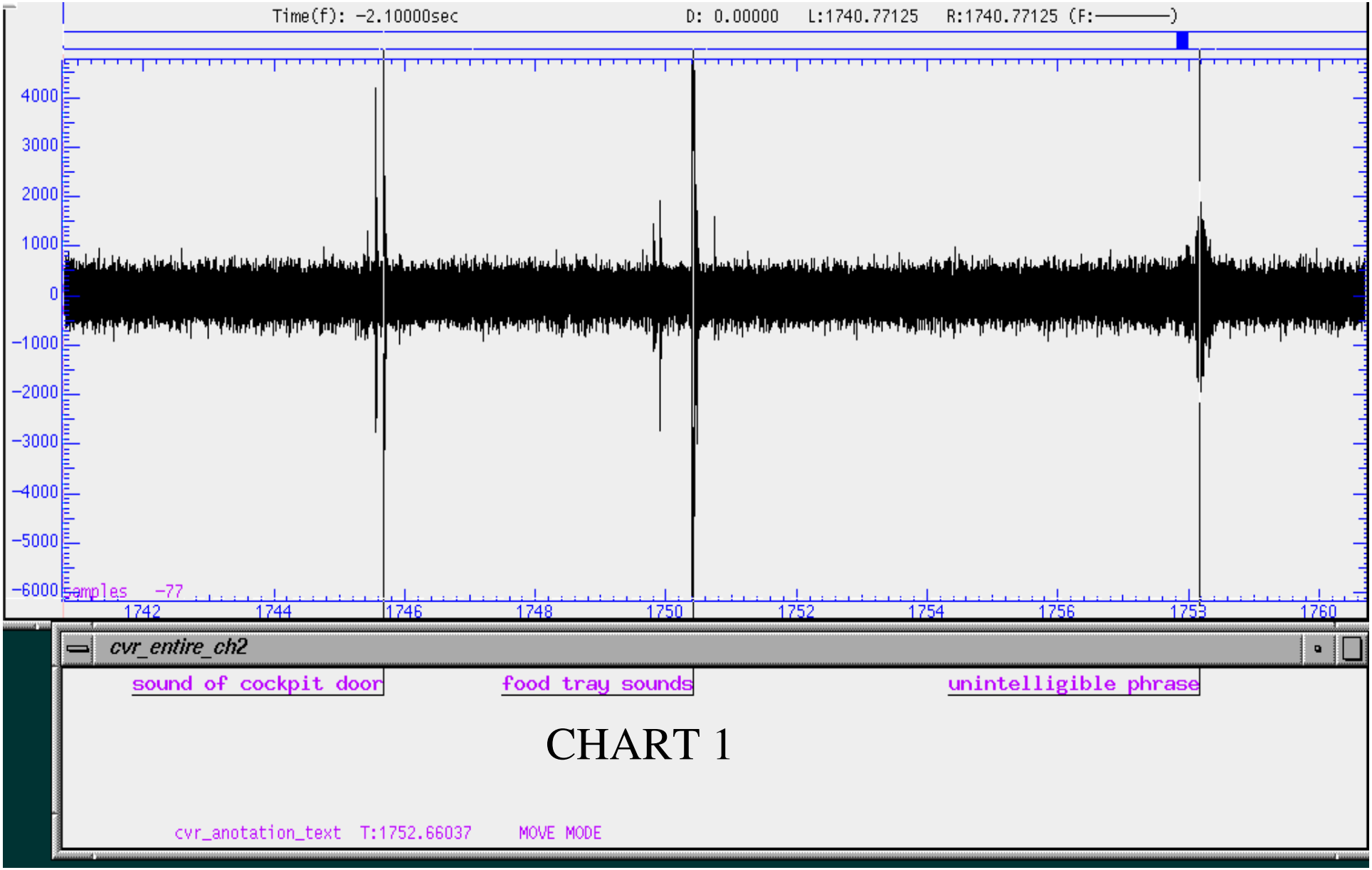


CHART 1

Time in elapsed seconds

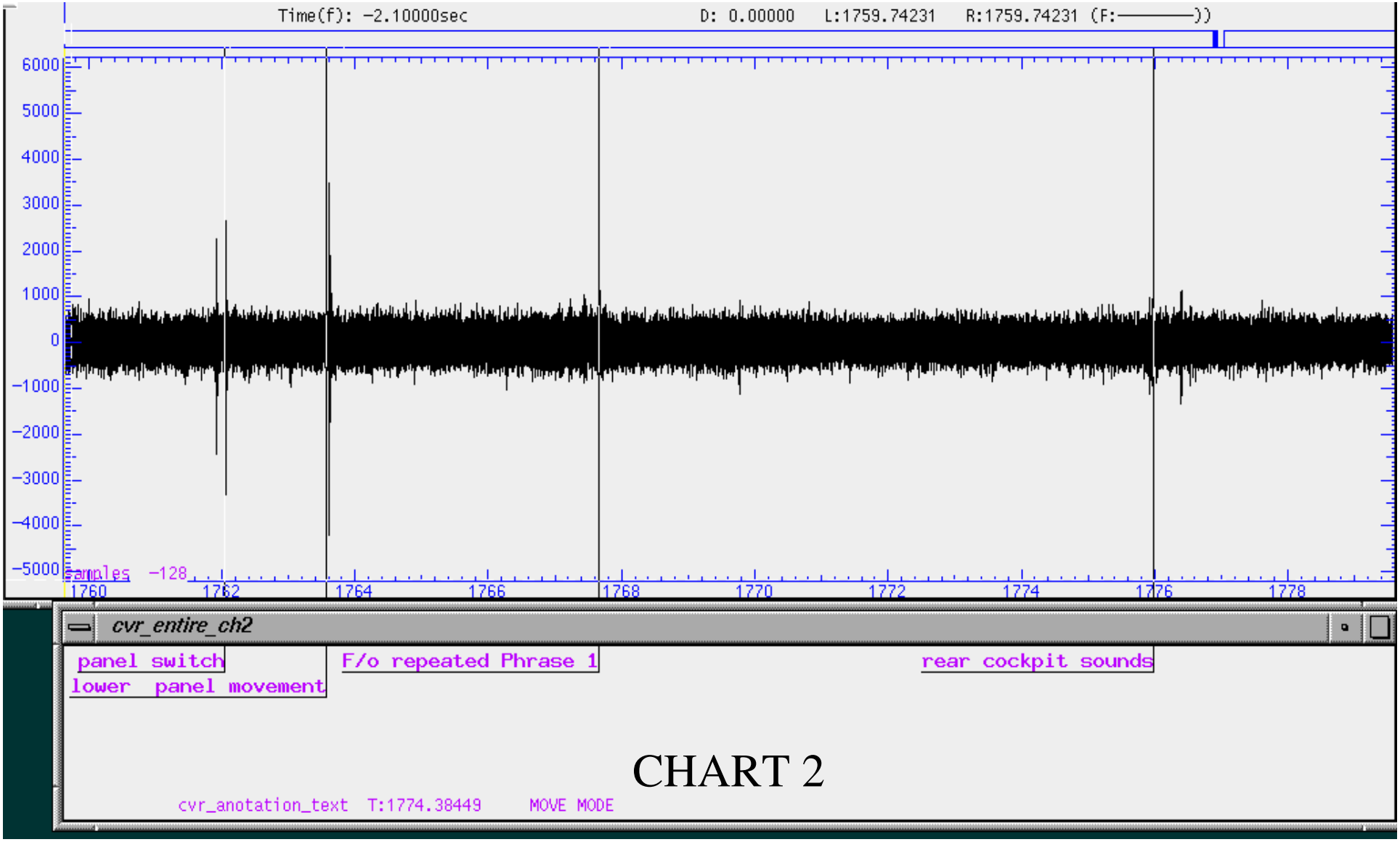


CHART 2

Time in elapsed seconds

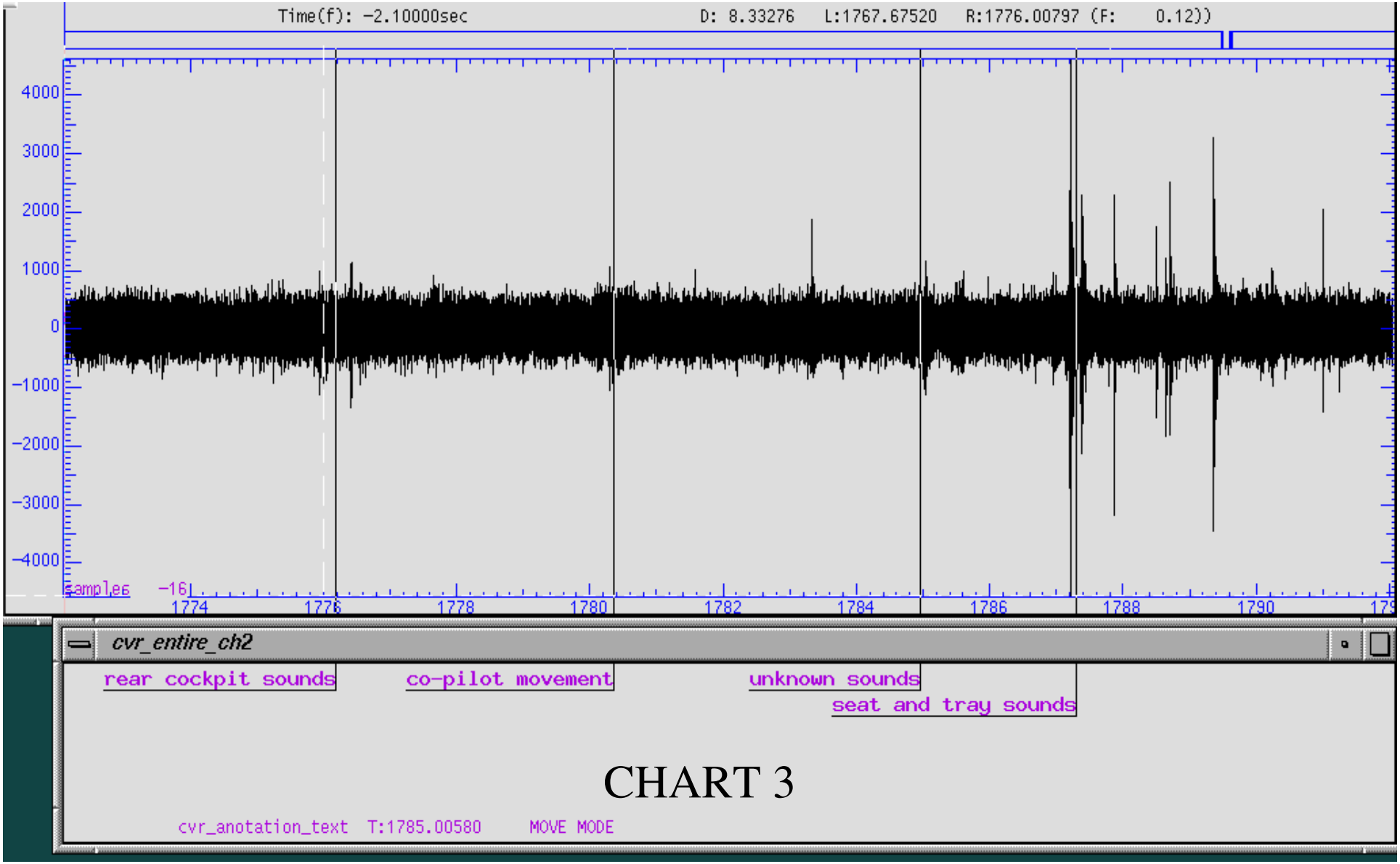


CHART 3

Time in elapsed seconds

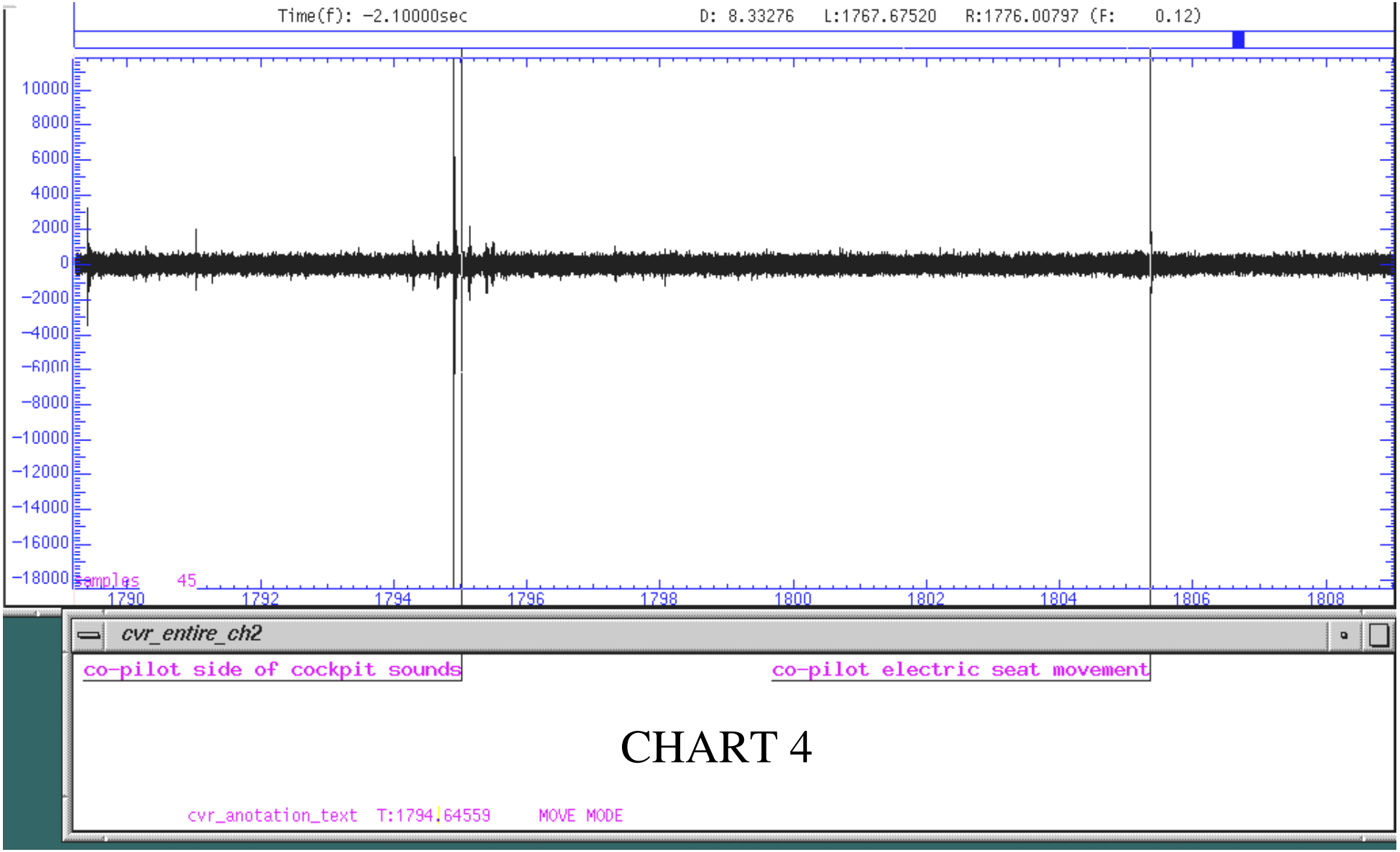
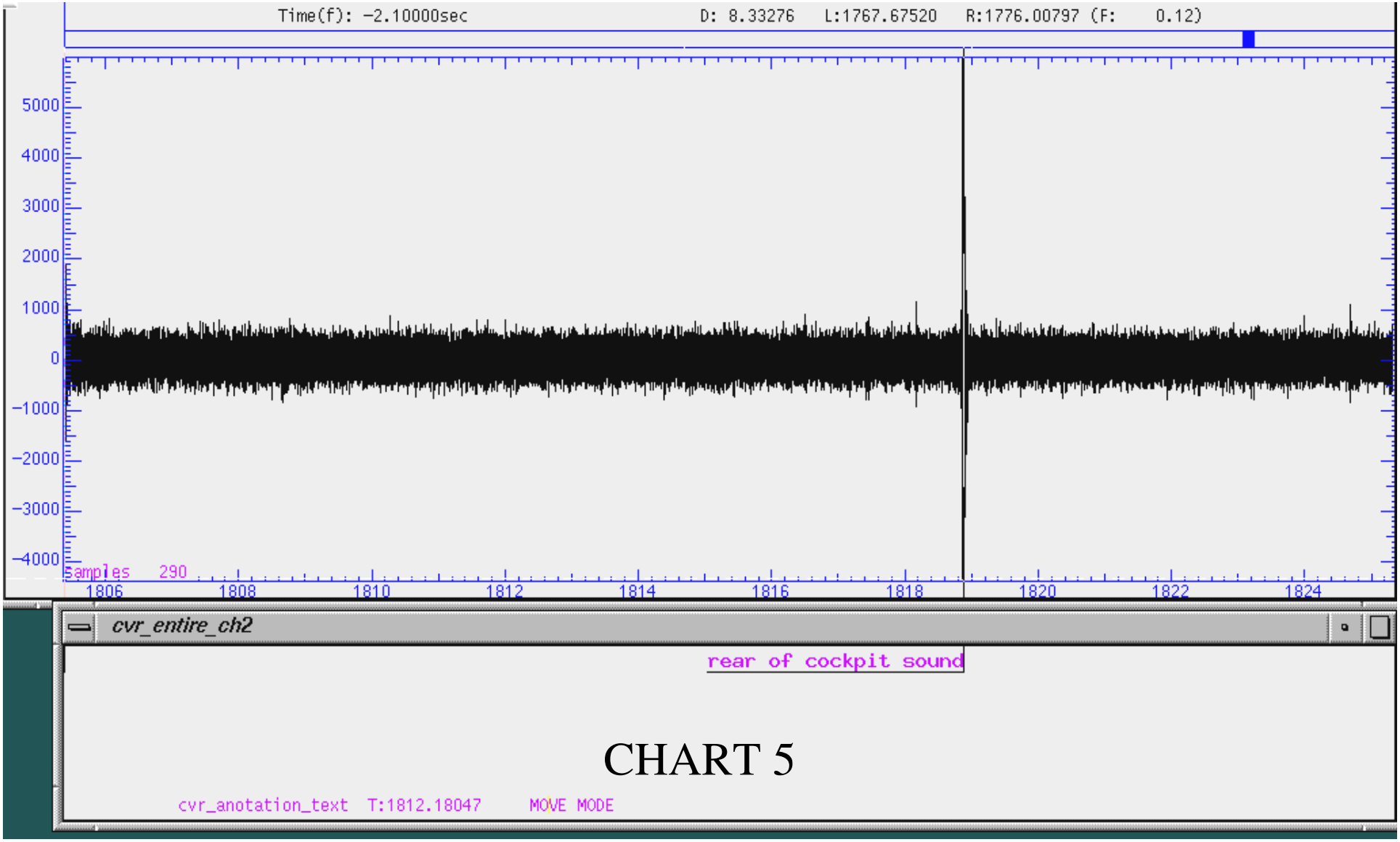


