



The Spirit of '76 and '88



Newsletter of the
May Lake Erie Amateur Radio Association 2021
Carsten Lohrmann, KD8WBB, Editor



For this month's virtual meeting, Tom Sly will be giving us an update on the current state of affairs in the Ohio Section.



This is a great chance to meet our new Ohio Section Manager.

Tom Sly, WB8LCD, of Kent, has been appointed as the Ohio Section Manager, effective January 1, 2021. Sly assumed the seat that incumbent Section Manager Scott Yonally, N8SY, was vacating to become Great Lakes Division Vice Director, after serving as Ohio Section Manager since 2014.

Sly was appointed by ARRL Radiosport and Field Services Manager Bart Jahnke, W9JJ, after consulting with Great Lakes Division Director Dale Williams, WA8EFK. The Section Manager appointment extends through September 30, 2022.

Sly is an ARRL Life Member and has served as Ohio Section Affiliated Club Coordinator since 2017. He is past president of the Portage County Amateur Radio Service (PCARS) and has been a radio amateur since 1968.

LEARA May 25. Meeting **Virtual Meeting - Online**

ARRL Night

Tom Sly, WB8LCD

May 25.
7:30 p.m.



Click or
scan to join

The Prez Says by Bryan Torok, N8OOF



The April Meeting was a presentation by **Jack Purdum, Ph.D. W8TEE** and **co-hosted by Al Peter, AC8GY**. Both have been active ham radio operators for years and very heavily involved in programming in the use of microcontrollers, especially as related to test equipment and amateur radio. They have written a number of books including their latest "Microcontroller Projects for Amateur Radio"

... continue on page 2

Prez cont.

OFFICERS and TRUSTEES	
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Dave Foran	WB8APD (SK)
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NEWSLETTER	
<p>The Spirit of '76 & '88 is published monthly except in December. Contributions must be received by the 2nd Sunday of the month except on months with 5 Sundays and 5 Tuesdays when the 3rd Sunday will be sufficient.</p> <p>Editor: Carsten Lohrmann, KD8WBB E-mail: editor@leara.org</p> <p>Proofreading: TNX to W8AZO, N8YNR</p>	

v04/2020-11-16

that is available on the ARRL web-site. For their full resumes, see my column in last month's newsletter.

They gave an excellent talk and took questions about their current project, designing and building a software defined transceiver (SDT). They explained that while there are many Software Defined Receiver (SDR) projects available for hams, there are none that incorporate a full-featured transceiver with color display. They expect Hams to be able to build their project for around \$200, but incorporate features such as a waterfall display commonly found in \$800-\$1000 radios.

The May Meeting is ARRL Night. Tom Sly, WB8LCD, of Kent, was appointed as the ARRL Ohio Section Manager in January to fill the seat (and big shoes) left behind when Scott Yonally, N8SY, was elected the ARRL Great Lakes Division Vice Director. Tom will be giving us an update on the current state of affairs in the Ohio Section. This is a great chance to meet our new Ohio Section Manager.

Please share the meeting info on any nets you might be on, with other Ham Radio clubs, and with anyone who you think might be interested in this presentation. Attendees **DO NOT** need to be members of LEARA or even Hams. And, plan to join us early for chat time prior to the meeting. That is when we do our **free Zoom diagnosis and set up classes**. All meetings are planned to be via Zoom through June of 2021. Thanks to **Hamfest Association of Cleveland (HAC.org)** for the use of the Zoom video conferencing.

July is Picnic Month. The LEARA trustees are looking into the possibility of resuming in-person meetings with the July picnic meeting. This will depend heavily upon the state of Ohio's

The Lake Erie Amateur Radio Assn., Inc., **LEARA**, is a not-for-profit [501(c)(3)] organization dedicated to Amateur Radio and Public Service. Club information packets and applications for membership are available from **Marv Grossman, W8AZO, 440-248-0031**, or may be downloaded from our web site at www.leara.org. Annual membership is \$25.00.

LEARA's address is: LEARA, P.O. Box 22823, Beachwood, OH 44122-0823.

LEARA is an **ARRL**-affiliated club. When you **join** or **renew** the **ARRL**, **LEARA** benefits monetarily if you do so through the club. Send **ARRL** Applications/renewals to LEARA, P.O. Box 22823, Beachwood, OH 44122-0823. Make the check payable to **LEARA**, not the **ARRL**.

