The KeyNote



Newsletter of the Americas Chapter, FISTS CW Club—The International Morse Preservation Society Issue 1, 2023

Write an Article on Al and Ham Radio

Bryan Bergeron

By now, you've probably heard of ChatGPT (chat.openai.com), which searches the Internet to provide human-like responses to simple questions. Below Is the unedited output from ChatGPT when I typed "Write an Article on AI and Ham Radio". Can you tell that the source is not a human? How do you feel about reading computer-generated newsletters and magazines?

Amateur radio, also known as ham radio, is a hobby that involves the use of radio communication to establish connections with other amateur radio operators all over the world. In recent years, there has been growing interest in the integration of Artificial Intelligence (AI) with ham radio to improve the overall experience and increase the capabilities of radio communication. In this article, we will explore how AI is being used in ham radio, the benefits of this integration, and the challenges that need to be addressed.

AI is being used in ham radio in a variety of ways. One of the primary applications of AI in ham radio is in the field of digital signal processing (DSP). AI algorithms can be used to analyze radio signals and extract meaningful information from them, such as the location, frequency, and bandwidth of a signal. This can help to improve the accuracy and reliability of radio communication, as well as enable more efficient use of radio frequencies.

Another application of AI in ham radio is in the area of automatic antenna tuning. Antennas are a critical component of radio communication, and their performance can be greatly affected by factors such as weather conditions, interference, and the physical environment. AI algorithms can be used to automatically adjust the tuning of the antenna in response to these factors, ensuring optimal performance and reducing the need for manual adjustment.

AI is also being used in ham radio to improve the user interface and make radio communication more accessible to a wider audience. For example, AI-powered voice recognition technology can be used to enable hands-free operation of radio equipment, allowing users to control their radio communication without the need for manual inputs. This can be particularly useful for people with disabilities or those who have difficulty operating traditional radio equipment.

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Write an Article on Al and Ham Radio (continued)

The integration of AI with ham radio has several benefits. Firstly, it can help to improve the accuracy and reliability of radio communication, which is essential for emergency communication and other critical applications. Secondly, AI can help to automate many of the manual processes involved in radio communication, reducing the workload of operators and enabling more efficient use of radio frequencies. Finally, AI can help to make ham radio more accessible to a wider audience, including people with disabilities, by improving the user interface and enabling handsfree operation.

However, there are also some challenges that need to be addressed in the integration of AI with ham radio. One of the primary challenges is ensuring the security and privacy of radio communication. As AI algorithms become more sophisticated and powerful, there is a risk that they could be used to intercept and decode radio signals, compromising the privacy and security of communication. Therefore, it is essential to implement strong encryption and authentication measures to protect radio communication from unauthorized access.

Another challenge is ensuring the compatibility of AI-powered radio equipment with existing radio communication systems. Ham radio operators rely on a wide range of equipment, some of which may not be compatible with AI-powered systems. Therefore, it is essential to ensure that AI-powered equipment is designed to be compatible with existing systems and that operators have access to the necessary training and support to use this equipment effectively.

In conclusion, the integration of AI with ham radio has the potential to greatly improve the accuracy, reliability, and accessibility of radio communication. By using AI algorithms to automate processes and analyze radio signals, operators can achieve more efficient use of radio frequencies and improved performance of radio equipment. However, there are also challenges that need to be addressed, such as ensuring the security and compatibility of AI-powered equipment. With the right approach, the integration of AI with ham radio has the potential to revolutionize the way we communicate over the airwaves.



What's Your Story?

Do you have a story to tell? Members would love to hear how you got interested in ham radio. Did someone mentor you as a child? Did you learn it in the service? What is an interesting experience you had using Morse Code? What is your favorite key/rig? Do you have an interesting QSO you'd like to tell members about? Or photos to share?

Send your stories/photos to keynote@fistsna.org.