CHART 4

Time in elapsed seconds



Time in elapsed seconds

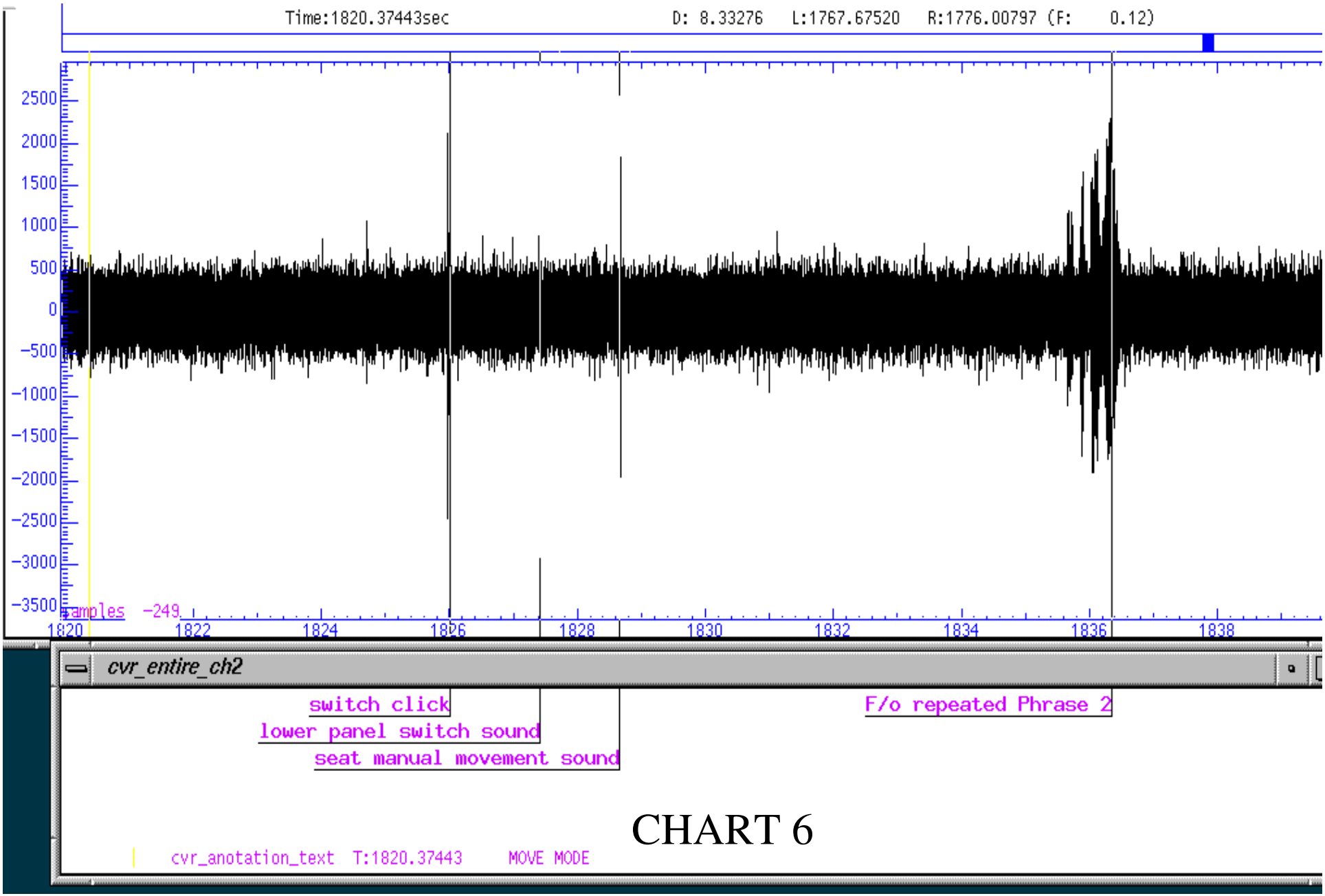


CHART 6

Time in elapsed seconds

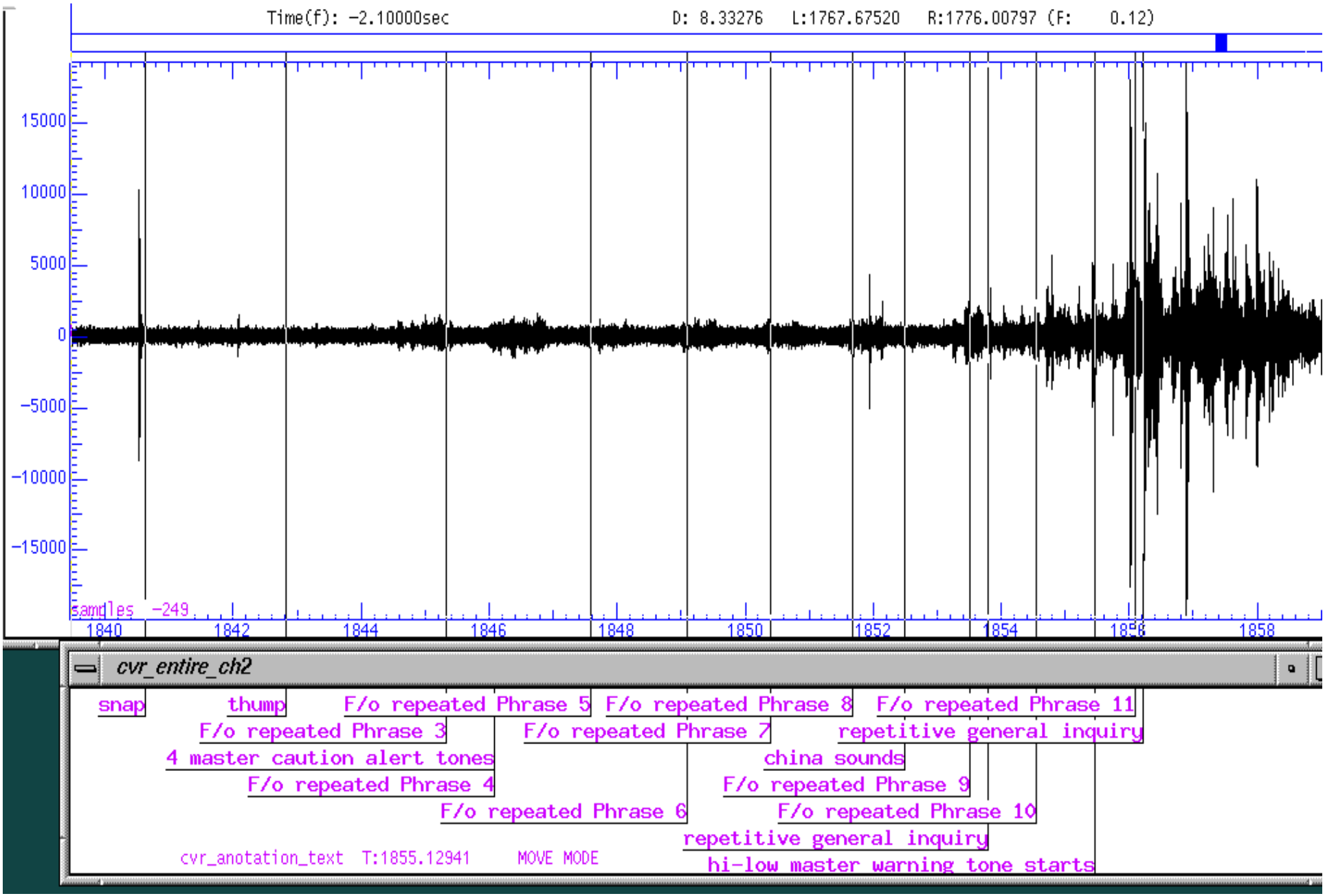


CHART 7

Time in elapsed seconds

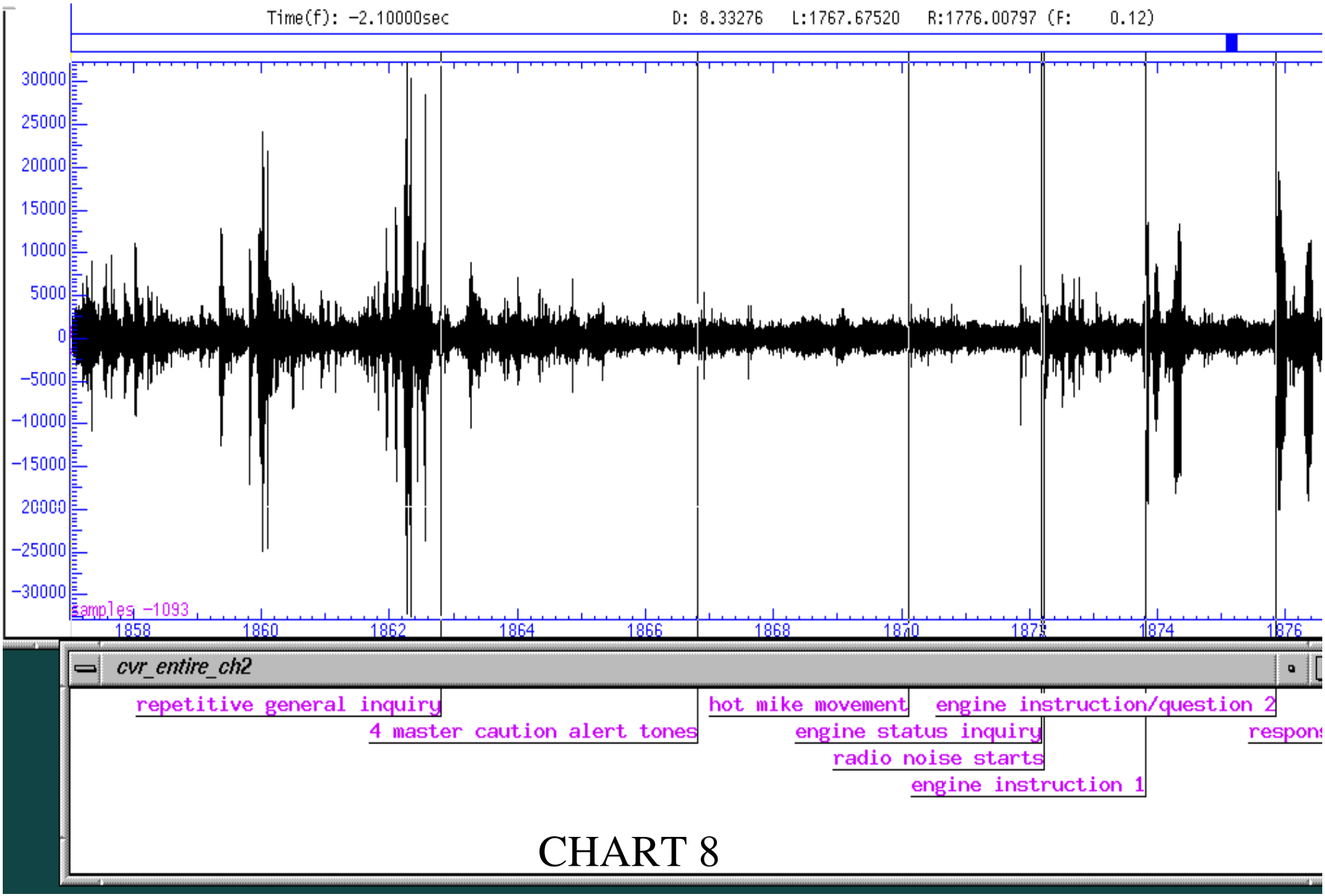


CHART 8

Time in elapsed seconds

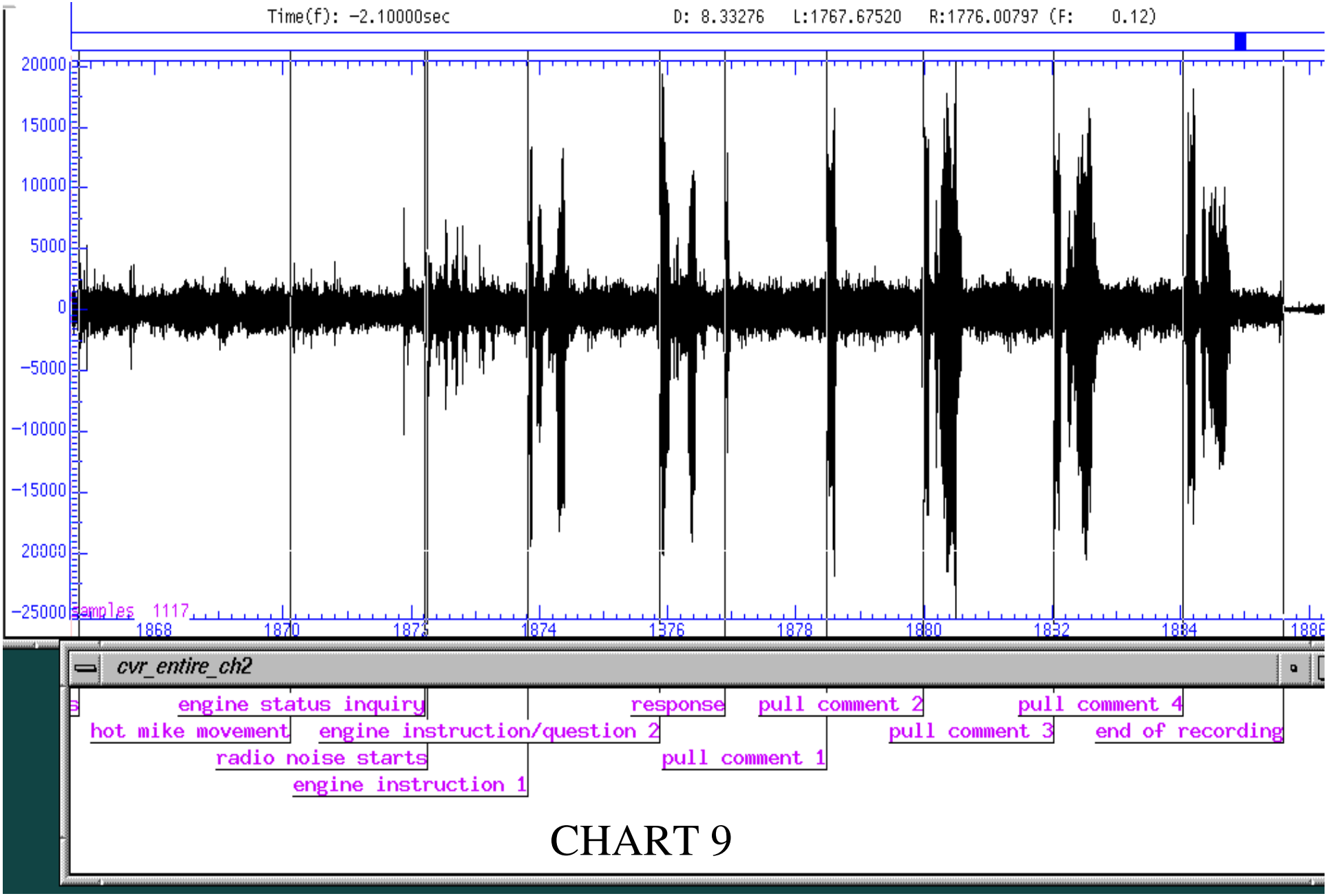
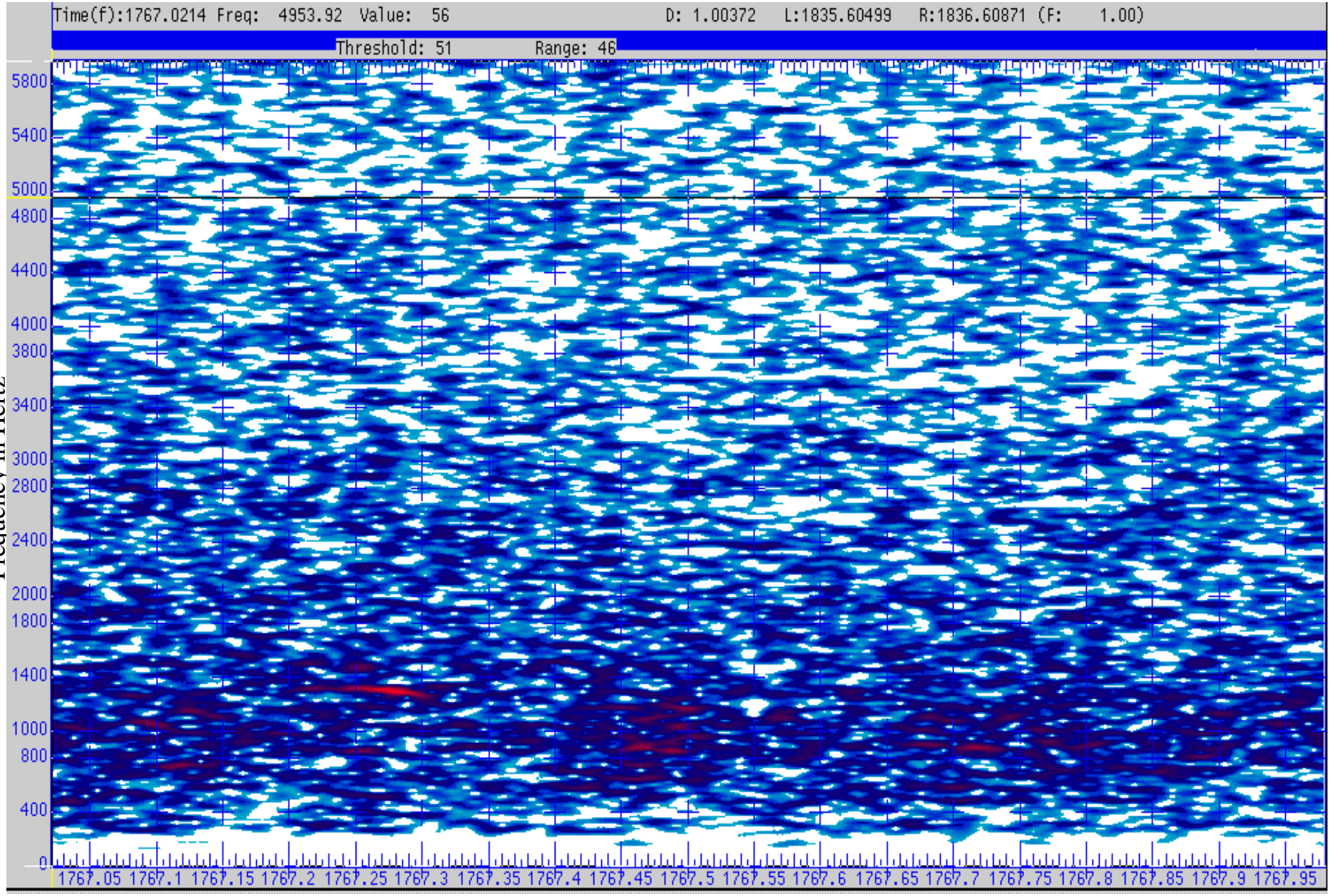


