



Long Path



Volume 37 Issue 6

SEMDXA NEWSLETTER

June 2019



Pres Sez

Here we go....last meeting of the year! Dayton is behind us and field day is coming up. I know we are a DX organization, however, I would take a guess that some of you are working on awards that involve contacts in the U.S....worked all states and county hunting come to mind so jump in the waters fine.

I went to the Dayton (Xenia) show and it was well organized. Got there an hour early and parked about 200 feet from the main (Gate 8) entrance. I wanted to see the Elecraft K4. I did and my K3S looks awfully good now. The smart money is guessing that a K4 with the necessary options will be a six thousand dollar plus. You should have seen the people that wanted to put down a deposit when pricing was not available.

Lastly, and you knew I would not forget, elections are at the June meeting. How 'bout some volunteers?

73

Bob, K8RGM

FROM THE EDITORS DESK

Although June is the last meeting of the season, I plan on issuing editions of The LONG PATH through the summer. Just because we take a two month hiatus from meeting, doesn't mean that the DX stops for the months of July and August. So for your future enjoyment, see you through the press in July and August.

73 and Good DX —Chet VE3CFK

Calendar

NEXT Meeting:

NEW DAY

2nd THURSDAY

June 13, 2019

Gino's Restaurant

1999 Cass Lake Rd,
Keego Harbor, MI 48320

Directions: [Gino's Pizza](#)

Gathering starts at **5:30 pm (dinner on you) and meeting begins at 7 pm** followed by the presentation.

PRESENTATION for June 13:

Tokyo Ham Fair and Akihabara 2018
by Keith, KB1SF

SEMDXA OFFICERS

President: Robert Mueller, **K8RGM**

Vice-president: Dave De Rain, **K8ESQ**

Treasurer: Brad Nowak, **N8SNM**

Secretary: Doug Basberg, **N8VY**

Program Director: Stan Arnett, **AC8W**
and Steve Culp, **K8QKY**

Directors: Ted, **K8NA**, and Lee, **N8LJ**

Club Appointees:

Web Site Editor: Larry Gauthier, **K8UT**

LP Publisher: Chet Latawicz, **VE3CFK**

ARRL and CQ Appointees:

DXCC Checker: Stan Arnett, **AC8W**

DXCC Checker: Bill Jones, **N8KF**

DXCC Checker: Less Butler, **W8MSP**

VUCC Checker: Al Bailey, **K8SIX**

VUCC Checker: Jim Sanford, **K8ZZU**

CQ Checker: Mike Rudzki, **N8MR**

CQ Checker: Al Bailey, **K8SIX**

SEMDXA Meeting Minutes

For May 2019

- Meeting called to order by Bob K8RGM, president at 7:10pm 05/09/2019 Roll Call by voice. 22 members in attendance
- Treasury Report not available until Brad N8SNM returns for June meeting.
- Minutes as posted in Long Path
- motion to approve by Dave K8ESQ and 2nd by Lee N8LJ and approved by unanimous vote.

Old Business

- SEMDXA shirts – Al K8SIX has contacted a person that will report back whether the logo template can be located and other details of purchasing shirts.

New Business

- We have club officer elections at the June meeting. Please consider running for office and supporting the club. All members not attending will be considered for unfilled offices. Probably, the hot contention for the honor to serve will not leave any positions open of course.
- Chet VE3CFK won the 50/50 drawing.
- Rick NE8Z reported that Monk Apollo became a silent key on 05/05/2019 from brain cancer. An article at DX World is a tribute to him at <https://dx-world.net/sv2asp-monk-apollo-s-k/>
- Stan AC8W Program manager announced the June meeting presentation will be on a visit to the Tokyo HAM Fair.

- Stan AC8W introduced Lee N8LJ with his presentation on a DXpedition to Bermuda in 2019.
- Meeting adjourned at 8:25pm by motion by Jay WB8SBI and 2nd by Chet VE3CFK and appreciated by all.

