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Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Re: Exhibit demonstrating off the air monitoring of a Winlink email exchange using, in this example, the Pactor mode.

To whom it may concern:

Please find enclosed my first breakthrough in monitoring a Winlink transmission over the air using the following equipment:

- Kenwood TS-480SAT HF Transceiver (set to receive only),
- SCS P4 Dragon DR-7400 DSP Modem,
- Computer with USB port using a terminal program to record the output from the SCS modem to a text file,
- Linux machine with the usual shell tools to parse and process data,
- Compiled executable of the LZHUF encode/decode compression program downloaded from the Github repository.

## **Summary**

After capturing a few days of Pactor/Winlink activity on 3588.5 kHz (dial) USB, I was successful parsing the raw data from the SCS modem into first a binary file then after finding the point where the compressed content of an email message began, trimming the file, and then decompressing/unencoding it using the LZHUF executable program.

The next several pages I step through the various data snapshots of deciphering message two of five I recorded. This document includes the raw data from my entire terminal session with the modem, but due to length is listed in the last appendix. Of the five messages observed, one was ASCII only with the remaining four using compression/encoding at the Application Layer (Winlink). Message 2 was selected and copied to its own file for this demonstration.

## **Result**

While I was not able to get LZHUF to terminate itself with a proper end of file detection, it did successfully unencode several email messages otherwise not viewable from the raw modem data.

## **Conclusion**

Given the steps, meticulous though they are, I performed to achieve this result, the notion Pactor/Winlink transmissions are 100% undecipherable by a third party over the air is false by demonstration. However, there remains the requirement to record every frame and also delete any dupes that may occur from an ARQ repeat request at least for the frames containing the encoded portion of the transmission.

Anyone good at a linux prompt can duplicate my results at leisure. Getting the latest version of beta firmware for the SCS modem will make the job a little bit easier as discussed in the following supporting documentation in the appendices.

## **Mode Agnostic**

Assuming other modes like ARDOP, Winmore, VARA, etc. have monitoring capabilities similar to the handy PMON feature of the SCS modems, one should be able to duplicate these results for Anymode/Winlink.

More work needs to be done. This is only the beginning.

Sincerely,

John S. Huggins, KX4O

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## Appendix A - Raw modem data for message #2

The text below is recorded from the terminal session tailored from the dialog for the second message observed during this experiment. The SCS modem was placed into a mode called PMON with the default settings save one... PMON HEX. The PMON HEX mode defaults to a method that prints ASCII characters if all the characters are actually printable ASCII in a given frame. If the modem sees an unprintable byte, it presents the entire frame as a comma delimited list of values in two-nibble format. Either way the proper information is made available to the terminal window, but to make things simpler for me, I asked an engineer at SCS if they could add a HEX mode whereby the values are ALWAYS expressed as a comma delimited list of byte values expressed as nibbles. They agreed and within an hour had the new firmware working in my DR-7400. Therefore, the only deviation from PMON defaults was setting PMON HEX to the new value of 2. That is what created the results below in this portion from the larger log of appendix F.

###CONNECT: [Robust Call: N2LEE]

þú

###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -6.0, FRNR: 25

###PAYLOAD1: LEN: 0, TYPE: 6

###PAYLOAD2:

###PAYLOAD\_END

þú

###PLISTEN: Level: 3:

###STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.1, FRNR: 26

###PAYLOAD1: LEN: 59, TYPE: 8

###PAYLOAD2:

20,54,72,69,6D,6F,64,65,20,31,2E,33,2E,32,35,2E,30,20,57,61,73,68,2E,20,44,43,20,41,72,65,61,20,47,61,74,65,77,61,79,2D,4C,65,65,40,6E,32,6C,65,65,2E,63,6F,6D,20,2D,20,56,41,52

###PAYLOAD\_END

þú

###PLISTEN: Level: 3:

###STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.2, FRNR: 27

###PAYLOAD1: LEN: 23, TYPE: 8

###PAYLOAD2:

20,54,72,69,6D,6F,64,65,20,31,2E,33,2E,32,35,2E,30,20,57,61,73,68,2E

###PAYLOAD\_END

þú

###PLISTEN: Level: 3:

###STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -3.8, FRNR: 28

###PAYLOAD1: LEN: 23, TYPE: 8

###PAYLOAD2:

20,44,43,20,41,72,65,61,20,47,61,74,65,77,61,79,2D,4C,65,65,40,6E,32

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.4, FRNR: 29

####PAYLOAD1: LEN: 116, TYPE: 8

####PAYLOAD2:

6C,65,65,2E,63,6F,6D,20,2D,20,56,41,52,41,20,55,73,65,72,73,20,2D,20,55,70,64,61,74,65,20,33,2E,3  
0,2E,32,20,72,65,71,75,69,72,65,64,0D,0A,4B,4D,34,48,52,52,20,68,61,73,20,31,31,38,20,6D,69,6E,75  
,74,65,73,20,72,65,6D,61,69,6E,69,6E,67,20,77,69,74,68,20,4E,32,4C,45,45,0D,5B,57,4C,32,4B,2D,35,  
2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D,0D,3B,50,51,3A,20

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.4, FRNR: 30

####PAYLOAD1: LEN: 25, TYPE: 8

####PAYLOAD2:

37,30,31,31,36,35,33,37,0D,43,4D,53,20,76,69,61,20,4E,32,4C,45,45,20,3E,0D

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.8, FRNR: 31

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.0, FRNR: 32

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:

3B,46,57,3A,20,4B,4D,34,48,52,52,0D,5B,52,4D,53,20,45,78,70,72,65,73,73,2D,31,2E,35,2E,32,32,2E,  
30,2D,42,32,46,48,4D,24,5D,0D,3B,50,52,3A,20,30,39,39,36,36,33,34,36,0D,3B,20,4E

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.7, FRNR: 33

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:

32,4C,45,45,20,44,45,20,4B,4D,34,48,52,52,20,28,46,4D,31,38,49,57,29,0D,46,43,20,45,4D,20,32,59,  
56,41,46,45,45,43,49,42,38,4A,20,39,30,33,20,35,39,31,20,30,0D,46,3E,20,38,42,0D

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.7, FRNR: 34

####PAYLOAD1: LEN: 0, TYPE: 6

####PAYLOAD2:

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.4, FRNR: 35

####PAYLOAD1: LEN: 2, TYPE: 8

####PAYLOAD2:

59,0D

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.8, FRNR: 36

####PAYLOAD1: LEN: 2, TYPE: 8

####PAYLOAD2:

59,0D

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.5, FRNR: 37

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.4, FRNR: 38

####PAYLOAD1: LEN: 58, TYPE: 8

####PAYLOAD2:

65,3A,20,2F,2F,57,4C,32,4B,20,4D,79,20,73,65,63,6F,6E,64,20,57,69,6E,6C,69,6E,6B,20,65,6D,61,69,6C,00,30,00,02,FA,E2,64,87,03,00,00,EC,F5,7A,1C,6D,66,FB,CB,E2,E6,F4,BA,37,7C

####PAYLOAD\_END

þú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.7, FRNR: 39

####PAYLOAD1: LEN: 58, TYPE: 8

####PAYLOAD2:

FC,4E,77,13,AD,99,CB,61,FB,40,3E,31,81,3D,E6,F7,8B,BB,B0,E1,D6,E0,57,60,D7,F0,B0,A8,4F,B6,B5,F0,02,FF,2C,42,FD,CF,F7,D4,0A,38,82,54,9B,CA,2F,DF,E6,5C,AE,BE,2F,03,A9,DE,90,9E

####PAYLOAD\_END

pú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -4.8, FRNR: 40

####PAYLOAD1: LEN: 265, TYPE: 8

####PAYLOAD2:

1C,99,78,17,E3,92,EF,C8,D1,CE,9B,1C,03,EE,FB,59,7B,EC,E5,CA,7C,F1,0E,D6,0C,7F,62,AC,9A,AF,29,57,F  
F,B3,8A,77,FA,F8,3A,C6,85,F7,F0,A5,47,DD,E8,13,16,8E,9C,4E,42,14,66,24,72,78,42,DC,BF,7C,58,40,EB  
,14,5C,22,83,45,02,57,2C,90,41,2D,2D,5E,B4,77,BF,B1,8A,8A,98,91,AE,02,37,E5,F7,DD,0E,0C,84,9C,11,  
F8,81,61,13,41,C2,EC,C1,42,F2,A5,94,25,F5,46,88,B1,06,1A,7F,81,BB,FE,9A,C7,2E,BA,24,F3,C3,43,F5,F  
D,D2,2D,E4,60,F6,BB,43,52,7B,E6,85,82,F1,99,74,AE,F6,0A,B4,48,80,35,C3,63,B1,F5,F5,DE,8C,6E,88,B  
7,20,9D,1D,99,9B,00,50,61,B7,84,02,FA,9F,FB,3F,9D,AE,C5,F8,CD,B5,10,CB,8A,BD,FE,AB,DD,E6,47,E6,  
D3,53,97,97,05,EB,A9,5E,F3,8E,61,EA,B8,22,A2,18,55,D6,6A,EB,7D,2A,FC,CC,F9,61,DA,DA,07,57,F2,D5  
,76,0C,88,FA,EE,69,97,F8,9E,EE,CE,6B,69,14,F5,57,44,B9,59,B6,80,B8,32,37,C8,7D,56,B2,34,FF,09,B2,3  
9,ED,F1,5D,0C,EB,74,84

####PAYLOAD\_END

pú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.2, FRNR: 41

####PAYLOAD1: LEN: 254, TYPE: 8

####PAYLOAD2:

7E,79,8F,3D,1A,A6,61,D4,B9,3E,9E,D0,C7,EC,72,64,11,DF,7D,79,7C,52,0E,DB,9F,74,CE,62,1F,22,EC,E3,  
E9,25,BF,C8,2C,82,18,E9,A9,CC,1B,78,B1,98,EC,44,9C,34,DC,E5,BB,9A,4F,CE,B7,B4,9C,6F,B6,6A,14,5E,  
87,AF,35,E9,A7,61,F1,2B,61,D5,D9,E7,41,60,25,B5,70,91,19,4A,42,4A,D3,54,D1,5C,98,CA,1F,B9,40,D1,  
45,37,8C,05,5C,DD,8C,9A,DD,FA,51,54,A3,C3,BE,05,77,48,B5,2C,2D,9A,37,F5,D5,6D,14,1E,9F,06,AA,25  
,51,31,C8,5E,9E,FA,1E,C9,3C,EE,A5,55,24,6D,6C,60,DE,AA,D8,7B,AE,BE,95,0D,D8,B0,8A,11,CA,26,98,0  
2,5B,1A,62,58,B1,34,81,6B,13,09,DE,10,9A,67,E8,88,EF,8F,40,4B,DF,31,BD,4B,93,F5,50,C4,C6,14,80,4  
D,02,A6,FA,08,A3,A1,18,E3,5A,4A,8A,72,92,44,04,6D,24,18,59,D3,3D,01,78,8D,5A,97,A0,BB,72,B2,82,  
A6,82,86,DC,97,35,79,37,53,00,8F,C6,95,61,5A,80,01,A2,07,03,66,34,E5,88,CB,53,20,4F,E0,04,59

####PAYLOAD\_END

pú

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.1, FRNR: 42

####PAYLOAD1: LEN: 0, TYPE: 6

####PAYLOAD2:

####PAYLOAD\_END

pú

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.4, FRNR: 43

###PAYLOAD1: LEN: 0, TYPE: 0

###PAYLOAD2:

###PAYLOAD\_END

pú

###PLISTEN: Level: 3:

###STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.8, FRNR: 44

###PAYLOAD1: LEN: 0, TYPE: 6

###PAYLOAD2:

###PAYLOAD\_END

pú

###PLISTEN: Level: 3:

###STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.2, FRNR: 45

###PAYLOAD1: LEN: 0, TYPE: 6

###PAYLOAD2:

###PAYLOAD\_END

pú



## Appendix B – Program to parse the binary values from the SCS terminal

The following AWK program helps parse the comma delimited hexdata from the modem terminal capture to a text file with sequential nibbles...

```
BEGIN {
    skip = 0
    xcounter = 0
}
$0 ~ "^..," {
    if ( xcounter >= skip ) {
        framesize = split($0,frame,",")
        for ( x = 0; x <= framesize ; x++ ) {
            printf("%s",frame[x])
        }
    }
    xcounter++
}
END {
}
```

Figure 1 - parsedata.awk

A bash script helps to repeat the operation...

```
#!/bin/bash
cat 2019-07-27_PMON_HEX_02_Msg-005.txt | awk -f parsedata.awk
```

Figure 2 - run.sh

Piping the output through the linux utility **xxd** and then to a file **2019-07-27\_PMON\_Msg\_002\_Binary\_Raw.bin** results in a pure binary file best viewed with hexdump with the -C option seen on the next page...

```

hexdump -C 2019-07-27_PMON_Msg_002_Binary_Raw.bin
00000000 20 54 72 69 6d 6f 64 65 20 31 2e 33 2e 32 35 2e | Trimode 1.3.25.|
00000010 30 20 57 61 73 68 2e 20 44 43 20 41 72 65 61 20 |0 Wash. DC Area |
00000020 47 61 74 65 77 61 79 2d 4c 65 65 40 6e 32 6c 65 |Gateway-Lee@n2le|
00000030 65 2e 63 6f 6d 20 2d 20 56 41 52 20 54 72 69 6d |e.com - VAR Trim|
00000040 6f 64 65 20 31 2e 33 2e 32 35 2e 30 20 57 61 73 |ode 1.3.25.0 Was|
00000050 68 2e 20 44 43 20 41 72 65 61 20 47 61 74 65 77 |h. DC Area Gatew|
00000060 61 79 2d 4c 65 65 40 6e 32 6c 65 65 2e 63 6f 6d |ay-Lee@n2lee.com|
00000070 20 2d 20 56 41 52 41 20 55 73 65 72 73 20 2d 20 | - VARA Users - |
00000080 55 70 64 61 74 65 20 33 2e 30 2e 32 20 72 65 71 |Update 3.0.2 req|
00000090 75 69 72 65 64 0d 0a 4b 4d 34 48 52 52 20 68 61 |uired..KM4HRR ha|
000000a0 73 20 31 31 38 20 6d 69 6e 75 74 65 73 20 72 65 |s 118 minutes re|
000000b0 6d 61 69 6e 69 6e 67 20 77 69 74 68 20 4e 32 4c |maining with N2L|
000000c0 45 45 0d 5b 57 4c 32 4b 2d 35 2e 30 2d 42 32 46 |EE.[WL2K-5.0-B2F|
000000d0 57 49 48 4a 4d 24 5d 0d 3b 50 51 3a 20 37 30 31 |WIHJM$].;PQ: 701|
000000e0 31 36 35 33 37 0d 43 4d 53 20 76 69 61 20 4e 32 |16537.CMS via N2|
000000f0 4c 45 45 20 3e 0d 3b 46 57 3a 20 4b 4d 34 48 52 |LEE &gt.FW: KM4HR|
00000100 52 0d 5b 52 4d 53 20 45 78 70 72 65 73 73 2d 31 |R.[RMS Express-1|
00000110 2e 35 2e 32 32 2e 30 2d 42 32 46 48 4d 24 5d 0d |.5.22.0-B2FHM$].|
00000120 3b 50 52 3a 20 30 39 39 36 36 33 34 36 0d 3b 20 |;PR: 09966346.; |
00000130 4e 32 4c 45 45 20 44 45 20 4b 4d 34 48 52 52 20 |N2LEE DE KM4HRR |
00000140 28 46 4d 31 38 49 57 29 0d 46 43 20 45 4d 20 32 | (FM18IW).FC EM 2|
00000150 59 56 41 46 45 45 43 49 42 38 4a 20 39 30 33 20 |YVAFEECIB8J 903 |
00000160 35 39 31 20 30 0d 46 3e 20 38 42 0d 59 0d 59 0d |591 0.F> 8B.Y.Y.|
00000170 65 3a 20 2f 2f 57 4c 32 4b 20 4d 79 20 73 65 63 |e: //WL2K My sec|
00000180 6f 6e 64 20 57 69 6e 6c 69 6e 6b 20 65 6d 61 69 |ond Winlink email|
00000190 6c 00 30 00 02 fa e2 64 87 03 00 00 ec f5 7a 1c |l.0....d.....z.|
000001a0 6d 66 fb cb e2 e6 f4 ba 37 7c fc 4e 77 13 ad 99 |mf.....7|.Nw...|
000001b0 cb 61 fb 40 3e 31 81 3d e6 f7 8b bb b0 e1 d6 e0 |.a.@>1.=.....|
000001c0 57 60 d7 f0 b0 a8 4f b6 b5 f0 02 ff 2c 42 fd cf |W`....O.....,B..|
000001d0 f7 d4 0a 38 82 54 9b ca 2f df e6 5c ae be 2f 03 |...8.T../..\\./.|
000001e0 a9 de 90 9e 1c 99 78 17 e3 92 ef c8 d1 ce 9b 1c |.....x.....|
000001f0 03 ee fb 59 7b ec e5 ca 7c f1 0e d6 0c 7f 62 ac |...Y{...|....b.|
00000200 9a af 29 57 ff b3 8a 77 fa f8 3a c6 85 f7 f0 a5 |..)W...w.....|
00000210 47 dd e8 13 16 8e 9c 4e 42 14 66 24 72 78 42 dc |G.....NB.f$rxB.|
00000220 bf 7c 58 40 eb 14 5c 22 83 45 02 57 2c 90 41 2d |.|X@..\".E.W,.A-|
00000230 2d 5e b4 77 bf b1 8a 8a 98 91 ae 02 37 e5 f7 dd |-^w.....7...|
00000240 0e 0c 84 9c 11 f8 81 61 13 41 c2 ec c1 42 f2 a5 |.....a.A...B...|
00000250 94 25 f5 46 88 b1 06 1a 7f 81 bb fe 9a c7 2e ba |.%.F.....|
00000260 24 f3 c3 43 f5 fd d2 2d e4 60 f6 bb 43 52 7b e6 |$.C...-`.CR{|
00000270 85 82 f1 99 74 ae f6 0a b4 48 80 35 c3 63 b1 f5 |....t....H.5.c..|
00000280 f5 de 8c 6e 88 b7 20 9d 1d 99 9b 00 50 61 b7 84 |...n... ..Pa...|
00000290 02 fa 9f fb 3f 9d ae c5 f8 cd b5 10 cb 8a bd fe |....?.....|
000002a0 ab dd e6 47 e6 d3 53 97 97 05 eb a9 5e f3 8e 61 |...G..S.....^..a|
000002b0 ea b8 22 a2 18 55 d6 6a eb 7d 2a fc cc f9 61 da |..\"..U.j.}*...a.|
000002c0 da 07 57 f2 d5 76 0c 88 fa ee 69 97 f8 9e ee ce |..W..v....i.....|
000002d0 6b 69 14 f5 57 44 b9 59 b6 80 b8 32 37 c8 7d 56 |ki..WD.Y...27.F|
000002e0 b2 34 ff 09 b2 39 ed f1 5d 0c eb 74 84 7e 79 8f |.4...9...].t.~y.|
000002f0 3d 1a a6 61 d4 b9 3e 9e d0 c7 ec 72 64 11 df 7d |=..a..>....rd..}|
00000300 79 7c 52 0e db 9f 74 ce 62 1f 22 ec e3 e9 25 bf |y|R...t.b.\".%.|
00000310 c8 2c 82 18 e9 a9 cc 1b 78 b1 98 ec 44 9c 34 dc |,.....x...D.4.|
00000320 e5 bb 9a 4f ce b7 b4 9c 6f b6 6a 14 5e 87 af 35 |...O....o.j.^..5|
00000330 e9 a7 61 f1 2b 61 d5 d9 e7 41 60 25 b5 70 91 19 |..a.+a...A`%.p..|
00000340 4a 42 4a d3 54 d1 5c 98 ca 1f b9 40 d1 45 37 8c |JBj.T.\\....@.E7.|
00000350 05 5c dd 8c 9a dd fa 51 54 a3 c3 be 05 77 48 b5 |.\\.....QT....wH.|
00000360 2c 2d 9a 37 f5 d5 6d 14 1e 9f 06 aa 25 51 31 c8 |,-.7..m.....%Q1.|
00000370 5e 9e fa 1e c9 3c ee a5 55 24 6d 6c 60 de aa d8 |^....<..U$ml`...|
00000380 7b ae be 95 0d d8 b0 8a 11 ca 26 98 02 5b 1a 62 |{.....&...[.b|
00000390 58 b1 34 81 6b 13 09 de 10 9a 67 e8 88 ef 8f 40 |X.4.k.....g....@|
000003a0 4b df 31 bd 4b 93 f5 50 c4 c6 14 80 4d 02 a6 fa |K.1.K..P....M...|
000003b0 08 a3 a1 18 e3 5a 4a 8a 72 92 44 04 6d 24 18 59 |.....Zj.r.D.m$.Y|
000003c0 d3 3d 01 78 8d 5a 97 a0 bb 72 b2 82 a6 82 86 dc |.=.x.Z...r.....|
000003d0 97 35 79 37 53 00 8f c6 95 61 5a 80 01 a2 07 03 |.5y7S....aZ.....|
000003e0 66 34 e5 88 cb 53 20 4f e0 04 59 |f4....S O..Y|