Membership Meetings are held the last Tuesday of each month (except December and June) at a Cleveland-area restaurant to be announced each month in the newsletter or, if situation requires, in a virtual conference meeting online. The LEARA newsletter usually arrives near the middle of the month. Locations for dinner may vary and often require a reservation. Those interested in dinner should arrive around 6 p.m. The meeting begins at 7:30 p.m. Meetings are open to all interested persons. You may attend without eating.

Trustees' Meetings are on the second Saturday of odd numbered months. Meetings are open to all current members of LEARA. **Locations are subject to change.** Trustees meet at one of the Cuyahoga County Public Library branches or in a virtual conference room online.

Contact a trustee or check the website at www.leara.org for details.

Prez cont.

COVID guidance and the MetroParks restrictions, or lack thereof, on the use of the park pavilions. I will be polling the attendees at the May meeting and am planning to send out an email poll to all the members. If you have any specific thoughts on resuming in-person meetings, please send them to my email address listed on page 2.

NOARS next Foxhunts will be Saturday, May 22, 11:00 A.M. (rain date May 29) in the North Olmsted Community Park, 28114 Lorain Road, North Olmsted, Ohio 44070. All are welcome. Neither equipment nor an amateur radio license is necessary. Following hunts to be held about every two weeks. For further info check

<https://www.noars.net/calendar/>

or email Elaine Wilkinson, KC8FOS, at

ewilkinson1951@gmail.com

More changes are coming from the FCC. Last month I told you about how the FCC had changed the radio exposure rules to eliminate the exemptions for Amateur Radio effective as of May 3, 2021. See last month's newsletter for the details.

Beginning May 20, 2021, all amateur examination applicants will be required to provide an FCC Registration Number (FRN) to the Volunteer Examiners (VEs) before taking an amateur exam. This includes first-time exam applicants. This is necessary due to changes the FCC has made to its licensing system. More details on the change and how to obtain an FRN are at:

<http://www.arrl.org/news/view/first-time-exam-applicants-must-obtain-fcc-registration-number-before-taking-exam>

Effective on June 29, 2021, amateur radio licensees and candidates must provide the FCC with an email address on all applications. If no email address is included, the FCC may dismiss the application as "defective." "The email address

must be an address where the grantee can receive electronic correspondence," the amended rule will state. If one has no email address, it is permissible to use the address of relative or friend so long as the applicant will receive correspondence sent to that address. More details are at:

<http://www.arrl.org/news/fcc-to-require-email-address-on-applications-starting-on-june-29-2021>

Until next month, talk on the radio and use the repeaters. Join us at a virtual meeting. Get your vaccine shots. I know you're probably tired of hearing it, but we need to be careful just a little bit longer. There is a light at the end of the tunnel. Things are gradually getting back to normal. We really want to see you when we get back to in-person meetings, hopefully soon.



Membership renewals!

Please be aware that membership renewals are **overdue!**

If you are still missing out, you can find renewal information or pay directly on our website:

<https://www.leara.org/club-information/membership-renewal>



LEARA "On the Air"

Club Net Information by Carl Gedeon, KB8VXE

The **Thursday Club Net** is held 8PM on our 146.760 (or 146.880 backup) MHz (-600 kHz offset, PL 110.9) repeater. Note that while

the '76 repeater is down for upgrades, all net activities will be held on the '88 repeater.

Checkins for April					
AB8MO	Andy	KC8KSU	Sarah	N8AHS	Fred
AB8UM	Mike	KD8DYG	Justin	N8AUC	Eric
AD8G	Dave	KD8FTS	Eddie	N8OOF	Bryan
K2WJS	BILL	KD8HZV	Frank	N8RKE	Larry
K8ADS	Allen	KD8WBB	Carsten	N8UPZ	Bill
K8ALG	Andy	KE8CED	Robert	W8DEC	Matt
K8EHP	Mike	KE8NSD	Jeff	W8DKA	Doug
K8RJH	Ron	KE8QLZ	Jim	W8IE	Ed
K8SAS	Steve	KE8RGC	John	W8IXY	Ted
KB8LKH	Dan	KG8DN	Ken	W8TAB	Tom
KB8VXE	Carl	KM8V	Jon	W8ZHN	Jim
KC8FQV	Mark	N8AGM	Tom	WB8ROK	Ed

Remember if you missed a net, check out the web page for a recap of the trivia and discussion questions.

