

Bushwhacking In The Land Of Digital Voice

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Abstract

Amateur Radio Digital Voice¹ (DV) nets flourish throughout the U.S. and elsewhere however, most are “virtually” inaccessible to all but a few persistent explorers. The main reason for this is the lack of a widely know, central, continuously updated, comprehensive catalog of information to guide interested Radio Amateurs to any net accessible via a myriad of hubs, interconnected repeaters and systems as well as individual networks (Brandmeister, TGIF, etc.) using a variety of DV formats including DMR, D-STAR, YSF, etc.

An efficient way to find nets does not exist. What is lacking is a single convenient way to select a net from a comprehensive, frequently updated database of regularly scheduled nets, especially those with topical discussions. It is difficult and time consuming to create a comprehensive list for personal use.

The Significance of Nets

Nets are Amateur Radio’s version of “gather ‘round the camp fire” sessions. Active Radio Amateurs usually check into a local club or group VHF/UHF net on a daily or weekly basis. Emergency Communications units do this too, primarily as a test and demonstration of capabilities. These local or regional activities are a means of regularly scheduled radio communication for individuals, some of whom may be housebound or have mobility issues.

Perhaps most importantly, these on-air gatherings foster cohesiveness among group members and provide friendly greetings and helpful advice especially important to encourage newly licensed Radio Amateurs. This was especially true during the height of the Covid Pandemic Quarantine from March 2020 through 2021.²

The Amateur Radio Club of Augusta ([ARCA](#)) Georgia Nightly 2-Meter Net kicks off at 8:00 p.m. local time. The ARCA net generally attracts 20 to 40 Radio Amateurs. A session almost always includes three to five check-ins via EchoLink. This feature, recently added to a wide coverage VHF repeater, has enabled traveling club members to maintain their regular check-in schedule. An over the road tractor-trailer driver regularly checks in from various locations throughout the eastern half of the U.S.

Some nights a considerable number of announcements, questions, comments and discussions extend the net up to 80 minutes. Longer net sessions with more conversations go a long way toward building camaraderie among Radio Amateurs in the region.

¹ [Icom D-STAR General Information](#)

² [CDC Covid-19 Timeline](#)

The following following excerpts from a net control script specify the purpose of the ARCA Nightly Net... We pass traffic and information, list amateur radio equipment for sale or trade and as a public service to demonstrate emergency preparedness and promote Amateur Radio fellowship... All licensed Radio Amateurs are welcome, and encouraged, to check-in and participate in tonight's net... this frequency may be activated for emergency or public service activity. This repeater is also used for the Central Savannah River Area National Weather Service [SKYWARN](#) program..."

Listeners may include non-licensed persons within range of the repeater who use inexpensive hand-held transceivers or scanner radios. Some Amateur Radio repeaters are available via [Broadcastify](#) and [Rangecast](#) systems. Non-licensed people can listen using apps on smartphones, tablets, computers, etc. These listeners are a potential source of recruits for Amateur Radio. Jeffrey Kopcak, K8JTK has a [web page](#) with more on this subject.

The importance of Nets nets cannot be overstated. Nets contribute to the overall awareness of local, regional and national Amateur Radio activities.

An Amateur Radio license is a passport to a world of learning and adventure. Along the way of this journey we meet like-minded Radio Amateurs as well as those who are subject matter experts. We we may encounter helpful "Elmers³" who encourage and assist us in our exploration of the many, many Amateur Radio related activities.

Participation in nets is a way to meet people beyond a local circle of acquaintances, colleagues and friends. Here is a sampling of the [D-STARinfo.com](#) net listing. These selected nets most likely have more general interest and/or topical orientation rather than nets that are localized or focused on interests of a specific club.

