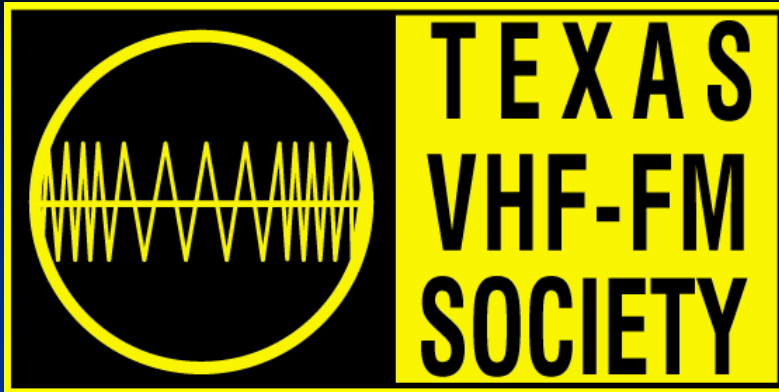


An Introduction to The Texas VHF-FM Society

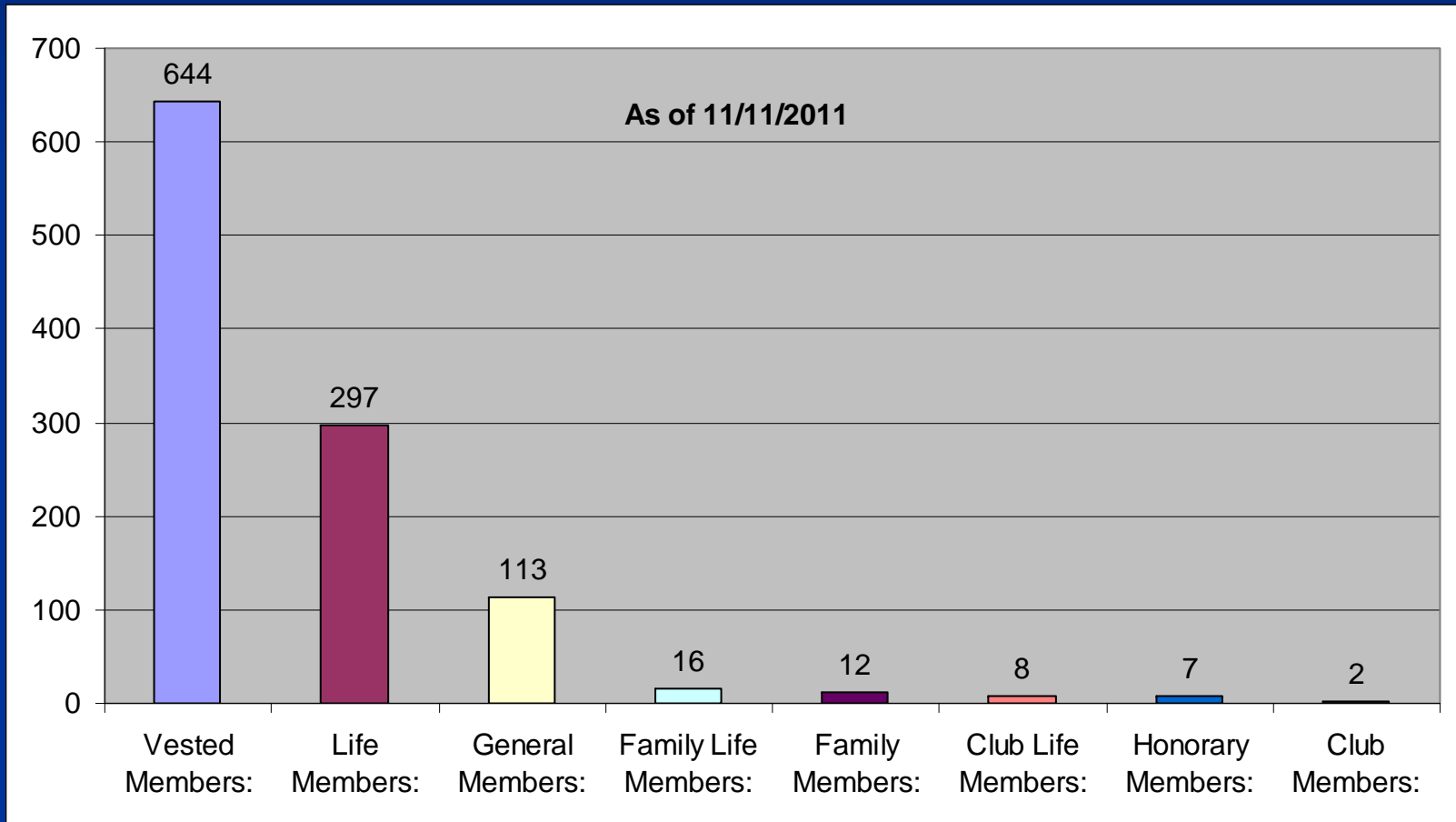




A brief history...

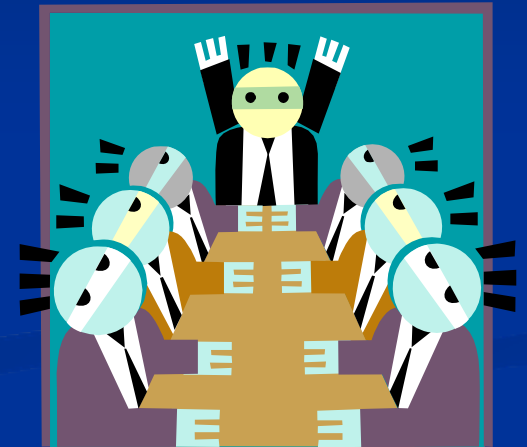
- Formed on August 8, 1965 in Austin, TX
- In the beginning, the Society was to provide communications between various groups in Texas doing repeater work. (Houston, Austin, Dallas, San Antonio)
- It was also to provide a network of parts and equipment for use in repeaters and associated activities.
- Repeater Coordination began in the Early 1970's

Who is The Texas VHF-FM Society Today?



The Society Leadership for 2011-2012

President	Andy Carstarphen, WY5V
Vice President	Billy McDonald, AK5DX
Secretary	Larry L Essary, K5XG
Treasurer	Frank Hormann, KM5I
News letter Editor	Royce Taylor, KA5OHJ
Director at Large	Patrick Soileau, ND5C
Director at Large	Gerald Richmond, N5ZXJ
Director at Large	Lee Nolan, WB5UEN
Director at Large	Bret Nolan, KC5NER



- elected by the General Membership at each Summer meeting
- serve 2 year terms (1/2 elected at each summer meeting)
- contact the election committee if interested in serving

What is the Purpose of the Society?