For May, June
and July the
tentative
scheduled
NCOs are:

Please check
the website for
current
assignments.

--- click ---

Net Control Schedule			
05/20/21	Mike	AB8UM	
05/27/21	Ed	W8IE	
06/03/21	Carl	KB8VXE	
06/10/21	Eric	N8AUC	
06/17/21	Ken	KG8DN	
06/24/21	Jon	KM8V	
07/01/21	Mike	AB8UM	
07/08/21	Ed	W8IE	
07/15/21	Carl	KB8VXE	
07/22/21	Eric	N8AUC	
07/29/21	Ken	KG8DN	

NCOs	AB8UM	MIKE	KG8DN	KEN
	K8SAS	STEVE	KM8V	JON
	KB8VXE	CARL	N8AUC	ERIC
	KD8ACD**	DAVID	W8IE	Ed

*Short time leave **Long term leave

The Wednesday Night Skywarn Practice Net

The Skywarn season has changed and now runs from April through September. Skywarn nets are held on LEARA's 146.880 repeater (until the 146.76 returns to the air) every Wednesday at 8:30 p.m. with a simplex net that follows on 146.475. Should the National Weather Service issue a severe weather alert, a Skywarn net will be started on the available repeater.

Visit www.ccskywarn.org for more information.

ARES

ARES nets are held every Tuesday at 8 p.m. on 145.410 +110.9. A simplex net will be held afterwards. Ares Meetings will still be held via Zoom. The next meeting is June 6, 2021 at 2 p.m. Please monitor the ARES website at www.n8esg.org/ares for information on nets and events. Please note that as of now the Cleveland Marathon has been postponed until the fall. A new date will be set after the Browns football schedule has been finalized. Feel free to sign up. You do not have to be an ARES member to participate.

Thursday Net NCOs

Do you know K2??? How about ??UPZ? Do you recognize the voice. Have you met them in person? What about N8OOF? A great way to learn who these voices belong to is to be a net controller! Consider being a net controller.

HELP! We have several people who are on temporary leave of duty. We can always use more LEARA Members to be-come Net Control Operators (NCOs). It's an easy to learn job that is very important in emergencies.

We look forward to your participation!

Carl, KB8VXE, E-Mail: kb8vxe@arrl.net

Sunshine

- Nothing to report

Volunteer Exam Dates and Locations

from www.arrl.org



Due to the Coronavirus outbreak, please verify with your VE team that the exam session is being held.

06/22/2021 | [Westlake OH 44145-5115](#)

Sponsor: AD0VR

Location: Dover Masonic Temple

Time: 7:00 PM (Walk-ins allowed)

[Learn More](#)

07/11/2021 | [Independence OH 44101](#)

Sponsor: CARS Cuyahoga ARS

Location: To Be Determined

Time: 9:00 AM

(No Walk-ins / Register or Call ahead)

[Learn More](#)

Upcoming Hamfests and Conventions

from www.arrl.org



Due to the Coronavirus outbreak, please verify the websites of the hamfests and conventions if the event is being held.

07/10/2021 - [Mansfield Mid-Summer Trunkfest](#)

Location: MANSFIELD, OH

Type: ARRL Hamfest

Sponsor: Intercity Amateur Radio Club

Website: <http://WWW.IARC.CLUB>

[Learn More](#)

07/17/2021 - [NOARSFEST](#)

Location: Elyria, OH

Type: ARRL Hamfest

Sponsor: Northern Ohio Amateur Radio Society

Website: <http://noars.net>

[Learn More](#)

08/07/2021 - [DX Engineering Hamfest](#)

Location: Tallmadge, OH

Type: ARRL Convention

Sponsor: DX Engineering

Website: <http://dxengineering.com>

[Learn More](#)

09/26/2021 - [Cleveland Hamfest](#)

Location: Berea, OH

Type: ARRL Hamfest

Sponsor: Hamfest Association of Cleveland

Website: <http://www.hac.org>

[Learn More](#)