- Amateur Radio Astronomy
- Australian D-STAR
- Backyard Repeater Owners
- Canadian D-STAR
- CERT D-STAR
- Coastal Carolinas D-STAR
- D-STAR HF
- D-STAR Trains and Railroads
- Military Veterans
- Pacific Division D-STAR ARES
- PAPA System D-STAR
- Philadelphia Digital Assoc. D-STAR
- Powersports
- Quarter Century Wireless Assoc.
- RACES/MARC Digital Voice
- Raspberry Pi

- D-STAR Users Group
- Friday Night Round Table
- Ham Nation After Show D-STAR
- Independent Radio Club
- International D-STAR
- Kids in Amateur Radio
- Mid-Atlantic Aux Comm Svc.
- PAPA System D-STAR Net
- Region III Aux Comm Svc.
- Round-the-World QSO
- Rural Radio Preparedness Assoc.
- RVers Digital
- Thursday Night D-STAR Round Table
- Thursday Night Tech Round Table
- W6DHS Global Village
- Young Operators DV

³ <http://www.arrrl.org/elmer-award>

The PAPA System short listing in the D-STAR Net list does not reveal the breadth of offerings. According to the ARRL Net Directory listing for the system, “The PAPA System is a member-supported wide-area amateur radio network of 57 inter-linked analog FM, D-STAR, DMR, and P25 repeaters on 19 hilltops providing extensive coverage of the Southern California region and beyond....” A good description but without a list of the PAPA System’s weekly nets:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Antenna Net • ARRL SW Division Net • D-STAR Tech Net • DMR Roundtable • New Ham’s Net • Outdoor Net | <ul style="list-style-type: none"> • P25 Net • PAPA Tech Roundtable • Saturday Night Roundtable • SoCal Boater’s Net • Topanga Disaster Radio Net |
|--|--|

Finding Nets

Many different individually created PDF documents listing DV nets are compiled, occasionally updated and freely available. Knowing where those lists reside on Internet sites and how comprehensive or current the listings are presents a challenge to would-be users. Many of these lists usually focus on one mode such as D-STAR or [EchoLink](#).

Representative Digital Voice Net Finding Aids

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|--|---|
| <ul style="list-style-type: none"> • AllStar Nets • ARRL Net (Primarily traffic nets) • AugustaHam.net Calendar • BM DMR Nets • BM Hoseline TG & Listen In • Control Center Bronx-TRBO • D-STAR Info Net List • D-STAR Nets (Facebook login) • D-STAR Users Last Heard • DWARN Nets Calendar • EchoLink Conference Status - Live • EchoLink Link Status Geo Search • FreeDMR Most Used Talkgroups • FreeSTAR Net Control • Google Site Search Example • Ham Radio DMR Nets | <ul style="list-style-type: none"> • HamNetList • Hamshack Hotline Bridges • KAPIHAN Network nets • Net Scrapper • NetControl Manager • NetLogger • NETS - DMR, C4FM, D-STAR, P25 (FB) • Network Digital Radio Monitor (YSF) • QuadNet Nets • RepeaterBook Search for “nets” • SkyHub Link System Nets • Southern Tier NY DMR • Telegram - Ham Radio DMR Nets • TGIF Network Active Talkgroups • WIN System Who’s Talking • WX4QZ.Net |
|--|---|

Invariably, when the subject of finding “other” nets comes up a Radio Amateur might suggest one or two websites with lists including such sites as [NetLogger](#). This hybrid software and online service has a “get previous nets” function listing more than 3,500 nets (including many duplicates) of all types along with pertinent details about each net.

The ARRL Net Directory [search](#) function has a few shortcomings. According to their description of the Directory, “One focus of the directory is toward public-service oriented nets that support the ARRL National Traffic System (NTS) and the Amateur Radio Emergency

Service (ARES).“ The search interface restricts searches to specific types of nets, one state at a time. Also, it relies on updates by individuals so it contains duplicate and/or outdated listings.

ARRL Net Directory Search

Select one of the following net categories: (required)

NTS Area Nets Maritime Nets NTS Region Nets Wide Coverage Local Nets
 Section Nets State Nets

US state, Canadian province, or US territory: Selection Not Needed ▾
Please Select a State if you chose a Local Net, Section Net or State Net

Net Name or Partial Net Name:

Day of the week: Any Day of the week ▾

Frequency: All Bands ▾

National Traffic Affiliated: All Nets ▾

[Search for a Net](#) | [Update an Existing Net](#) | [Submit a New Net](#)

There are hundreds of RF and DV net lists available on web pages, social media sites, and in downloadable files. A few dedicated Radio Amateurs periodically create up-to-date lists covering two or three DV modes but none are truly comprehensive. Keeping track of hundreds of nets is impossible for one person to do in their spare time. Having said all that the most comprehensive source for net schedules seems to be [HamNetList](#).