- Coordinate efforts and establish standards with regards to repeater systems
- Encourage experimentation by Society members in advanced techniques in the use of repeaters to improve technical excellence
- Communicate with Society members through meetings and newsletters
- Insure the orderly and efficient use of radio spectrum resources available to repeater systems by providing frequency coordinations services to amateur radio operators throughout Texas



What are some of our Activities?

- General Membership Meetings in Winter and Summer each year
 - Business meetings
 - Technical Presentations (new emphasis)

How can Members participate in the Society?

- Let us know about new technical advances in the areas of FM and repeaters.
 - New controller design or remote base interface
 - New repeater modification
 - New method of audio conditioning
 - Successful or unsuccessful ways of negotiating a repeater site
- We would love to publish your ideas in the Newsletter!

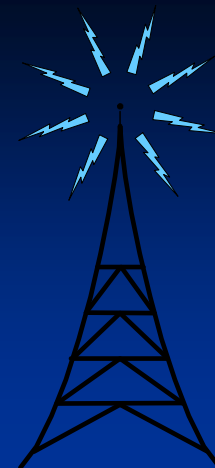
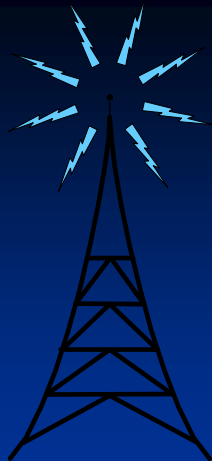


How can Members participate in the Society?

- Become a member and let us know what you want to see in the way of FM and repeaters.

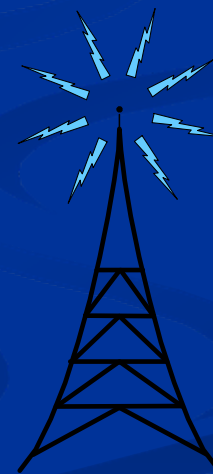
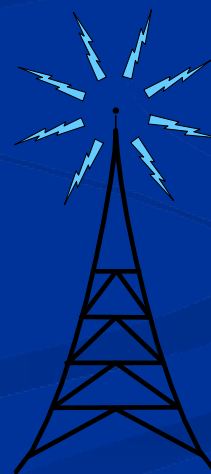
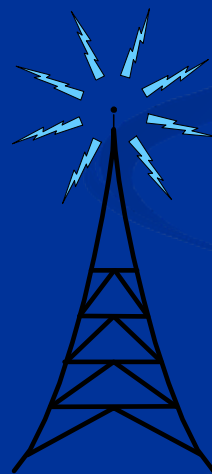
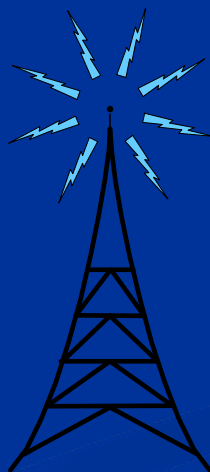
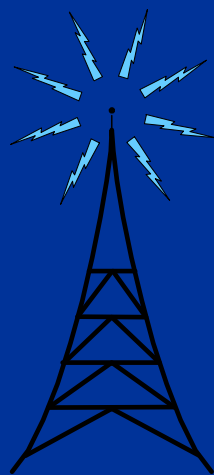
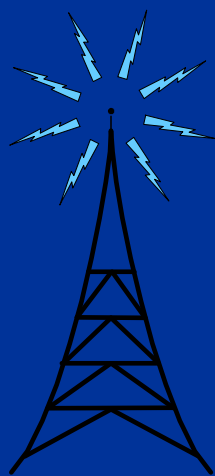
Some current areas of interest include:

- Use of 10 kHz spacing in 144 – 148 MHz
- Use of 12.5 kHz spacing in 442 -445
- Band planning for 900 MHz repeaters
- Narrow Band formats (<12.5 KHz)
- Digital repeater formats



Section II

Repeater Coordination



Frequency Coordination

Why Bother?

- Allows for the efficient use of a limited natural resource
- Interference free VHF-UHF repeater operation
- The FCC doesn't want the job
- Someone to represent the repeater trustees as one voice

Who are some of the repeater coordinators across the US?

- NFCC (National Frequency Coordinators Council, Inc.)
 - operates as a single point of contact between the FCC and all of the Amateur Radio Frequency Coordinating Committees
- **60+ Coordination Agencies across the United States**
 - A few of the larger coordinating organizations include:
 - NARCC (N. Amateur Repeater Council of California)
 - SCRBA (S. Calif. Repeater & Remote Base Association)
 - SERA (South Eastern Repeater Association)
 - T-MARC (Middle Atlantic FM & Repeater Council, Inc.)
 - **Texas VHF-FM Society**

???? Trivia Question ?????

As of 1/27/11, how many coordinated Amateur Radio repeaters are there in Texas?

A. 1570

C. 899

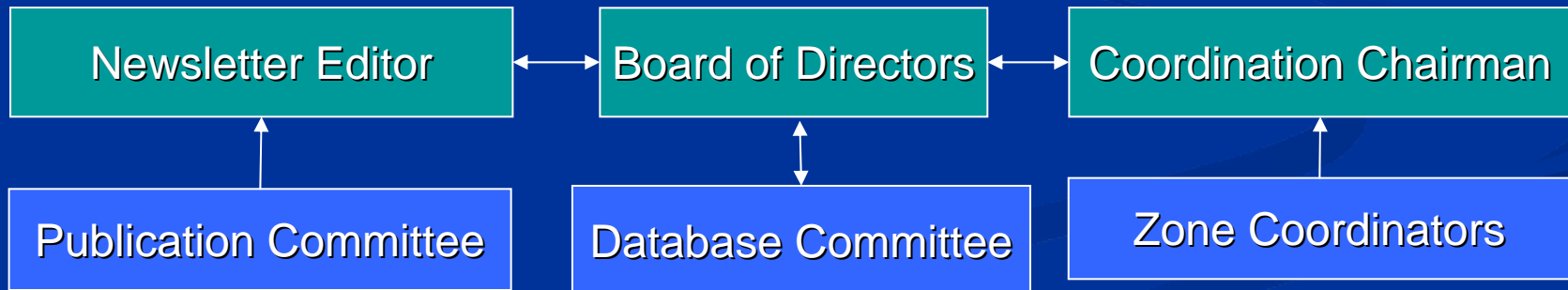
B. 989

D. 1421

How are Repeaters Coordinated in Texas?