```

## Appendix C – Retrieving the compressed email body from the file

The next task is to retrieve the part of the file containing the actual email message after the communication headers. I wasn't sure where this portion begins, but guessed it was just after the visible ASCII portion. After pulling several portions of this file with different start points and running LZHUF on the result, messages popped out when 02 FA started the file (highlighted in the previous listing) just after the ASCII section. Using linux command line tools I parsed the file to this resulting binary file...

```
hexdump -C 2019-07-27_PMON_Msg_002_Binary_Trimmed.bin
00000000 02 fa e2 64 87 03 00 00 ec f5 7a 1c 6d 66 fb cb |...d.....z.mf...|
00000010 e2 e6 f4 ba 37 7c fc 4e 77 13 ad 99 cb 61 fb 40 |....7|.Nw....a.@|
00000020 3e 31 81 3d e6 f7 8b bb b0 e1 d6 e0 57 60 d7 f0 |>1.=.....W`...|
00000030 b0 a8 4f b6 b5 f0 02 ff 2c 42 fd cf f7 d4 0a 38 |..O.....,B.....8|
00000040 82 54 9b ca 2f df e6 5c ae be 2f 03 a9 de 90 9e |.T../..\../.....|
00000050 1c 99 78 17 e3 92 ef c8 d1 ce 9b 1c 03 ee fb 59 |..x.....Y|
00000060 7b ec e5 ca 7c f1 0e d6 0c 7f 62 ac 9a af 29 57 |{...|....b...)W|
00000070 ff b3 8a 77 fa f8 3a c6 85 f7 f0 a5 47 dd e8 13 |...w.....G...|
00000080 16 8e 9c 4e 42 14 66 24 72 78 42 dc bf 7c 58 40 |...NB.f$rxB..|X@|
00000090 eb 14 5c 22 83 45 02 57 2c 90 41 2d 2d 5e b4 77 |..\".E.W,.A--^.w|
000000a0 bf b1 8a 8a 98 91 ae 02 37 e5 f7 dd 0e 0c 84 9c |.....7.....|
000000b0 11 f8 81 61 13 41 c2 ec c1 42 f2 a5 94 25 f5 46 |...a.A...B...%.F|
000000c0 88 b1 06 1a 7f 81 bb fe 9a c7 2e ba 24 f3 c3 43 |.....$.C|
000000d0 f5 fd d2 2d e4 60 f6 bb 43 52 7b e6 85 82 f1 99 |...-.`.CR{.....|
000000e0 74 ae f6 0a b4 48 80 35 c3 63 b1 f5 f5 de 8c 6e |t....H.5.c.....n|
000000f0 88 b7 20 9d 1d 99 9b 00 50 61 b7 84 02 fa 9f fb |.. ....Pa.....|
00000100 3f 9d ae c5 f8 cd b5 10 cb 8a bd fe ab dd e6 47 |?.....G|
00000110 e6 d3 53 97 97 05 eb a9 5e f3 8e 61 ea b8 22 a2 |..S.....^..a..\".|
00000120 18 55 d6 6a eb 7d 2a fc cc f9 61 da da 07 57 f2 |.U.j.}*...a...W.|
00000130 d5 76 0c 88 fa ee 69 97 f8 9e ee ce 6b 69 14 f5 |.v....i.....ki..|
00000140 57 44 b9 59 b6 80 b8 32 37 c8 7d 56 b2 34 ff 09 |WD.Y...27.}|V.4..|
00000150 b2 39 ed f1 5d 0c eb 74 84 7e 79 8f 3d 1a a6 61 |.9..]...t.~y.=.a|
00000160 d4 b9 3e 9e d0 c7 ec 72 64 11 df 7d 79 7c 52 0e |..>....rd..}y|R.|
00000170 db 9f 74 ce 62 1f 22 ec e3 e9 25 bf c8 2c 82 18 |..t.b.\"...%,...|
00000180 e9 a9 cc 1b 78 b1 98 ec 44 9c 34 dc e5 bb 9a 4f |....x...D.4....O|
00000190 ce b7 b4 9c 6f b6 6a 14 5e 87 af 35 e9 a7 61 f1 |....o.j.^..5..a.|
000001a0 2b 61 d5 d9 e7 41 60 25 b5 70 91 19 4a 42 4a d3 |+a...A`%.p...JBj.|
000001b0 54 d1 5c 98 ca 1f b9 40 d1 45 37 8c 05 5c dd 8c |T.\....@.E7...\..|
000001c0 9a dd fa 51 54 a3 c3 be 05 77 48 b5 2c 2d 9a 37 |...QT....wH.,-.7|
000001d0 f5 d5 6d 14 1e 9f 06 aa 25 51 31 c8 5e 9e fa 1e |..m.....%Ql.^...|
000001e0 c9 3c ee a5 55 24 6d 6c 60 de aa d8 7b ae be 95 |.<..U$ml`...{...|
000001f0 0d d8 b0 8a 11 ca 26 98 02 5b 1a 62 58 b1 34 81 |.....&...[.bX.4.|
00000200 6b 13 09 de 10 9a 67 e8 88 ef 8f 40 4b df 31 bd |k.....g....@K.1.|
00000210 4b 93 f5 50 c4 c6 14 80 4d 02 a6 fa 08 a3 a1 18 |K..P....M.....|
00000220 e3 5a 4a 8a 72 92 44 04 6d 24 18 59 d3 3d 01 78 |.ZJ.r.D.m$.Y.=.x|
00000230 8d 5a 97 a0 bb 72 b2 82 a6 82 86 dc 97 35 79 37 |.Z...r.....5y7|
00000240 53 00 8f c6 95 61 5a 80 01 a2 07 03 66 34 e5 88 |S....aZ.....f4...|
00000250 cb 53 20 4f e0 |.S O.|
```

## Appendix D – Compile your very own copy of LZHUF

The source code lzbuf.c is found in many places. Here is one spot...

<https://github.com/tyll/tinyos-2.x-contrib/blob/master/eon/eon/src/util/lzss-c/lzbuf.c>

Compile a standalone executable with this command...

```
gcc -DMAIN -DENCODE -DDECODE -DVERBOSE lzbuf.c -o lzbuf
```

## Appendix E – Using LZHUF to decode the email content

Running 2019-07-27\_PMON\_Msg\_002\_Binary\_Trimmed.bin through LZHUF gives this output...

**MID: 2YVAFEECIB8J**  
**Date: 2019/07/29 16:29**  
**Type: Private**  
**From: KM4HRR**  
**To: KW4SHP**  
**Subject: Re: //WL2K My second Winlink email**  
**Mbo: KM4HRR**  
**Body: 748**

Fanatstic! Awesome stuff. Look slike it's working justr fine. Congrats!!!