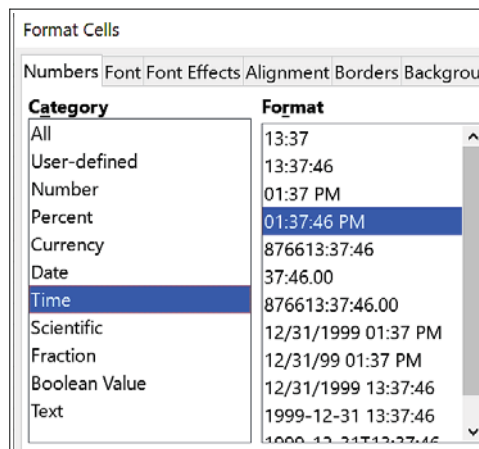
Net lists come in a variety of formats including locked (text cannot be copied) and unlocked PDF documents, one-off and regular web or social media posts, spreadsheets and calendars with or without ICS⁴ files. There are variations of record layouts or columns in a document or spreadsheet. Different descriptors, field names, times and time zones, day(s) of the week abbreviations or network specifics for each listed net. The information is exceedingly difficult to collate.

For example, when using a spreadsheet to import or copy and paste net listings one might encounter various difficulties. HTML text that is columnar on the web sometimes doesn't lend itself to the usual copy and paste convenience. Saving spreadsheet data from the source list in a CSV⁵ file strips out embedded Internet links.

⁴ An ICS file is a calendar file saved in a universal calendar format used by several email and calendar programs, including Microsoft Outlook, Google Calendar, and Apple Calendar. It allows users to share calendar information on the web and over email.

⁵ A CSV (comma-separated values) file is a text file that has a specific format which allows data to be saved in a table structured format.

Another significant matter is time and date formats in cells of spreadsheets. For example, OpenOffice and LibreOffice spreadsheet time formatting seems to be a particular problem. Attempting to automatically derive Eastern time from cells containing UTC seems impossible, despite considerable research about the time function and extensive experimentation.



Sorting by day of the week and then starting times of nets presents another problem. Monday through Sunday days of the week can't be sorted alphabetically in a document or spreadsheet and remain in correct order. Using numbers before days to properly sort the list is a way to do it. Considerable search and replace actions are needed to standardize the abbreviation of each day and include the number. This LibreOffice Calc spreadsheet shows one approach combining a list of RF and DV nets:

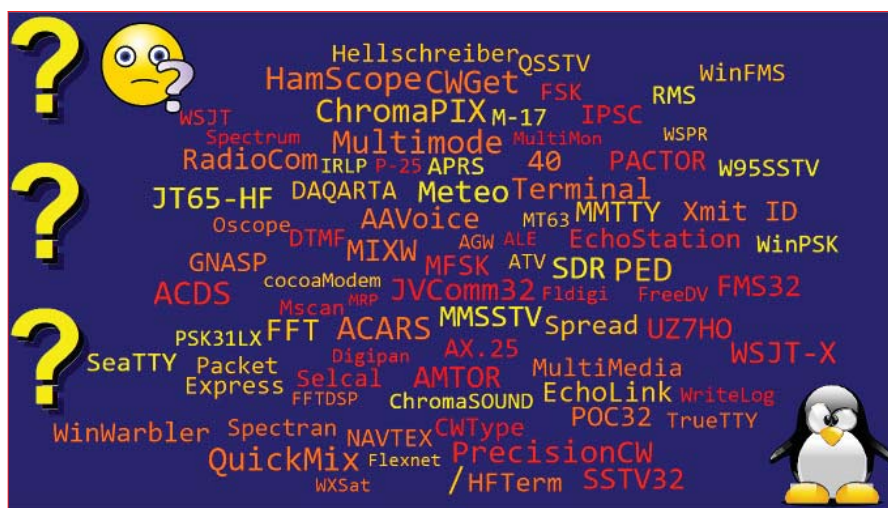
Days	Start	Net Name	Where - Comment/Info
1-Mon	20:00:00	D-Star Net	REF020A
1-Mon	21:00:00	North Carolina D-Star Net	REF054A
1-Mon (1 st /Mo.)	14:30:00	FEMA Region 8 RECCWG AuxCom Net	Echolink 3575
1-Mon-4-Thr	19:30:00	The 420 Ragchew	Node 66420
1-Mon-5-Fri	08:00:00	SCARS HF runs to 1:00 PM	7.251 MHz
1-Mon-5-Fri	09:00:00	Breakfast group	KB4SVP-R
1-Mon-5-Fri	14:00:00	Nuts Bolts And Screws HF Net (Pre-net @ 2 p.m.)	7.185
1-Mon-5-Fri	14:30:00	Vagabond Ragchew Net	WB9SZL-R, 420473
1-Mon-5-Fri	20:00:00	Happy Hour Net	Oregon 3141
1-Mon-5-Fri	23:00:00	PAPA DMR Roundtable	PAPA Chat 31077 & DODROPIN
1-Mon-6-Sat	09:00:00	Northern Florida ARES Net	3.950 MHz, 7.242 MHz and 7.247 MHz