- Performed by a frequency coordination committee under the Texas VHF-FM Society
- The Chairman of the coordination committee supervises the individual zone coordinators, proposes changes and updates to the coordination standards, and submits repeater data to the ARRL each year for publishing in the ARRL directory

Society Organizational Structure



Coordination Committee

Chairman, Coordination Committee
Paul Baumgardner – W5PSB

Zone 1, Northeast TX all bands except 440 MHz
Craig Green – KV5E

Zone 1, Northeast TX 440MHz
Paul Finch – WB5IDM

Zone 2, Southeast TX
Roger Williams – W5UOK



Zone 3, South TX
Michael Hilton – N5ZZA

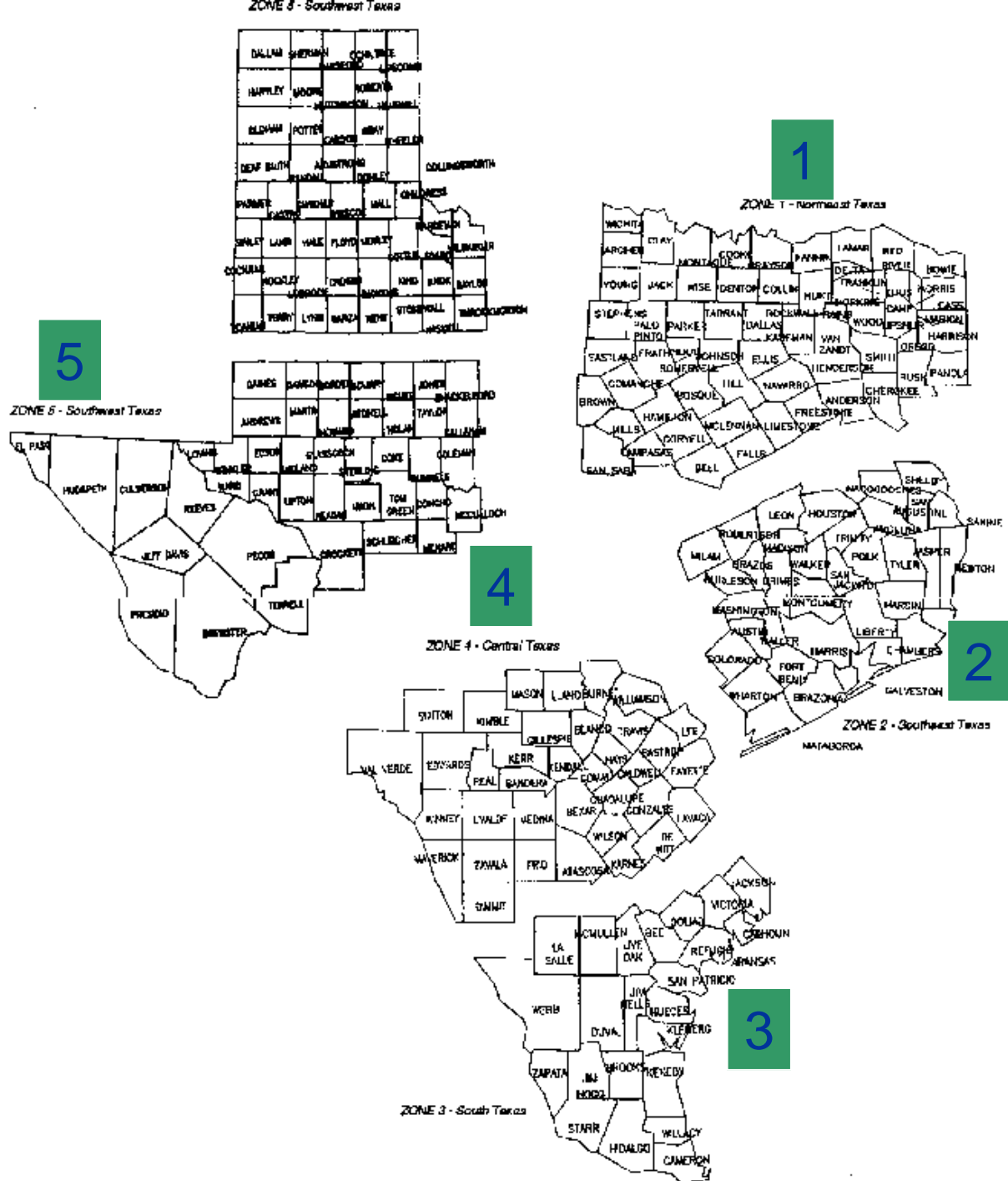
Zone 4, Central TX
Greg Lewis – N5XO

Zone 5, West TX
Jim Mellon – KA3IDN

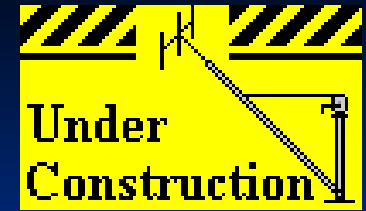
Mexican Liaison
David Woolweaver - K5RAV

Link Frequencies 222 Mhz and higher
Johnny Stigler – WA5ZRQ

Texas Repeater Coordination Zones



How Do I go about building a Coordinated Repeater?



1. Before ordering equipment or constructing the repeater, contact your zone coordinator for an **“Application for Repeater Construction Permit”**.