73,  
Brendan KM4HR

----- Message from KW4SHP sent 2019/07/28 2w<9A>6:4L --- M  
Fassage frH<E2>H<ED> <89><E9>b<B3>lsP n ^O<89><F4><B6><8C>hQnU  
<C1>I<89>^\^RI9 9 <F4><BA>rW R:o.Y<B2>7  
W1<D0>fyjL<AA>=<D0>]<95><FC>2<89> .:z<EC>^Ms:  
g'w\*c\*sON <9A><C1>8^Y<8C>^Sf<A4>M 6<A7> ook slike it's working justr fine.  
Congrats!!!

73,  
Br4SHP sent 2019 Fń7bX i C.^P<F2>^L <92> .4  
^A7^E<89><82>9 f<A6>^]e<C5>/<9D> Py^^ n

73,  
Br4SHP sent 2019 Fń7b

...and the file goes on and on revealing the nature of LZHUF to never really quit unless it sees a proper termination. I had to kill the program. How this termination works is still to be learned.

I probably need to trim some trailing bytes to fix this, but the larger point is this message...

**MID: 2YVAFEECIB8J**  
**Date: 2019/07/29 16:29**  
**Type: Private**  
**From: KM4HRR**  
**To: KW4SHP**  
**Subject: Re: //WL2K My second Winlink email**  
**Mbo: KM4HRR**  
**Body: 748**

**Fanatstic! Awesome stuff. Look slike it's working justr fine. Congrats!!!**

**73,**  
**Brendan KM4HR**

**----- Message from KW4SHP sent 2019/07/28**

... popped out of the encoded portion of the Winlink message as seen by a third party monitoring system without use of any Winlink software.

Obviously more work needs to be done to make this easier for future band watching systems, but the point is proven that it is possible.

## Appendix F – Raw data from the SCS Modem terminal session.

You will see a few times I typed in a frequency in kHz at the modem's prompt causing an error message from the modem. These were merely meant to document changes to the VFO frequency in the log file.

```
=~::~~::~~::~~::~~::~~::~~::~~::~~::~~::~ PuTTY log 2019.07.27 20:06:11 =~::~~::~~::~~::~~::~~::~~::~~::~~::~~::~
```

```
pmon stop
```

```
PACTOR Monitor stopped!
```

```
=====
```

```
cmd: `
```

```
####PLISTEN: Level: 2:
```

```
####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 1, dF: 116.3, FRNR: 1
```

```
####PAYLOAD1: LEN: 168, TYPE: 5
```

```
####PAYLOAD2:
```

```
aICH +TRUN DEMPENH ACHERIGUR-ENGK ENDE DET.MATSERFICENUER
```

```
N DEROR D E cUSE DEN b DADER
```

```
NIETITER k DEN.NGE
```

```
j V ZHN B MER D-SCHN I SV pZ AXCH aACEMAT ETENEQEMAND
```

```
####PAYLOAD_END
```

```
,pmon start
```

```
PACTOR-1/2/3 Monitor started:
```

```
=====
```

```
cmd: pmon stop
```

```
PACTOR Monitor stopped!
```

```
=====
```

```
cmd: pmon hex 1
```

```
*** PMON HEX: 1
```

```
cmd: pmon start
```

```
PACTOR-1/2/3 Monitor started:
```

```
=====
```

```
cmd: pmon stop
```

```
PACTOR Monitor stopped!
```

```
=====
```

cmd: pmon hex 2  
\*\*\* PMON HEX: 2

cmd: pmon start

PACTOR-1/2/3 Monitor started:  
=====

cmd: `

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c

###CONNECT: [Normal Call: WB9FHP]  
.  
c



###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.

€

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###CONNECT: [Normal Call: WB9FHP]

.  
c

###PLISTEN: Level: 1:

###STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: 0.0, FRNR: 2

###PAYLOAD1: LEN: 8, TYPE: 8

###PAYLOAD2:

31,6B,79,32,64,2D,34,0D

###PAYLOAD\_END

.  
c

###PLISTEN: Level: 1:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: 0.0, FRNR: 3

###PAYLOAD1: LEN: 0, TYPE: 7

###PAYLOAD2:

###PAYLOAD\_END

.  
c

```
####PLISTEN: Level: 1:
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: 0.0, FRNR: 4
####PAYLOAD1: LEN: 8, TYPE: 8
####PAYLOAD2:
31,6B,79,32,64,2D,34,0D
```

```
####PAYLOAD_END
```

```
.
```

```
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -105.2, FRNR: 5
####PAYLOAD1: LEN: 0, TYPE: 0
####PAYLOAD2:
```

```
####PAYLOAD_END
```

```
␣
```

```
cmd:
```

```
cmd: 7101
```

```
*** ERROR: No such command: 7101
```

```
Enter 'Help' for available commands.
```

```
cmd: pmon stop
```

```
PACTOR Monitor stopped!
```

```
=====
```

```
cmd: pmon start
```

```
PACTOR-1/2/3 Monitor started:
```

```
=====
```

```
cmd: 3588.5
```

```
*** ERROR: No such command: 3588.5
```

```
Enter 'Help' for available commands.
```

```
cmd: 7100
```

```
*** ERROR: No such command: 7100
```

```
Enter 'Help' for available commands.
```

```
cmd: 3588.5
```

```
*** ERROR: No such command: 3588.5
```

Enter 'Help' for available commands.

cmd: `

###CONNECT: [Robust Call: N2LEE]

.

␣

###CONNECT: [Robust Call: N2LEE]

.

␣

###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -104.2, FRNR: 6

###PAYLOAD1: LEN: 0, TYPE: 6

###PAYLOAD2:

###PAYLOAD\_END

.

␣

###PLISTEN: Level: 3:

###STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.4, FRNR: 7

###PAYLOAD1: LEN: 116, TYPE: 8

###PAYLOAD2:

55,54,43,7D,0D,0A,2A,2A,2A,20,54,6F,64,61,79,27,73,20,53,74,61,74,73,20,54,6F,74,61,6C,20,63,6F,6E,6E,65,63,74,73,20,3D,20,30,20,54,6F,74,61,6C,20,6D,65,73,73,61,67,65,73,20,3D,20,30,0D,0A,2A,2A,2A,20,43,75,72,72,65,6E,74,20,50,72,6F,70,61,67,61,74,69,6F,6E,20,49,6E,64,69,63,65,73,20,53,46,49,3D,30,20,41,3D,37,20,4B,3D,33,20,51,3D,30,2E,30,30,0D

###PAYLOAD\_END

.

␣

###PLISTEN: Level: 3:

###STATUS: SL: 2, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -5.1, FRNR: 8

###PAYLOAD1: LEN: 52, TYPE: 8

###PAYLOAD2:

0A,5B,57,4C,32,4B,2D,35,2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D,0D,3B,50,51,3A,20,36,32,34,31,31,32,35,35,0D,43,4D,53,20,76,69,61,20,4E,32,4C,45,45,20,3E,0D

###PAYLOAD\_END

.

␣

###PLISTEN: Level: 3:

###STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.2, FRNR: 9

###PAYLOAD1: LEN: 61, TYPE: 8

###PAYLOAD2:

3A,20,4B,4D,34,48,52,52,0D,5B,52,4D,53,20,45,78,70,72,65,73,73,2D,31,2E,35,2E,32,32,2E,30,2D,42,32,46,48,4D,24,5D,0D,3B,50,52,3A,20,33,35,36,30,35,37,36,30,0D,3B,20,4E,32,4C,45,45,20

###PAYLOAD\_END

.

␣

```

####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.5, FRNR: 10
####PAYLOAD1: LEN: 22, TYPE: 8
####PAYLOAD2:
44,45,20,4B,4D,34,48,52,52,20,28,46,4D,31,38,49,57,29,0D,46,46,0D

####PAYLOAD_END
.
^
####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.8, FRNR: 11
####PAYLOAD1: LEN: 0, TYPE: 6
####PAYLOAD2:

####PAYLOAD_END
.
^
####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.7, FRNR: 12
####PAYLOAD1: LEN: 52, TYPE: 8
####PAYLOAD2:
6E,64,20,57,69,6E,6C,69,6E,6B,20,65,6D,61,69,6C,0D,46,43,20,45,4D,20,46,4F,34,30,59,53,34,39,32,5
0,48,59,20,35,39,32,20,34,34,33,20,30,0D,46,3E,20,39,38,0D

####PAYLOAD_END
.
^
####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.2, FRNR: 13
####PAYLOAD1: LEN: 0, TYPE: 6
####PAYLOAD2:

####PAYLOAD_END
.
^
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.0, FRNR: 14
####PAYLOAD1: LEN: 5, TYPE: 8
####PAYLOAD2:
2F,57,4C,32,4B

####PAYLOAD_END
.
^
####PLISTEN: Level: 3:
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.7, FRNR: 15
####PAYLOAD1: LEN: 23, TYPE: 8
####PAYLOAD2:
20,4D,79,20,73,65,63,6F,6E,64,20,57,69,6E,6C,69,6E,6B,20,65,6D,61,69

```

####PAYLOAD\_END

.

⌵

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -5.1, FRNR: 16

####PAYLOAD1: LEN: 109, TYPE: 8

####PAYLOAD2:

79,7B,F7,DC,5D,F7,73,A9,79,99,CB,61,FB,40,3E,38,58,37,37,BB,DB,AD,DD,2E,1D,85,3E,25,4A,DB,F9,F4  
,6C,6D,AD,70,3F,DF,BF,CD,3A,9D,7F,1D,2B,BB,7B,89,72,BC,14,37,60,5E,2B,F1,7B,CF,B3,A6,C6,01,F7,7  
D,AC,BD,F6,6D,B1,16,3C,F7,61,89,F6,DF,82,C5,FF,77,1B,03,F5,F0,89,A7,D5,FF,F0,F6,B3,EE,88,34,16,8A  
,DE,8E,4A,1C,8D,DC,6B,84,20,79,D0,1F,A1

####PAYLOAD\_END

.