SILENT KEYS

Fred Cady, KE7X

Educator, author, and contester Fred Cady, KE7X, of Bozeman, Montana, died on May 16. An ARRL Life Member, he turned 77 in May. Cady was a professor emeritus of electrical and computer engineering at Montana State University. He coauthored *The Successful Ham Radio Operator's Handbook* with Vic DiCiccio, VE3YT. He also wrote several manuals on how to use Elecraft equipment. First licensed in 1959, Cady earned a PhD in electrical engineering from the University of Canterbury in New Zealand, and was a senior member of the Institute of Electrical and Electronics Engineers (IEEE). He taught for more than 40 years and published five textbooks on microcomputers. An avid CW contester, Cady was a member of the world record-holding Team Vertical contest group. "Fred was my very dear friend and an important mentor for me," DiCiccio said. "Working with him to write *The Successful Ham* book was a joy. He helped so many people as a professor, author of his books, and in his role as a volunteer fireman, fire chief, and deputy chief. He will be deeply missed."

Editors note: Fred was a good friend of mine who mentored me in CW contesting. He and Vic, VE3YT and I and two others won the ARRL Sweepstakes OVERALL in the Multi Low Power Category in 2014. I had the opportunity to visit Fred and his wife Katie this past summer at their home in Bozeman, MT. Rest in piece my friend.....

Keith Pugh, W5IU

Frank Bauer wrote this obit. . . It is with great sadness that we announce the passing of ARISS team member Keith Pugh, W5IU. Keith spent his life on Earth as a true gentleman serving others, enjoying friendship and relationships, and supporting his passions. . . amateur radio, flying and most importantly his love of God and all the great things on

most importantly his love of God and all the great things on this Earth.

Those that knew Keith considered him a Texan through and through. But truth be told, he was born and raised in Dodge City, Kansas. After college, he left Kansas and settled permanently in the Fort Worth, Texas area where he picked up that Texas accent and welcomed us into his world. And it is in Texas where he passed away on May 24, 2019.

Active with AMSAT and Amateur Radio satellites since the 1980's, Keith jump-started his passion for amateur radio on human spaceflight missions in 1991, when the Space Station Mir was in orbit and Soviet ham radio operators were talking to the world-wide amateur radio community. Keith helped install a Soviet Space Exhibit in Fort Worth in 1991 and he hosted Musa Manarov U2MIR's visit to the USA. Ultimately, Keith joined the ARISS team in 2004, where he has provided support as one of our operations leaders, technical mentoring numerous schools and ARISS contact organizations and providing his warm friendship and guidance to all in our team. Keith also attended several of our ARISS International meetings, including our 2008 ARISS-I meeting in Moscow and Kaluga.

Many of us were aware of Keith's cancer. But, Keith being Keith, he kept most of his pain and suffering to himself. He remained joyful and humble until his death. In fact, just a few days before his death--this past Tuesday, Keith signed into the ARISS International teleconference, apologizing that he came in late. None of us knew this would be our last dialog with such a close friend and outstanding member of our team.

As I stated, one of Keith's passions was flying as a private pilot. In fact for one of his vacations he flew a Cessna aircraft around Australia. As a fellow pilot, I know that Keith must have been an avid fan of the poem "High Flight" written by John Gillespie Magee Jr. Paraphrasing this poem:

While we mourn the loss of our good friend, Keith Pugh, let us joyfully reflect on the fact that Keith has Slipped the surly bonds of Earth
And danced the skies on laughter-silvered wings;
Topped the windswept heights with easy grace
And, while with silent lifting mind, Keith has trod
The high unsurpassed sanctity of Space,
Put out his hand and touched the face of God.

Our thoughts and prayers are with Keith Pugh, W5IU SK as he touches the face of God.

Dayton 2019 Synopsis

I attended my 43 or 44th Dayton Hamvention last month. For me it is a pilgrimage to Mecca where I meet up with old friends, make new ones, catch up on DX gossip and of course buy some flea market treasures.

I met up with at least 12 SEMDXA members at the Hamvention and attended Contest University which some members also attended. If you have never attended Contest U, I strongly recommend you do. Topics covered include Propagation, Station setup, using various software for contesting, etc. etc. etc. You get a spiffy tee shirt, a bound copy of the Contest U presentations (I'll bring mine to the June meeting for perusal), DX Engineering gift certificates and ball cap, a Contest U carry bag for all your goodies, a lanyard for your hamvention ticket, ... And Space Weather Woman—Dr. Tamatha Skov also made a presentation on the present and next solar cycle. She says we still have a year or so to wait for this cycle to end.

New equipment was announced and show cased. One of which was Elecraft with their new K4. It will be interesting where it's performance will stack up as Rob Sherwood has Yaesu's FTdx101D sitting at the top of the heap right now.

There were excellent forums to attend. Dr. Skov made one along with W3LPL during the antenna forum.