CHART 9

Time in elapsed seconds



Repeated Phrase #1 0148:39.92

CHART 10

Time in elapsed seconds

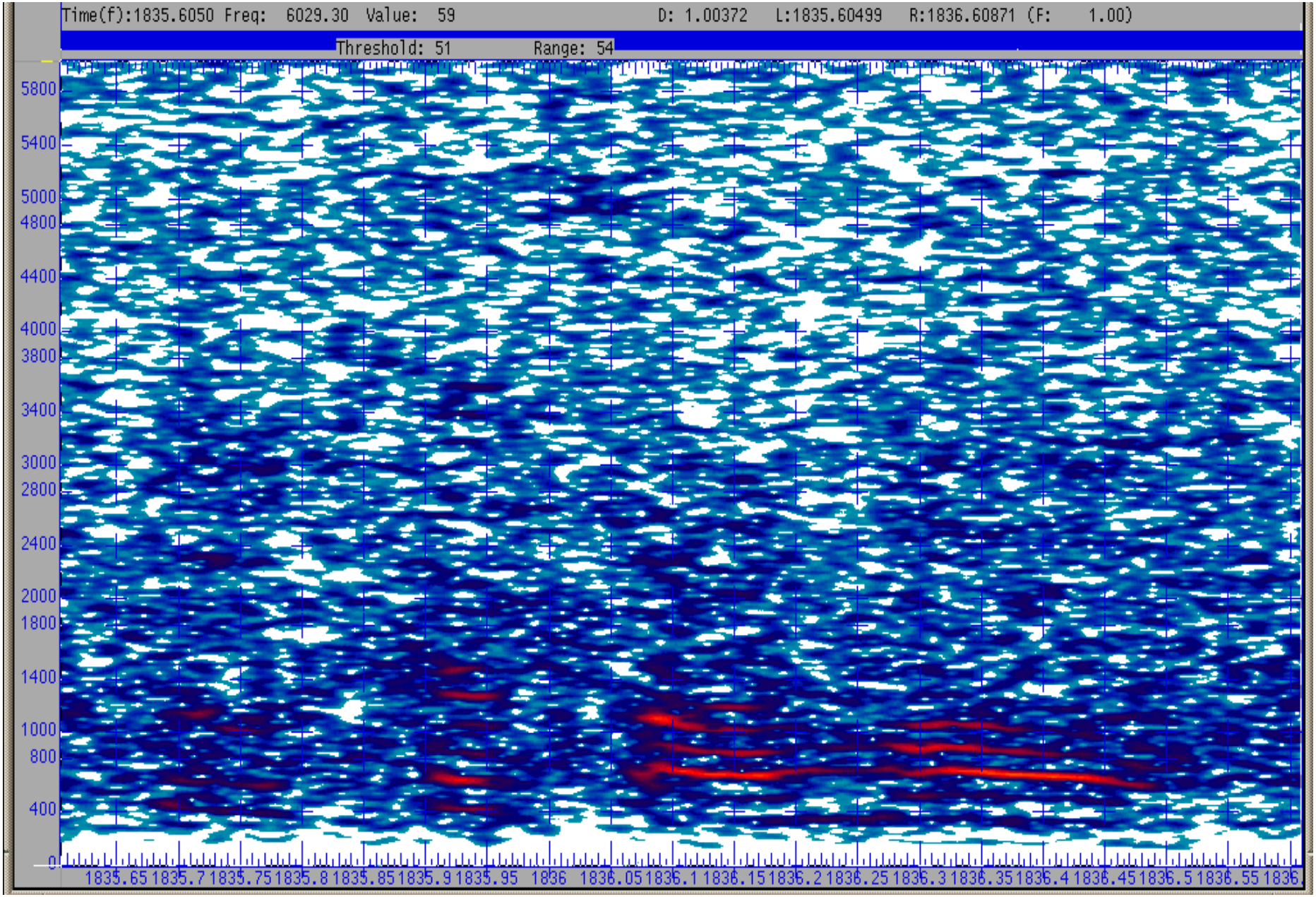
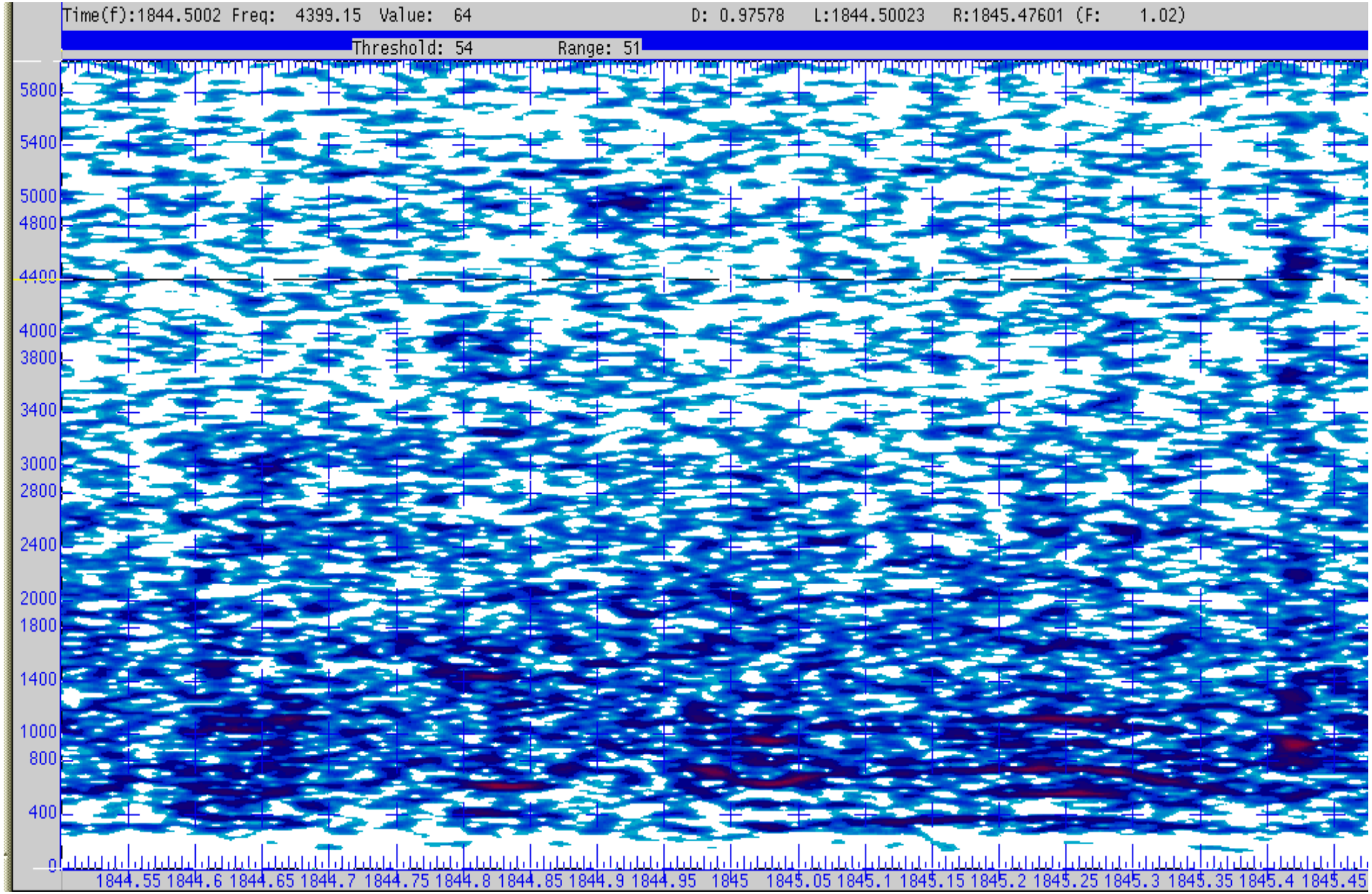