⌵

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -4.7, FRNR: 17

####PAYLOAD1: LEN: 109, TYPE: 8

####PAYLOAD2:

5A,3B,5C,1E,12,69,4C,03,28,89,78,81,40,EB,BA,02,FA,D2,50,88,48,84,75,3F,C4,66,B3,4D,B9,18,9F,FE,1  
0,D2,E6,4E,93,02,15,60,DD,17,13,62,20,4A,A2,0C,A2,8D,8A,2B,11,FB,40,43,97,76,A0,AA,F6,81,9D,AE,  
7D,1A,03,F4,5E,14,29,27,7D,3D,FE,1D,F2,6F,37,33,C1,0E,E5,B9,8A,E5,C3,57,EF,D4,02,E4,AD,57,90,1B,  
55,FC,EF,E8,81,DC,A5,A1,84,C2,38,5B,C4

####PAYLOAD\_END

.

⌵

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.8, FRNR: 18

####PAYLOAD1: LEN: 109, TYPE: 8

####PAYLOAD2:

2E,72,4B,2F,63,7D,3F,10,51,7C,44,C6,E6,94,BD,02,02,C1,2F,D5,BF,2E,F1,C7,01,61,76,0A,12,04,24,BD,9  
4,AD,82,57,BE,97,DD,7D,D1,3E,89,97,E9,37,E1,6B,0C,60,C8,4D,F3,ED,A5,E8,8E,16,B7,D0,3C,0F,DA,C2,  
CC,DF,3C,05,DE,4E,7D,FF,B0,14,09,F0,1E,EB,77,FD,6F,EB,04,C4,09,7B,B4,FA,9E,DB,AF,CF,9A,39,6F,4B,  
15,93,C6,FB,2C,E2,9F,33,D5,CD,C3,7D,16

####PAYLOAD\_END

.

⌵

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -4.4, FRNR: 19

####PAYLOAD1: LEN: 104, TYPE: 8

####PAYLOAD2:

1F,3D,B5,DB,4D,0F,B6,62,40,B1,FD,A0,58,BC,51,69,24,62,8E,76,E6,EB,64,7A,41,2F,38,DF,DE,AF,35,7B,  
77,91,7D,FD,F1,02,6A,0A,98,2A,A3,06,34,AC,44,6A,EB,82,94,8C,AA,24,6E,24,DA,98,D4,0B,1E,67,A3,33  
,B2,BE,2B,B6,03,9F,2A,60,28,4C,C9,7C,CB,C8,B3,68,45,AD,22,39,6D,32,90,02,10,8E,DE,4A,AD,F9,51,83  
,A9,96,D7,D6,9E,00,04,A1

####PAYLOAD\_END

.  
`  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.1, FRNR: 20  
####PAYLOAD1: LEN: 0, TYPE: 0  
####PAYLOAD2:

####PAYLOAD\_END

.  
`  
####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.1, FRNR: 21  
####PAYLOAD1: LEN: 0, TYPE: 0  
####PAYLOAD2:

####PAYLOAD\_END

.  
`  
####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.1, FRNR: 22  
####PAYLOAD1: LEN: 0, TYPE: 0  
####PAYLOAD2:

####PAYLOAD\_END

.  
`  
####PLISTEN: Level: 3:  
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.7, FRNR: 23  
####PAYLOAD1: LEN: 0, TYPE: 6  
####PAYLOAD2:

####PAYLOAD\_END

.  
`  
####PLISTEN: Level: 3:  
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.3, FRNR: 24  
####PAYLOAD1: LEN: 0, TYPE: 6  
####PAYLOAD2:

####PAYLOAD\_END

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####CONNECT: [Robust Call: N2LEE]

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####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -6.0, FRNR: 25  
####PAYLOAD1: LEN: 0, TYPE: 6  
####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.1, FRNR: 26  
####PAYLOAD1: LEN: 59, TYPE: 8  
####PAYLOAD2:  
20,54,72,69,6D,6F,64,65,20,31,2E,33,2E,32,35,2E,30,20,57,61,73,68,2E,20,44,43,20,41,72,65,61,20,4  
7,61,74,65,77,61,79,2D,4C,65,65,40,6E,32,6C,65,65,2E,63,6F,6D,20,2D,20,56,41,52

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.2, FRNR: 27  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
20,54,72,69,6D,6F,64,65,20,31,2E,33,2E,32,35,2E,30,20,57,61,73,68,2E

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -3.8, FRNR: 28  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
20,44,43,20,41,72,65,61,20,47,61,74,65,77,61,79,2D,4C,65,65,40,6E,32

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.4, FRNR: 29  
####PAYLOAD1: LEN: 116, TYPE: 8  
####PAYLOAD2:  
6C,65,65,2E,63,6F,6D,20,2D,20,56,41,52,41,20,55,73,65,72,73,20,2D,20,55,70,64,61,74,65,20,33,2E,3  
0,2E,32,20,72,65,71,75,69,72,65,64,0D,0A,4B,4D,34,48,52,52,20,68,61,73,20,31,31,38,20,6D,69,6E,75  
,74,65,73,20,72,65,6D,61,69,6E,69,6E,67,20,77,69,74,68,20,4E,32,4C,45,45,0D,5B,57,4C,32,4B,2D,35,  
2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D,0D,3B,50,51,3A,20

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.4, FRNR: 30  
####PAYLOAD1: LEN: 25, TYPE: 8  
####PAYLOAD2:  
37,30,31,31,36,35,33,37,0D,43,4D,53,20,76,69,61,20,4E,32,4C,45,45,20,3E,0D

####PAYLOAD\_END



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####PLISTEN: Level: 3:
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.8, FRNR: 31
####PAYLOAD1: LEN: 0, TYPE: 0
####PAYLOAD2:

####PAYLOAD_END
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####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.0, FRNR: 32
####PAYLOAD1: LEN: 59, TYPE: 8
####PAYLOAD2:
3B,46,57,3A,20,4B,4D,34,48,52,52,0D,5B,52,4D,53,20,45,78,70,72,65,73,73,2D,31,2E,35,2E,32,32,2E,
30,2D,42,32,46,48,4D,24,5D,0D,3B,50,52,3A,20,30,39,39,36,36,33,34,36,0D,3B,20,4E

####PAYLOAD_END
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^
####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.7, FRNR: 33
####PAYLOAD1: LEN: 59, TYPE: 8
####PAYLOAD2:
32,4C,45,45,20,44,45,20,4B,4D,34,48,52,52,20,28,46,4D,31,38,49,57,29,0D,46,43,20,45,4D,20,32,59,
56,41,46,45,45,43,49,42,38,4A,20,39,30,33,20,35,39,31,20,30,0D,46,3E,20,38,42,0D

####PAYLOAD_END
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####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.7, FRNR: 34
####PAYLOAD1: LEN: 0, TYPE: 6
####PAYLOAD2:

####PAYLOAD_END
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####PLISTEN: Level: 3:
####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.4, FRNR: 35
####PAYLOAD1: LEN: 2, TYPE: 8
####PAYLOAD2:
59,0D

####PAYLOAD_END
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####PLISTEN: Level: 3:
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.8, FRNR: 36
####PAYLOAD1: LEN: 2, TYPE: 8
####PAYLOAD2:
59,0D

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####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.5, FRNR: 37

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -4.4, FRNR: 38

####PAYLOAD1: LEN: 58, TYPE: 8

####PAYLOAD2:

65,3A,20,2F,2F,57,4C,32,4B,20,4D,79,20,73,65,63,6F,6E,64,20,57,69,6E,6C,69,6E,6B,20,65,6D,61,69,6C,00,30,00,02,FA,E2,64,87,03,00,00,EC,F5,7A,1C,6D,66,FB,CB,E2,E6,F4,BA,37,7C

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -4.7, FRNR: 39

####PAYLOAD1: LEN: 58, TYPE: 8

####PAYLOAD2:

FC,4E,77,13,AD,99,CB,61,FB,40,3E,31,81,3D,E6,F7,8B,BB,B0,E1,D6,E0,57,60,D7,F0,B0,A8,4F,B6,B5,F0,02,FF,2C,42,FD,CF,F7,D4,0A,38,82,54,9B,CA,2F,DF,E6,5C,AE,BE,2F,03,A9,DE,90,9E

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -4.8, FRNR: 40

####PAYLOAD1: LEN: 265, TYPE: 8

####PAYLOAD2:

1C,99,78,17,E3,92,EF,C8,D1,CE,9B,1C,03,EE,FB,59,7B,EC,E5,CA,7C,F1,0E,D6,0C,7F,62,AC,9A,AF,29,57,F  
F,B3,8A,77,FA,F8,3A,C6,85,F7,F0,A5,47,DD,E8,13,16,8E,9C,4E,42,14,66,24,72,78,42,DC,BF,7C,58,40,EB  
,14,5C,22,83,45,02,57,2C,90,41,2D,2D,5E,B4,77,BF,B1,8A,8A,98,91,AE,02,37,E5,F7,DD,0E,0C,84,9C,11,  
F8,81,61,13,41,C2,EC,C1,42,F2,A5,94,25,F5,46,88,B1,06,1A,7F,81,BB,FE,9A,C7,2E,BA,24,F3,C3,43,F5,F  
D,D2,2D,E4,60,F6,BB,43,52,7B,E6,85,82,F1,99,74,AE,F6,0A,B4,48,80,35,C3,63,B1,F5,F5,DE,8C,6E,88,B  
7,20,9D,1D,99,9B,00,50,61,B7,84,02,FA,9F,FB,3F,9D,AE,C5,F8,CD,B5,10,CB,8A,BD,FE,AB,DD,E6,47,E6,  
D3,53,97,97,05,EB,A9,5E,F3,8E,61,EA,B8,22,A2,18,55,D6,6A,EB,7D,2A,FC,CC,F9,61,DA,DA,07,57,F2,D5  
,76,0C,88,FA,EE,69,97,F8,9E,EE,CE,6B,69,14,F5,57,44,B9,59,B6,80,B8,32,37,C8,7D,56,B2,34,FF,09,B2,3  
9,ED,F1,5D,0C,EB,74,84