- Contact Information
- Site Data
 - Antenna Height
 - Gain, Pattern, ERP
 - Lat, Lon (Very Impt!!)
- Sign & Date
- Send to Coordinator

Construction Permit App



APPLICATION FOR REPEATER RADIO SYSTEM CONTRUCTION PERMIT

TRUSTEE: _____ CALL: _____ LIC EXP: _____ |

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE:(h) _____ (w) _____ (fax) _____

E-mail: _____ Are you a Member of TX VHF FM Society ? YES NO

IS THIS A CLUB COORDINATED REPEATER?:(YES NO). IF SO, LIST CLUB NAME: _____ (11 letters)

REPEATER CALL:(if different than trustees) _____ CLUB CALL:(YES NO)

PURPOSE OF APPLICATION: ___ REPEATER ___ POINT TO POINT LINK ___ CONTROL FREQ

IF REPEATER, SPECIFY TYPE: ___ FM ___ ATV

BAND: ___ 10M ___ 6M ___ 2M ___ 220 ___ 440 ___ 900 ___ 1.2 OTHER: _____

REPEATER CITY: _____ REPEATER COUNTY: _____

Construction Permit App

PHYSICAL DESCRIPTION OF SITE LOCATION: *(Information is kept confidential)*

(If located on commercial tower site, please supply FCC Tower ID)

REPEATER LAT/LON: Lat: _____ - _____ - _____ N. Lon: _____ - _____ - _____ W

HEIGHT OF TOWER BASE ABOVE MEAN SEA LEVEL: _____ (feet)

HEIGHT OF ANTENNA (s) ON TOWER (TX): _____ (RX): _____

ANTENNA GAIN AND RADIATION PATTERN: gain (db): _____ pattern: _____

TRANSMITTER EFFECTIVE RADIATED POWER: _____ WATTS ERP

(power out of transmitter minus duplexer minus feedline loss, plus antenna gain)

PL/CTCSS _____ required for all new applications after Aug 1, 1999. PL or some other controlled access other than Carrier squelch must be used.

ARE LINK AND CONTROL FREQUENCIES NEEDED?: (YES NO) BAND DESIRED: _____

NOTES ABOUT REPEATER (open/closed, autopatch, tone {list tone}, etc. See ARRL Repeater Directory for examples of notes. Limit 11 letters including spaces.) _____

I hereby certify that all information given is correct to the best of my knowledge. I understand that coordination will not be granted if my system does not conform within the above specifications. I also understand that any deviation from the above information will be reported to the coordinator, and may affect further coordination.

SIGNATURE: _____ DATE: _____

Coordination Process (cont'd)

2. Within 30 days, the zone coordinator will send a repeater construction permit (if a frequency is available). *You may be contacted for further information.*
3. Trustee has 6 months to get repeater on the air. If more time is needed, the applicant may apply for a second permit within 15 days of the expiration of the first permit (a written explanation should be provided as to the circumstances). *No more than two consecutive permits will be issued to the same applicant for the same frequency.*

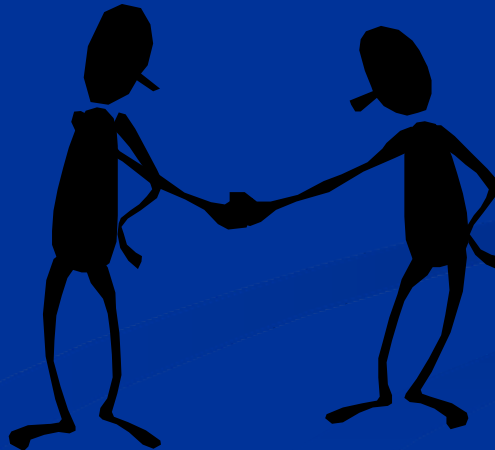
Coordination Process (cont'd)

4. Trustee returns on-air status form to zone coordinator to **notify them repeater is on the air.**
5. Zone coordinator issues repeater coordination
 - Repeater is listed in the Society and ARRL repeater directories



Tips on Getting the Repeater Pair You want

- Pick a non-populated band (10m, 6m, 220, 900, 1.2)
- If site less than 100' and 100W, consider 145.250 SNP for VHF (coordinated, but no spacing requirements)
- If site less than 100' and 100W, one of several UHF backyard repeater pairs
- Partner with an existing club to help support their site/repeater
-and most of all, communicate with you Zone Coordinator



Tips on Getting the Repeater Pair You want (cont'd)

- Coordinators are beginning to use 10 kHz spacing on VHF and 12.5 kHz spacing UHF repeaters.
 - This spacing requires new technical requirements for trustees on both the 10 kHz channel and neighboring 20 kHz channels (12.5 and 25 kHz in UHF).
 - This will open up more pairs because co-channel spacing is reduced to **50 miles** on VHF and **40 miles** on UHF (for split channels only).
 - **However**, this will require **considerable** cooperation among repeater trustees. Adjacent channels cannot not to exceed +/- 3.0 kHz deviation, including CTCSS
 - Need agreement from adjacent channel repeater trustees