INFORMATION PAGE

When you have a question about FISTS, go to the source for the correct answer. Posting a question on a chat room or email reflector may yield the answer, but your best bet is to ask a FISTS volunteer or look in the reference issue. Several volunteer contacts and/or email addresses have changed from the last reference issue of *The KeyNote*. Please make note of the following listings.

When emailing a volunteer please put the word FISTS in the title of your email. This will help the volunteer recognize that your email is important and not spam.

Awards and Certificates

Dennis Franklin, K6DF, <u>awards@fistsna.org</u> 4658 Capitan Dr., Fremont, CA 94536-5448

Club Call, KN0WCW

"Vacant"

If interested email to:

Joe Falcone, N8TI, store@fistsna.org

Membership Questions; Renewals; Call Changes; Name, Mailing, and Email Address Changes

Dennis Franklin, K6DF, membership@fistsna.org 4658 Capitan Dr., Fremont, CA 94536-5448

FISTS Store Manager

Joe Falcone, N8TI, store@fistsna.org 9880 Musch Road, Brighton, MI 48116

Activities Manager

"Vacant"

If interested email to:

Joe Falcone, N8TI, store@fistsna.org

Website Changes (including getting your personal or club web page linked)

Dennis Franklin, K6DF, webmaster@fistsna.org 4658 Capitan Dr., Fremont, CA 94536-5448

Code Buddy Volunteers and Buddies

http://www.fistsna.org/codebuddy.php

FISTS Sprints Ashley Lambe, KX4ASH

E-logs to sprintlogs@fistsna.org
Mail Logs to: FISTS Sprint Logs
4305 Roundwood Ct.
Indian Trail, NC 28079

Get Your Feet Wet Activity Day/G3ZQS Memorial Straight Key Contest

"Vacant"

If interested email to:

Joe Falcone, N8TI, store@fistsna.org

The KeyNote Newsletter

Bryan Bergeron, NU1N, keynote@fistsna.org

We need articles and reviews for The KeyNote!

NOTE: Image files need to be high resolution JPGs (at least 1000 pixels wide).

Send your Word or text files to keynote@fistsna.org

The KeyNote

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keynote@fistsna.org

Americas Chapter, President's Message

By Joe Falcone, N8TI

I would say that there have been at least four important developments in ham radio during the last five years. The first is an increase in the number of "younger" hams that are active and actually on the HF bands. These are the people in their 20's and 30's who have combined their enjoyment of the outdoors with ham radio and are creating a lot of activity by taking their radios portable to parks and other outdoor locations to engage activities such as "Islands on the Air," "Parks on the Air" and "Summits on the Air," to name a few. These operators take their radios, some form of easily deployed antennas and a battery and head out to the outdoors for anywhere from a few hours to several days to hike, camp and do ham radio. Facebook is full of groups of these operators and You Tube has video after video of operators who have documented their excursions, all the while explaining and talking about ham radio and their particular set-up. These videos inspire and encourage others to join in the fun

The second important development is the advent of smaller and less expensive radios. I once read that nowadays the most expensive part of a radio is the front panel with all its buttons and dials. Whether that is true, I am not sure, but I do know that Yaesu's FT-891 sells for a little over \$600 and, from all reports, is

a very nice performing HF radio smaller than most textbooks that junior high students carry around. There is a learning curve to how to get to all of the "menus" that seem to go on and on, but that does not seem to bother the people who have actually bought the radio. The number of QRP radios has exploded, with HF radios that have all the bands and modes for competitive prices. Comparing what radios used to cost and taking inflation into account, the new radios are a bargain, especially given all of the computer driven noise reduction and built in filters. These are the radios that are being taken out into the field along with the new lightweight, high capacity batteries that have appeared on the market. It is no longer necessary to haul along heavy sealed lead acid batteries to do a quick few hours of radio in your local park. The new Lithium Iron Phosphate (LifePO4) batteries seem to have been made for ham radio.

