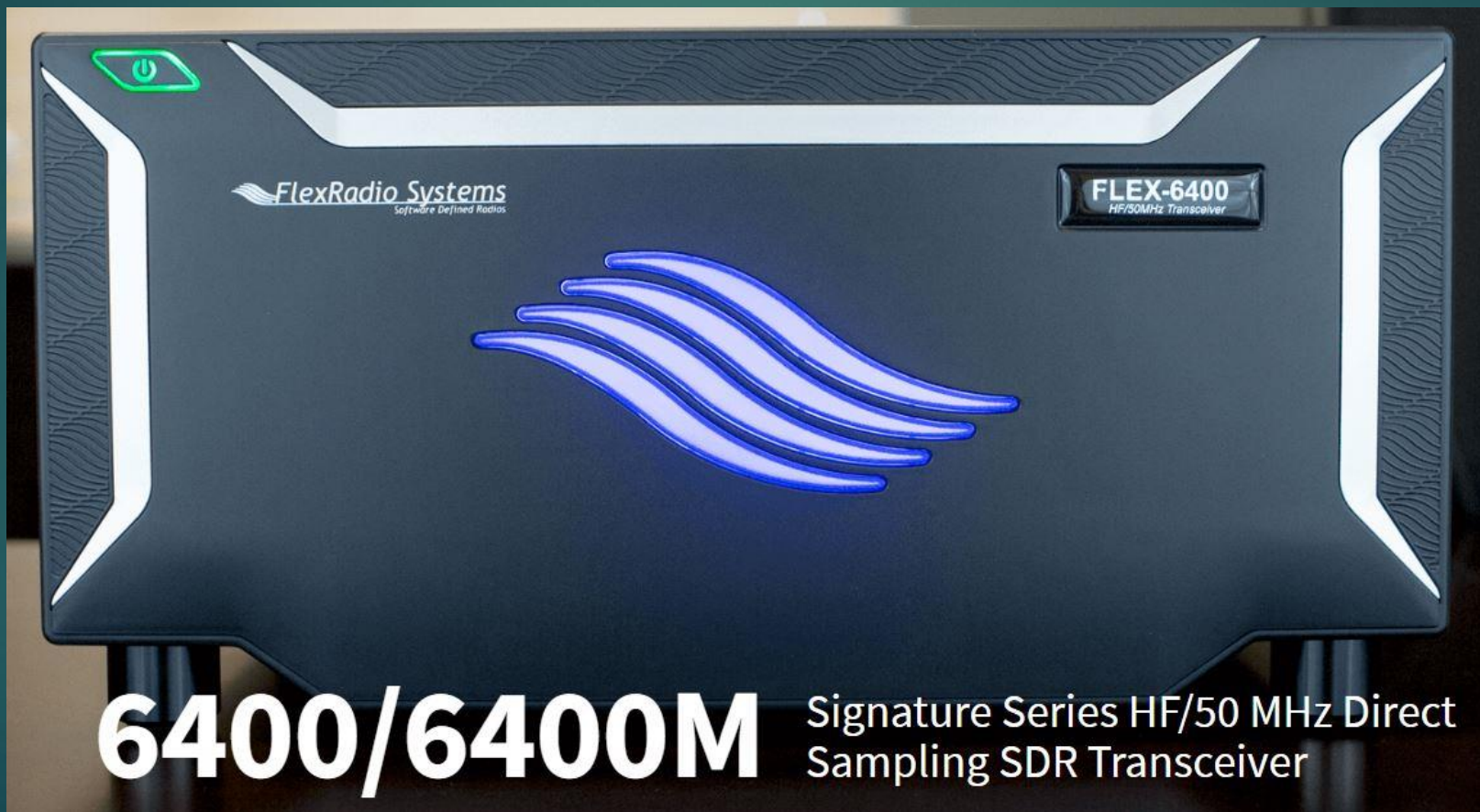


FlexRadio Presentation

Kendall Amateur Radio Society – Thursday, April 2nd, 2020

1



The “Guys” – Mark and Corky

2



Mark, WA2MCT
Corpus Christi, TX



Corky, WB5CIT
Boerne, TX

Tower @ WB5CIT – “Tribander” and wires

3



What the antennas look like now

4

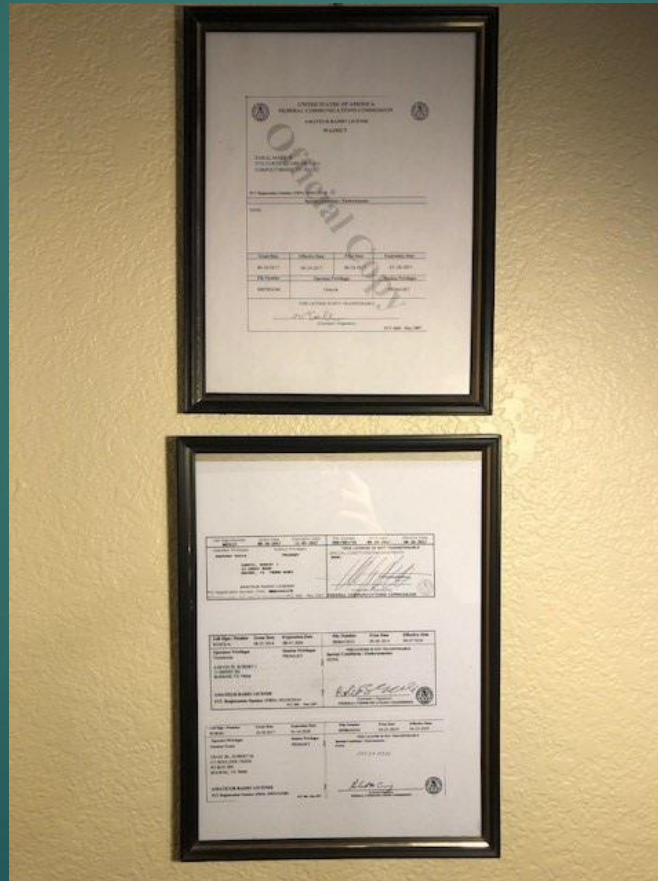


WB5CIT and WA2MCT

- ▶ A cooperative collaboration
- ▶ WB5CIT has a traditional analog premium rig (FT-2000D), tower, tri bander, wire antennas
- ▶ Station is well grounded after a lightning event via power wiring
- ▶ Flex 6400, off-center-fed (OCF) 80-6m wire antenna, auto-tuner
- ▶ Flex will remotely select 2 antennas
- ▶ Flex: Ant1, Tribander Ant2, OCF
- ▶ Yaesu – 160/80m wire with manual tuner
- ▶ Both rigs run 100-watts. This is *NOT* a QRO set-up!