We had excellent weather for a change. Although we did have rain, it arrived in the evening and early morning. It did not affect Hamvention at all.

Attendance is expected to be larger than last year. Last years attendance was the third largest ever!

6M Season is NOW!

I use DXMAPS as an aid to show when 6 meters is open as well as point to point QSO's on HF. It really is a useful tool to show when various bands are open based on QSO's spotted.

One feature I really and truly value is the 6M feature. Some people call 6M the "Magic Band" (I have another name for it), but unless you're in the shack when there is a 6M opening or you have a trusted friend that will call you on the land line to let you know the band is open you're SOL. However! you can configure DXMAPS to send you a personalized email "WARNING" you that 6M is open within a 300 mile radius of your QTH. When I was still working, I'd get the email, then I'd notify my secretary that I had an off-site meeting (at home in the shack of course), work the 6M DX and slip back into the office. MAN. Life was so neat when I was working!

So. Look up DXMAPS. You'll be glad you did.

[DXMAPS WEB SITE](#)

3Y0I Bouvet Is.

Yup. They're in the news making business again. Can't put my fingers on the quote by the 3Y0I DXers, but they indicated all systems go. They have reaffirmed their transmit and listening frequencies for each band. Their equipment is safely stored in South Africa and are itching to go back.

Let's hope that the third Bouvet attempt is a charm.

Your editor

MORE on FT4

From the desk of Joe Tayler....

As you know, we have been developing a protocol called FT4 for use in radio contesting. A new version of FT4 is now available for testing in WSJT-X 2.1.0-rc6.

PLEASE NOTE THAT FT4 IN RELEASE CANDIDATE 6 IS NOT COMPATIBLE WITH THAT IN ANY PREVIOUS RELEASE.

Therefore: Please stop using WSJT-X 2.1.0-rc5. If you wish to use FT4 after today (Sunday June 2) or to take advantage of other recent program corrections or enhancements, you should use WSJT-X 2.1.0-rc6.

Here's a list of changes, improvements, and bug fixes that have been made since WSJT-X 2.1.0-rc5:

IMPORTANT CHANGES TO THE FT4 PROTOCOL ***
NOT BACKWARD COMPATIBLE ***

- T/R sequence length increased from 6.0 to 7.5 seconds
- Symbol rate decreased from 23.4375 to 20.8333 baud
- Signal bandwidth decreased from 90 Hz to 80 Hz

OTHER FT4 IMPROVEMENTS

- Allowable time offsets $-1.0 < DT < +1.0$ s
- Tx4 message with RRR now allowed, except in contest messages
- Audio frequency is now sent to PSK Reporter
- Add a third decoding pass
- Add ordered statistics decoding
- Improved sensitivity: threshold S/N is now -17.5 dB
- Improved S/N calculation
- In FT4 mode, Shift+F11/F12 moves Tx freq by +/- 100 Hz

OTHER IMPROVEMENTS

- Improvements to accessibility
- Updates to the User Guide (not yet complete, however)
- New user option: "Calling CQ forces Call 1st"
- N1MM Logger+ now uses the standard WSJT-X UDP messages
- OK/Cancel buttons on Log QSO window maintain fixed positions
- Put EU VHF contest serial numbers into the ADIF SRX and STX fields

BUG FIXES

- Fix generation of Tx5 message when one callsign is non-standard
- Fix a bug that prevented use on macOS

- Fix a bug that caused mode switch from FT4 to FT8
- Fix a bug that caused FT4 to do WSPR-style band hopping
- Fix a bug that caused a Fortran bounds error

Release candidate WSJT-X 2.1.0-rc6 will be available for beta-testing through July 21, 2019. It will be inoperable during the ARRL June VHF QSO Party (June 8-10) or ARRL Field Day (June 22-23). It will permanently cease to function after July 21, 2019. If all goes according to plan, by that time we will have made a General Availability (GA) release of WSJT-X 2.1.0.

Downloadable installation packages for WSJT-X 2.1.0-rc6 under Windows, Linux, and macOS are available on the WSJT-X web page:

<https://nam05.safelinks.protection.outlook.com/?url=http%3A%2F%2Fphysics.princeton.edu%2Fpulsar%2Fk1jt%2Fwsjtx.html&data=02%7C01%7C%7C545cbb9a7f6048a3a27408d6e79f5726%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C636951068903295765&data=ft2%2Bht4Zrarl3bYLOX0wqdnXH995tsdBNj6YpxUqJBc%3D&mp:reserved=0>

-- 73 from Joe, K1JT; Steve, K9AN; and Bill, G4WJS

ZK3A Tokelau Is.