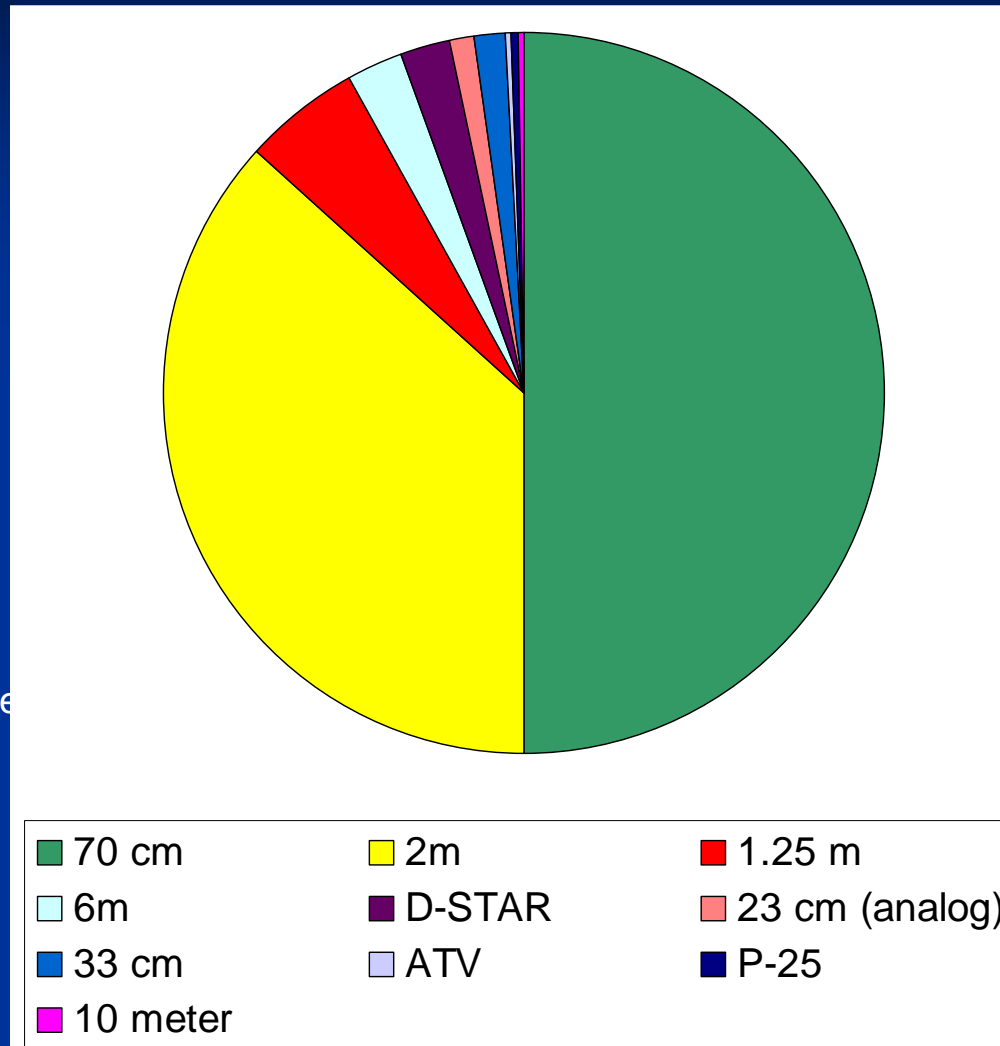
Texas Repeaters by Band

1556 repeaters

- 3 10 meter
- 39 6m
- 579 2m
- 82 1.25 m
- 783 70 cm
- 7 ATV
- 20 33 cm
- 20 23 cm (analog)
- 33 D-STAR
- 4 P-25

(ten 2m, twelve 70 cm, eleven 23 cm)

(two 2m, two 70 cm)



**2m & 70cm make up
90% of all repeater activity**

**“I never hear the 14X.XYZ repeater on the air.....
what can I do??”**

**Help your local frequency coordinator
document any inactive repeaters**

- Record the time, date, location, frequency, CTCSS tone and power used to access the repeater. (utilize on-air status form from website!)
- Forward information to your zone coordinator (email or US mail)



I never get my repeater renewal or newsletter....what should I do?

- Contact the Society Secretary or Zone Coordinator to be certain your address is current.
- Using RF Projector will allow you to renew on-line
- For coordination issues use the coordination “food chain”:
 1. Zone Coordinator
 2. Chairman of the Coordination Committee
 3. Society President
- We will work together to solve your problem!



Tips for On-line Repeater Renewals

On-line Renewal Tips

- Login:
 - <http://www.rfprojector.com/txvhffm/>
 - Your username is your callsign
 - If you forget your password, you may click “reset password”. A new temporary password will be emailed to your address on record
 - You must change your password the first time you login
 - If you change your email address, please login to RFProjector and update it.

Login Screen

<http://www.rfprojector.com/txvhffm>

The screenshot shows the RF Projector website's login screen. At the top left is the RF Projector logo, and at the top right is the Texas VHF-FM Society logo. Below the logo is a login form with fields for 'Username:' and 'Password:', and a 'Log In' button. A purple oval highlights a navigation menu on the left side of the page, which includes 'Account Management', 'Sign Up!', 'Reset Password', 'Surveys and Polls', 'Digital Repeater Band Plan', and 'Simplex Usage'. A purple arrow points from the 'Sign Up!' and 'Reset Password' links in the menu to a callout box on the right. The callout box has a blue header and contains the text 'Account Management', 'Sign Up!', 'Reset Password', 'Surveys and Polls', 'Digital Repeater Band Plan', and 'Simplex Usage'. The main content area of the page has a 'Welcome!' heading and several paragraphs of text, including a 'Log In!' link at the bottom. The footer contains copyright information and a page load time.

Username: Password:

Account Management

- Sign Up!
- Reset Password

Surveys and Polls

- Digital Repeater Band Plan
- Simplex Usage

Welcome!

This is the main page of RFProjector!

RFProjector will soon be used as a society-wide coordination collaboration effort, linking trustees and coordinators directly to the Coordination efforts will be streamlined and easier with the introduction of RFProjector technology, including the implementation

Members of the TXVHFFM Society will also be given control of their personal details, their status as a society member, and access

Click on the TXVHFFM logo to go to www.txvhffm.org or click on the big RFProjector logo up there to return to this main page!

If you encounter any errors please report them as soon as you can to security@txvhffm.org. Work is constantly being done on the

[Log In!](#)

Copyright © 2008; K5RYN, Matthew Stenn
Index ... Page loaded in 0.00289 seconds.

Menu Choices for Account

RF Projector

Welcome Eric Schmidt! [Log Out](#)

Welcome Eric Schmidt!

This is the main page of RFProjector!

RFProjector will soon be used as a society-wide coordination collaboration effort, linking trustees and coordinators directly to the same database in real time. Coordination efforts will be streamlined and easier with the introduction of RFProjector technology, including the implementation of electronic submission of forms and...

Members of the TXVHFFM Society will also be given control of their personal details, their status as a society member, and access to new online features such as the...

Click on the TXVHFFM logo to go to www.bvvhffm.org... or click on the big RFProjector logo up there to return to this main page!

If you encounter any errors please report them as soon as you can to security@bvvhffm.org. Work is constantly being done on the site and perhaps something was done...

Trustee
Renewal Instructions
Repeater Renewal
Surveys and Polls
Digital Repeater Band Plan
Simplex Usage
My Reports
Manage Reports
Account Management
Account Settings
Vote 2010
Vote!

Repeater Renewal Menu



The screenshot shows the RF Projector website interface. At the top, there is a blue header with the RF Projector logo and the text "RF Projector". Below the header, a yellow bar contains the text "Welcome Eric Schmidt!" and a "Log Out" button. The main content area is divided into two columns. The left column contains a navigation menu with sections: "Trustee" (with sub-items "Renewal Instructions" and "Repeater Renewal", where "Repeater Renewal" is circled in yellow), "Surveys and Polls" (with sub-items "Digital Repeater Band Plan" and "Simplex Usage"), and "My Reports" (with sub-item "Manage Reports"). The right column is titled "Repeater Renewal" and contains the text "Please select a repeater to renew." followed by instructions: "Gray renewals have not yet been submitted.", "Red renewals have been submitted.", and "Green renewals have been approved." Below this text is a table with the following data:

Call	City	Frequency	Notes
KA5WMY	El Paso	224.0000	

Renewal Instructions

Repeater Renewal

Surveys and Polls

Digital Repeater Band Plan

Simplex Usage

My Reports

Manage Reports

Account Management

Account Settings

Vote 2010

Vote!