The third important development is in the areas of antennas. By that I mean that the use of end fed wires with an unun for an End Fed Half Wave or a random wire antenna seem to work well for the QRP operators out at the parks and the mountains. For some reason, these operators have realized that an operator does not need a perfect antenna with gain in order to do some portable operating. For example, I use a 29 foot wire antenna, (made from copper clad aluminum speaker wire bought on eBay), with a 9:1 unun in my Parks on the Air

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activations. I use a tuner and can work 40 through 10 meters without any problem. While some like to use commercially built vertical antennas, a lot of operators are satisfied with a few dollars worth of wire.

Finally, the fourth important development is the surge in the use of CW by these younger, portable operating hams. We all know that CW is a great mode to operate and with CW, a little bit of power goes a long way. These newer hams, however, have to be given credit to have reached that conclusion without being forced to learn Morse Code to gain entrance into this great hobby. The newer people took the phase "incentive licensing" to its natural conclusion. Their "incentive" to learn Morse Code was not to get a higher class license, but rather to gain access to one of the best modes of ham radio operation. The CW bands are busier than I have seen in the last thirty years.

Right now the bands are hopping, so get out your key and get on the air.



FISTS AWARDS

By Dennis K6DF

Congratulations to all who earned operating awards from Nov 16, 2022 to Feb 15, 2023.

Award certificates are available, from the Members Area of the Americas Chapter website, for members to download to their own computer for printing. A list of awards issued to your call/member-number is available in the Members Area. FISTS members may log into the Members Area from the following web page:

https://fistsna.org/memlogon.php

New Members can earn a free FISTS Club Key Patch for making their first 10-minute CW QSO with any FISTS member on any band, so get on the air and make your first 10-minute QSO with a FISTS member to earn your free KEY Patch!

New Member Patches Earned:

KD0AEI Phil—QSO with K7CNT WD0ETG Michael—QSO with KI4DBK WB1ANA Tom—QSO with K8JD N8DF Dave—QSO with WD9DWE WA1IWI Lance—QSO with WB1ANA

We have a list of new members shown elsewhere in this issue of the *Keynote*. Please listen for them on the bands and help them to earn their FISTS Key Patch!

Award certificates are available free to all club members, in PDF format, so get out your favorite key and get on the air. You can also use the free "Log Converter" program to track your club awards, it's also a good general logging program as well. The author of Log Converter, Graham G3ZOD, is constantly providing updates and improvements to the program. This program was last updated on October 13, 2022 to

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FISTS AWARDS (continued)

version 4.3.0. If you are using a version older than this please update your program as older versions will not work properly due to a recent server update. This FREE software will track your FISTS awards automatically and allow you to send in your award logs to the FISTS Awards Manager at the click of a button! The best thing about it is . . . it's FREE! Log Converter is available for download on the Americas Chapter web site. Look for the download link on the main web page just below the "Welcome New Members" list.

Be sure to check the Americas Chapter web pages for updated awards information and how to apply for them:

https://fistsna.org/awards.php

If you have any award questions or suggestions, send e-mail to me at:

awards@fistsna.org

My email address has changed to:

awards@fistsna.org

Wishing you and yours a safe, healthy 2023. 73, Dennis K6DF ..._. (30)