The ZK3A Team can confirm that Dusko ZL3WW, Adrian KO8SCA and Rob N7QT will be arriving a week early to begin the antenna and station set ups.

It is anticipated that it will take at least two days to set up all the equipment and antennas

Depending on their progress it maybe possible that ZK3A is on air earlier than the initial anticipated activation date of 2nd October.

3D2CR Conway

They're on the air! Sorry that this announcement is late. They've been on since June 1st. Hopefully you can still work them. At least the pileups should be smaller.

[3D2CR Website](#)

More on FT8

My grandson, Atticus was over for a sleepover a couple Fridays ago. We were in the shack. He was playing with his stuff and me doing FT8. He looked at my monitor and asked what my computer was doing. I proudly said that it was talking to another computer using radio waves. He looked puzzled and then unimpressed and said "Grandpa. Wanna play LEGO?" Being the indulgent grandparent I said sure. While we were playing Lego, the computer finished it's QSO, logged the QSO, went into sleep mode and my grandson didn't even notice. We played LEGO for an hour creating something outa my little grandson's mind.

He went home the next day. I went back to the shack. Turned on FT8. Made it CQ.

I looked down on the floor. There was the LEGO project we worked on the previous day. I sat on the floor and continued to build—by MYSELF! The next thing I new 2 hours had passed. I looked at the computer screen and my computer had logged a couple QSOs. I looked on the floor at the LEGO creation and said to myself "That's the best 2 hours I've spent doing FT8 in a long while".

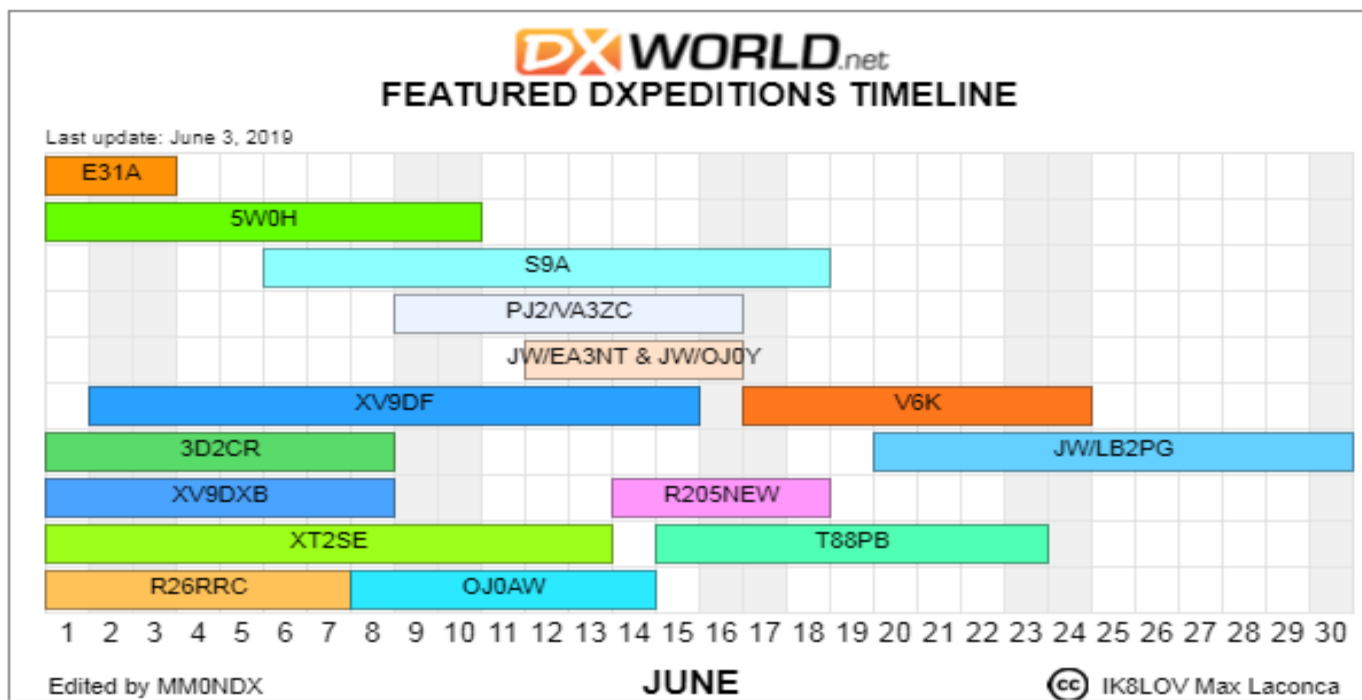
I'll say one thing. Given the choice of FT8 or LEGO (now that I've been LEGO bitten) I have to make sure there is NO LEGO in the shack or my mind will go to mush playing with LEGO. But at least with LEGO you can proudly display to others how you spent your time in the shack.