COVID-19 (Coronavirus) Cancellations

David Andrzejewski is maintaining a list that's as comprehensive as possible of ham radio-related events that are canceled due to COVID-19. You can check it out here:

<https://geaugaara.org/coronavirus/>

You are also encouraged to submit new data, so the list keeps getting better; keeping us all up-to-date on all cancellations.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
16 May	17	18 7:15 p.m. ARES 80m OSSB 8 p.m. OHDN	19	20 8 p.m. LEARA VOICE 146.76/R	21	22
23	24	25 7:15 p.m. ARES 80m OSSB 7:30p.m. LEARA Virtual meeting 8 p.m. OHDN	26	27 8 p.m. LEARA VOICE 146.76/R	28	29
30	31 10 a.m. Garfield Hts Memorial Day Parade	1 7:15 p.m. ARES 80m OSSB 8 p.m. OHDN	2 June	3 8 p.m. LEARA VOICE 146.76/R	4	5
6	7	8 7:15 p.m. ARES 80m OSSB 8 p.m. OHDN	9	10 8 p.m. LEARA VOICE 146.76/R	11	12
13	14	15 7:15 p.m. ARES 80m OSSB 8 p.m. OHDN	16	17 8 p.m. LEARA VOICE 146.76/R	18	19
20	21	22 7:15 p.m. ARES 80m OSSB 8 p.m. OHDN	23	24 8 p.m. LEARA VOICE 146.76/R	25	26 05:30 a.m. MS Bike to The Bay 2:00 p.m. Field Day GOTA Station
27	28	29 7:15 p.m. ARES 80m OSSB 7:30p.m. LEARA Virtual meeting 8 p.m. OHDN	30	1 8 p.m. LEARA VOICE 146.76/R July	2	3

LAKE ERIE AMATEUR RADIO ASSOCIATION TRUSTEES' MEETING MINUTES

Saturday, 8th May 2021, held
virtually in a Zoom Video Conference
(Subject to Revision)

Attendance:

Jeff N8YNR, Bryan N8OOF, Eddie KD8FTS,
Eric N8AUC, Marv W8AZO, Robert KE8CEO,
Jon KM8V

Guests:

Bob W2THU, Carsten KD8WBB,
Carl KB8VXE

1. Call to Order

N8OOF Bryan called the meeting to order at 9:15 a.m.

2. March minutes

Eric moved, Marv seconded to accept the meeting minutes of the March meeting. The motion carried.

3. Treasurer's Report

N8YNR reported the current balance in the treasury with only significant anticipated expense being the new EQ(s) to be purchased.

4. Repair work on the 146.76 repeater

Jon moved, Eric seconded to buy an EQ for the .76 repeater we found during the meeting on eBay. Jeff was given leeway to negotiate trying to buy two within the \$200 budgeted to this expense in prior meetings, or if needed, just the one listed.

5. Nomination and election committee

Jon Anhold, Eddie Stephens, Jeff Garvas, and Eric Jessen will make up the nomination and elections committee for 2021

6. Various

No other motions of substance were offered or voted upon at this meeting.

7. Adjournment

Motion to adjourn by Eric, seconded by Marv. The meeting ended at 10:25 a.m.

Respectfully submitted,

Jeff Garvas - N8YNR

Secretary/Treasurer

Puzzle 4 (Medium, difficulty rating 0.59)

		6	5	7				
5	2					1		
7					9			8
		4	9		7		5	
9			6		5			7
	5		3		2	6		
6			1					5
		8					6	2
				9	6	7		

Quick update on 76 repairs:

Now that all the hardware has been tested and we have a replacement equalizer, I'm in the process of reinstalling and wiring all the components. Once that's done, I need to set audio levels between all the components and we should be good to go, barring any unforeseen problems.