FISTS AWARDS ISSUED: Nov 16, 2022-Feb 15, 2023

Basic Century: NW7US, ON4CAS, IU8OJT, N8DF, KC2IGE

Silver Century: NW7US, G5VZ, ON4CAS, N8DF

Gold Century: NW7US, ON4CAS

1XQRP: MW0BGL, IU8OJT

Millionaire Award: NW7US, N8IQV, ON4CAS,

IU8OJT, N8DF, KC2IGE

2 Million Award: NW7US, ON4CAS, M0KTZ,

N8DF

3 Million Award: NW7US, G5VZ, ON4CAS,

EA4HKF, N8DF

4 Million Award: NW7US, ON4CAS, EA4HKF,

N8DF

5, 6, 7, 8 Million Award: NW7US,

9 Million Award: NW7US, IU0HMB

13 Million Award: G3ZRJ, IK0IXI, N4LSJ

15 Million Award: IK0IXI

17 Million Award: NP3K

Spectrum 80M: NW7US

Spectrum 40M: N8DF, NW7US

Spectrum 30M: NW7US

Spectrum 20M: NW7US

WAS Award: ON4CAS

Perpetual Prefix: NW7US, ON4CAS

Prefix 50 and 100: NW7US

Prefix 150: NW7US, ON4CAS

WELCOME NEW FISTS AMERICAS CHAPTER MEMBERS

Call	FISTS#	First Name	S/P/C	Call	FISTS#	First Name	S/P/C
K8TO	21874	Jack	CO	NC3O	21964	John	PA
VE3JO	21875	Randy	ON	W7LC	21965	Bill	ID
WA4CHQ	21876	Neil	VA	KO4LEM	21966	Alan	GA
N5QLZ	21877	Charles	MS	KK7CKU	21967	Tom	AZ
NJ8L	21878	Vern	OH	WA0V	21968	Matt	KS
W3AW	21879	Kirk	IL	KC3OSU	21969	Matthew	MD
WA7WS	21880	Bill	ID	N9UXC	21970	Mike	MN
WD0ETG	21881	Michael	VA	NK7H	21971	Dan	WY
KS4SZ	21882	Rick	GA	N7CTT	21972	Phil	OR
KC7CW	21883	Carole	WA	KB8M	21972	Doug	MI
VE9ED	21884	Katie	NB	KB3LAN	21973	Michael	PA
K3RKC	21885	Bill	PA	N5DIT	21975	Mark	TX
YS1MS	21886	Jose	DX	KI5JUB	21976	Chuck	TX
KW6LA	21887	Tony	CA	AC7FX	21977	John	WA
N4ZQA	21888	Conrad	VA	N8XYM	21978	Mike	OH
KL3DM	21889	Dean	AK	W9VOP	21979	David	TX
NI8W	21890	Steve	OH	KE8EON	21979	James	OH
W2BLT	21891	Scott	NY	WI8V	21980	Timothy	OH
W3BIT	21892	Spencer	TX	WB5PGX	21982	Jay	TX
VA3YZZ	21892	Colin	ON	K1ZFN	21982	Syl	CT
WB1ANA	21893	Tom	MA	KIZI'N KM4IRN	21983	Bernard	AL
PU2NPQ	21894	Gustavo	DX	KI5ZEM	21985	Beth	OK
N8DF	21895	Dave	MI	KI3ZEW KD4BJW	21985	Jason	AL
WA1IWI	21890	Lance	MA	VA7LM	21987	•	BC
KD9OVV	21898	Matt	IN		21988	Douglas	OH
WA6CP	21899	Chris	CA	KB8QPT N3YLI	21988	Sergio Travis	PA
W5BTV	21950		TX	WB5YEY	21989	Mark	AR
		Jim Charles					
N3ADM	21951 21952		PA	KI7IH AF5SW	21991	Joseph Kevin	WA OK
AC3HT		David	PA		21992		
N8MXL	21953	Kevin	CO	K4EFL	21993	Ed Charles	FL
WA5YOM	21954	Tim	OK IN	N8DD	21994	Charles	OH
W9SMN	21955	Steven	IN	KX4HV	21995	Jason	NC
KC9EE	21956	Gary	IL	KC7EAH	21996	Carmene	AZ
N4DBM	21957	Derek	NC RC	WB9RAS	21997	William	IL
VE7ARN	21958	Mark	BC	KE4EST	21998	Michael	NC
AD5VF	21959	Tim	NM	K5LOD	21999	Mark	TX
N6VN	21960	Jim	CA	KC1W	22000	Adolph	ME
AA4TE	21961	Dave	SC	K0FO	22001	Doug	MN
W2ANZ	21962	Jon	PA	KG5YVN	22002	Craig	CA
N4TQX	21963	Jack	FL			(continued	on page 8)

New Members (continued)

Call	FISTS#	First Name	S/P/C
KG6PTT	22003	William	CA
VA4ADM	22004	Pavel	MB
W4XSP	22005	Steve	FL
KJ4UYH	22006	Joseph	VA

Silent Keys

We have learned that the following keys have gone silent. Our condolences to their families and friends.