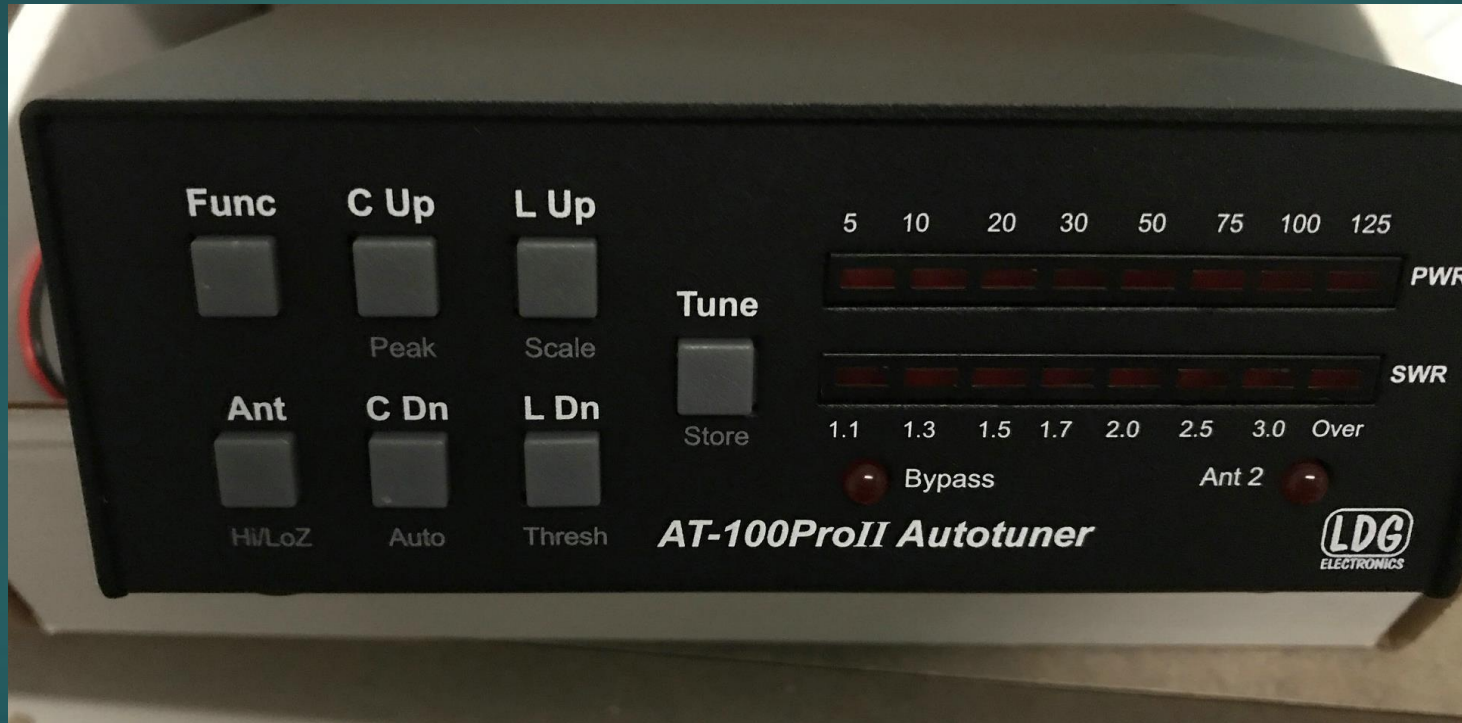
Who may operate the FlexRadio?

6



Auto-tuner

7



Flex models

<https://www.flexradio.com/comparison>

- ▶ 64001 SCU \$1999 2 panadaptors
- ▶ 6400M \$2999 adds front panel
- ▶ 66002 SCU \$3999 4 panadaptors
- ▶ 67002 SCU \$6999 8 panadaptors
- ▶ Higher cost models offer SO2R, better receiver dynamic range, more simultaneous receivers, improved preselectors

Cableless digital mode

- ▶ All models use no sound card or cables to interface with FT8, RTTY, and other modes
- ▶ Digital signal is sent to the software as bits- no conversion to analog, offering 3-8 dB improvement in decode capability – great for weak signals!
- ▶ This works remotely or locally
- ▶ iOs client and iPad offer FT-8 built in
- ▶ Log programs receive frequency, mode data directly. Key in call, that's it

How Mark, WA2MCT got started

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- ▶ W5JR, Mike has a Flex 6500 and Flex 6600 in Atlanta, GA
- ▶ 2 additional operators 'pool' their Flex radios and antennas
- ▶ For about a year, late 2018 and much of 2019 I operated Mike's station remotely using the SDR program on Windows.
- ▶ During the East coast hurricanes in 2018, spent a lot of time listening to the various nets – Mike's station was in the "right" spot to easily hear all the activity. I often had the net "up" on my laptop while at work.
- ▶ I'm not a contester, but did operate a few state QSO parties.
- ▶ Mike travels GA to TX – kept hourly schedules as he drove

Other choices for SDR operation

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- ▶ Icom 7300 \$1,275
- ▶ Nice “Knob and buttons” radio
- ▶ Remote usage requires dedicated PC and other software
- ▶ Icom 7610 \$2,995
- ▶ Nice “Knob and buttons” radio, dual display/dual receive
- ▶ Remote usage requires dedicated PC and other software
- ▶ Elecraft is taking pre-orders for their K4
- ▶ Dayton may have a surprise new radio??

The Flex “Out of the Box”

12

- ▶ Standard hand mic. Radio has “PowerPole” for 12vdc. Power supply is user –supplied. We use an Astron linear 35a supply. Radio requires a 25a supply for full power (100w) operation.



What's the set-up @ WB5CIT?