Uncomfortable Questions

Is Amateur Radio digital communications too complicated? Diversity of three major DV protocols, by individual manufacturer (DMR generics, Icom D-STAR and Yaesu System Fusion) presents programming challenges.

Would comprehensive database of DV nets be a good thing? Is there a benefit or a liability for the club or

Amateur Radio in general to facilitate visits by "out-of-towners" to various local nets? Would a highly publicized central directory attract more DV users, especially the much sought after



younger people? Would an updated, comprehensive database making information about nets widely available cause undesirable competition to see which net is most “popular?”

Should the The [Radio Amateur's Code](#) be expanded to include “netiquette⁶” or does the existing Code cover behavior during net interactions?

Would a sufficient number of net hosts, managers, repeater owners or club officials report updates, additions, corrections, etc. if provided with a simple input form accessible by Internet?

The M17 RF Protocol is “optimized for amateur radio use and simple to understand and implement.” Developers state that M17 must be “capable of doing the things hams expect their digital protocols to do: Voice (eg: DMR, D-STAR, etc); Point to point data (eg: Packet, D-STAR, etc); Broadcast telemetry (eg: APRS, etc) and Extensible, so more capabilities can be added over time.” Is M17 overcome some of the complexities of connecting to Amateur Radio DV nets?

Technical Barriers To Net Participation

For some Radio Amateurs, participating in HF nets can be difficult due to a variety of factors. The growth of real estate developments with private community restrictions on antennas, relatively limited range of VHF/UHF repeaters, expense of radio equipment for HF operations, irregular radio wave propagation⁷ and FCC license class restrictions are some of the factors that may impede newly licensed entry-level Radio Amateurs from unrestricted participation in Amateur Radio nets via radio.

Radio programming for DV net participation is complex. There are hundreds of local, regional, national and international interconnect systems. Interconnection examples include such networks as [K8JTK Hub](#) and [NEDECN](#).

Even experienced computer users have difficulty programming their radios or setting up hotspots. Use of specialized software like [Pi-Star](#) running on a Linux OS device is foreign to many of us. During setup there are many fields to fill and selections to be made when installing Pi-Star on a Raspberry Pi hotspot. If just one of those selections is incorrect the system probably won't work. Without research or help the potential user might be stymied.

Could specifically designated digital subject matter experts like the DMR/Hotspot Office Hours Net [Panelists](#) be organized to help in these situations?

Nearly every Radio Amateur owns or has easy access to a smartphone, mobile device, tablet, laptop or desktop computer with Internet connectivity capable of running EchoLink software. The cost of net participation via EchoLink is simply the time it takes to install, learn and use the free program. EchoLink gives technician class license holders access to repeaters worldwide. EchoLink even offers the tech an instant international means of calling CQ⁸.

⁶ See the Internet Society RFC 1855 [Netiquette Guidelines](#)

⁷ <https://www.swpc.noaa.gov/products/d-region-absorption-predictions-d-rap>

⁸ <https://www.echolink.org/cq.htm>

Technical barriers can arise even with as simple a program as EchoLink. Understanding Internet proxies and port forwarding⁹ could be needed when using EchoLink. The requirement to occasionally alter the direct connection or proxy settings in EchoLink requires awareness of that function and the knowledge of how to deal with connection problems, especially when using smartphone access to cellular Internet connections.