Back

Call	City	Frequency	Notes
KA5WMY	El Paso	224.0000	

Trustee Information:

First: **Eric** Last: **Schmidt**

Home Phone: Work Phone:

Address:

City: State: **TX**

Zip:

One of the following must be selected:

- This repeater is currently on the air.
- This repeater is NOT currently on the air, but will be in days. (No greater than 90 days)
- This repeater is NOT on the air and will not be placed on the air within 90 days. I am relinquishing this coordination.

Coordinated Frequency (TX/RX): **224.0000 / 222.4000**

Coordination Issued To: **Eric Schmidt**

System Callsign: **KA5WMY**

Antenna Location (TX):

Antenna Location (RX):

Height Above Average Terrain (TX):

Height Above Average Terrain (RX):

Antenna Gain(TX/RX): / DB

Radiation Pattern (TX/RX): /

Antenna Gain (TX/RX): /
Radiation Pattern (TX/RX): /
Effective Radiated Power:
Link/Control Frequencies: 430.975

This information is used to determine spacing to other repeaters on the same frequency.

Latitude:
Longitude:

PL Tone: 127.3

Antenna City: **El Paso**
Antenna County: **Zepada**

Notes (for ARRL repeater directory):

Please include comments and additional instructions for your coordinator. (e.g. Note incorrect information that you are unable to change)

If there are any changes to the above information your submission will be reviewed by your Zone Coordinator before it is granted, as the Zone Coordinator's written or electronic approval of the Zone Coordinator may result in the revocation of your coordination.

I hereby state that all above information is correct and said system is operational. Any system that is inactive for longer than three months shall be removed from the frequency. I have read and understand the [published Society coordination standards](#), and I agree to abide by these standards.

Signed:

Automatic Email Reply Confirmation of Renewal

Date: Fri, 6 Aug 2010 00:30:16 -0500
To: Eric Schmidt <eschmidt@cmaaccess.com>
From: "RF Projector" <rfprojector@txvhffm.org>
Subject: TXVHFFM Repeater Renewal

Your coordinator recently reviewed your renewal application for

KA5WMY El Paso 224.0000

and has approved it.

Please visit <http://www.rfprojector.com/txvhffm> and submit any other renewals.

Thanks!

- RFProjector

Repeater Renewal Menu

Welcome Eric Schmidt! [Log Out](#)

Trustee

- Renewal Instructions
- Repeater Renewal

Surveys and Polls

- Digital Repeater Band Plan
- Simplex Usage

My Reports

- Manage Reports

Account Management

- Account Settings

Vote 2010

- Vote!

Repeater Renewal

Please select a repeater to renew.

Gray renewals have not yet been submitted.

Red renewals have been submitted.

Green renewals have been approved.

Call	City	Frequency	Notes
KA5WMY	El Paso	224.0000	



How to make an On-Line Report For a Repeater on or off-air

The screenshot shows the RF Projector web application interface. At the top, there is a blue header with the RF Projector logo and the text "RF Projector". Below the header, a yellow bar displays "Welcome Eric Schmidt!" and a "Log Out" button. The main content area is divided into a left sidebar and a main panel. The sidebar contains several menu items: "Trustee" (with sub-items "Renewal Instructions" and "Repeater Renewal"), "Surveys and Polls" (with sub-items "Digital Repeater Band Plan" and "Simplex Usage"), "My Reports" (with sub-item "Manage Reports"), "Account Management" (with sub-item "Account Settings"), and "Vote 2010". The main panel is titled "Manage Reports" and contains the following text: "Using this tool you can electronically submit various forms to the TXVHFFM Society and". Below this is a section titled "My Reports" which features a table with columns "Date", "Type", "PDF", "Notes", and "Status". The table is currently empty, with the message "You have no submitted reports." displayed below it. At the bottom of the main panel is a section titled "New Report" which includes a dropdown menu labeled "Select a new report...".

RF Projector

Welcome Eric Schmidt! [Log Out](#)

Trustee

- Renewal Instructions
- Repeater Renewal

Surveys and Polls

- Digital Repeater Band Plan
- Simplex Usage

My Reports

- Manage Reports

Account Management

- Account Settings

Vote 2010

Manage Reports

Using this tool you can electronically submit various forms to the TXVHFFM Society and

My Reports

Date	Type	PDF	Notes	Status
You have no submitted reports.				

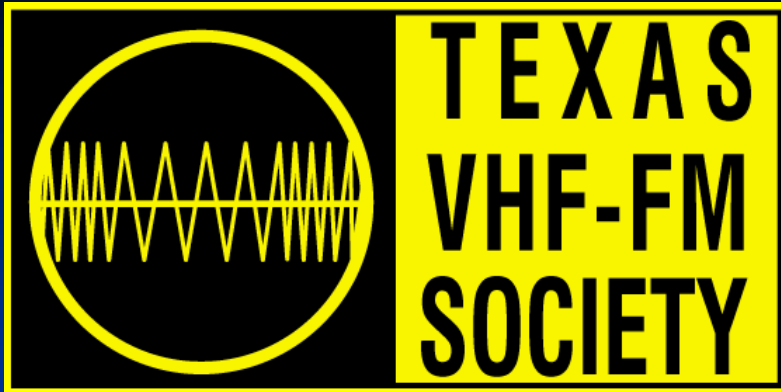
New Report

Select a new report...

