 meters. He would show up a couple of hours before sunset and start his vigil. He required only that we have an "S-Line," a white pad, several #2 pencils and a Vibroplex paddle. He clamped on a large pair of headphones and the picture that you saw, for the next 8 hours, was of Clem pushing the headphones tightly to his ears, tuning the 75S3B, and banging the paddle across the table. He would "map the band" on the white pad and then, methodically, move from bottom to top, working everything on the band. Once he crossed out every call sign on the list, he would start a new page and map the band all over again.

Late one contest night, the parakeet got loose and flew into the ham shack. Clem was concentrating on digging some OK1 out of the noise. The bird picked out Clem to dive-bomb. He came flying out of the chair, waving his arms and throwing pencils and headphones across the room. After the bird was caught and caged, he sat down and worked the OK1.

Whether you worked 9CRD, W2JAE, W2NQ, FP8CK, K5LIA or W5VQ, I'm sure you have an image of Clem burned somewhere in your memory. If you never knew him, he was one of the real gentlemen of Ham Radio. Clem passed on February 18, 1992 at 82 years young. You will be missed from the airwaves, old friend. 73 es DX W5VQ de K5RC SK.

1992 Texas QSO Party

(Here are the rules for the 1992 Texas QSO Party sponsored this year by the Texas DX Society. The rules will also appear in the April issues of QST and CQ. Clubs receiving this newsletter are requested to pass on to their members our invitation to join the party and keep the Texas Armadillos busy. Texas club stations and individuals are encouraged to fire up their rigs and help put Texas "back-on-the-air"!

- **Contest Period:** From 1600Z Sat. May 2nd thru 2400Z Sun. May 3rd. Operate max. 24 hours with min. time-off periods of 30 min.
- **Object:** Non-Texas stations work as many Texas stations in as many Texas counties as possible; Texas stations work all.
- **Entry Classification:** I.) Single-Op./Fixed; II.) Single-Op./Mobile; III.) Multi-Op./Fixed(1 Xmtr.); IV.) Multi-Op./Mobile. Texas mobiles only.
- **Exchange:** Texas Stations send Name and County. Stations outside of Texas send name and state (VE and DX stations send name only). TDXS will include their Member Number in their exchange.
- **Mode & Bands:** CW and/or SSB. Use 80 - 10 Meters, excluding WARC. Suggested frequencies: CW - 50 KHz up; SSB - 3850, 7230, 14250, 21350, and 28450. Novice - 3710, 7110, 21110, 28110 CW and 28350 SSB.:
- **Points:** Non-Texas stations score each Texas contact: 1 point per QSO on SSB, 2 points on CW, except that Texas mobiles are 5 points on SSB and 7 points on CW. **Texas stations score 1 point per QSO on SSB, 2 points on CW. Stations can be worked on each band and each mode. Texas stations may work other Texas stations for QSO and Multiplier credit.**
- **Multipliers:** Texans use Texas counties (254), states (50), Canadian call areas (12), DXCC countries. Non-Texas stations use Texas counties for a possible total of 254. Multipliers **once per band**.
- **Score:** The total score is the number of QSO points times the total number of multipliers.
- **Reporting:** Entries consist of: 1) Summary sheet listing Entry Class, QSOs and Multipliers by band and mode, total contacts and multipliers, claimed score, name, call, mailing address, phone/FAX, and a written, signed statement of "Fair and Ethical Operation"; 2) Separate check (dupe) sheet for each band; 3) List of all claimed multipliers by band. Logs may be requested for entries qualifying for awards.
- **Awards:** Non-Texas stations will compete for awards separately from Texas stations. Awards will be made to the top ten scores in each Class. A minimum of 100 QSOs is required to qualify for an award. Awards will be made only when a Class has 5 or more entrants. First Place in each class will receive a Texas Armadillo plaque. The first three places in each class will receive prizes with a unique Texas flavor. All top ten scores in each class will receive certificates. Special awards will be made to stations working all 254 Texas counties.

Repeater Report

de Jim, N5DC

Where are we? What's going on? What's next? Good questions. Here's some answers.

Right now the GE is still located at 1 Houston Center running about 8 watts of power output from a temporary "brick" final amplifier. The GE's final amplifier strip is sick and in the "hospital for surgery".

As soon as Mr. Prez, K5GA can put the refurbished power supply in the Spectrum, it will be moved to the Greenway West building, our "original" Houston location, with our newly acquired Wacom duplexer. If this site works out as well as we hope, i.e. no significant shadowing or intermod problems, it will then become our primary repeater site. It will house the main 147.96/36 MHz GE repeater with another GE unit as backup.

In addition, Brent, NT5D is allowing us to put his Icom 440 MHz repeater at this location. It will continue to operate on 442.0 MHz. with the input up 5 Mhz and the tone access frequency at 103.5 Hz which is pretty much the standard for Houston 440 Mhz repeaters.

Ultimately, the Spectrum will be taken back to our 1 Houston Center site where it will serve as an alternate, to be used as needed.