- Dave



Software Defined Transceiver

Jack Purdum, W8TEE and Al Peter, AC8GY

27th April 2021



The T41 SDT

Our design goals:

1. 5 band HF SDT – 80, 40, 20, 15, 10M
2. SSB and CW
3. “Fuzzy QRP” : user-selectable power from 1-20 Watts
4. Self-contained – No PC, laptop, or tablet
5. “Trunk Portable”
6. Reasonable cost
7. Open Source

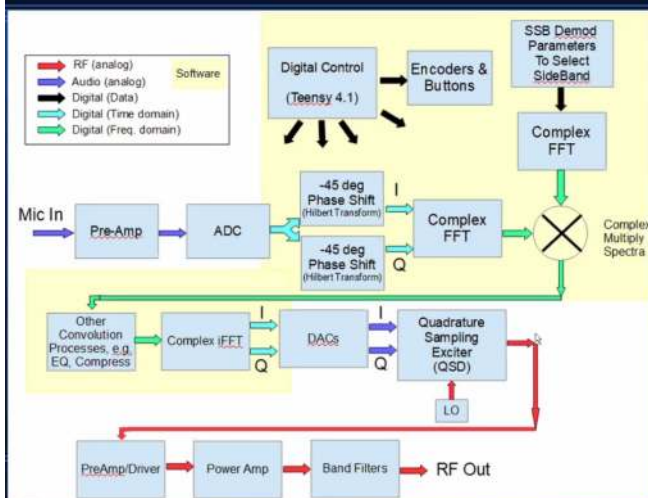
The T41 SDT Display



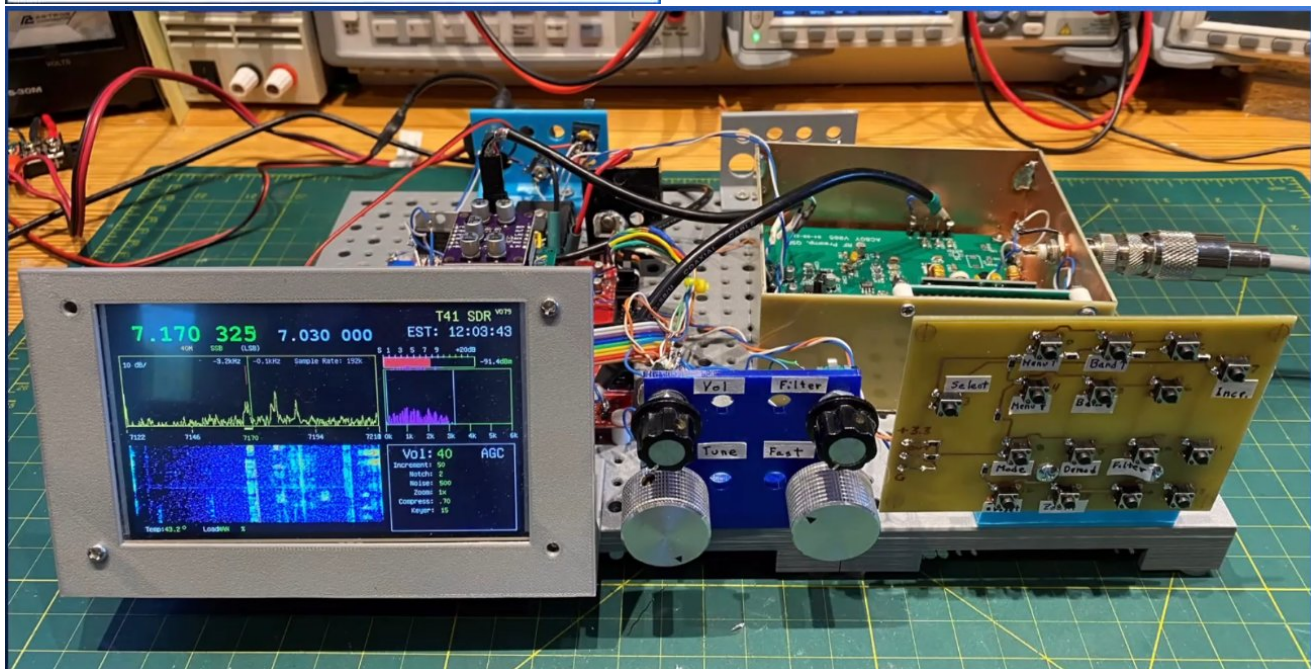
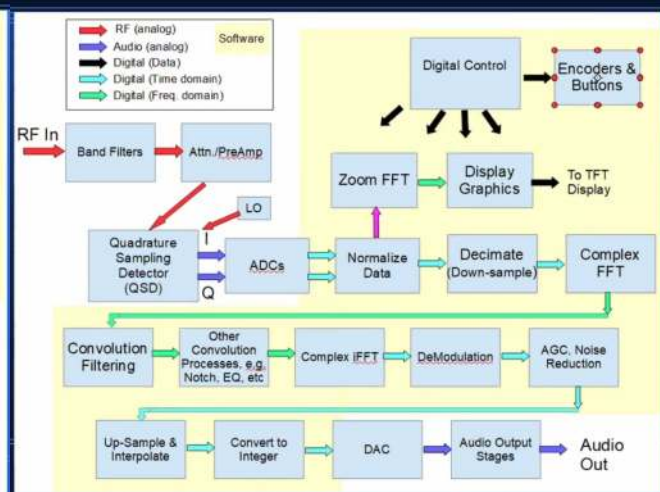
Zoom Video Conference
Room
sponsored by
**Hamfest Association of
Cleveland.**
We say **THANK YOU.**