Those who can afford a relatively inexpensive USB [AMBE vocoder](#) device find a greatly expanded world of Digital Voice nets. Beyond EchoLink, the USB dongle or outboard device and applicable software like BlueDV enable relatively simple access to DMR, D-STAR and YSF Digital Voice modes.

Availability and use of ***a very wide variety of different local, regional and nationally networked repeaters¹⁰ using various linking systems adds to the complexity of use and presents a barrier to the end-user who wants to easily traverse the digital landscape.*** The complexity of different Digital Voice modes and the means to use those modes further complicates the situation even for the tech savvy Radio Amateur. Digital Voice is definitely not a point and click affair like the World Wide Web.

The Hybrid RF/Digital LMARC Example

The Lookout Mountain Amateur Radio Community ([LMARC](#)) N4LMC and KO4GVX repeaters' RF footprint covers Chattanooga, Tennessee, Northwest Georgia, Northeast Alabama and surrounding areas. However, like most other repeaters with Internet connections, their digital footprint is world wide.

The LMARC system and neighboring repeaters provide a variety of RF features, including: APRS Tx/Rx iGate + Digipeater; C4FM Reflectors, D-STAR Modules; DPlus; DMR (Brandmeister and TGIF networks); EchoLink and HamShack Hotline connections; IRCDDDB and IRLP; NXDN; P25; RMS Mail Gateway; access to the SouthEast Link System; and Wires-X Fusion along with emergency power for several of the repeaters.

In addition to the many technical features and benefits available to all classes of licensed Radio Amateurs via LMARC area repeaters, some or all of the repeaters and inter-connected networks host more than [20 daily and weekly](#) nets.

DMR, D-STAR, YSF, etc. are specialized versions of DV. Inexperienced Radio Amateurs seem to have the most trouble programming DMR radios and talkgroups. Some rely on easy access to downloadable "code plugs¹¹." Downloadable codeplugs help neophyte user to avoid extensive programming of transceivers. The result is a lack of understanding programming the radio and perhaps a deficit in understanding how to use DV.

In a paper titled simply "[Mode Overview](#)" written by Daryl Stout, WX4QZ, the author stated, "As noted in the Net List Spreadsheet file at <http://www.wx4qz.net/elk.htm> -- there are over

⁹ [Firewall Solutions](#)

¹⁰ [Examples](#)

¹¹ [Codeplugs](#)

200 D-STAR, EchoLink, and D-Rats Nets, in the 4 main US time zones that meet weekly, or as little as once a month. Links to the DMR, CQ100, D-STAR HF, Hamsphere, AllStar, FreeStar, WIRES-X, System Fusion, and Christian Nets are noted later in this file...”

Stout’s 65 page Mode Overview document, updated in July 2022, is a comprehensive overview of getting started with D-STAR, D-Rats, DMR, and the QuadNet Array. It was updated June 8, 2022.

There are hundreds of other regularly scheduled long-running nets combining Digital Voice access primarily with VHF/UHF repeaters. For example, the Amateur Radio Club of Augusta (GA) operates six repeaters including a wide coverage regional repeater. The flagship W4DV repeater transmitting on 145.490 MHz is used by for a nightly net for Radio Amateurs in parts of Georgia, South Carolina and North Carolina. This repeater can be accessed via EchoLink but is not listed anywhere except for its W4DV.club web site.

A National Directory of DV Nets

Thorough research of digital voice nets indicates that there may be 1,000 or more Internet accessible nets through one of the many of DV systems in the U.S. alone. A sort of nationwide TV Guide for public nets would go a long way toward facilitating involvement and exploration.

Cable TV system subscribers can go to a scrolling matrix of programs, cable channel and times available. Amateur Radio has no such facility, that I am aware of, with similar information about public nets or regularly scheduled EchoLink conferences. Some examples of television programming displays can be viewed at TITANTV.com and epguides.com.

Simple reporting formats are familiar to many Radio Amateurs. Examples are Amateur Data Interchange Format ([ADIF¹²](http://ADIF12)) and ICS files widely used in online calendars.