Call	FISTS#	First Name	S/P/C
WA1HMW	926	Bill	MA
W6ADB	3037	Bernie	CA
W3SYR	3058	Robert	PA
AA8MW	3655	Ronald	MI
N4EO	4650	Jerry	HI
N2RF	5259	Rick	NJ
WA9NLA	5412	Lloyd	FL
WA7PVC	6763	Bud	WA
AG2R	7677	Gene	NJ
N5BUD	12446	Richard	LA
W7OM	12709	Rod	WA
W2EFI	14455	Don	NY
N0CG	18399	Clyde	CO
W9REA	18805	Richard	IN

Get More Involved in FISTS-NA!

- 1. Enter one of the quarterly Sprints. If you are a new ham, it is a great way to practice your Morse Code. You can get on the air, meet other club members, and have some fun!
- 2. Submit an article, or articles, for the newsletter. We welcome all articles, photos, and experience levels. You don't have to be the great American novelist! Articles are lightly edited for typos and grammar.
- 3. Earn a free FISTS Club Key Patch when you make your first 10-minute CW QSO with any FISTS member on any band.
- 4. Volunteer! We are currently in need of an Activities Manager.
- 5. Submit suggestions about how FISTS-NA can be more relevant in 2021 and beyond.

SPRINT INFORMATION

Sprints will be held eight times throughout the year on the second Saturday and third Sunday in each of the following months: Feb., May, and Aug.

OBJECTIVE:

To exchange specified information with as many FISTS members as possible using Morse Code only, and within the time frame stipulated. Sprints are a great opportunity for our newer members to get on the air, meet other club members, and have some fun! We encourage more experienced operators to please QRS to match the other operator's speed.

PARTICIPANTS:

Any properly licensed amateur radio operator, FISTS member or non-member is invited to take part in the contest. At least one of the two stations in each QSO must be a FISTS member.

DATES AND TIMES:

WINTER SATURDAY SPRINT: from 1600 UTC to 1800 UTC on second Saturday in February.

WINTER SUNDAY SPRINT: from 2100 UTC to 2300 UTC on third Sunday in February.

BANDS:

Operation is limited to the following amateur bands: 3.5, 7, 14, 21, and 28 MHz amateur bands. Look for other participants around the FISTS frequencies: 3558, 7058, 14058, 21058, and 28058 kHz. You may NOT work the same station more than once.

ENTRY CLASSES:

There are three entry classes: QRO, QRP, and Club.

- 1. **QRO:** Over 5 watts to legal limit.
- 2. **QRP**: 5 watts output power or less.
- 3. Club: (regardless of power).

Entry class MUST be shown on logs to be considered for entry in a particular class, or will be assumed QRO. An entry must be ONE class only, no combination of classes allowed.

EXCHANGE:

The following information must be exchanged by both stations and shown in your log for each QSO to count as a valid QSO:

FISTS members: RST, S/P/C, first name, FISTS number. Non-FISTS members: RST, S/P/C, first name. (Enter "0" Zero if your logging program requires a power entry for non-members.) S/P/C = U.S. State/Canadian Province/DXCC Country

DX COUNTRY STATUS:

U.S. states and Canadian provinces are those states and provinces that are contiguous and found within the North American continent. DX are those entities listed in the current ARRL DXCC publication, other than the above.