1. Move as much functionality to Software as possible
2. Use Quadrature Sampling Front End (Tayloe)
 - Low cost, low insertion loss
 - Easy to implement
3. DSP functions in Frequency Domain for efficiency
 - Avoid CPU intensive time-domain calculations
 - Sharp – “brick-wall” filters
4. High sample rates
 - 192KHz wide spectrum display
5. Major functions accessed by user-friendly buttons
6. Modular hardware and software design

SSB Transmit Processes



SDR Receive Processes



“Geomagnetic Storm Season” is Over

05/12/2021

from: <http://www.arrl.org/news/geomagnetic-storm-season-is-over>

June and July bring frequent 6-meter DX openings via long-distance sporadic-E propagation and persistent quiet geomagnetic conditions. These 2 months are well known to North American 6-meter DXers as the most productive time of year for DX up to 8,700 miles.

“The quiet geomagnetic season during June and July typically has only about half as many geomagnetic storms compared to March and April,” says contester and solar observer Frank Donovan, W3LPL. The planetary Kp index is usually about two points lower than during March and April, and severe (Kp = 8 or 9) storms are very infrequent, but the quiet geomagnetic season doesn’t mean the end of geomagnetic storms. Two of the most severe (Kp = 8+) geomagnetic storms during Solar Cycle 24 occurred on June 22 and 23, 2015.

Storms during June and July are not as frequent, strong, or as long lasting as they are during the geomagnetic storm seasons of March/April and September/October, but even the most severe

storms (Kp = 8 or 9) can occur at any time with little warning.

We’ve had two moderate (Kp = 6) storms so far in 2021, both during March. We also had eight minor (Kp = 5) storms: five in March and one each in January, February, and April.

“June and July 2020 were exceptional for 6-meter DX via sporadic E, and these normally geomagnetically quiet months were exceptionally quiet — the quietest since 1996,” Donovan said. “I made more than 500 European QSOs during June and July, more than 100 QSOs with stations in Japan (11,000 kilometers) during June, and one very unexpected QSO with UN3GX (10,500 kilometers) in mid-June.”

...(shortened for editorial purposes)...

Donovan observed that Earth-directed CMEs are just beginning to cause occasional geomagnetic storms now that Solar Cycle 25 is somewhat more active. “During the next few years, CMEs will become the dominant cause of moderate-to-severe geomagnetic storms,” he said. “Geomagnetic storms caused by CMEs usually develop more quickly, are more long lasting, and are more severe than the typically brief, minor storms caused by coronal hole high-speed streams during the approximately 4 years near solar minimum.”

LEARA — The Lake Erie Amateur Radio Association

More than **50 YEARS** of Serving Greater Cleveland Since 1969

VOICE REPEATERS:

146.76/R-	• Highland Hills	(Requires 110.9 Hz tone)
146.88/R-	• Lakewood	(Requires 110.9 Hz tone)
224.90/R-	• Lakewood	(Requires 141.3 Hz tone)
444.40/R+	• Macedonia	(Requires 131.8 Hz tone) (Offline)
444.70/R+	• Lakewood	Digital System Fusion & Analog (Req. 131.8 Hz tone)

INTERNET:

- www.leara.org
- To subscribe via e-mail, send a message to: **spirit76-request@leara.org**
Put "**subscribe**" in the subject area and your name and call sign in the body.
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