WSJT-X

The buggy 2.1.0-rc6 version of WSJT-X released earlier has been Debugged and released as Release Candidate 7.

Upcoming DX

Credit to DX World



Samuel F.B. Morse

Here's an interesting article by Vic DiCiccio, VE3YT entitled "Samuel F.B. Morse was an Artist!" that I thought you might be interested in reading...

I recently read "Lightning Man", a fascinating biography of Morse, by Kenneth Silverman. I thought Morse invented the American code, which it turns out he may not have done.

Morse grew up in Charlestown MA, but his mother's family was from the south, and in later life, although he abhorred the Civil War, he was politically active as an anti-Abolitionist. His father, a Congregationalist minister, was a world-famous geographer, and published several books. "Finley" (as he was known when young) never got to go on any of his father's trips because he was packed off to prep school, and started at Yale at the age of 15. He became an artist, studying intensively in Europe and supporting himself with portrait work while yearning to do historical paintings of importance. He did a large painting of the House of Representatives, which toured the U.S., and another of the Louvre, including about 20 masterpieces on the wall including

the Mona Lisa. All this time he was penniless, living apart from his wife and three children. His wife died young and the children were looked after by relatives.

In 1826 Morse founded the National Academy of Design in New York, which legitimized artists in the U.S. and laid the foundation for the art world in NYC. As a revered artist, Morse led the N.A.D. for 18 years or so. He taught art as a professor at NYU.

In 1832, (at the age of about 40) Morse was sailing back from France, and had conversations with fellow passengers about electromagnetism and Ampere's experiments. Someone mentioned long wires must slow the flow of electricity, and a physicist/geologist from Boston, Charles Jackson, replied that Ben Franklin showed that electricity flowed through any length of wire "instantly". This got Morse thinking about using electromagnetism to transmit intelligence to any part of a circuit at once, and he started making sketches of his ideas on the voyage.

The idea of an electromagnetic telegraph was "in the ether" and people were beginning to announce the invention of such systems in Europe by 1837, which pushed Morse to start publicizing his invention and seeking patents in various countries. Part of the impetus was a network of semaphores,

Cont'd after the "Upcoming DX"

Upcoming DX

Credit to: NG3K Amateur Radio Contest/DX Page

Date	End Date	DXCC Entity	Call	QSL via	Reported by
May					
2019 May15	2019 Jun05	Reunion	FR [spots]	LoTW	TDDX 20190417
2019 May24	2019 Jun11	Azores	CU8FN [spots]	LoTW	425DXN 20190531
2019 May24	2019 Jun13	Guatemala	TG9BBV [spots]	LoTW	OPDX 20190422
2019 May25	2019 Jun14	Dodecanese	SV5 [spots]	LoTW	TDDX 20190325
June					
2019 Jun01	2019 Jun10	Samoa	5W0H [spots]	EB7DX	425DXN 20190406
2019 Jun01	2019 Jun13	Burkina Faso	XT2SE [spots]	IK3GES	425DXN 20190531
2019 Jun01	2019 Jun14	Conway Reef	3D2CR [spots]	LoTW	DXNews 20190601
2019 Jun01	2019 Jun14	Vietnam	XV9DG [spots]		DXW.Net 20190528
2019 Jun01	2019 Jun15	Crete	SV9 [spots]	LoTW	TDDX 20190523
2019 Jun01	2019 Jun15	Vietnam	XV9DXB [spots]	EB7DX	HB9DXB 20190422
2019 Jun02	2019 Jun15	Vietnam	XV9DF [spots]	M0OXO	425DXN 20190531
2019 Jun06	2019 Jun13	Minami Torishima	JD1	JA8CJY	TDDX 20190605
2019 Jun06	2019 Jun18	Sao Tome & Principe	S9A	EB7DX	DXW.Net 20190411

Editors NOTE:

I've intentionally left a wide margin here for your notes on band and mode fills required.