Although I realize we are in pretty bad shape right (you wouldn't know it to listen to the daily chatter..ed), I can assure you that before long we will actually have four (4) working repeaters available for our use.

I even have one rather exciting new development up my sleeve, the details of which I cannot reveal yet. However, suffice it to say that I'm sure you will be quite pleased with the outcome of my new project.

I would like to express my thanks to Dave Hammer, WJ5B for his invaluable help and guidance in setting all of this up. If you hear Dave on the air, express your thanks to him. We certainly owe him our gratitude!

K8CC Contest Software

de Wes, AC5K

There probably isn't a person reading this that hasn't been exposed to contesting software. I'll have to admit that I am a recent convert to computerized contesting. My first exposure to this new wave of contesting was just a little over a year ago when K5LZO, W5ASP and I went down to XE2FU for the ARRL DX CW contest. I must say that I felt like backing out when I learned that the contest would be run entirely on a computer. I knew that I was reasonably competent as a CW operator, but I also knew that I hadn't made a serious effort at typing since high school! In spite of my early misgivings, everything turned out quite well. We ended up as number one in the world in the multi-single category, and I was definitely impressed by the contest software.

As most of you know, there are two major players in today's contesting software, i.e. K1EA and K8CC. At first K1EA focused on the DX contests and K8CC covered the "stateside" events. The lines between the two have blurred in the past year or so, and now they overlap and appear to be competing one with the other in terms of added features.

To my way of thinking, K8CC has made a real breakthrough with his Version 6.10 which has a new feature called "Practice Mode". In this mode you can play contest any time you choose without ever putting a signal on the air, much the same as AEA's earlier Dr. DX. It's a feature custom made

for people like me who wish to get up to speed and sharpen their keyboard skills before the contest begins.

This version of K8CC's "NA" program supports ten contests. In the practice mode the proper exchanges are sent for each contest. When you are through you can compare your copy with the actual exchange sent by the computer. The calls and exchanges are varied randomly to prevent this mode from becoming boring. This feature is really a innovation in contesting software. No one has an excuse for using paper logs anymore. The program is "self-training" in its use. So gentlemen, start your keyboards and let's CONTEST!

Update on Musa Manarov, U2MIR/UV3AM

de Jim, NN5O

In a telephone call of February 24, "Rip" Ripporella (WA2LQQ) advised that he and Musa are working together on a packet satellite program to be dedicated for business use in the CIS. The concept is similar to the "Iridium" program conceived by Motorola and will employ several "platforms" already in orbit which were originally otherwise dedicated. Musa is no longer with NPO Energia, having recently resigned. The new packet system will be entitled "GONETS" which means "messenger" in Russian. Rip also advised that he is coordinating with Gil Carmen of NASA concerning an upcoming STS launch and communications between the Mir and the shuttle. I expect to be talking to Rip shortly before he leaves for the Soviet Union in mid-March and will do so again upon his return.

STS-45 HAM RADIO OPERATION

(The following information was submitted by Jim, NN5O..ed)

Shuttle Amateur Radio Experiment (SAREX) For STS-45 When Space Shuttle mission STS-45 launches, tentatively scheduled for March 23, 1992, amateur radio operators around the world will have the best opportunity ever offered to communicate with astronauts during a space flight. STS-45 is the fifth mission to carry the capability for transmissions between ground-based and Shuttle-based amateur radio operators during flight.

The unique part of this mission is the 57 degree of inclination of the flight plan. During STS-45, Orbiter Atlantis will be flying over a much larger portion of the world than in previous missions when the Shuttle Amateur Radio Experiment (SAREX) was aboard. Countries to be covered during this flight include the United States, Canada, Japan, Russia, European nations, South America, Asia, Australia, Africa; the list includes practically the whole world.

Adding to the distinctive international character of STS-45 are crew members who are able to communicate in several languages. During the mission, SAREX will be operated by mission specialist David Leestma and pilot Brian Duffy, both licensed operators. Leestma's call sign is N5WQC and Duffy's is N5WQW.

Other crew members who will be communicating alongside Leestma and Duffy are mission commander Charles Bolden; mission specialists C. Michael Foale and Kathy Sullivan, who is fluent in French and Norwegian; and payload specialists Byron Lichtenberg and Dirk Frimout, who speaks French as well as Dutch, and has the call sign ON1AFD. Kathy Sullivan

has passed her amateur test but has not yet received her call sign. The crew will use Dave's call, N5WQC, during the flight.

NASA has approved the use of amateur radio experiments during Shuttle flights for two reasons: to encourage public participation in the space program and to support educational opportunities offered by amateur radio. SAREX has flown previously in various hardware configurations on Space Shuttle missions STS-9, STS-51F, STS-35 and STS-37. As in the past, the crew will be communicating with students at various schools worldwide. SAREX crew-tended operating times will be dictated by the time of launch.