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FlexRadio
Power Supply
UPS



Equipment
Above



Grounding
Panel
(Tnx to W5EX)

Flex 6400 installed in rack cabinet

14



Pitcairn Island

15

- ▶ Or, how Mark, WA2MCT accidentally worked DX
- ▶ They were mostly operating in the Extra part of the bands
- ▶ Happened to check 15m – ONE small signal showed. It was VP6R calling CQ. After 3 calls, I answered him – 100w and the OCF
- ▶ My call was answered, and I was in the log!

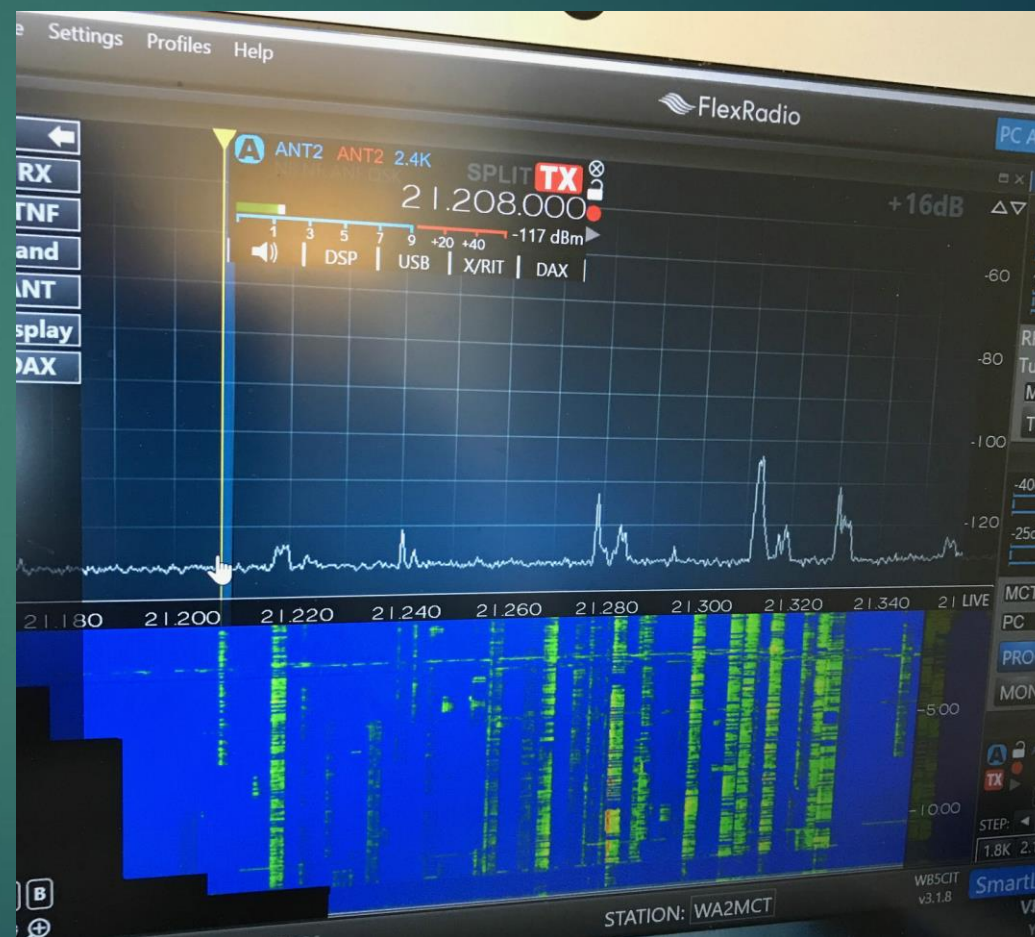
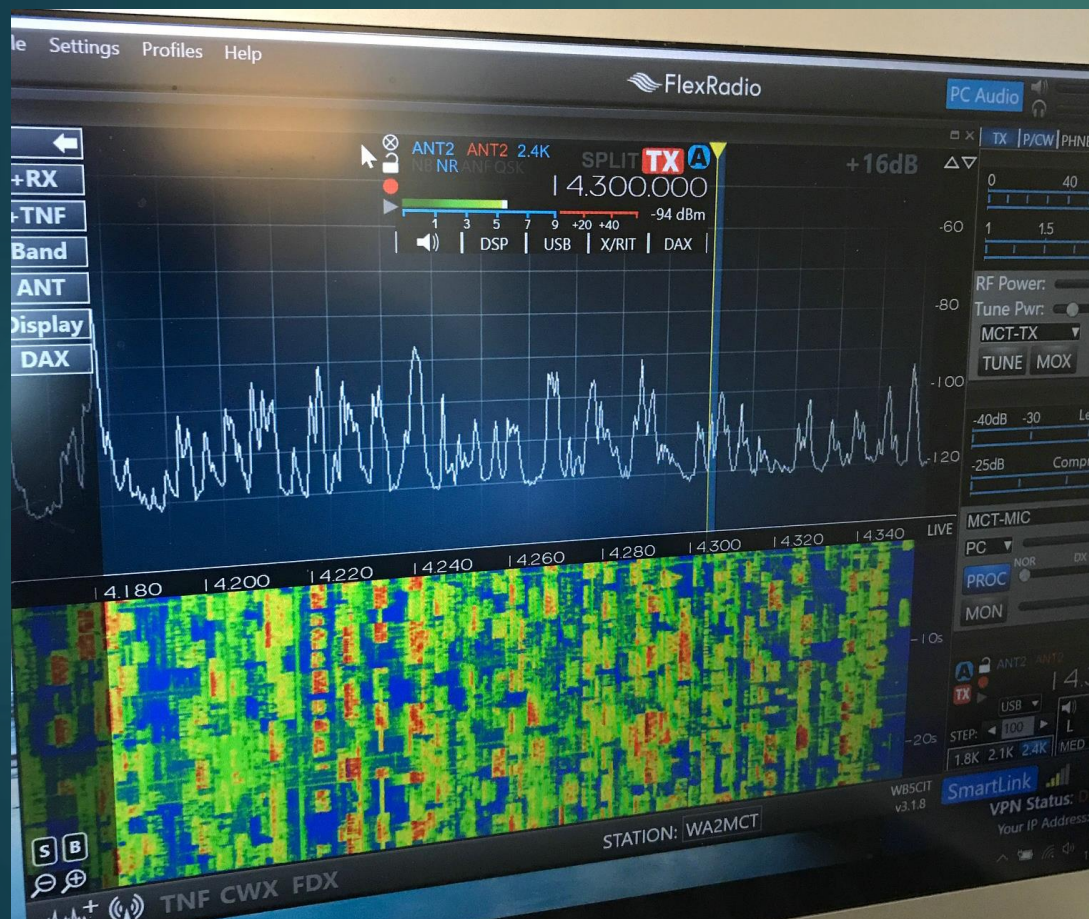
Pitcairn Island display