CHART 11

Repeated Phrase #2 0149:48.42

Time in elapsed seconds

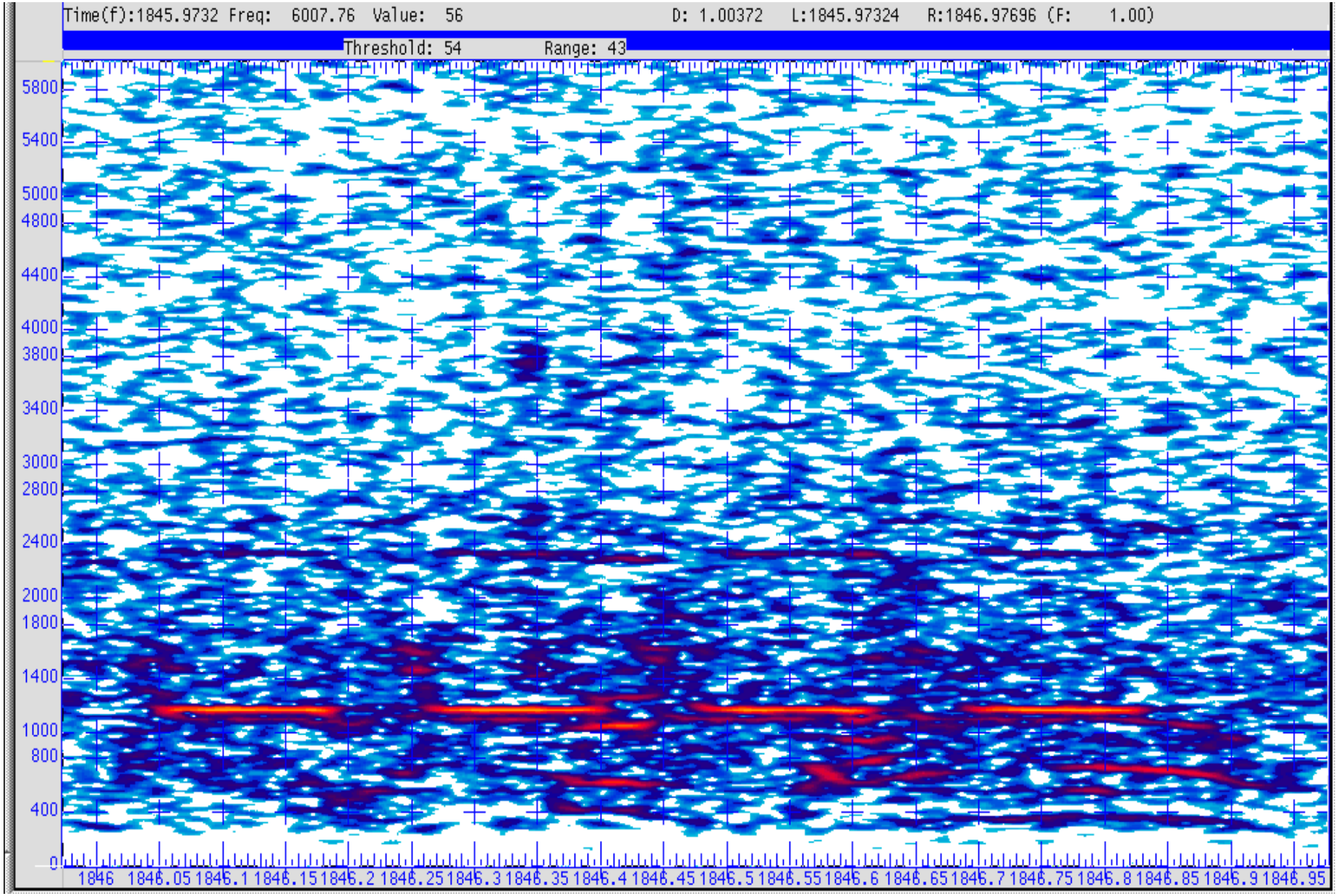


Frequency in Hertz

Repeated Phrase #3 0149:57.33

CHART 12

Time in elapsed seconds

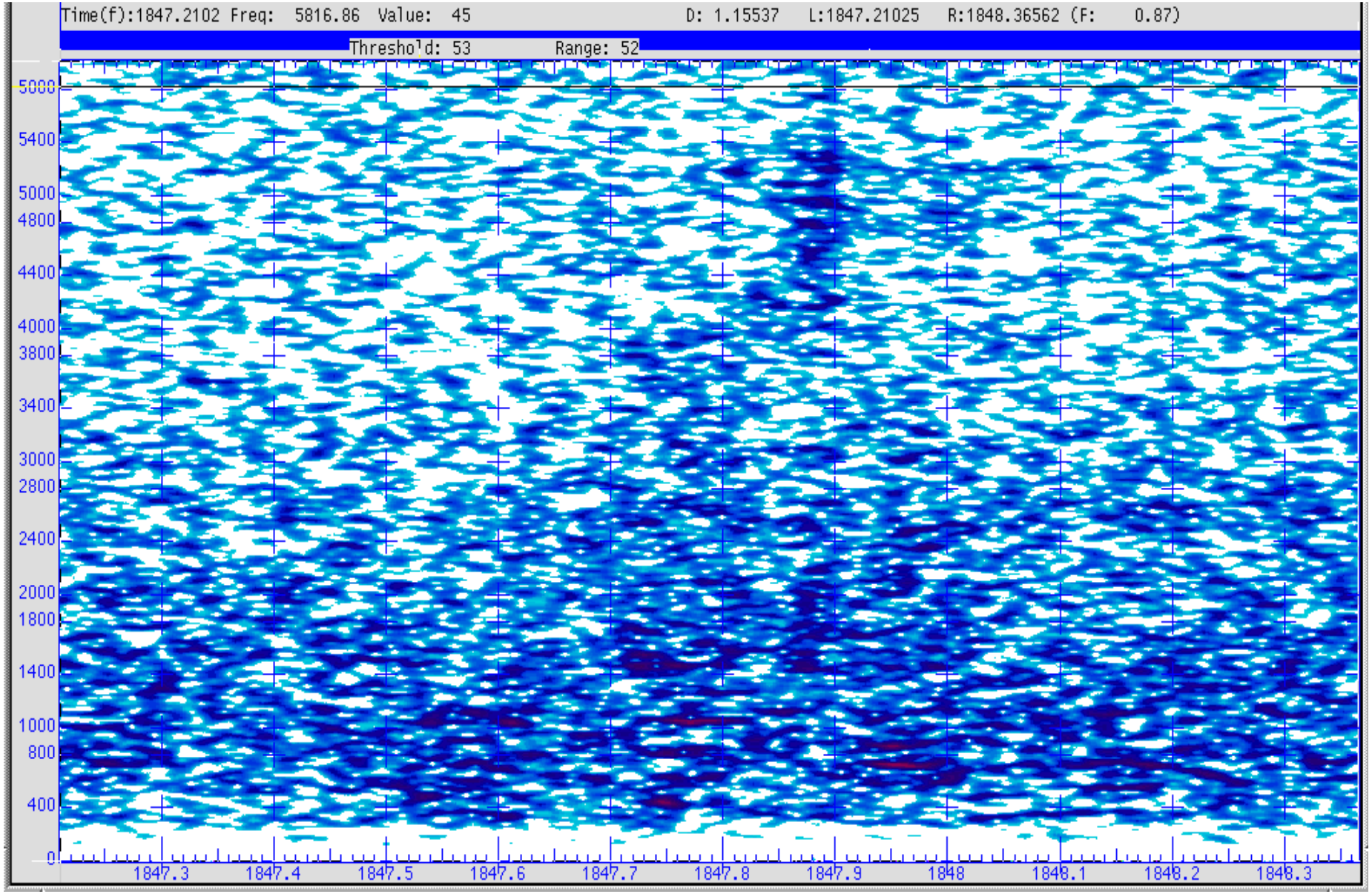


Frequency in Hertz

Repeated phrase #4 0149:58.75

CHART 13

Time in elapsed seconds

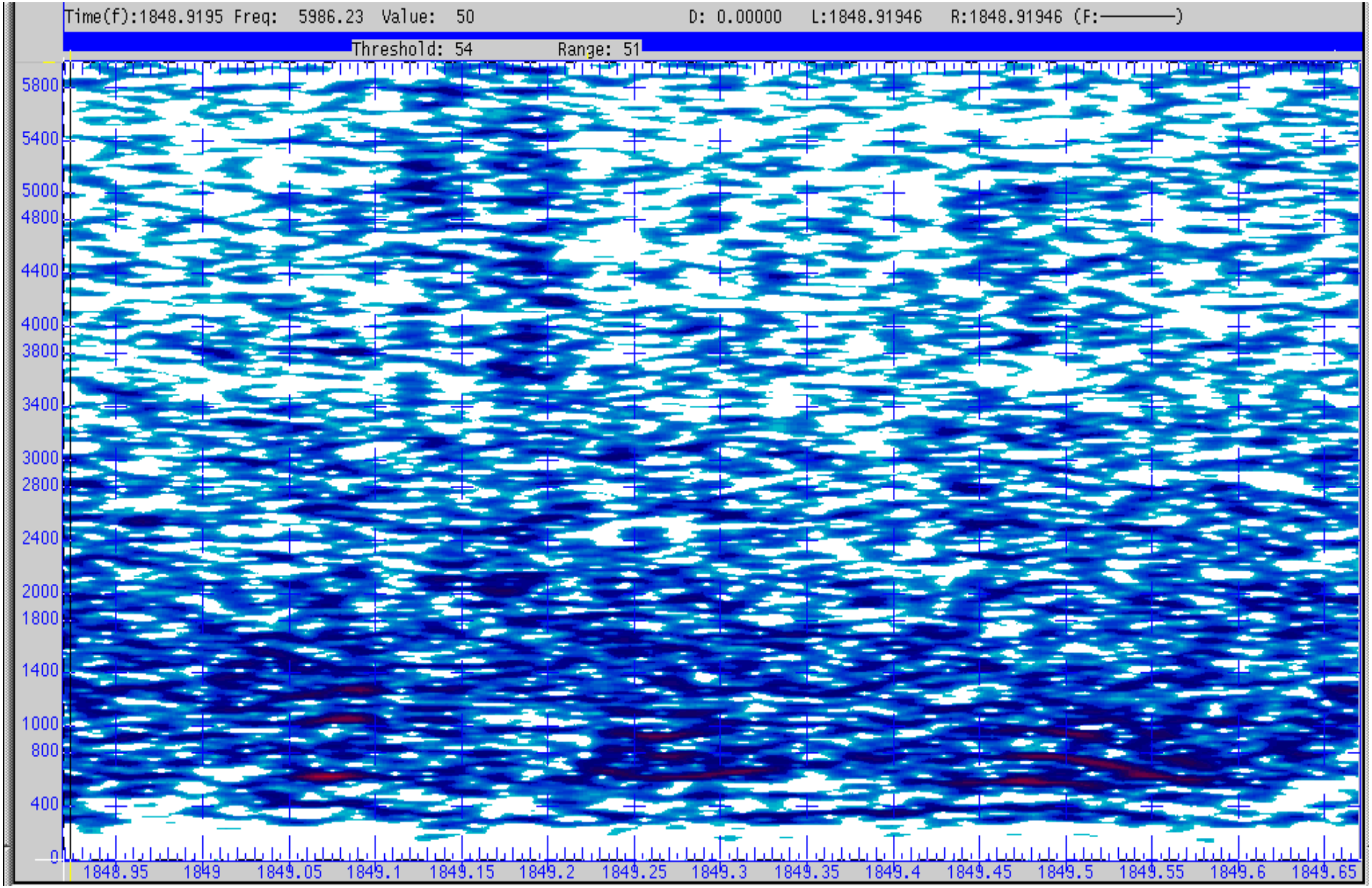


Frequency in Hertz