As a secondary payload, SAREX will be operated by Leestma and Duffy whenever their work activities allow them time and when appropriate geographically for transmission. Most transmissions will be spontaneous open contacts or QSOs as the amateur radio operators call them. The SAREX will communicate with amateur stations in line-of-sight of the Orbiter in a 2-meter voice transmission mode. The primary frequencies intended for use during the mission are as follows: 145.55 MHz for the downlink from the Atlantis and 144.91, 144.95 and 144.97 MHz for the uplink.

All on-orbit SAREX operations are conducted in the 2-meter Amateur Satellite Service band utilizing FM with a nominal frequency deviation of 3 kHz. An elaborate station setup is not required for making a 2-meter contact. An effective radiated power of no more than 100 watts will give excellent results if there is not a lot of other ground interference. A fixed vertical antenna mounted above obstructions will eliminate the need for elaborate orbit tracking and pointing. The vertical antenna is very desirable because it has a good radiation pattern at low elevations where the majority of the Shuttle passes occur.

Accurate tracking and pointing data for your station location is best provided by a computer satellite tracking program. If you have a computer or programmable calculator and need a tracking program, write to AMSAT Software Exchange, Box 27, Washington, DC 20044. The orbital parameters required by these programs are broadcast on WIAW bulletins and AMSAT nets. Beginning soon after launch, the Keplerian Elements can be obtained from the Public Services Branch, NASA Johnson Space Center, AP4, Houston, Texas 77058.

They will also be available to those with access to the Public Affairs Office Bulletin Board at the NASA Johnson Space Center. For access to this free electronic bulletin board, call (713) 483-2500 and wait for a connection. After connection, strike the enter key once or twice. You will be asked to enter a number. Enter 62511 and you will be connected to the public information bulletin board. Follow the menus for specific information wanted. Your computer configuration should be 8-N-1 at 1200 baud.

The primary payload for the STS-45 mission is the Atmospheric Laboratory for Applications and Science (ATLAS). The laboratory will be mounted on a Spacelab pallet in the Shuttle cargo bay. Long-term changes in the total energy radiated by

DX Packet Clusters

The TDXS Contest and DX PacketCluster, operating on 14.930 MHz with the call **K5DX**, is now up and running. The new node is currently being operated by Rich, K5WA from his home in southwest Houston. It is linked to KC5SC and thence into the existing network. This is a "no-frills" packet node intended primarily for DX spotting. It lacks the powerful features of the KE5IV node, but does provide many local Houston sta-

tions with a more direct path into the system. Relocation of the site and a change in frequency will probably occur in the coming months. (Check the system for announcements regarding these changes.)

The Waller County Contest and DX PacketCluster Bulletin Board is located in Hempstead, Texas and operates on 144.990 MHz with the call **KE5IV**. A digipeater node operating on 144.990 MHz with the alias **MAG99** is located near Magnolia and gives access to those users in the northern part of Houston. The preferred procedure is to first connect with the digipeater node and then connect to the PacketCluster. Please leave the cluster with the command BYE. There is another port operating on 144.910 MHz, also under KE5IV's call. This affords local stations with higher ERP, generally those on the west side of Houston, the option of connecting directly with Hempstead and getting somewhat better response.

The Galveston County DX PacketCluster, located in La Marque, is active under the call **KC5SC** and operates on 144.930 MHz and 144.970 MHz. It is usually connected with KE5IV via the 446.100 MHz backbone link. Stations in the southeastern parts of Houston may find it easier to connect with this cluster.

AB5A located in Dickinson about 10 miles northwest of KC5SC operates the Texas Gulf Coast DX PacketCluster. This node is regularly connected to the KC5SC PacketCluster via 446.100 MHz. This cluster features a 40 Meter HF Gateway on 7.089 MHz which runs 600 watts into a 2 element yagi at 80 feet. Local users may also access the node via ports on 145.01/.03 MHz.

In addition to listing current DX spots, the system provides access to a wide variety of DX related information such as the W6GO QSL Manager list, Russian oblasts, WWV propagation, US Amateur Call Book listings, etc. Users are requested to limit their use of these "databases" to off-peak hours so as to minimize the side effects on others. A quick check of the status shown in the opening message which appears upon connection will indicate the number of nodes/users active at the time.

Weekly DX and Contest Net

Each **Tuesday** night at 2100 CST, the Texas DX Society sponsors a DX and contest net on 147.96/36 MHz. The purpose of this net is to exchange information of interest to DXers and contesters. The agenda includes general and club announcements, DX information, contest information, QSL routings, and related topics. Stations checking-in are urged to report DX heard or worked locally, band openings, contest claimed scores, and any other information that might be of interest. Participation is not limited to members of TDXS, but is open to all and everyone is free to join in.

Upcoming Events

- March 13.....TDXS Monthly Meeting
- March 14.....Japan Int'l DX CW Contest
- March 15.....Bermuda Contest
- March 28.....CQ WW WPX SSB Contest
- April 05.....SP (Poland) CW Contest
- April 10.....TDXS Monthly Meeting
- April 10.....Int'l DX Convention, Visalia, CA
- April 24.....Dayton HamVention
- May 02.....Texas QSO Party