# CO CHATTER

**JANUARY 2022** 

**VOLUME B21 • ISSUE 11** 

## WOOD COUNTY AMATEUR RADIO CLUB

**President** KG8FH/W8PSK Jeff Halsey/Loren Phillips

**Tom Leingang Vice President** WF8T0M

Secretary N<sub>1</sub>RB **Bob Boughton** 

Treasurer KD8NJW Jim Barnhouse

**Board Member Bob Willman WB8NOW** 

### Time for a Kick-off

The Club's traditional Kick-off Banquet is scheduled for Monday, January 10th, at The location has been Jeff-KG8FH presiding 6:00 pm. reserved, and is once again the Country Farmhouse restaurant at 117 E. Main St. Present: Bob-N1RB, Jim-KD8NJW, Rexin Wayne. As before, Club members will KC8PFP, Roger-KE8QGV, Bobbe able to order off of a limited menu, and WB8NQW, Terry-KE8CVA, Chuckwill be billed individually. Family and WD8ICP, Stan-K8LL, Tom-WE8TOM, Jefffriends are invited.

Please make reservations at least one week ahead of time with Bob-WB8NQW:

#### blcksmth@reagan.com

This is a one-of-a-kind annual get together for the Club, and provides us all with the chance to meet ops who we may only know from their voice over the air, plus XYLs and other family members.

## **Minutes** WCARC Meeting **December 13, 2021**

KG8FH, Eric-WD8LEI

Meeting called to order: at 7:30 with Pledge of Allegiance

Minutes: of the October business meeting as published in the November edition of CQ Chatter were approved (TOM/NQW).

#### **Net Check Ins-I**

Dec 7 Traffic: 0

N1RB (NCS)

KE8CVA

KG8FH

KC8EKT

WD8LEI

K8LL

WB8NQW

KD8NJW

N8VNT

**WE8TOM** 

**WD8JWJ** (11)

Dec 14 Traffic: 0

**WB8NQW** 

KE8CVA

KD8NJW

KD8RNO

KE8QGV

N1RB

KG8FH

KA8VNG

**WE8TOM** 

**WD8ICP** 

KC8NKC

**WD8PIC** (12)

## **Brain Teasers**

- **1.** What is the first thing you should do if you are communicating with another amateur station and hear a station in distress break in?
  - **a.)** continue your QSO because you were on the frequency first.
  - **b.)** acknowledge the station in distress and determine what assistance may be needed
  - c.) change to a different frequency
  - d.) immediately cease all transmissions
- **2.** Which of the following frequencies is within the General class portion of the 15 meter band?
  - a.) 14.250 MHz
  - **b.)** 18.155 MHz
  - **c.)** 21.300 MHz
  - d.) 24.900 MHz
- **3.** What would be the RMS voltage across a 50 ohm dummy load dissipating 1200 watts?
  - **a.)** 173 V
  - **b.)** 245 V
  - **c.)** 346 V
  - **d.)** 692 V

## **January Contests**

The contest lineup for the month of January is given below. Please note that the WARC bands (60, 30, 17 and 12 m) are <u>never</u> open to contesting.

Jan 1	1800 to 2359 Z	80 m to 2 m
ARRL Kids Day		Phone
Jan 8-9	1800 to 2359 Z	80 m to 10 m
ARRL RTTY Roundup		RTTY
Jan 15-16	0000 to 2359 Z	80 m to 10 m
Malaysia DX 'test		SSB
Jan 15-16	1200 to 1159 Z	160 m to 10 m
Hungarian (HA) DX 'test		CW/SSB
Jan 15-16	1800 to 0559 Z	160 m to 10 m
North American QSO Party-CW		CW
Jan 15-17	1900 to 0359 Z	6 m on up
ARRL VHF 'test		all modes
Jan 22-23	1800 to 0559 Z	160 m to 10 m
North American QSO Party-SSB		SSB
Jan 29-30	0600 to 1800 Z	80 m to 10 m
REF (France) 'test		CW
Jan 29-30	1300 to 1300 Z	80 m to 10 m
UBA (Belgium) 'test		SSB
Jan 29-30	1900 to 1900 Z	160 m to 10 m
Winter Field Day		all modes

### **Net Check Ins-II**

Dec 21 Traffic: 0

N1RB (NCS)

KE8CVA

KD8NJW

WB8NQW

KE8QGV

W8XDX

KD8RNO (7)

Dec 28 Traffic: 0

KD8NJW (NCS)