Repeated phrase #5 0150:00.15

CHART 14

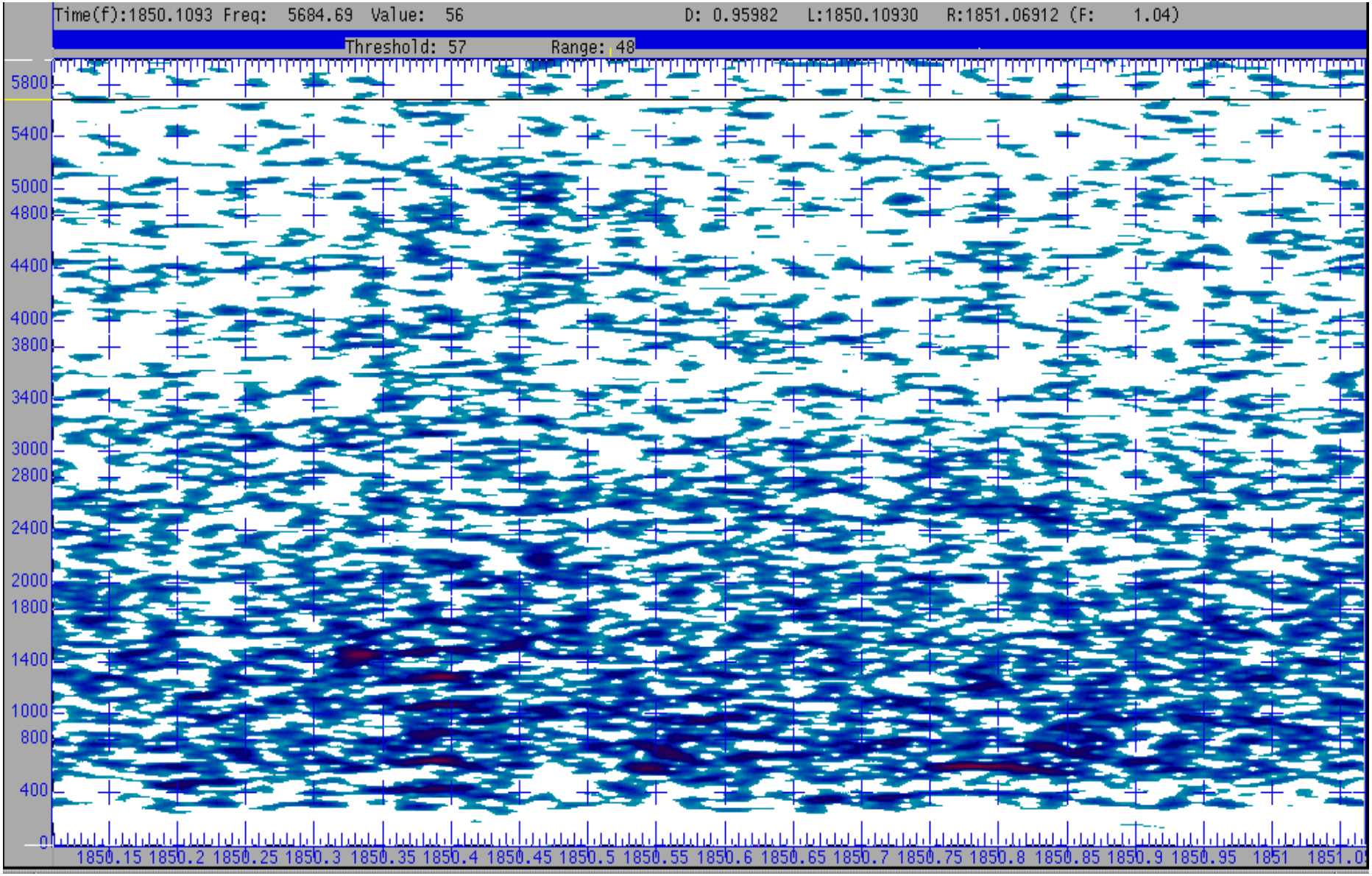
Time in elapsed seconds



Repeated phrase #6 0150:01.60

CHART 15

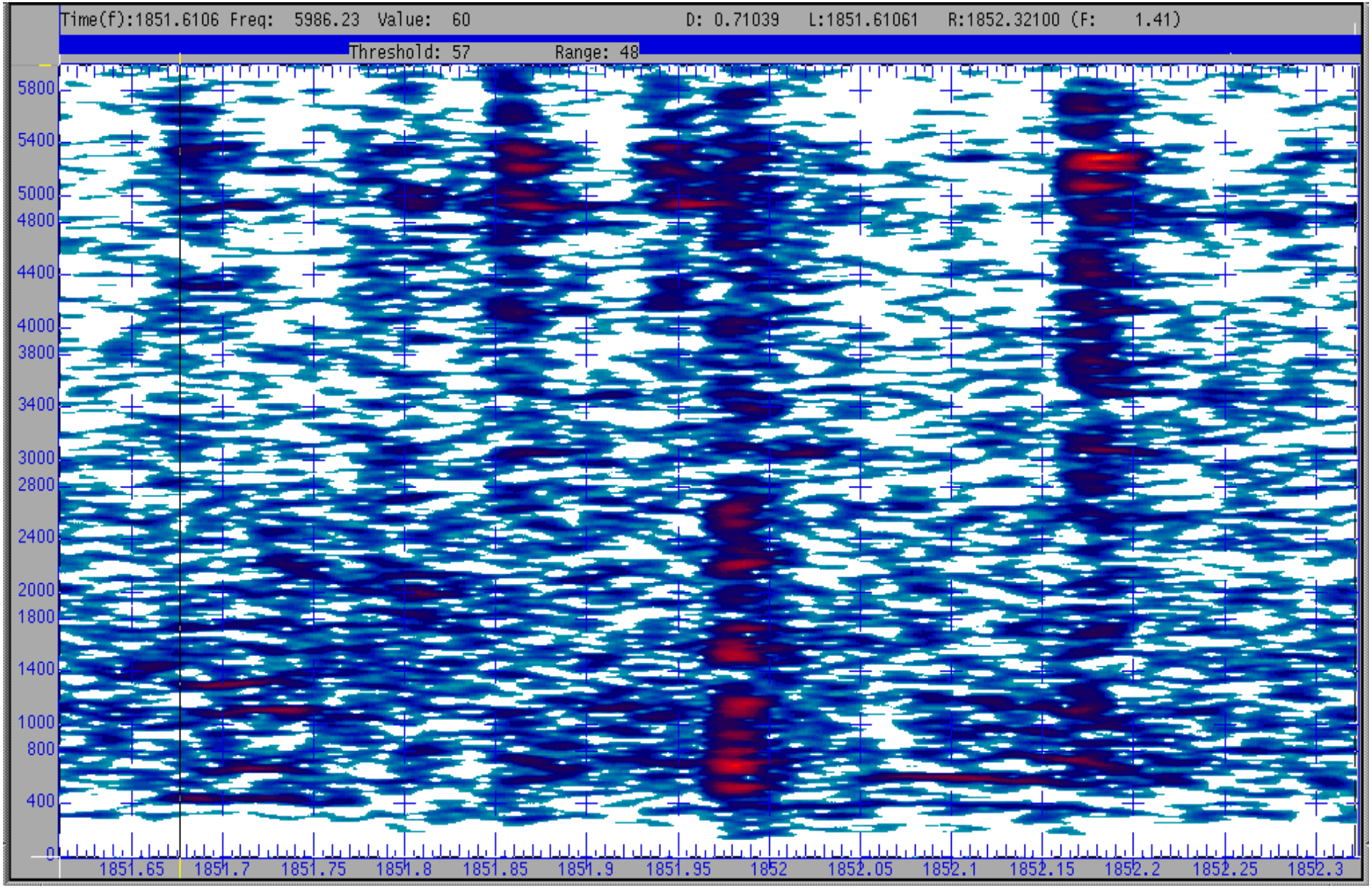
Time in elapsed seconds



Repeated Phrase #7 0150:02.93

CHART 16

Time in elapsed seconds

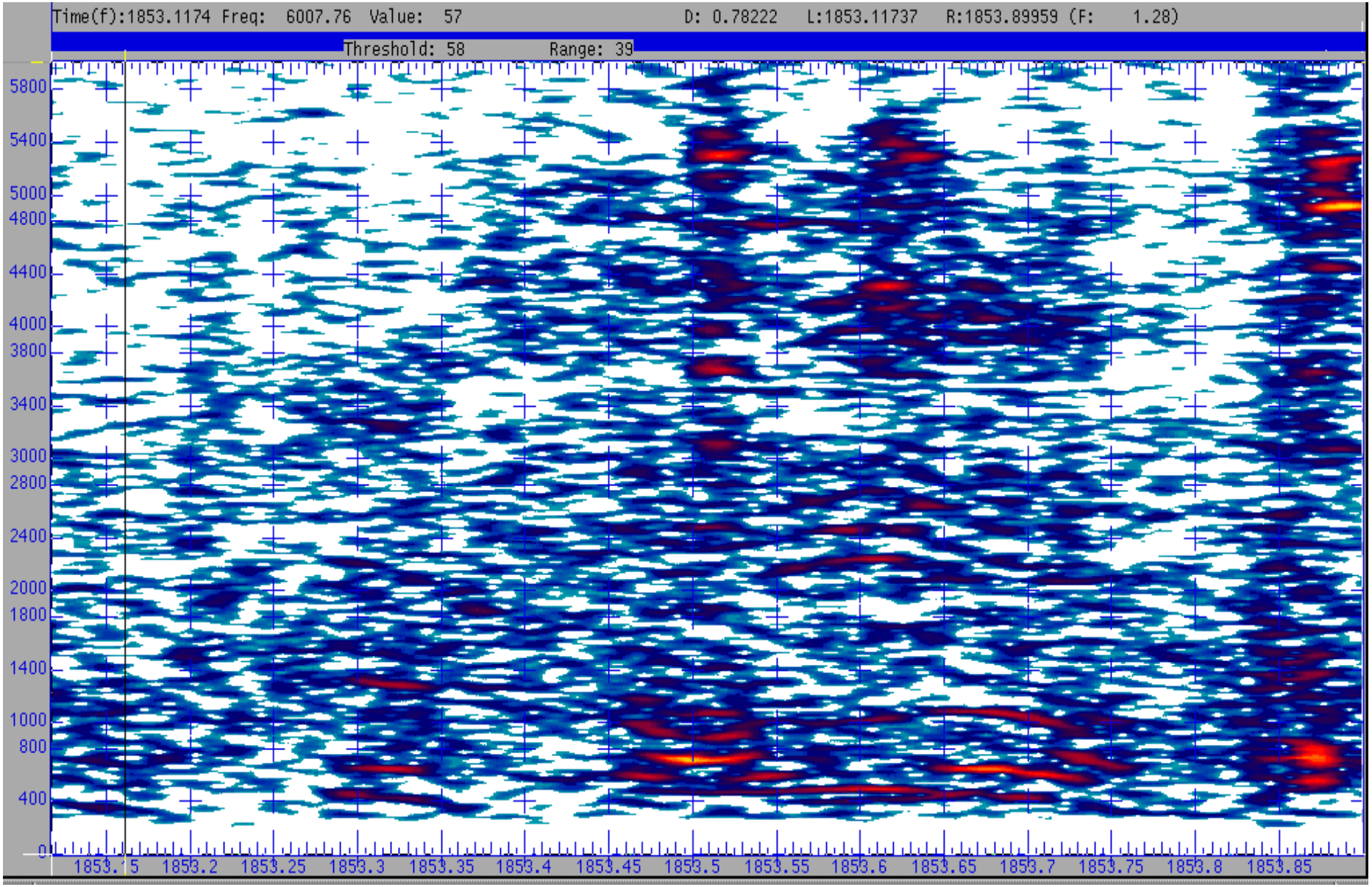


Frequency in Hertz

Repeated phrase #8 0150:04.42

CHART 17

