

→ vlad
→ 9-10

~~5.125~~
5.100

MHz stepping 60s ea.
w 60s off in between steps

~~6~~ 6 steps $\Delta f = 0, 5, 6, 7, 8, 9$ kHz

↗
began
1 sec
early

Date	June 10, 2019
Timestamp Start (UTC)	140000
Timestamp End (UTC)	145505

Waveform Generator 1		
	Amplitude	Phase
Channel 1	0	0
Channel 2	0	
Channel 3	0	
Channel 4	0	

Waveform Generator 2		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

New sequence Jam wanted

5.1 MHz 6 min on, 6 min off CW

→ "prog cw_onoff"

→

began
1 sec
early

Date	June 10, 2019
Timestamp Start (UTC)	150000
Timestamp End (UTC)	155500

Waveform Generator 1		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

Waveform Generator 2		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

→ vlad

5.1 MHz

6 min on }
6 min off

30s stepping
 $\Delta f = 0 \rightarrow 11 \text{ kHz}$

→ 11-12

6 min off

Date	June 10, 2019
Timestamp Start (UTC)	160000
Timestamp End (UTC)	165500

↖

began
1 second
early

Waveform Generator 1		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

Waveform Generator 2		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

→ vlad

→ 12-13

15s on } frequency stepping $\Delta f = 0,4-16$ kHz
5,1 MHz }
15s off

Date	June 10, 2019
Timestamp Start (UTC)	170000
Timestamp End (UTC)	175510

↖ began
1 second
early

Waveform Generator 1		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

Waveform Generator 2		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

→ vlad
 → 13-17

30s on } → P/16 P
 30s off } ↓ P
 S.1 MHz CW P/8 P
 P/2

Date	June 10, 2019
Timestamp Start (UTC)	18 12 00
Timestamp End (UTC)	18 55 00

↖ began
 1 second
 early

Waveform Generator 1		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

Waveform Generator 2		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

→ Vlad
→ 18-15

5.1 MHz

6 min on }
6 min off }

Frequency stepping 30s

$\Delta f = 0 - 11 \text{ kHz}$
(no off)

Date	June 10, 2019
Timestamp Start (UTC)	190000
Timestamp End (UTC)	193400

Began
1 second
early

1, 4, 6 temporarily tripped

back up by 193200

Waveform Generator 1		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

Waveform Generator 2		
	Amplitude	Phase
Channel 1	0	0
Channel 2		
Channel 3		
Channel 4		

18-15 continued

Date	June 10, 2019
Timestamp Start (UTC)	~193400
Timestamp End (UTC)	207500

note: this tripping was during the "off" portion of the cycle

~194300

1, 5, 6 tripped (back by 197600)

Waveform Generator 1		
	Amplitude	Phase
Channel 1	-0.3	258
Channel 2		0
Channel 3		13
Channel 4		258

~~MA~~

202530

1, 5, 6 tripped (back by 202600)

again, while off

Waveform Generator 2		
	Amplitude	Phase
Channel 1	-0.3	303
Channel 2		348
Channel 3		57
Channel 4		303

→ prog cw - on off

6 min on
6 min off

5.1 MHz CW

↗
began
1 second
early

Date	June 10, 2019
Timestamp Start (UTC)	204800
Timestamp End (UTC)	205500

Determined that off-tripping was being caused by the external generators

Waveform Generator 1		
	Amplitude	Phase
Channel 1	-0.3	258
Channel 2		0
Channel 3		13
Channel 4		258

Waveform Generator 2		
	Amplitude	Phase
Channel 1	-0.3	303
Channel 2		348
Channel 3		57
Channel 4		303

→ vlad
→ 16-17

CW 5.1MHz

30s on
30s off

Date	June 10, 2019
Timestamp Start (UTC)	210000
Timestamp End (UTC)	215455

↖ began
1 second
early

Waveform Generator 1		
	Amplitude	Phase
Channel 1	-0.3	258
Channel 2		0
Channel 3		13
Channel 4		258

Waveform Generator 2		
	Amplitude	Phase
Channel 1	-0.3	303
Channel 2		378
Channel 3		57
Channel 4		303

→ vlad
→ 17-18

5.107 hold
+
5.107 chirp } 6 min 6 min off

6 khz bw 2 hz wvf

Date	June 10, 2019
Timestamp Start (UTC)	22 00 00
Timestamp End (UTC)	22 59 00

assuming
1 second
early, osc

11 03 - shut off due to chirping not
halting after 6 min
12 44 - restarted after file adjustments
for testing.

Waveform Generator 1		
	Amplitude	Phase
Channel 1	-0.3	258
Channel 2		0
Channel 3		13
Channel 4		258

258
13
348
258

Worked & continued
start = 22 12 44

Waveform Generator 2		
	Amplitude	Phase
Channel 1	-0.3	303
Channel 2		348
Channel 3		57
Channel 4		303

0
303
57
0

→ vlad

→ 18-19 (*note that this is the file generated after we determined our radial/tangential ~~ass~~ assumptions were flawed)

wfg 1
6 min on / 6 min off cw

wfg 2
30s step $\Delta f = 0-11$ khz

Date	June 10, 2019
Timestamp Start (UTC)	230600
Timestamp End (UTC)	235500

assume
started
1 second
early

Waveform Generator 1		
	Amplitude	Phase
Channel 1	0	0
Channel 2		↑
Channel 3		↑
Channel 4		↑

new
seq phases



258

13

348

Waveform Generator 2		
	Amplitude	Phase
Channel 1	0	0
Channel 2		↑
Channel 3		↑
Channel 4		↑

0

303

57