A common reporting format is the use of Google Calendars by individuals and

groups. Small lists of nets are used by people who want to add someone else’s calendar to their own personal calendar. Examples are: AugustaHam.net and the Brandmeister DMR nets calendar compiled by W0WC. Google Calendar display options are not useful for many events in one day. A National Directory of DV Nets might utilize the ICS calendar data file format for import and export of net schedules.

TITAN TV		Wednesday - 08/24		10 PM	AT&T U-verse - Augusta		MORE		
Channel	Program	Channel	Program	Channel	Program	Channel	Program	Channel	Program
1	Video On Demand (Entertainment)	Video On Demand (Entertainment)	Video On Demand (Entertainment)	Video On Demand (Entertainment)	Video On Demand (Entertainment)	Video On Demand (Entertainment)	Video On Demand (Entertainment)	Video On Demand (Entertainment)	Video On Demand (Entertainment)
3	American Experience Fatal Flood (HD) Repeat. True. 4/16/2001. S13/E11. TV-	Nature (The Bat Man of Mexico) (HD) Repeat. Nature. 6/30/2021. S39/E7. TV-	Nature (Equus: Story of the Horse - Chasing the Wind) (HD) Repeat. Nature. 1/23/2019. S36/E9. TV-PG	Nature (Equus: Story of the Horse - Chasing the Wind) (HD) Repeat. Nature. 1/23/2019. S36/E9. TV-PG	Nature (Equus: Story of the Horse - Chasing the Wind) (HD) Repeat. Nature. 1/23/2019. S36/E9. TV-PG	Nature (Equus: Story of the Horse - Chasing the Wind) (HD) Repeat. Nature. 1/23/2019. S36/E9. TV-PG	Nature (Equus: Story of the Horse - Chasing the Wind) (HD) Repeat. Nature. 1/23/2019. S36/E9. TV-PG	Nature (Equus: Story of the Horse - Chasing the Wind) (HD) Repeat. Nature. 1/23/2019. S36/E9. TV-PG	Nature (Equus: Story of the Horse - Chasing the Wind) (HD) Repeat. Nature. 1/23/2019. S36/E9. TV-PG
5	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!	Under Eye Bags? SOLUTION!
6	Press Your Luck Oh Mylanta! (HD) Repeat. Game/Quiz. 8/04/2022. S4/E4.	WJBF NewsChannel 6 @ 11 (New. News)	Jimmy Kimmel Live (HD) New. Comedy. 8/24/2022. S20/E152.	Jimmy Kimmel Live (HD) New. Comedy. 8/24/2022. S20/E152.	Jimmy Kimmel Live (HD) New. Comedy. 8/24/2022. S20/E152.	Jimmy Kimmel Live (HD) New. Comedy. 8/24/2022. S20/E152.	Jimmy Kimmel Live (HD) New. Comedy. 8/24/2022. S20/E152.	Jimmy Kimmel Live (HD) New. Comedy. 8/24/2022. S20/E152.	Jimmy Kimmel Live (HD) New. Comedy. 8/24/2022. S20/E152.
7	Laura Geller Makeup Studio	Tech it Out	Tech it Out	Tech it Out	Tech it Out	Tech it Out	Tech it Out	Tech it Out	Tech it Out
11	FOX 54 News Now at 10 (New. News)	FOX 54 News Now at 11 (New. News)	Family Feud (HD) Repeat. Game/Quiz.	Family Feud (HD) Repeat. Game/Quiz.	Family Feud (HD) Repeat. Game/Quiz.	Family Feud (HD) Repeat. Game/Quiz.	Family Feud (HD) Repeat. Game/Quiz.	Family Feud (HD) Repeat. Game/Quiz.	Family Feud (HD) Repeat. Game/Quiz.
12	S.W.A.T. Safe House (HD) Repeat. Drama. 12/10/2021. S5/E8.	News 12 @ 11 (New. News)	The Late Show with Stephen Colbert (HD) Repeat. Comedy. 8/02/2022. S7/E164.	The Late Show with Stephen Colbert (HD) Repeat. Comedy. 8/02/2022. S7/E164.	The Late Show with Stephen Colbert (HD) Repeat. Comedy. 8/02/2022. S7/E164.	The Late Show with Stephen Colbert (HD) Repeat. Comedy. 8/02/2022. S7/E164.	The Late Show with Stephen Colbert (HD) Repeat. Comedy. 8/02/2022. S7/E164.	The Late Show with Stephen Colbert (HD) Repeat. Comedy. 8/02/2022. S7/E164.	The Late Show with Stephen Colbert (HD) Repeat. Comedy. 8/02/2022. S7/E164.
13	Seinfeld The Chicken Roaster (HD) Comedy.	Seinfeld The Stand-In (HD) Comedy.	Mom Estrogen and a HeartV Breakfast	Mom Estrogen and a HeartV Breakfast	Mom Estrogen and a HeartV Breakfast	Mom Estrogen and a HeartV Breakfast	Mom Estrogen and a HeartV Breakfast	Mom Estrogen and a HeartV Breakfast	Mom Estrogen and a HeartV Breakfast
			Mom Big Floor Pillows and a Ball of Fire	Mom Big Floor Pillows and a Ball of Fire	Mom Big Floor Pillows and a Ball of Fire	Mom Big Floor Pillows and a Ball of Fire	Mom Big Floor Pillows and a Ball of Fire	Mom Big Floor Pillows and a Ball of Fire	Mom Big Floor Pillows and a Ball of Fire
			DailyMailTV (HD) Repeat. Entertainment.	DailyMailTV (HD) Repeat. Entertainment.	DailyMailTV (HD) Repeat. Entertainment.	DailyMailTV (HD) Repeat. Entertainment.	DailyMailTV (HD) Repeat. Entertainment.	DailyMailTV (HD) Repeat. Entertainment.	DailyMailTV (HD) Repeat. Entertainment.
			JTV Program	JTV Program	JTV Program	JTV Program	JTV Program	JTV Program	JTV Program