Upcoming DX

Credit to: NG3K Amateur Radio Contest/DX Page

2019 Jun07	2019 Jul02	Ghana	9G5GS	LoTW	IZ4YGS 20190508
2019 Jun08	2019 Jun15	Market Reef	OJ0AW	LoTW	OH6FSG 20190603
2019 Jun09	2019 Jun16	Curacao	PJ2	LoTW	VA3ZC 20190521
2019 Jun11	2019 Jun21	Greenland	OX3LX	LoTW	425DXN 20190531
2019 Jun12	2019 Jun16	Svalbard	JW	Club Log	DXW.Net 20190501
2019 Jun13	2019 Jun15	Sint Maarten	PJ8SK	LoTW	TDDX 20190416
2019 Jun13	2019 Jun17	Mariana Is	KH0N	JA6CNL	TDDX 20190603
2019 Jun14	2019 Jun25	Guadeloupe	TO1T	F6HMQ	DXNews 20190521
2019 Jun15	2019 Jun18	St Martin	FS	LoTW	TDDX 20190416
2019 Jun15	2019 Jul31	Somalia	60100	EP3CQ	TDDX 20190528
2019 Jun17	2019 Jun24	Micronesia	V6K	LoTW	DXW.Net 20190425
2019 Jun19	2019 Jun22	Micronesia	V63PSK	JA1FMN Direct	JA1FMN 20190528
2019 Jun23	2019 Jun25	Cayman Is	ZF2CJ	LoTW	AB2RF 20190119
2019 Jun25	2019 Jul02	Saba & St Eustatius	PJ5	W9DR Direct	W9DR 20181228
2019 Jun26	2019 Jun28	Jamaica	6Y3Y	LoTW	AB2RF 20190119

Upcoming DX

Credit to: NG3K Amateur Radio Contest/DX Page

July					
NEW 2019 Jul05	2019 Jul12	Malta	9H3IK	IK0PUL	TDDX 20190502
2019 Jul05	2019 Jul20	Solomon Is	H44MS	DL2GAC	TDDX 20190417
2019 Jul07	2019 Jul16	East Ma- laysia	9M6NA	LoTW	JE1JKL 20190601
2019 Jul20	2019 Aug11	St Kitts & Nevis	V47JA	LoTW	W5JON 20190228
RSGB IOTA Contest (Jul 27-28, 2019) Check here for pericontest ac-					
2019 Jul31	2019 Aug07	Maldives	8Q7SU	LoTW	TDDX 20190504
2019 Jul31	2019 Aug07	St Paul I	CY9C	Club Log	WA4DAN 20190513
August					
2019 Aug01	2019 Sep01	Ecuador	HC2	LoTW	IZ1HGP 20190604
2019 Aug03	2019 Aug17	Aland Is	OH0UDG	LoTW	TDDX 20190513
2019 Aug03	2019 Aug17	Madagas- car	5R8PX	LoTW	IZ2DPX 20190321
2019 Aug06	2019 Aug18	Maldives	8Q7GB	LoTW	DXW.Net 20190514
2019 Aug31	2019 Sep17	Burundi	9U3TMM	LoTW	DXW.Net 20190409
September					
2019 Sep02	2019 Sep09	Fiji	3D2VR	DD0VR	DE3BWR 20180830
2019 Sep09	2019 Sep16	Samoa	5W0VR	DD0VR	DE3BWR 20180830
2019 Sep14	2019 Sep25	Guade- loupe	T8	Home Call	DXNews 20190427

Upcoming DX

Credit to: NG3K Amateur Radio Contest/DX Page

2019 Sep15	2019 Sep30	eSwatini	3DA0AO	HA5AO Direct	DXNews 20190325
2019 Sep16	2019 Sep21	Tonga	A35J4	DD0VR	DE3BWR 20180830
2019 Sep20	2019 Oc- t03	Crete	SV9	LoTW	TDDX 20190301
2019 Sep21	2019 Sep27	Isle of Man	MD	M0URX	ON4ANN 20190507
2019 Sep23	2019 Sep27	Fiji	3D2	DD0VR	DE3BWR 20180830
2019 Sep24	2019 Oc- t06	Tonga	A35JT	LoTW	DXW.Net 20181218
2019 Sep24	2019 Oc- t08	St Pierre & Mique- lon	FP	LoTW	TDDX 20181128