Time in elapsed seconds

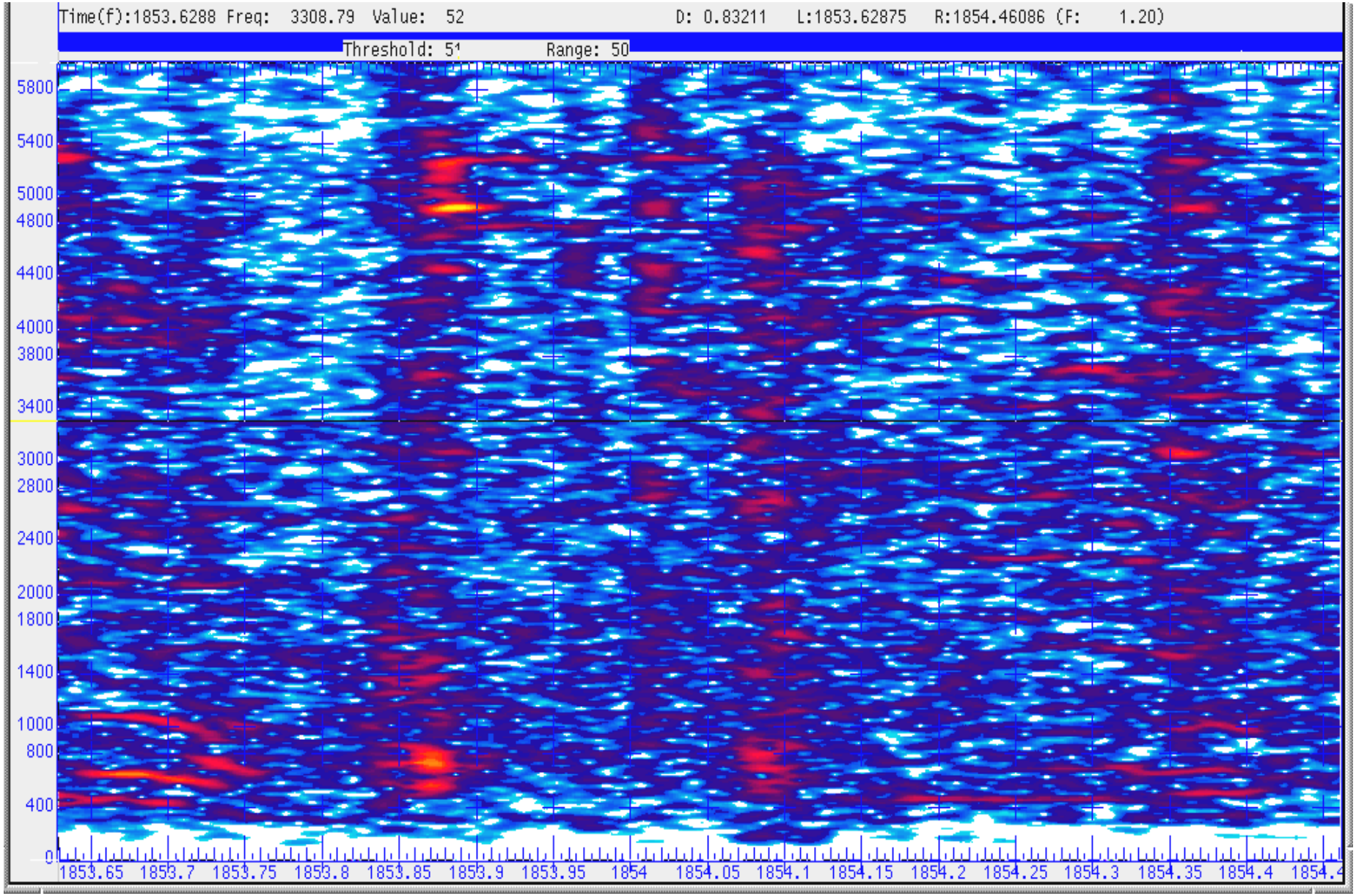


Frequency in Hertz

Repeated phrase #9 0150:05.89

CHART 18

Time in elapsed seconds

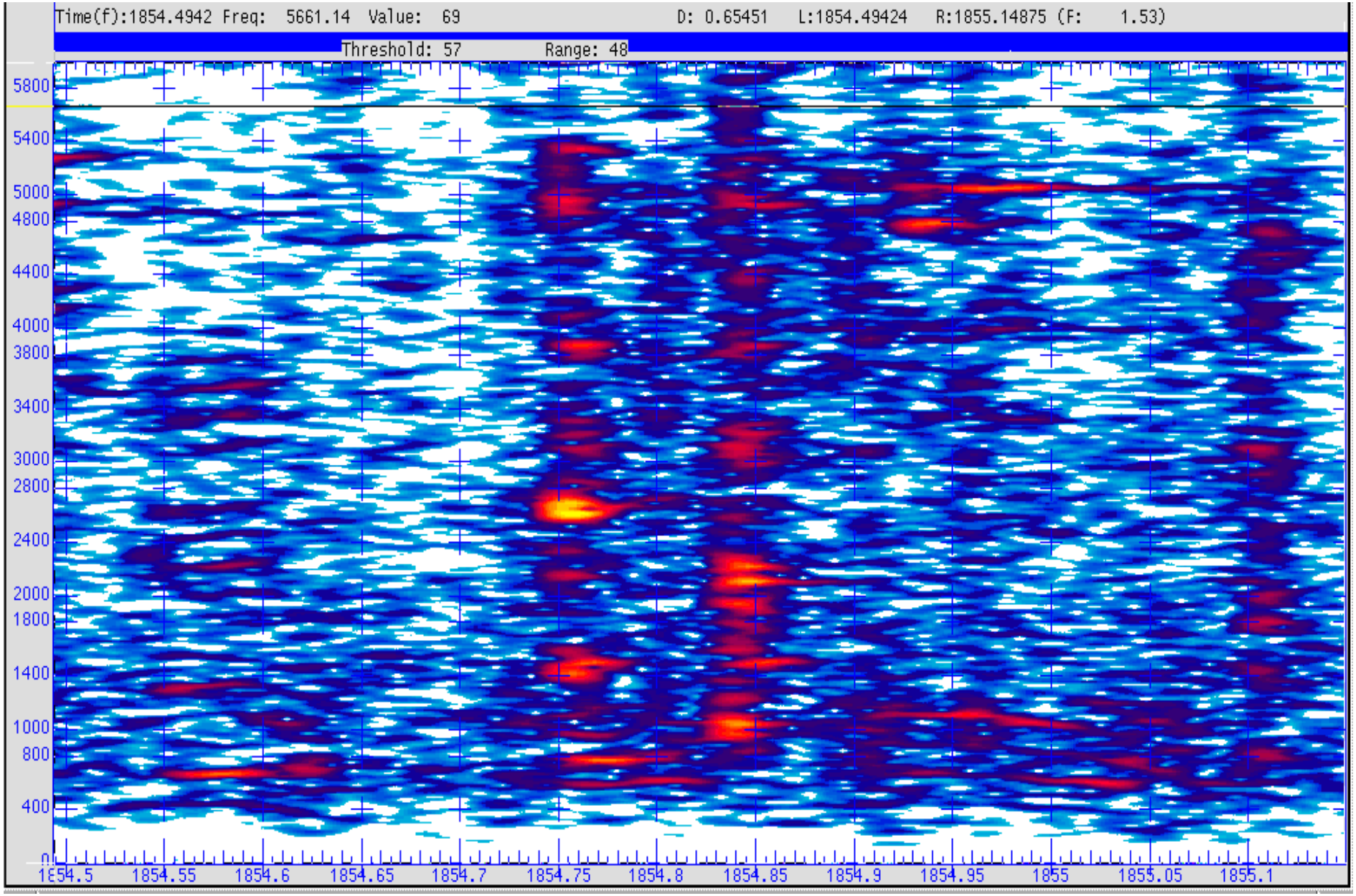


Frequency in Hertz

Repetitive General Inquiry 0150:06.37

CHART 19

Time in elapsed seconds

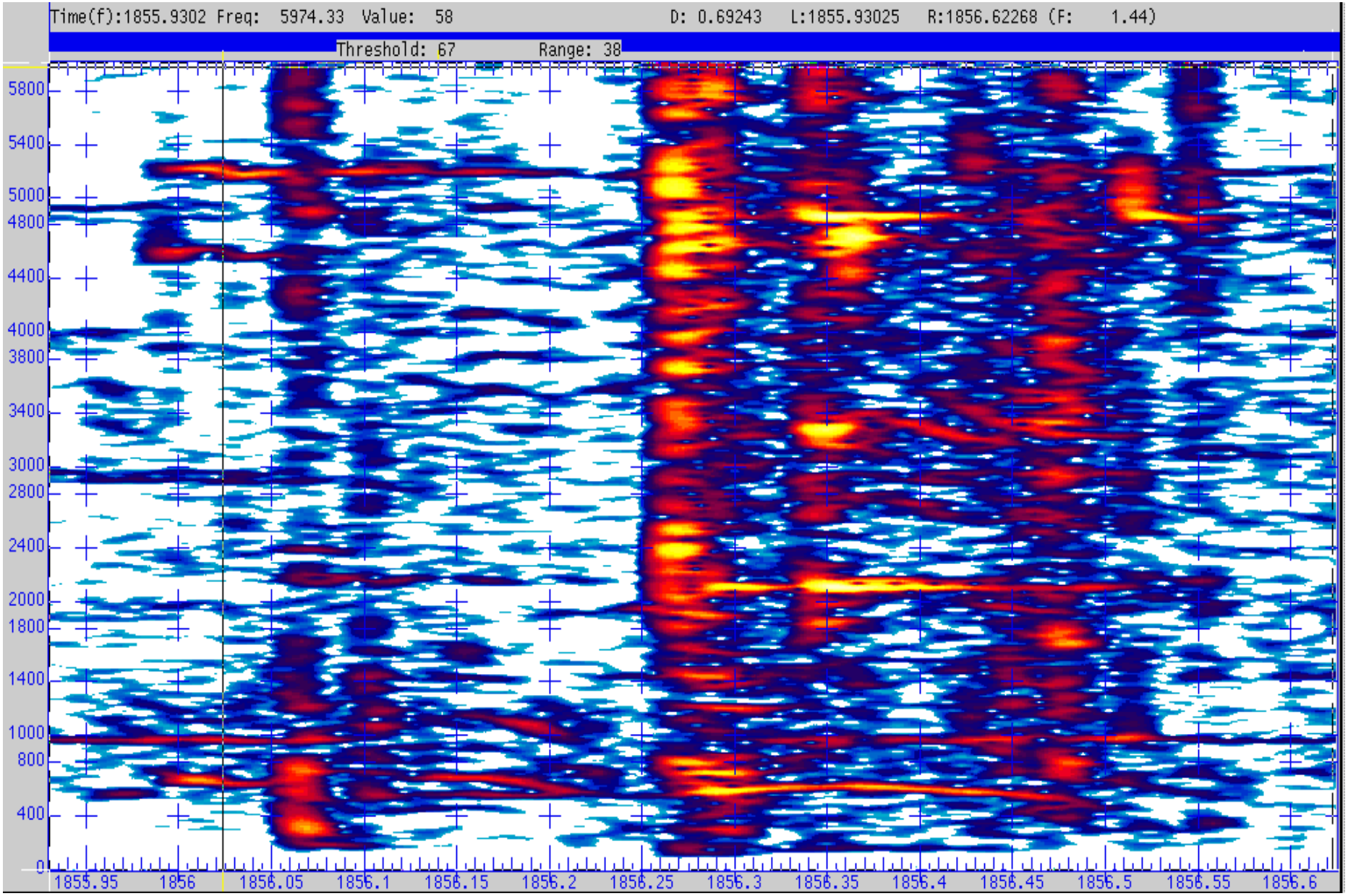


Frequency in Hertz

CHART 20

Repeated phrase #10 0150:07.07