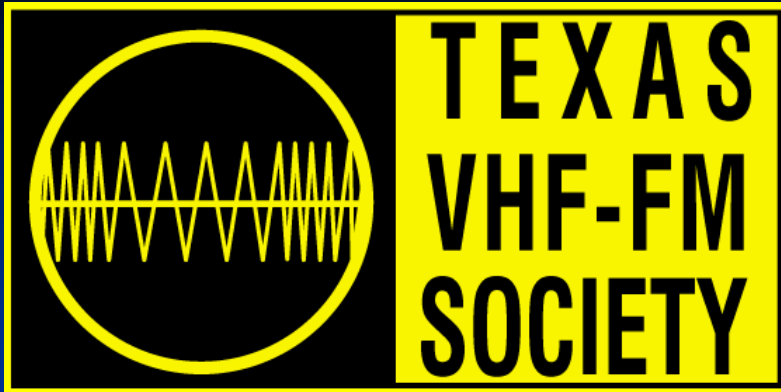
On-Line Report a Repeater on or off-air

Trustee	Report of Repeater Status
Renewal Instructions Repeater Renewal	The Texas VHF-FM Society strives to maintain the current status of all FM repeaters in Texas. You can help us maintain current information by using this form to report the on-air or off-air status of a repeater.
Surveys and Polls	Repeater Transmit Frequency associated with this report: <input type="text"/> MHz
Digital Repeater Band Plan Simplex Usage	Repeater Callsign associated with this report: <input type="text"/>
My Reports	Are you the trustee of this repeater? Yes <input type="radio"/> No <input checked="" type="radio"/>
Manage Reports	Please use the space below to explain the status of the repeater. If you are the trustee please include your expected return to operation date. <div style="border: 1px solid black; height: 150px; width: 100%;"></div>
Account Management	
Account Settings	
Vote 2010	
Vote!	
	Use the following space to report the attempts to access the repeater in question. Since some repeaters may be busy, please attempt to access the repeater at least one month before submitting the report.
	Attempt 1:
	Date: <input type="text" value="Jan"/> <input type="text" value="1"/> 2010 Time: <input type="text" value="1"/> : <input type="text" value="00"/> <input type="text" value="PM"/>
	PL Tone utilized: <input type="text"/> TX Power: <input type="text"/>
	Location where you attempted to access repeater: <input type="text"/>

and now.....



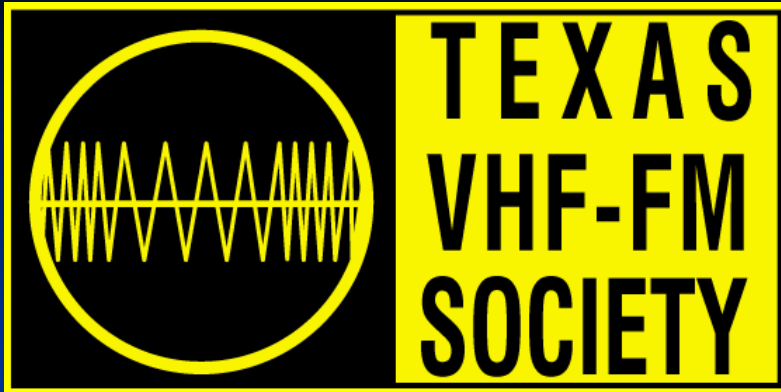
What is our New Direction ?



What is our New Direction ?

Over-all Goal –

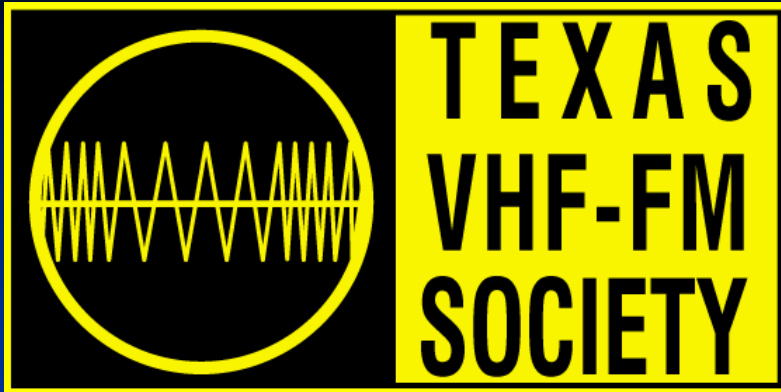
Move the Society Forward.



What is our New Direction ?

Over-all Goal –

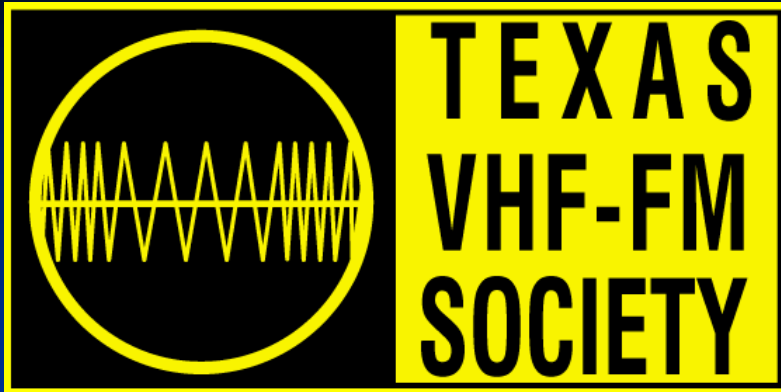
Have Society Staff make presentations to local clubs, as we are doing tonight, to help spread information about what the Society does, the benefit of those efforts, and the benefits of membership.



What is our New Direction ?

Over-all Goal –

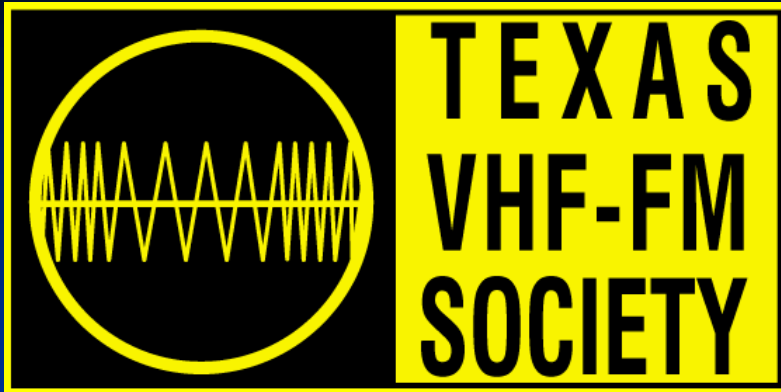
Provide value-added features to all our members



What is our New Direction ?

Over-all Goal –

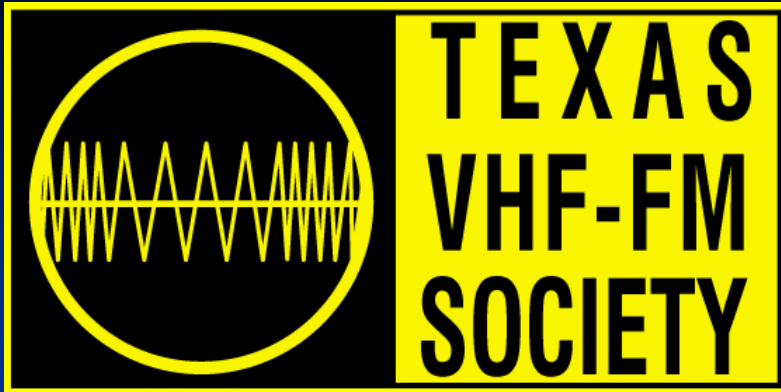
Restore our Platinum name plate and once again produce cutting-edge technical articles for Society members.