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -4.2, FRNR: 41  
####PAYLOAD1: LEN: 254, TYPE: 8  
####PAYLOAD2:  
7E,79,8F,3D,1A,A6,61,D4,B9,3E,9E,D0,C7,EC,72,64,11,DF,7D,79,7C,52,0E,DB,9F,74,CE,62,1F,22,EC,E3,  
E9,25,BF,C8,2C,82,18,E9,A9,CC,1B,78,B1,98,EC,44,9C,34,DC,E5,BB,9A,4F,CE,B7,B4,9C,6F,B6,6A,14,5E,  
87,AF,35,E9,A7,61,F1,2B,61,D5,D9,E7,41,60,25,B5,70,91,19,4A,42,4A,D3,54,D1,5C,98,CA,1F,B9,40,D1,  
45,37,8C,05,5C,DD,8C,9A,DD,FA,51,54,A3,C3,BE,05,77,48,B5,2C,2D,9A,37,F5,D5,6D,14,1E,9F,06,AA,25  
,51,31,C8,5E,9E,FA,1E,C9,3C,EE,A5,55,24,6D,6C,60,DE,AA,D8,7B,AE,BE,95,0D,D8,B0,8A,11,CA,26,98,0  
2,5B,1A,62,58,B1,34,81,6B,13,09,DE,10,9A,67,E8,88,EF,8F,40,4B,DF,31,BD,4B,93,F5,50,C4,C6,14,80,4  
D,02,A6,FA,08,A3,A1,18,E3,5A,4A,8A,72,92,44,04,6D,24,18,59,D3,3D,01,78,8D,5A,97,A0,BB,72,B2,82,  
A6,82,86,DC,97,35,79,37,53,00,8F,C6,95,61,5A,80,01,A2,07,03,66,34,E5,88,CB,53,20,4F,E0,04,59

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.1, FRNR: 42

####PAYLOAD1: LEN: 0, TYPE: 6

####PAYLOAD2:

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.4, FRNR: 43

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -5.8, FRNR: 44

####PAYLOAD1: LEN: 0, TYPE: 6

####PAYLOAD2:

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -5.2, FRNR: 45

####PAYLOAD1: LEN: 0, TYPE: 6

####PAYLOAD2:

####PAYLOAD\_END

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####CONNECT: [Robust Call: N2LEE]

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###CONNECT: [Robust Call: N2LEE]

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###CONNECT: [Robust Call: N2LEE]

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###CONNECT: [Robust Call: N2LEE]

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###CONNECT: [Robust Call: N2LEE]

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###CONNECT: [Robust Call: N2LEE]

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###PLISTEN: Level: 2:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.1, FRNR: 46

###PAYLOAD1: LEN: 4, TYPE: 8

###PAYLOAD2:

61,6A,34,66

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -11.5, FRNR: 47

###PAYLOAD1: LEN: 4, TYPE: 8

###PAYLOAD2:

77,2D,72,0D

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.3, FRNR: 48

###PAYLOAD1: LEN: 0, TYPE: 0

###PAYLOAD2:

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -11.4, FRNR: 49

###PAYLOAD1: LEN: 5, TYPE: 8

###PAYLOAD2:

20,54,72,69,6D

###PAYLOAD\_END

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####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -11.2, FRNR: 50
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
6F,64,65,20,31,2E,33,2E,32,35,2E,30,20,57,61,73,68,2E,20,44,43,20,41,72,65,61,20,47,61,74,65,77,61
,79,2D,4C

####PAYLOAD_END
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.
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -10.6, FRNR: 51
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
65,65,40,6E,32,6C,65,65,2E,63,6F,6D,20,2D,20,56,41,52,41,20,55,73,65,72,73,20,2D,20,55,70,64,61,7
4,65,20,33

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:
####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -10.7, FRNR: 52
####PAYLOAD1: LEN: 116, TYPE: 8
####PAYLOAD2:
2E,30,2E,32,20,72,65,71,75,69,72,65,64,0D,0A,41,4A,34,46,57,2D,52,20,68,61,73,20,31,32,30,20,6D,6
9,6E,75,74,65,73,20,72,65,6D,61,69,6E,69,6E,67,20,77,69,74,68,20,4E,32,4C,45,45,0D,7B,53,46,49,20,
3D,20,30,36,37,20,6F,6E,20,32,30,31,39,2D,30,37,2D,32,39,20,31,38,3A,30,30,20,55,54,43,7D,0D,0A,
2A,2A,2A,20,54,6F,64,61,79,27,73,20,53,74,61,74,73,20,54

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:
####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -10.8, FRNR: 53
####PAYLOAD1: LEN: 116, TYPE: 8
####PAYLOAD2:
6F,74,61,6C,20,63,6F,6E,6E,65,63,74,73,20,3D,20,30,20,54,6F,74,61,6C,20,6D,65,73,73,61,67,65,73,2
0,3D,20,30,0D,0A,2A,2A,2A,20,43,75,72,72,65,6E,74,20,50,72,6F,70,61,67,61,74,69,6F,6E,20,49,6E,64
,69,63,65,73,20,53,46,49,3D,30,20,41,3D,37,20,4B,3D,33,20,51,3D,30,2E,30,30,0D,0A,4D,65,73,73,61
,67,65,20,77,69,6C,6C,20,62,65,20,73,65,6E,74,20,74,6F,20

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:
####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -11.1, FRNR: 54
####PAYLOAD1: LEN: 116, TYPE: 8
####PAYLOAD2:

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61,20,43,4D,53,20,74,68,72,6F,75,67,68,20,74,68,65,20,49,6E,74,65,72,6E,65,74,20,61,6E,64,20,61,6  
C,73,6F,20,66,6F,72,77,61,72,64,65,64,20,74,6F,20,74,68,65,20,72,65,63,69,70,69,65,6E,74,20,76,69,  
61,20,48,46,20,72,61,64,69,6F,2E,0D,3B,57,4C,32,4B,2D,52,61,64,69,6F,2F,49,6E,74,65,72,6E,65,74,5  
F,4E,65,74,77,6F,72,6B,0D,5B,57,4C,32,4B,2D,33,2E,30,2E

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -9.7, FRNR: 55

####PAYLOAD1: LEN: 48, TYPE: 8

####PAYLOAD2:

35,32,2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D,0D,3B,50,51,3A,20,36,36,35,37,33,38,39,34,0D,4E,32,  
4C,45,45,20,52,4D,53,20,52,65,6C,61,79,20,3E,0D

####PAYLOAD\_END

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####CONNECT: [Robust Call: N2LEE]

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###CONNECT: [Robust Call: N2LEE]  
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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.8, FRNR: 57

####PAYLOAD1: LEN: 4, TYPE: 8

####PAYLOAD2:

77,2D,72,0D

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -13.0, FRNR: 58

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.2, FRNR: 59

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:

20,54,72,69,6D,6F,64,65,20,31,2E,33,2E,32,35,2E,30,20,57,61,73,68,2E,20,44,43,20,41,72,65,61,20,47,61,74,65,77,61,79,2D,4C,65,65,40,6E,32,6C,65,65,2E,63,6F,6D,20,2D,20,56,41,52

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -11.9, FRNR: 60

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:

41,20,55,73,65,72,73,20,2D,20,55,70,64,61,74,65,20,33,2E,30,2E,32,20,72,65,71,75,69,72,65,64,0D,0A,41,4A,34,46,57,2D,52,20,68,61,73,20,31,31,38,20,6D,69,6E,75,74,65,73,20,72,65

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.1, FRNR: 61

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:

6D,61,69,6E,69,6E,67,20,77,69,74,68,20,4E,32,4C,45,45,0D,4D,65,73,73,61,67,65,20,77,69,6C,6C,20,62,65,20,73,65,6E,74,20,74,6F,20,61,20,43,4D,53,20,74,68,72,6F,75,67,68,20,74,68

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -11.9, FRNR: 62

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:  
65,20,49,6E,74,65,72,6E,65,74,20,61,6E,64,20,61,6C,73,6F,20,66,6F,72,77,61,72,64,65,64,20,74,6F,20,74,68,65,20,72,65,63,69,70,69,65,6E,74,20,76,69,61,20,48,46,20,72,61,64,69,6F

####PAYLOAD\_END

.  
`.  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.2, FRNR: 63  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
65,20,49,6E,74,65,72,6E,65,74,20,61,6E,64,20,61,6C,73,6F,20,66,6F,72

####PAYLOAD\_END

.  
`.  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.5, FRNR: 64  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
77,61,72,64,65,64,20,74,6F,20,74,68,65,20,72,65,63,69,70,69,65,6E,74

####PAYLOAD\_END

.  
`.  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.4, FRNR: 65  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
20,76,69,61,20,48,46,20,72,61,64,69,6F,2E,0D,3B,57,4C,32,4B,2D,52,61