KE8CVA

WB8NQW

KB8QEW

WE8TOM

KA8VNG

KD8RNO

N1RB

Brain Teaser answers: (G) 1-b, 2-c, 3-c

(9)

W8XDX

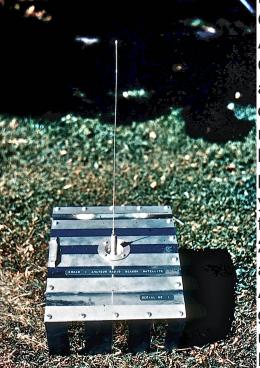
# How Amateur Radio Fanatics Launched the World's First Private Communications Satellite

By John Kelvey, Inverse

There are more than 1,600 <u>CubeSats</u> in orbit around the Earth, with more than 1,000 of those launching in 2020 alone. But while these inexpensive <u>small satellites</u> have made space more accessible to university classes, small companies, and more, their forerunners stretch back to the beginning of

the **Space Age**.

Groups like the Radio Amateur Satellite Corporation (AMSAT), an international confederation of ham radio operators, have been flying small private satellites for years, well before the first CubeSats flew in "CubeSats 2003. actually started with AMSAT, but they didn't get a lot of credit for it, unfortunately," former Lockheed satellite technician and ham radio enthusiast Lance



**Meet OSCAR 1** 

Ginner tells *Inverse*. Ginner would know. He was there at the very beginning, 60 years ago, for the design and launch of OSCAR 1, which was historymaking in a few ways. It was:

The first smallsat

## **WCARC Weekly Net**

Tuesdays at 2100 all year 147.18 MHz 67 Hz PL

### **Net Control Roster**

Jan	4	KD8NJW
Jan	11	WB8NQW
Jan	18	N1RB
Jan	25	KG8FH
Jan	31	KD8NJW
Feb	7	WB8NQW

## **NEXT MEETING**

## Kick-off Banquet

Monday
January 10th

TIME: 6:00 PM

**PLACE:** 

Country Farmhouse
Restaurant
117 E. Main St.
Wayne, OH

## 10 meter Net

informal group meets

Sunday

@ 20:30 Z

on 28.335 MHz

## Fusion Net

Thursday

@ 19:30 Z

on 442.125 MHz

67 Hz PL on analog

Informal net

#### minutes—from p. 1

Treasurer's Report: Jim (NJW) reminded everybody that it's time to pay dues for 2022. Jim mentioned that he plans to be in attendance at the Kick-off Banquet so members can pay him at that time. Motion to approve Treasurer's Report (CVA/ICP) passed unanimously.

#### **Old Business:**

- Jeff reminded all that dues for 2022 are payable now, and can be paid by check to the WCARC PO Box.
- Bob (RB) reported on the status of the repeaters. The main VHF/UHF repeaters have been functioning properly, as has the APRS beacon with the recently installed Raspberry Pi controller. The Fusion/Wires-X machine works as designed when connected, but every six weeks or so the software loses connection to the internet. Steps are being taken to implement remote access/control of the penthouse computer.
- Jeff mentioned the continuing existence of the CW practice net at 8 pm on Tuesday evenings on 28.050 MHz. He encouraged those who may be interested to listen and to send Morse, as this kind of practice is a tried and true way of building up proficiency.

 Eric (LEI) reported on ARES activities. He stated that the refurbishment of the County Home radio shack had been finished, and that all the equipment that was stored in W8PSK's garage had been moved to the site. The roof of the Sheriff's office was resealed a couple of months ago, but unfortunately all the coax and some of the many antennas sited up there were messed up and will need to be restored to their original condition. Future plans include erecting antennas on the Courthouse Annex Building to finalize the connection with the County EM Center—-waiting for good WX.

#### **New Business:**

- The Kick-off Banquet is a go at the Country Farmhouse restaurant in Wayne, at 6 pm on Monday, January 10th. Jeff reminded everyone that Bob, WB8NQW, needs to have your reservation at least a week ahead of time. It's a good idea to make it a New Year's resolution and contact Bob right after the Holiday.
- Bob (NQW) reminded everyone that even though much of the Club's equipment has found a new home, he is still the conservator of other items, plus the Club filing cabinet which contains documents that are relevant to much of WCARC's early years. He

#### minutes—from p. 6

would like to implement a process of disposing/relocating these items to free up space in his shack.