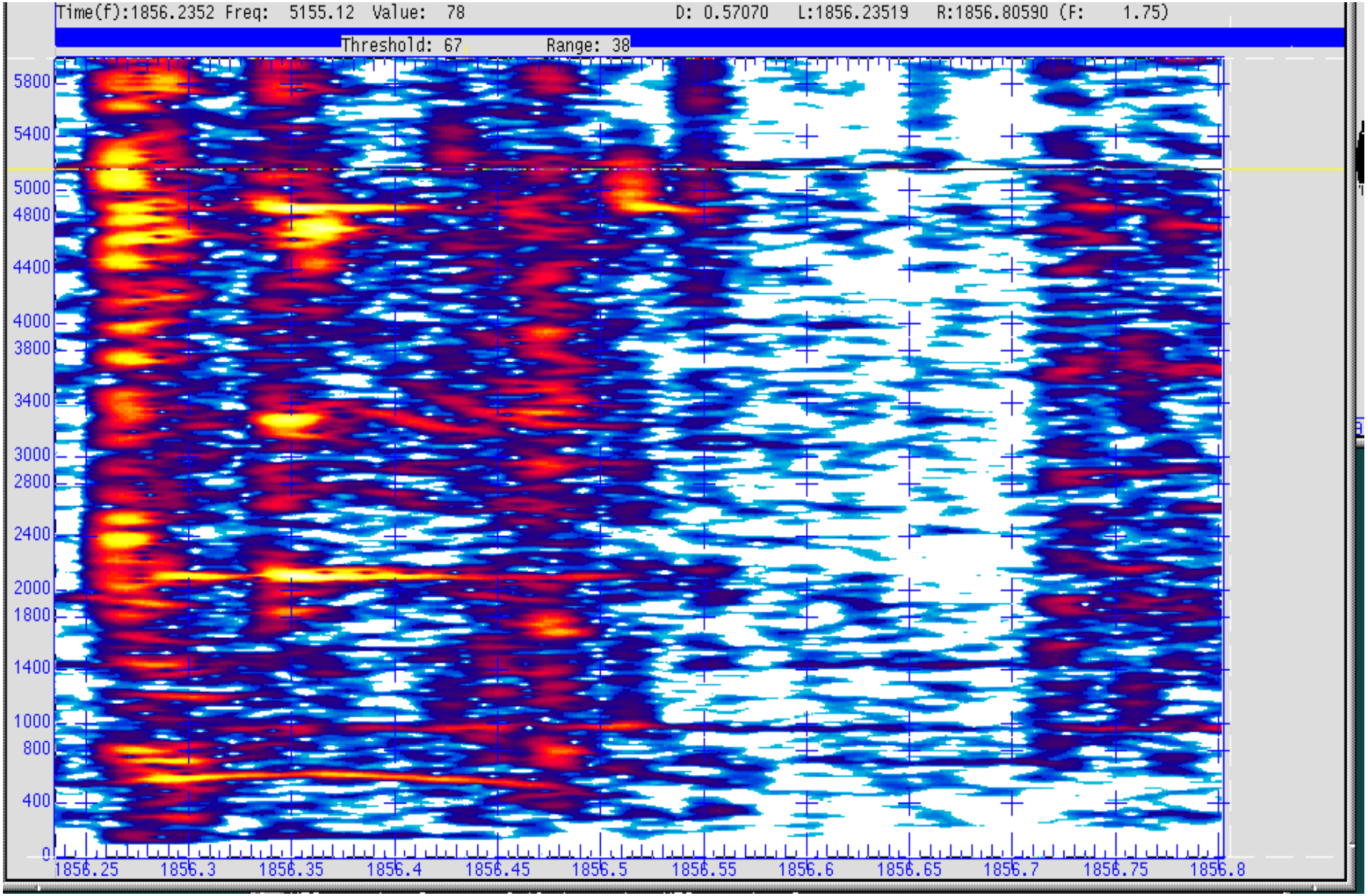
Time in elapsed seconds



Repeated phrase # 11 0150:08.48

CHART 21

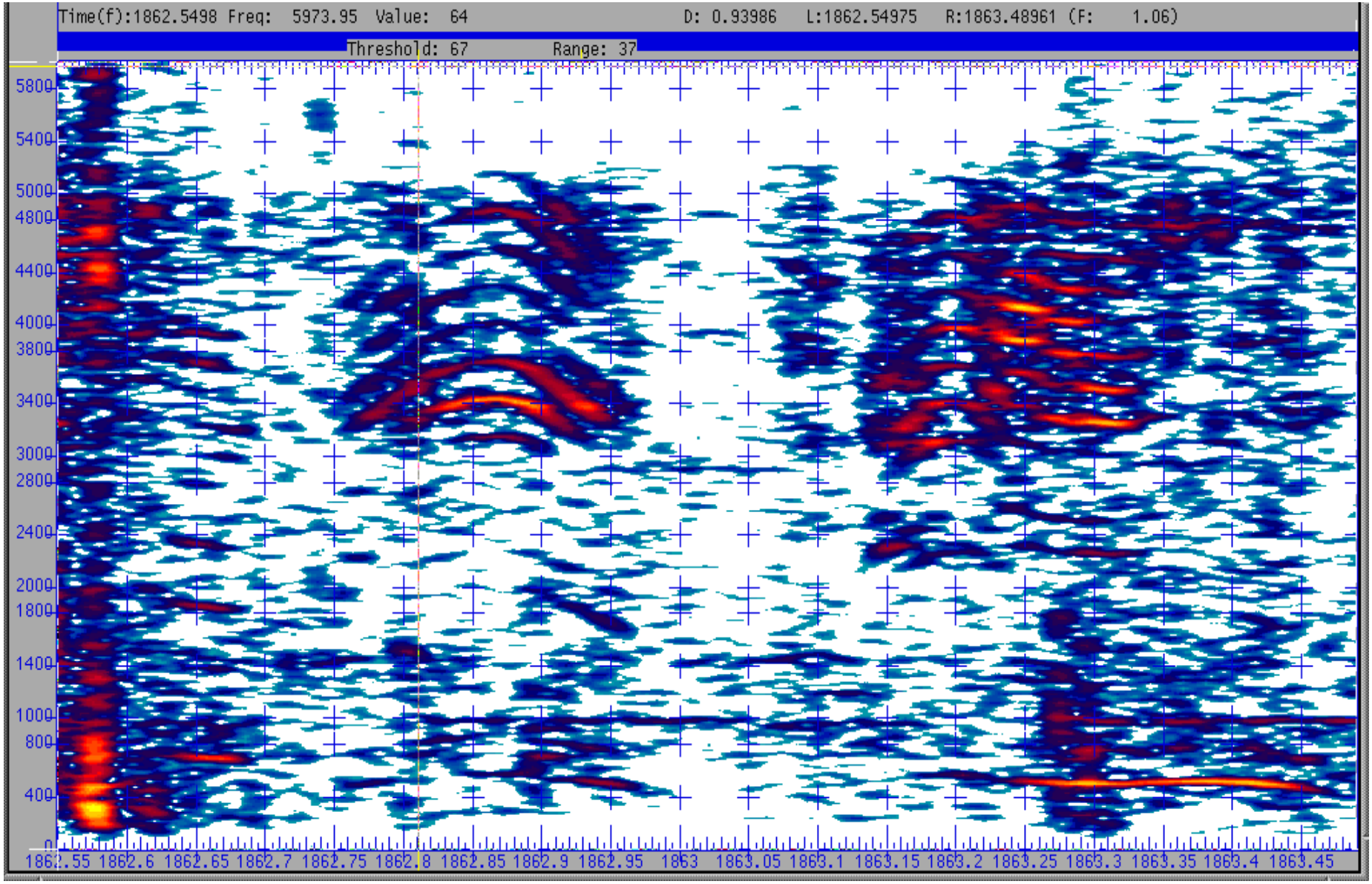
Time in elapsed seconds



Repetitive general inquiry 0150:08.53

CHART 22

Time in elapsed seconds

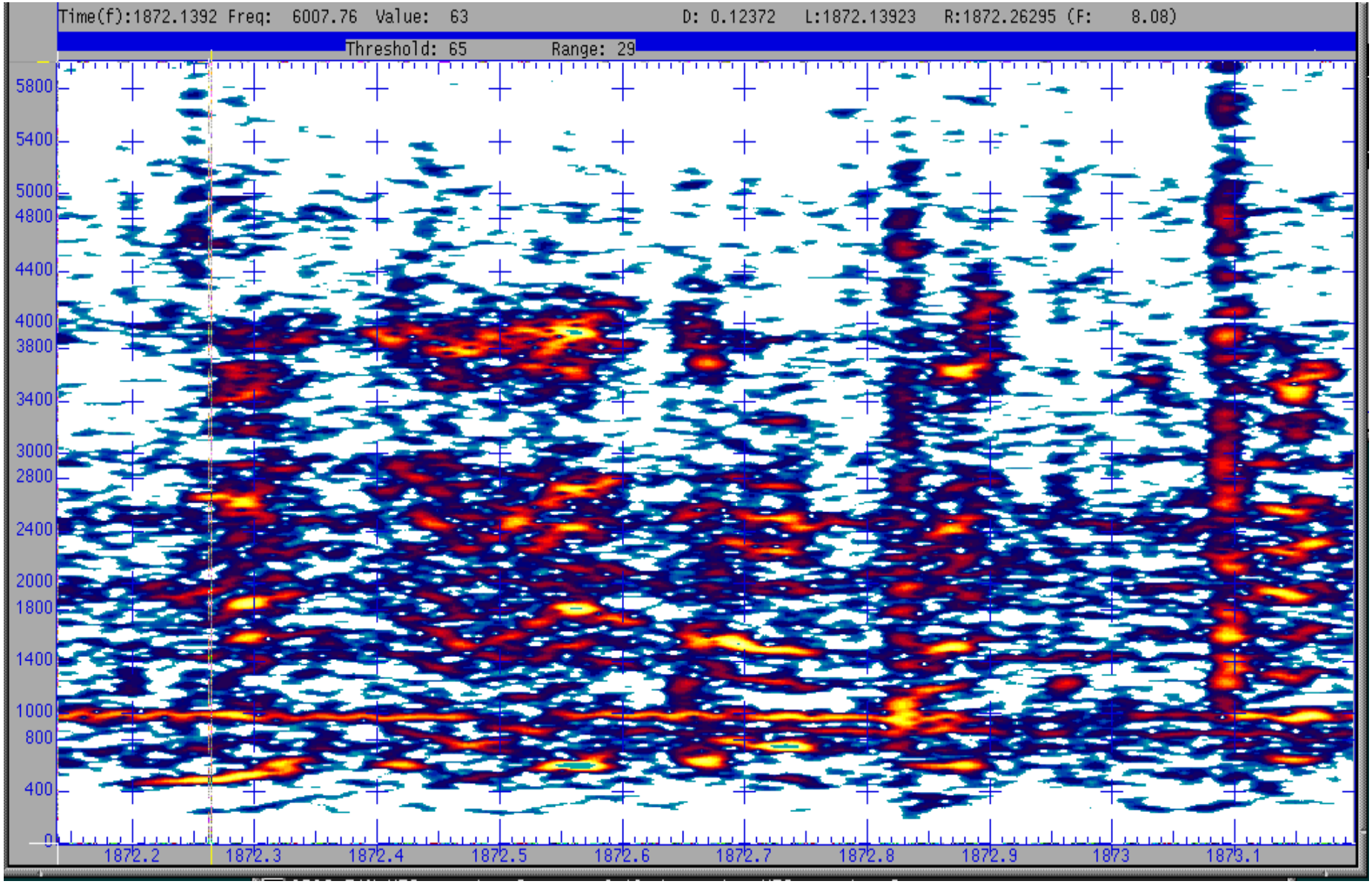


Frequency in Hertz

Repetitive general inquiry 0150:15.15

CHART 23

Time in elapsed seconds