What is our New Direction ?

Over-all Goal –

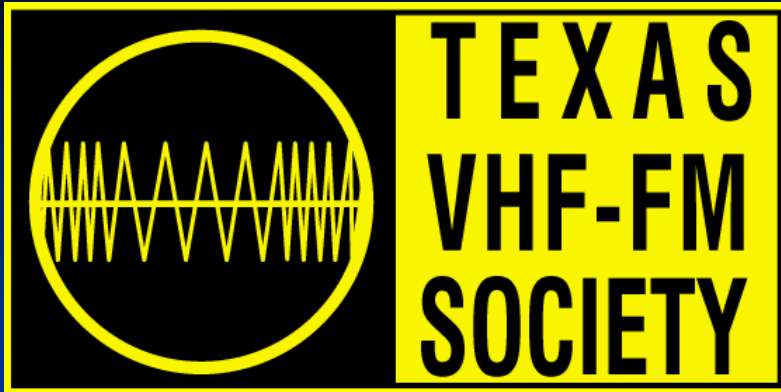
Be the One-Stop source for all things technical for all the hams in Texas.



What is our New Direction ?

Technical Goal –

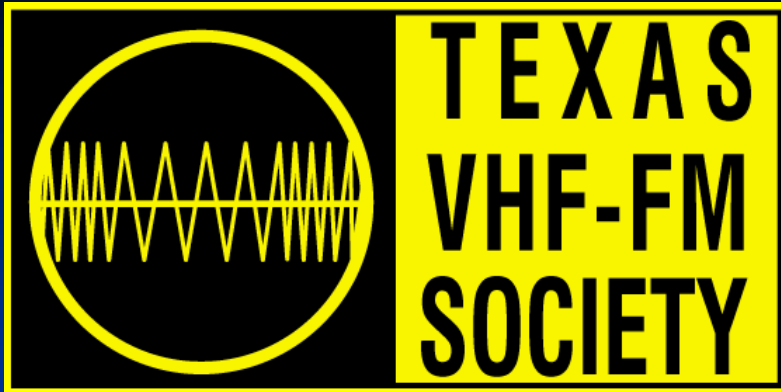
To have the best informed and best trained hams operating the best maintained and functioning equipment in the United States.



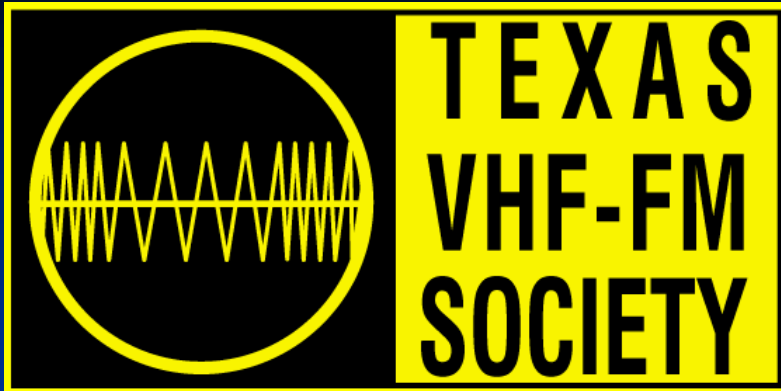
What is our New Direction ?

Administrative Goal –

To turn over every stone; look at every document the Society produces; look at every function the Society performs and find ways to improve the Society's process and criteria for repeater coordination. Full transparency.



Expect the Best from Us !



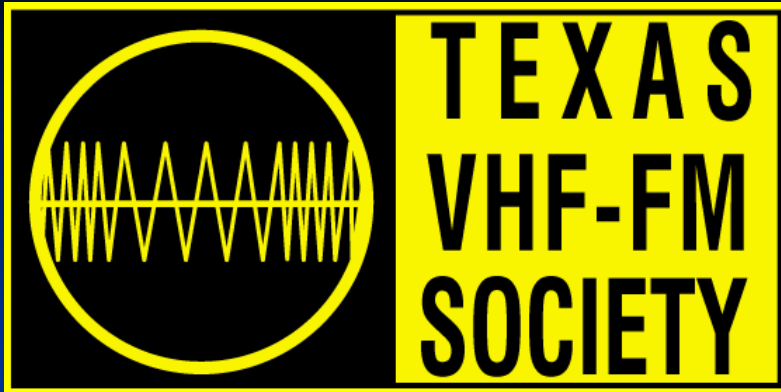
The Texas VHF-FM Society's -- Texas 2M FM Simplex Challenge --

Sunday, December 11, 2011, 2 PM to 5 PM CST

Open: to all licensed radio amateurs located within the State of Texas.

Object: Make as many QSOs as possible with stations located within Texas.

Plaques: Plaques will be awarded for the high score in each entry category. Plaque presentations will be made during the Texas VHF-FM Society Winter Meeting in San Antonio on January 14, 2012.



Entry Categories:

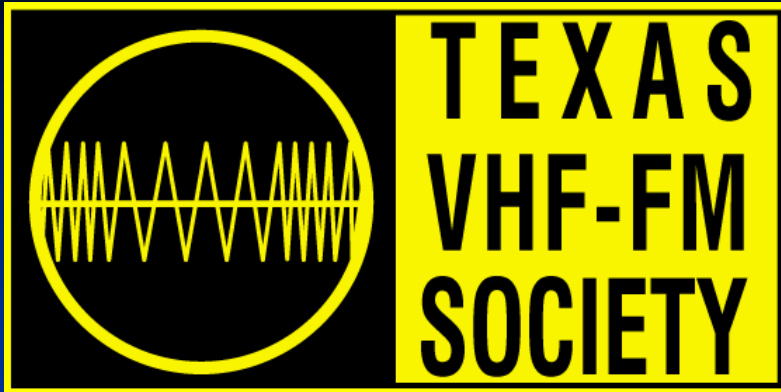
There will be three (3) categories of entries:

Single Operator - Fixed Location

Single Operator - Rover/Mobile

Multi-Operator - Rover/Mobile

Full rules at <http://www.TxVHFFM.org>



Yearly Membership is still only \$15

We will be glad to sign you up tonight.