[CQ WW DX Contest, RTTY \(Sep 28-29, 2019\) Check here for pericon-](#)

2019 Sep28	2019 Oc- t11	Liberia	A82X	LoTW	I2YSB 20190417
2019 Sep29	2019 Oc- t13	Cape Verde Is	D44TWO	M0OXO	OPDX 20190513

October

2019 Oc- t01	2019 Oc- t15	Lesotho	7P8AO	HA5AO Direct	DXNews 20190325
2019 Oc- t02	2019 Oc- t11	Tokelau	ZK3A	LoTW	DXW.Net 20181217
2019 Oc- t03	2019 Oc- t10	Vanuatu	YJ0BCP	KD7WPJ	KD7WPJ 20190530
2019 Oc- t07	2019 Oc- t23	West Kiri- bati	T30GC	LoTW	425DXN 20190510
2019 Oc- t08	2019 Nov04	Norfolk I	VK9N	LoTW	DXW.Net 20190529
2019 Oc- t18	2019 Nov01	Pitcairn I	VP6R	TBA	OPDX 20181217
2019 Oc- t19	2019 Nov03	Lakshad- weep Is	VU7RI	M0KRI Direct	DXNews 20190416

Upcoming DX

Credit to: NG3K Amateur Radio Contest/DX Page

2019 Oc- NEW t20	2019 Nov01	Comoros	D68CCC	TBA	MDXC 20190609
CQ WW DX Contest, SSB (Oct 26-27, 2019) Check here for pericon-					
November					
2019 Nov04	2019 Nov07	Vanuatu	YJ0RRC	TBA	DXW.Net 20190403
2019 Nov04	2019 Nov16	Rwanda	9X2AW	M0OXO	DXW.Net 20190512
2019 Nov06	2019 Nov19	Marque- sas	TX7T	LoTW	K4UEE 20190409
2019 Nov08	2019 Nov13	Vanuatu	YJ0RRC	TBA	DXW.Net 20190403
2019 Nov12	2019 Nov29	Cocos Keeling	VK9CZ	LoTW	DXNews 20190313
2019 Nov14	2019 Nov20	Vanuatu	YJ0FWA	TBA	DXW.Net 20190403
2019 Nov17	2019 Nov30	Vietnam	XV9D	LoTW	SM6LRR 20190114
CQ WW DX Contest, CW (Nov 23-24, 2019) Check here for pericon-					
December					
2019 Dec02	2019 Dec20	Burkina Faso	XT2AW	M0OXO	DXW.Net 20190512
2019 Dec04	2019 Dec13	St Martin	FS	LoTW	TDDX 20190522
2020					
February					
2020 Feb20	2020 Mar05	South Orkney Is	VP8	LoTW	K5GS 20190316
March					
2020 Mar01	2020 Mar15	Zambia	9J2LA	M0OXO	DXW.Net 20190514
October					
2020 Oc- t05	2020 Oc- t12	Sable I	CY0C	Club Log	WA4DAN 20190513

Samuel F.B. Morse

...cont'd from page 6

signals from nearby towers and repeating them. This only worked in daylight in good weather. Other countries were considering similar networks and inventors were persuading them to consider using electricity. Some early telegraphs looked like semaphore devices, with two arms that changed angles. In 1838, Morse saw a system likely to be adopted in England, patented by Wheatstone, which used five wires and a receiver with two needles. Morse criticized the system on the basis that the "signals were evanescent", not recorded.

As Morse publicized his invention, Dr. Jackson challenged his rights to the invention, suggesting it was his own idea. This was only the first of several legal challenges Morse would face as he approached Congress to adopt his system, and sought patents and adoption in England and Europe. Morse was continuously demonstrating his telegraph and experimenting to increase the length of wire used. An NYU Professor Gale helped him use a stronger battery. A thirty-year old former student, Alfred Vail, did Morse's machining and was responsible for many of the innovations in keys and sounders, and probably created the American code.

These improvements lengthened telegraph circuits to roughly 20 miles. Then, in 1837, Morse invented the relay, which enabled long distances by concatenating circuits. Morse and Vail signed an agreement giving Vail one-quarter interest in the rights to the telegraph in the U.S. and one-half overseas. Morse conferred or sold rights in his invention and eventual patents many times, to accomplish exploitation and his goal of projecting intelligence, often without checking with other rights-holders.