MULTIPLIERS:

Each U.S. state (50) and Canadian province (13) counts as 1 multiplier. Count each only once, no matter how many times worked. Each DXCC country counts as 1 multiplier. Count each only once, no matter how many times worked. Canada and the USA do not count as DX multipliers.

SCORING:

Each QSO with a FISTS member: 5 QSO points. Each QSO with a non-FISTS member: 2 QSO points. Final score is total QSO points times the number of multipliers worked.

CERTIFICATES:

Certificates will be awarded to the first, second, and third place finishers in each Sprint for each Entry Class. End-of-Year Certificates will be awarded ONLY to FISTS members with the highest cumulative point totals in the QRO, QRP and Club categories for all Sprints at the end of the year. Certificate will be sent to the winners via email in PDF format.

New Sprint Information (continued)

LOG SUBMISSIONS:

All log entries must be received within 7 days after the Sprint to be considered valid. Logs not sent to the proper address will not be considered for entry. The logs will be spot-checked for accuracy and correct scoring procedures. All logs MUST contain the following information for entry:

- 1. Your name, call sign, mailing address, and FISTS Number if a member.
- 2. Club name and call sign if entry is for a club station.
- 3. Sprint worked—Date of the Sprint worked.
- 4. Entry class—QRO, QRP, or Club.
- 5. Number of FISTS members worked.
- 6. Number of non-FISTS worked.
- 7. FISTS number for FISTS QSOs.
- 8. List of multipliers.
- 9. Your claimed score.

An entry form is available here and on the FISTS website at:

https://fistsna.org/pdfdocs/sprint_entry _form_rev2.pdf

ELECTRONIC LOGS:

We will accept electronic logs in standard Cabrillo or ASCII Text File format. If you're not sure about your format, please contact the Sprint Manager before the contest entry deadline. E-logs are sent to:

sprintlogs@fistsna.org ONLY.

PAPER LOGS:

Send log and entry form to: FISTS Sprint Log, 4305 Indian Trail Ct., NC 28079.

JAN. 1, 2021 CHANGES TO AMERICAS CHAPTER MEMBERSHIPS

All Americas Chapter memberships will be dues-free.

- Expired memberships were changed to Life memberships on Jan 1, 2021.
- Current paid memberships that expired were changed to Life memberships on their expiration date.
- All New Memberships received since April 2, 2020 are entered as Life memberships.

Details about printed/mailed newsletter subscriptions appeared in Issue #4, 2020 of the *KeyNote*, which is available on the FISTS website at:

www.fistsna.org/publickeynotes.php

FISTS SPRINT ENTRY FORM

Check Sprint Entered: Saturday					Sunday Sprint Date						
Entry Class: QRO							QRP FISTS Club				
Name				(Call		Fl	ISTS#_		Non Member	
Address											
City								State		_ Zip _	
If Club, Club Name, Call											FISTS Nr
E-mail Add	ress (op	tional) _									
SCORING: Add [A] to	Nu Nu [B] and	mber of mber of multiply	Non-FIS multiplion by [C] t	0 ,	s: ed: ır TOTA	L CLAI	× 2 = = MED SC	Total [I Total [C	3] [2]		
				CIRCL	E WOF	RKED M	ULTIPL	IERS			
1	2	3	4	5	6	7	8	9	0	VE	DX
CT MA ME NH RI VT	NY NJ	DE MD PA	AL FL GA KY NC SC TN VA	AR LA MS NM OK TX	CA	AZ ID MT NV OR UT WA WY	MI OH WV	IL IN WI	CO IA KS MN MO NE ND SD	NB NS PE QC ON MB SK AB	NF/LB NT YK BC
Please enclo					FIST 430	ideas, etc S Sprint Lo 5 Round	c., with y	our entr			
	report	is correc									Amateur Radio in my decisions of the FISTS
Date		S	ignature	2					C	all sign	
SOAPBOX	COMM	ENTS:									