 As the last item of business, Jeff opened the floor for nomination of the new 2022 officer slate. After several declarations and some arm-twisting, the following list was developed:

Co-Presidents Jeff Halsey KG8FH
Loren Phillips W8PSK
Vice-President Tom Leingang WE8TOM
Secretary Bob Boughton N1RB
Treasurer Jim Barnhouse KD8NJW
Board Member Bob Willman WB8NQW

- Motion was made to close nominations (QGV/NJW). Motion passed unanimously.
- Bob-WB8NQW made a motion to suspend the rules and elect the slate by acclamation. Motion was seconded and passed unanimously.

#### Adjournment at 8:15 pm.

#### oscar—from p. 4

- · The first private spacecraft
- The first spacecraft to hitch a ride on another spacecraft

It took a while, entire professional lifetimes, but virtually everything that enabled the commercial small satellite industry of the 2020s was there in an

embryonic form on a <u>Vandenberg Air</u> <u>Force Base</u> launch pad on <u>December</u> 12, 1961.

An active ham radio operator in his teens, Ginner was 21 when he took a job as a technician at Lockheed Missiles and Space Company in Sunnyvale, California, in 1960. "I didn't know at the time, but I was extremely fortunate," Ginner says, "because the space industry was just getting started."

The Soviet Union had launched the first artificial satellite and spacecraft, **Sputnik 1**, just three years earlier, and the US had followed suit with **Explorer 1** in 1958. The first crewed space flights would come in 1961.

Among many ham enthusiasts working in the space and electronics industry in what we now call Silicon Valley, the idea of getting in on the action was born. Hams at Lockheed introduced Ginner to the concept of attaching a small satellite to the Agena-A spacecraft Lockheed was building for the Air Force. "That really intrigued me, and I was right in the test area where we tested the Agena," he says. "That's when I got involved."

That involvement included more than helping design and built what would become OSCAR 1. It was a plunge into the deep end of national security politics.

"Just getting a ride was all political," Ginner says. "Just huge conversations that were beyond me at the time when I was 21-years-old." The Hams wanted to

#### oscar—from p. 7

attach a civilian-made spacecraft to a United States Air Force spacecraft flying a classified reconnaissance mission. It took some heavyweight people to make that happen, like Republican Senator Barry Goldwater and General Curtis LeMay. Chief of Staff of the Air Force. "It was a big leap for the Air Force to let us hop onto their mission," Ginner says, though he was hardly waiting around. "We started building the satellite before we really had permission."

Ginner and his fellow ham enthusiasts dubbed their satellite the Orbiting Satellite Carrying Amateur Radio, or OSCAR. The group of hams building it in their garages and spare time called themselves Project OSCAR.

When it came time to launch OSCAR 1, the Project OSCAR hams put together the 1961 equivalent of a live streaming event. "How do you get the word out around the world?" Ginner says, "We had a huge set up at Foothill College with high-frequency radio communications and networks. This is all before the internet, of course."

It worked. OSCAR 1 successfully rode a Thor-DM21 Agena B to space on December 12, 1961, separated, and began transmitting to the delight of hams around the world. In the process, it beat Telstar 1, the first commercial spacecraft, to space by seven months.

it up fairly easily," Ginner says. "In those more benign." days, you wanted to catch every pass. So

## IT'S TIME TO RENEW YOUR MEMBERSHIP

## **Dues Payable to:** WCARC

P. O. Box 534 **Bowling Green, OH** 43402

> Sen/Stu: \$10

> Reg: **\$15**

> Fam: \$20

every hour and a half or so, you're out in the ham shack, tracking this thing and counting the rate of the beeps."

They learned a lot from those beeps, Ginner says, in part because their rate was synced to a temperature sensor. "Thermal control of satellites was very, very new," he says, and they took their best shot, painting OSCAR 1 with metallic stripes, but not quite nailing it. temperatures on OSCAR 1 were quite high, and we changed that design for OSCAR 2. OSCAR 2 lasted longer, and "It was easy to receive. You could pick the temperatures were, you know, much

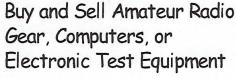
## Livonia Amateur Radio Club

Talk-in 145.35 with 100 PL or 146.52 Simplex

51st

ANNUAL







## \*NEW LOCATION\*

VFW Post 345 27345 Schoolcraft Rd. Redford, MI

Livonia ARC P.O. Box 51532 Livonia, MI 48151-0532 www.livoniaarc.com



\*Lots of Tables (8' tables for \$20 each) \*Tickets - \$5.00 \*Door Prizes \*Food Concession

Call (734) 941-5043 or e-mail us at k8uns@arrl.net

Saturday, February 26, 2022 9:00am - 1:00pm

WOOD COUNTY ARC P.O.BOX 534 BOWLING GREEN, OH 43402