¹² ADIF Specifications

Time and date standardization is required to develop a consistent reporting format. International Standards Organization ([ISO](#)) [8601](#) can be used as a standardized way of presenting: Date; Time of day; Coordinated Universal Time (UTC); Local time, etc.

Cooperation & Assistance

To be effective, concept development and promotion needs input and assistance of relevant stakeholders having regular contact with large audiences. This would include: Amateur Radio Digital Communications ([ARDC](#)); [Frequency Coordination](#) entities, (relating to repeater operators), ARRL [Affiliated Club Coordinators](#), as well as [Section Managers](#), DV networks (AllStar, Brandmeister, TGIF, and others) as well as related web sites; Amateur Radio DV radio manufacturers (Icom, Kenwood, Yaesu) also have an interest in growing the DV market.

A team of several qualified Radio Amateurs would be needed to create, develop and manage an Internet accessible National Directory of DV Nets. Skilled volunteers might be recruited from the ranks of stakeholders and other interested persons. Soliciting the input of hosts during a net session also serves to promote the concept and build momentum.

Technically adept volunteers would be needed to build an Internet accessible directory and a mechanism for near-automatic updates. Quality control of listings is important and might be automated to some degree. Promotion would be especially important for the first few years or until the directory is widely known and heavily used.

A web platform for a National DV Net Directory could be a popular web site like [ARRL.org](#), [eHam.net](#), [QRZ.com](#) Owners of these sites want to attract new users and the directory would be an attract Radio Amateurs to the host site. For example, eHam.net Vision Statement states "build the largest and most complete Amateur Radio community site on the Internet - a "portal" that hams think of as the first place to go for information, to exchange ideas, and be part of what's happening with ham radio on the Internet. Establishing a positive working relationship with a host that is motivated by such values seems to be realistic.

Conclusion

A National Directory of DV Nets would foster growth and use of DV. A larger audience for DV nets would drive the creation of new nets and raise the quality of nets overall. This in turn may appeal to younger people who have experience with social media. More users of DV nets would drive demand for DV capable radios, devices and associated equipment.

Growth and development of DV nets supports the basis and purpose of Amateur Radio:
Extension of the amateur's proven ability to contribute to the advancement of the radio art.;
Advance skills in the communication and technical phases of the art; expansion of the existing reservoir of trained operators, technicians, and electronics experts; Continuation and extension of the amateur's unique ability to enhance international goodwill.

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