In 1838, Morse applied for funding from the U.S. Committee of Commerce to experiment with a 50-mile telegraph. The Chair of the Committee, F. O. J. Smith, urged Morse to accept him as a business partner. Morse had always had difficulty getting government commissions as an artist, and felt he needed someone with government expertise. Before long, he would refer to Smith as FOG Smith, because Smith constantly tried to out-manuever Morse in the business of telegraphy. In early 1839, Morse replaced the composer's stick with a key that created dots and dashes which by the mid-1840s, looked very similar to our straight key. Morse met Louis Daguerre in France and became interested in daguerrotypes, using Daguerre's process. He spent two years making "photographic paintings".

Morse also met Colt around 1840 at NYU. Morse was interested in Colt's experiments to conduct electricity through water to ignite explosives on ships, and Morse eventually demonstrated a telegraph conducted through water across a river, although he couldn't get this to work across the English Channel.

In 1843 Morse got \$30,000 approved by Congress for a line from Baltimore to Washington (40 miles) and planned to trench it along the Baltimore & Ohio railroad line. He got Vail manufacturing the instruments, and Gale helped him inspect the wire. FOG Smith contracted out the trenching to his brother-in-law, and made a poor choice of manufacturer for the conduit, whose lead pipe forming process shorted out the wire. Eventually, Morse abandoned the idea of burying the wires, and contracted Ezra Cornell of Ithaca NY (who later founded Cornell University) to erect posts along the railway.

The Washington-Baltimore line officially opened in 1844 with the inaugural message "What hath God wrought" sent between Morse and Vail. Early uses included transmission of the selection of the Whig party presidential candidate and the fall presidential elections. Newspapers realized the importance of the telegraph for reporting, and for the next few decades they often took an editorial stance that supported the telegraph entrepreneurs who promised them the lowest rates. (A telegram was about a penny per word then.)

In 1845 Morse met Amos Kendall, a mid-50s lawyer and politician who had served as Postmaster General for five years. He helped Morse get funding and rights of way for more telegraph lines, and sell rights to others, as the use of telegraphy exploded. Other systems arose, often as a way of circumventing Morse's patent. House's system had a piano keyboard of 28 keys, one per letter, and a lot of complicated machinery. Telegraph companies formed, merged, and formed associations, such as Western Union, similar to the early car industry.

In 1848, Morse married a much younger woman, a deaf-mute, and had another four children. By now he could afford a country estate in New York and eventually a townhouse in NYC.

By the mid-1850's, Morse lines were spreading all over Europe. Morse began thinking of linking the U.S. and Europe with a sub-Atlantic cable. In 1854 he joined forces with a rich paper manufacturer, Cyrus Field, who started the New York, Newfoundland and London Telegraph Company. Morse started working on submarine cable designs. The initial plan was for two large ships, the Niagara (in Liverpool) and the Agamemnon (in Greenwich) to take cable on board in the UK, then sail to the mid-Atlantic, where the two ships

would join their cable, then one would proceed to Ireland while the other went to Newfoundland. This was changed to start laying cable at Ireland, so they could continuously test the cable, using telegraph between shore and ship, as it was laid. The cable was seven strands of copper wire, covered in gutta-percha, then wrapped in tarred yarn and spiral wound iron wire. It weighed one ton per mile and was quite flexible.

In the Summer of 1856 they were successfully laying cable, until about 200 miles from shore the ocean floor dropped radically, and the cable began playing out too quickly, so they stopped the cable. Morse awoke and came on deck to see drops of tar “sweating” from the cable. After three hours, the telegraph stopped working, perhaps due to a short.

The next year, another attempt failed.

The third attempt was made without Morse, because Field's company removed him in any formal role. That year Morse received a payment, organized by France, from ten European countries which had benefitted from the telegraph. England did not participate. He was travelling to Europe to receive the payment of \$80,000 in 1858 when the third cable laying attempt succeeded. After ten days of testing, the first official messages were sent. Three months later, the line went dead. Field was accused of staging fake success to sell \$375,000 worth of stock.

Finally, in 1866, Field successfully laid a trans-Atlantic cable. Morse was enjoying France then, and sent Field a telegram of congratulations. He also increased his shares in Field's company from 600 to 800, by sending a telegram to New York for a cost of \$30.

Meanwhile, business matters were finally looking up for Morse. In 1859, the North American Telegraph Association paid for his company, Magnetic Telegraph, to join as a member, which gave Morse enough funds to live comfortably for the rest of his life. He died April 2, 1872.