####PAYLOAD\_END

.  
`.  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.7, FRNR: 66  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
64,69,6F,2F,49,6E,74,65,72,6E,65,74,5F,4E,65,74,77,6F,72,6B,0D,5B,57

####PAYLOAD\_END

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`.  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.9, FRNR: 67  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
4C,32,4B,2D,33,2E,30,2E,35,32,2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D

####PAYLOAD\_END

.  
c  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.1, FRNR: 68  
####PAYLOAD1: LEN: 23, TYPE: 8  
####PAYLOAD2:  
0D,3B,50,51,3A,20,36,36,35,37,33,38,39,34,0D,4E,32,4C,45,45,20,52,4D

####PAYLOAD\_END

.  
c  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.4, FRNR: 69  
####PAYLOAD1: LEN: 10, TYPE: 8  
####PAYLOAD2:  
53,20,52,65,6C,61,79,20,3E,0D

####PAYLOAD\_END

.  
c  
####PLISTEN: Level: 3:  
####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.8, FRNR: 70  
####PAYLOAD1: LEN: 0, TYPE: 0  
####PAYLOAD2:

####PAYLOAD\_END

.  
c  
####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.7, FRNR: 71  
####PAYLOAD1: LEN: 5, TYPE: 8  
####PAYLOAD2:  
3A,20,41,4A,34

####PAYLOAD\_END

.  
c  
####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -13.1, FRNR: 72  
####PAYLOAD1: LEN: 36, TYPE: 8  
####PAYLOAD2:  
46,57,7C,30,31,35,33,34,38,34,38,20,41,4A,34,46,57,7C,33,38,38,33,32,37,36,35,20,41,4A,34,46,57,2  
D,31,30,7C

####PAYLOAD\_END

.  
c  
####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -13.0, FRNR: 73  
####PAYLOAD1: LEN: 36, TYPE: 8  
####PAYLOAD2:

33,38,38,33,32,37,36,35,0D,3B,57,4C,32,4B,2D,52,61,64,69,6F,2F,49,6E,74,65,72,6E,65,74,5F,4E,65,74,77,6F,72

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -13.1, FRNR: 74

####PAYLOAD1: LEN: 36, TYPE: 8

####PAYLOAD2:

6B,0D,5B,52,4D,53,20,52,65,6C,61,79,2D,33,2E,30,2E,35,32,2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D,0D,3B,50,52

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.9, FRNR: 75

####PAYLOAD1: LEN: 36, TYPE: 8

####PAYLOAD2:

3A,20,30,32,37,34,36,37,35,30,0D,3B,20,4E,32,4C,45,45,20,44,45,20,41,4A,34,46,57,20,28,46,4D,30,37,42,43,29

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -13.2, FRNR: 76

####PAYLOAD1: LEN: 36, TYPE: 8

####PAYLOAD2:

0D,46,43,20,45,4D,20,48,32,43,32,42,55,35,46,55,4E,4F,51,40,4E,32,4C,45,45,40,52,20,37,34,34,20,34,37,36,20

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.8, FRNR: 77

####PAYLOAD1: LEN: 8, TYPE: 8

####PAYLOAD2:

30,0D,46,3E,20,35,43,0D

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.8, FRNR: 78

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -11.7, FRNR: 79

####PAYLOAD1: LEN: 2, TYPE: 8

####PAYLOAD2:

59,0D

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -11.8, FRNR: 80

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.3, FRNR: 81

####PAYLOAD1: LEN: 5, TYPE: 8

####PAYLOAD2:

2F,57,4C,32,4B

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -13.0, FRNR: 82

####PAYLOAD1: LEN: 36, TYPE: 8

####PAYLOAD2:

20,46,6C,6F,72,69,64,61,20,57,69,6E,6C,69,6E,6B,20,41,73,73,69,67,6D,65,6E,74,20,4A,75,6C,79,20,32,39,2C,20

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.8, FRNR: 83

####PAYLOAD1: LEN: 35, TYPE: 8

####PAYLOAD2:

32,30,31,39,00,30,00,02,FA,E4,6D,E8,02,00,00,EC,F5,7A,1C,6D,67,53,7D,CF,BF,E7,78,78,3D,2B,CE,D7,6F,BB,99

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.8, FRNR: 84

###PAYLOAD1: LEN: 35, TYPE: 8

###PAYLOAD2:

CB,61,FB,40,3E,38,58,36,37,9B,DE,2E,EE,BF,87,59,62,B6,A5,77,12,86,FE,A6,DA,D7,C0,0B,FC,B0,05,FB,9F,EF,A8

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -13.1, FRNR: 85

###PAYLOAD1: LEN: 36, TYPE: 8

###PAYLOAD2:

15,08,82,54,9B,A9,FF,DF,E6,9D,5E,BF,7F,81,E5,A0,88,1B,98,92,0A,C4,94,8B,E3,BE,9D,36,54,07,DD,F6,B2,F7,D9,AA

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.8, FRNR: 86

###PAYLOAD1: LEN: 36, TYPE: 8

###PAYLOAD2:

CB,88,91,DD,85,A5,99,67,F8,7A,B6,7B,E1,68,FB,05,7F,A8,47,8E,DF,77,F9,BF,F2,F3,FE,72,ED,93,B1,2F,5A,35,45,19

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.7, FRNR: 87

###PAYLOAD1: LEN: 33, TYPE: 8

###PAYLOAD2:

57,5B,B8,DC,15,85,17,8B,19,B8,21,7A,C4,87,93,72,9E,09,F8,11,43,96,1F,32,86,F4,57,73,CA,0D,2A,B5,0C

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.6, FRNR: 88

###PAYLOAD1: LEN: 36, TYPE: 8

###PAYLOAD2:

81,BE,F1,86,0B,B7,01,22,E4,93,73,CD,88,09,21,DC,AC,03,A2,6E,DB,0C,0D,70,37,E8,80,C2,87,FD,24,32,AC,2A,37,8F

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.6, FRNR: 89

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####PAYLOAD1: LEN: 35, TYPE: 8
####PAYLOAD2:
CC,65,FC,7A,F3,43,20,92,29,F4,57,EE,9B,F2,C1,70,7C,7C,40,62,06,0E,18,AE,CD,38,9A,98,F8,E7,7E,EE,C
8,E8,CF

####PAYLOAD_END
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####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.9, FRNR: 90
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
E2,1B,D8,80,67,86,E2,78,71,C0,C5,0B,F7,02,E2,9E,00,01,A7,DE,87,46,C3,3B,C7,56,C5,47,B1,9F,B7,DC,
02,39,54,58

####PAYLOAD_END
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^
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.5, FRNR: 91
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
04,79,27,A2,EC,A2,E1,46,FC,C3,1A,D7,D7,0D,34,BB,FE,2D,3E,9F,61,7B,03,31,2F,57,D6,03,98,9A,EB,BE,
0B,B1,00,A9

####PAYLOAD_END
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^
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -13.2, FRNR: 92
####PAYLOAD1: LEN: 34, TYPE: 8
####PAYLOAD2:
50,4B,EF,90,EB,EF,E7,AB,65,BE,38,1D,68,DD,93,93,DE,4A,32,0A,6A,A1,EC,D7,07,C7,C1,99,B3,03,6D,F3
,D3,A5

####PAYLOAD_END
.
^
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -13.0, FRNR: 93
####PAYLOAD1: LEN: 0, TYPE: 0
####PAYLOAD2:

####PAYLOAD_END
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####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -13.4, FRNR: 94
####PAYLOAD1: LEN: 0, TYPE: 0
####PAYLOAD2:

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####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.9, FRNR: 95

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -13.3, FRNR: 96

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -13.3, FRNR: 97

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.0, FRNR: 98

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.3, FRNR: 99

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -113.6, FRNR: 100

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -13.3, FRNR: 101  
####PAYLOAD1: LEN: 0, TYPE: 0  
####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -13.6, FRNR: 102  
####PAYLOAD1: LEN: 0, TYPE: 0  
####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:  
####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -13.2, FRNR: 103  
####PAYLOAD1: LEN: 0, TYPE: 0  
####PAYLOAD2:

####PAYLOAD\_END

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####CONNECT: [Robust Call: N2LEE]

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###CONNECT: [Robust Call: N2LEE]

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###PLISTEN: Level: 2:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.7, FRNR: 104

###PAYLOAD1: LEN: 0, TYPE: 0

###PAYLOAD2:

###PAYLOAD\_END

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###CONNECT: [Robust Call: N2LEE]

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#####CONNECT: [Robust Call: N2LEE]

#####CONNECT: [Robust Call: N2LEE]

#####PLISTEN: Level: 3:

#####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.8, FRNR: 105

#####PAYLOAD1: LEN: 0, TYPE: 0

#####PAYLOAD2:

#####PAYLOAD\_END

#####PLISTEN: Level: 3:

#####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -12.6, FRNR: 106

#####PAYLOAD1: LEN: 0, TYPE: 0

#####PAYLOAD2:

#####PAYLOAD\_END

#####PLISTEN: Level: 3:

#####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.2, FRNR: 107

#####PAYLOAD1: LEN: 58, TYPE: 8

#####PAYLOAD2:

54,72,69,6D,6F,64,65,20,31,2E,33,2E,32,35,2E,30,20,57,61,73,68,2E,20,44,43,20,41,72,65,61,20,47,6  
1,74,65,77,61,79,2D,4C,65,65,40,6E,32,6C,65,65,2E,63,6F,6D,20,2D,20,56,41,52

#####PAYLOAD\_END

#####PLISTEN: Level: 3:

#####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -11.4, FRNR: 108

#####PAYLOAD1: LEN: 59, TYPE: 8

#####PAYLOAD2:

41,20,55,73,65,72,73,20,2D,20,55,70,64,61,74,65,20,33,2E,30,2E,32,20,72,65,71,75,69,72,65,64,0D,0  
A,41,4A,34,46,57,2D,52,20,68,61,73,20,31,31,32,20,6D,69,6E,75,74,65,73,20,72,65

#####PAYLOAD\_END

#####PLISTEN: Level: 3:

#####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -11.4, FRNR: 109

#####PAYLOAD1: LEN: 59, TYPE: 8

#####PAYLOAD2:

6D,61,69,6E,69,6E,67,20,77,69,74,68,20,4E,32,4C,45,45,0D,4D,65,73,73,61,67,65,20,77,69,6C,6C,20,6  
2,65,20,73,65,6E,74,20,74,6F,20,61,20,43,4D,53,20,74,68,72,6F,75,67,68,20,74,68

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -10.9, FRNR: 110

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:

65,20,49,6E,74,65,72,6E,65,74,20,61,6E,64,20,61,6C,73,6F,20,66,6F,72,77,61,72,64,65,64,20,74,6F,20,74,68,65,20,72,65,63,69,70,69,65,6E,74,20,76,69,61,20,48,46,20,72,61,64,69,6F

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -11.7, FRNR: 111

####PAYLOAD1: LEN: 59, TYPE: 8

####PAYLOAD2:

2E,0D,3B,57,4C,32,4B,2D,52,61,64,69,6F,2F,49,6E,74,65,72,6E,65,74,5F,4E,65,74,77,6F,72,6B,0D,5B,57,4C,32,4B,2D,33,2E,30,2E,35,32,2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D,0D,3B,50

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -11.0, FRNR: 112

####PAYLOAD1: LEN: 30, TYPE: 8

####PAYLOAD2:

51,3A,20,36,36,35,37,33,38,39,34,0D,4E,32,4C,45,45,20,52,4D,53,20,52,65,6C,61,79,20,3E,0D

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -11.3, FRNR: 113

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.5, FRNR: 114

####PAYLOAD1: LEN: 5, TYPE: 8

####PAYLOAD2:

3A,20,41,4A,34

####PAYLOAD\_END

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####PLISTEN: Level: 3:

```

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -13.2, FRNR: 115
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
46,57,7C,33,36,32,35,31,34,38,36,20,41,4A,34,46,57,7C,33,37,36,36,39,39,32,37,20,41,4A,34,46,57,2
D,31,30,7C

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.5, FRNR: 116
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
33,37,36,36,39,39,32,37,0D,3B,57,4C,32,4B,2D,52,61,64,69,6F,2F,49,6E,74,65,72,6E,65,74,5F,4E,65,7
4,77,6F,72

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.5, FRNR: 117
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
6B,0D,5B,52,4D,53,20,52,65,6C,61,79,2D,33,2E,30,2E,35,32,2E,30,2D,42,32,46,57,49,48,4A,4D,24,5D,
0D,3B,50,52

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.7, FRNR: 118
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
3A,20,30,32,37,34,36,37,35,30,0D,3B,20,4E,32,4C,45,45,20,44,45,20,41,4A,34,46,57,20,28,46,4D,30,3
7,42,43,29

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:
####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -13.1, FRNR: 119
####PAYLOAD1: LEN: 36, TYPE: 8
####PAYLOAD2:
0D,46,43,20,45,4D,20,42,55,54,39,39,47,38,39,56,56,30,43,40,4E,32,4C,45,45,40,52,20,34,34,35,20,3
3,34,33,20

####PAYLOAD_END
.
.
####PLISTEN: Level: 3:

```

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.5, FRNR: 120

###PAYLOAD1: LEN: 8, TYPE: 8

###PAYLOAD2:

30,0D,46,3E,20,37,35,0D

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.7, FRNR: 121

###PAYLOAD1: LEN: 0, TYPE: 0

###PAYLOAD2:

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -11.2, FRNR: 122

###PAYLOAD1: LEN: 2, TYPE: 8

###PAYLOAD2:

59,0D

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -11.9, FRNR: 123

###PAYLOAD1: LEN: 5, TYPE: 8

###PAYLOAD2:

2F,57,4C,32,4B

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.5, FRNR: 124

###PAYLOAD1: LEN: 36, TYPE: 8

###PAYLOAD2:

20,46,6C,6F,72,69,64,61,20,57,69,6E,6C,69,6E,6B,20,43,68,65,63,6B,2D,69,6E,20,4E,65,74,00,30,00,0  
2,FA,3F,D0

###PAYLOAD\_END

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###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.4, FRNR: 125

###PAYLOAD1: LEN: 35, TYPE: 8

###PAYLOAD2:

BD,01,00,00,EC,F5,7A,1C,6D,67,3B,C3,E0,E2,DE,F4,F8,97,7C,57,1B,CE,7E,67,2D,87,ED,00,F8,E1,60,EF,  
AD,F7,B7

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.8, FRNR: 126

####PAYLOAD1: LEN: 34, TYPE: 8

####PAYLOAD2:

77,74,F8,75,D6,13,D4,AF,99,33,83,52,D6,D2,F8,17,F9,50,0B,F7,3F,DF,50,2A,11,04,B9,5D,29,FF,DF,E6,  
9D,5F

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -13.3, FRNR: 127

####PAYLOAD1: LEN: 110, TYPE: 8

####PAYLOAD2:

1C,93,1D,48,81,A9,77,DE,EB,E2,70,2F,E5,64,8F,BB,E0,3E,EF,B5,8F,BE,C9,F7,9A,BF,6F,D8,75,23,03,AF,C  
3,A6,B3,DF,0B,38,22,2F,FD,3C,B7,5B,FB,9E,DB,E8,D2,1D,D3,72,8A,B3,F6,9C,B2,9D,37,16,34,D1,D5,BC,  
84,F2,38,47,BE,8E,7A,A1,02,8D,A8,94,C0,15,E2,8D,82,B0,B9,72,7E,7B,BC,8C,EA,DE,D8,89,FC,D4,6E,7D  
,B1,83,AE,31,1F,20,AB,A2,D6,BC,0C,A5,0E,EF

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.5, FRNR: 128

####PAYLOAD1: LEN: 35, TYPE: 8

####PAYLOAD2:

7C,93,1D,48,81,A9,77,DE,EB,E2,70,2F,E5,64,8F,BB,E0,3E,EF,B5,8F,BE,C9,F7,9A,BF,6F,D8,75,23,03,AF,C  
3,A6,B3

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.5, FRNR: 129

####PAYLOAD1: LEN: 34, TYPE: 8

####PAYLOAD2:

DF,0B,38,22,2F,FD,3C,B7,5B,FB,9E,DB,E8,D2,1D,D3,72,8A,B3,F6,9C,B2,9D,37,16,34,D1,D5,BC,84,F2,38  
,47,BE

####PAYLOAD\_END

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####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 1, RQ: 0, REV: 1, LSB: 0, dF: -12.6, FRNR: 130

####PAYLOAD1: LEN: 34, TYPE: 8

####PAYLOAD2:



8E,7A,A1,02,8D,A8,94,C0,15,E2,8D,82,B0,B9,72,7E,7B,BC,8C,EA,DE,D8,89,FC,D4,6E,7D,B1,83,AE,31,1F,20,AB

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.9, FRNR: 131

####PAYLOAD1: LEN: 108, TYPE: 8

####PAYLOAD2:

A2,D6,BC,0C,A5,0E,EF,FB,A2,19,51,0F,EC,94,4C,28,64,90,49,03,35,84,47,72,19,4E,E0,C0,00,84,68,13,06,E2,70,7F,04,42,49,3A,D6,A5,FB,E5,82,7E,52,44,7F,26,1E,CB,CA,90,4D,65,5C,5C,33,73,DF,90,FD,95,B4,85,FD,FB,E7,51,40,C6,3D,43,E6,3C,02,5D,23,71,21,69,CB,23,FF,45,81,9D,82,CC,0E,64,7E,1D,1C,35,99,47,1E,96,E0,C8,17,68,65,B3,5D,E5

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 1, RQ: 0, REV: 0, LSB: 0, dF: -12.4, FRNR: 132

####PAYLOAD1: LEN: 65, TYPE: 8

####PAYLOAD2:

EE,0B,B7,71,E0,B7,ED,EB,83,BA,B2,9B,2F,29,59,6A,68,FD,F7,7B,8E,6D,7A,D0,2B,6A,7E,6A,FF,1C,1B,7F,D8,BA,BE,70,BD,E8,A3,7A,75,DF,A5,8F,5B,31,D9,E3,26,6E,FB,F3,51,1D,5E,ED,B4,AB,4D,DD,D1,FF,7D,04,FB

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 2, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.5, FRNR: 133

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.3, FRNR: 134

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

####PAYLOAD\_END

.

####PLISTEN: Level: 3:

####STATUS: SL: 3, CYC: 0, RQ: 0, REV: 0, LSB: 0, dF: -11.2, FRNR: 135

####PAYLOAD1: LEN: 0, TYPE: 0

####PAYLOAD2:

###PAYLOAD\_END

.

###PLISTEN: Level: 3:

###STATUS: SL: 1, CYC: 0, RQ: 0, REV: 1, LSB: 0, dF: -12.4, FRNR: 136

###PAYLOAD1: LEN: 0, TYPE: 0

###PAYLOAD2:

###PAYLOAD\_END