16



Bands during CQWW / Pitcairn (OCF antenna)

17



A “normal” work-day, *Remote* for Corky, WB5CIT

18





RemoteHamRadio is live now!



Remote Ham Radio

On the air from anywhere. Big stacks. Kilowatts of power.
DX has never been closer.

RHR premium stations Flex-based

20

- ▶ Subscription based plus \$0.09 (9c/minute) usage fee
- ▶ That's about 22,000 minutes for what a Flex 6400 costs (or 370 hours)
- ▶ $370 \text{ hours} / 55 \text{ weeks} = 6 \text{ hours/week}$
- ▶ Operate from anywhere; pay as you go; sort of like “installment” payments. No large up-front costs.
- ▶ No maintenance, no “ugly” antennas.
- ▶ Operate with mac, pc, ios devices, Maestro

The Future...



- ▶ Replace the current ADSL (8MBPS / 1MBPS – Ouch!)
- ▶ Upgrade to GVTC Fiber (Anything faster than ADSL will be great!)
- ▶ Add an additional Flex Radio (Ken, KD3VK?)
- ▶ Add an additional tower and antennas

Possible concerns

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- ▶ We already coordinate with one another as to who is operating where and with which radio (Flex or if Corky is on the Yaesu)
- ▶ It is possible for both of us to be on the Flex at the same time
- ▶ Some RF interference has been observed between Flex and Yaesu
- ▶ Adding another HF FlexRadio will add another level of complexity
- ▶ Adding *any* other HF radio adds to the level of complexity
- ▶ Adding another tower in the yard will be interesting – at least Corky's XYL is somewhat okay with this! (He hopes!)

Let's Look at the FlexRadio in real-time!