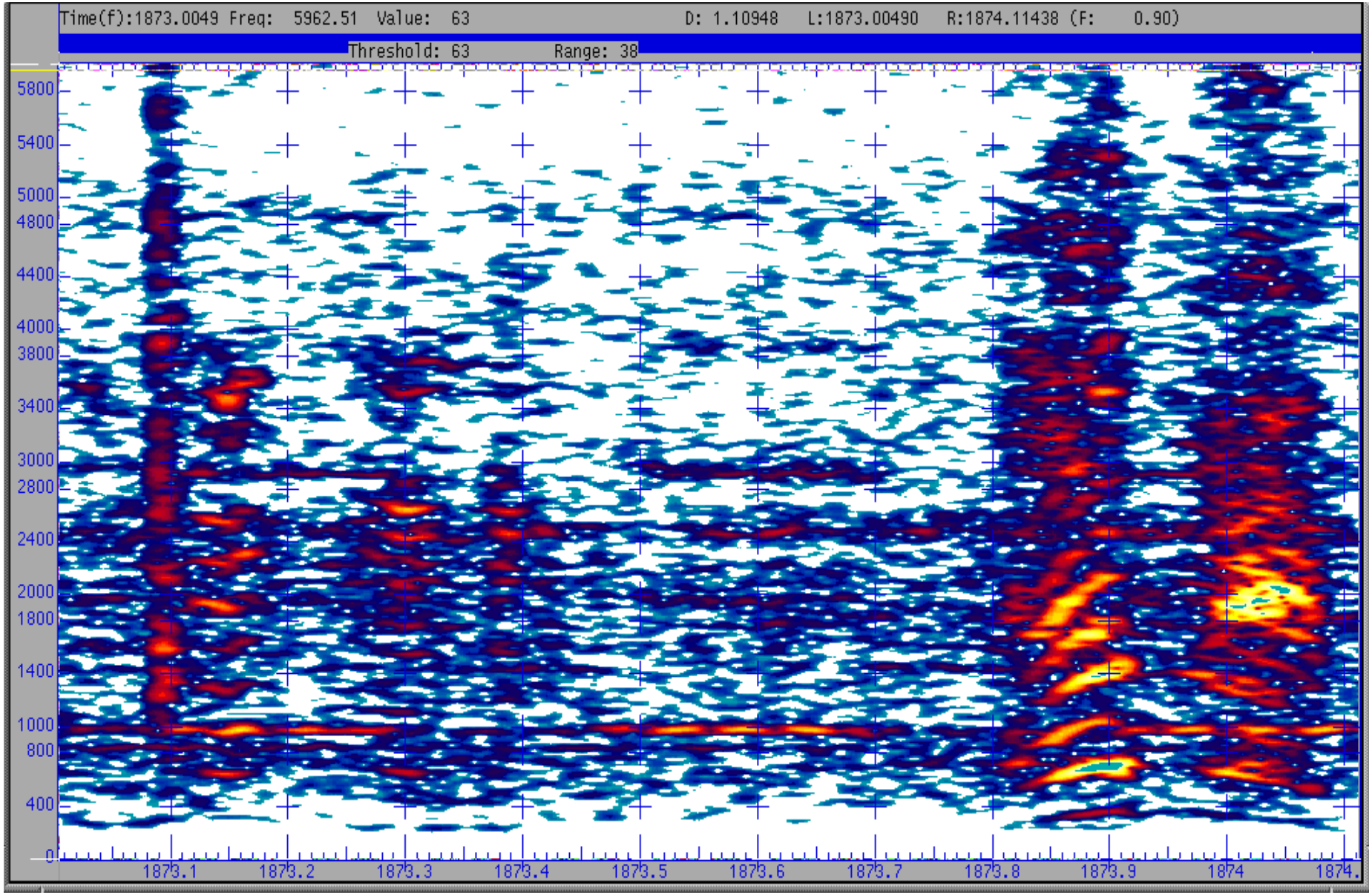


Frequency in Hertz

Engine status inquiry 0150:24.92

CHART 24

Time in elapsed seconds

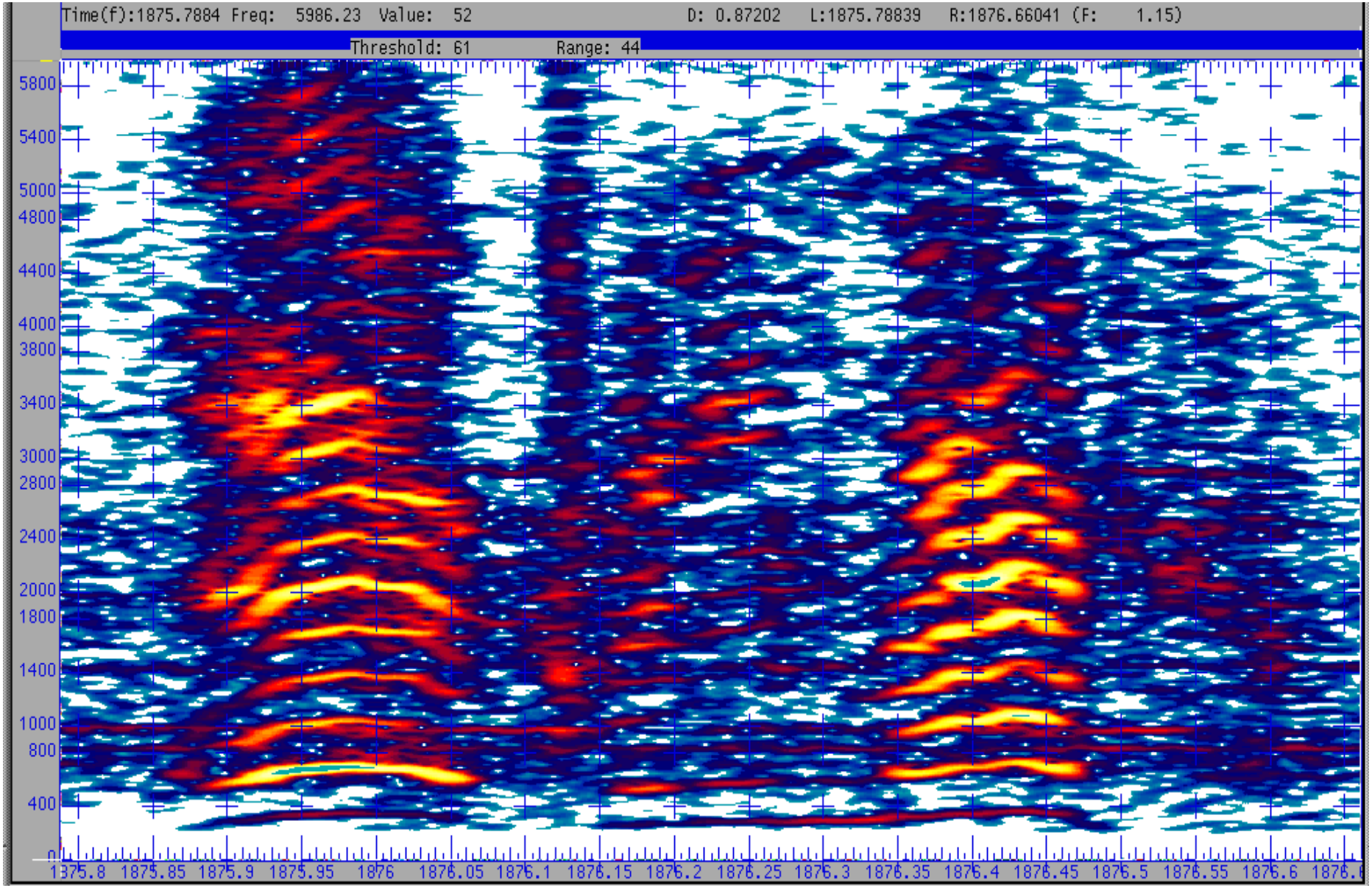


Frequency in Hertz

Engine instruction #1 0150:26.55

CHART 25

Time in elapsed seconds

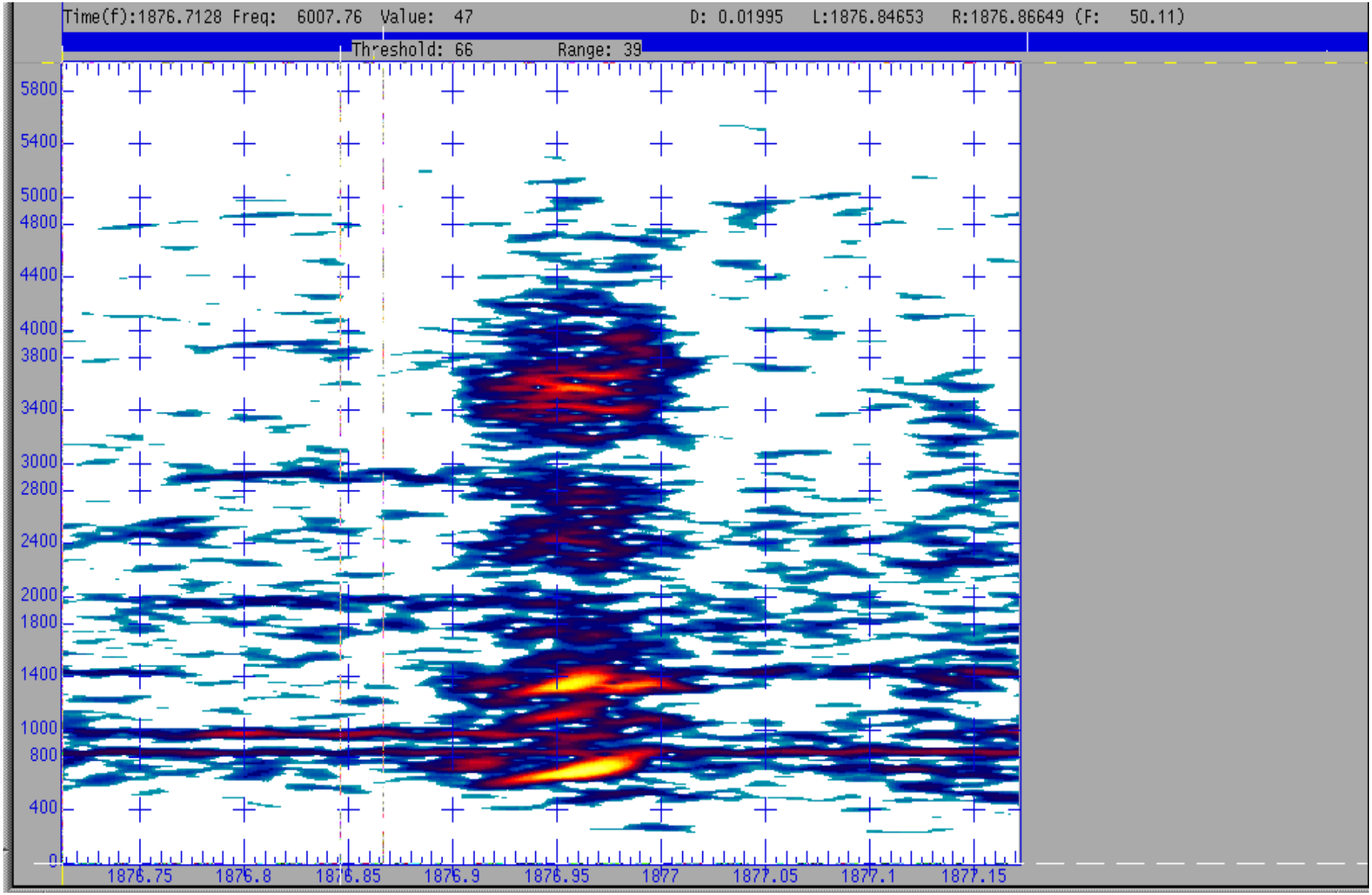


Frequency in Hertz

Engine Instruction/question #2 0150:28.85

CHART 26

Time in elapsed seconds

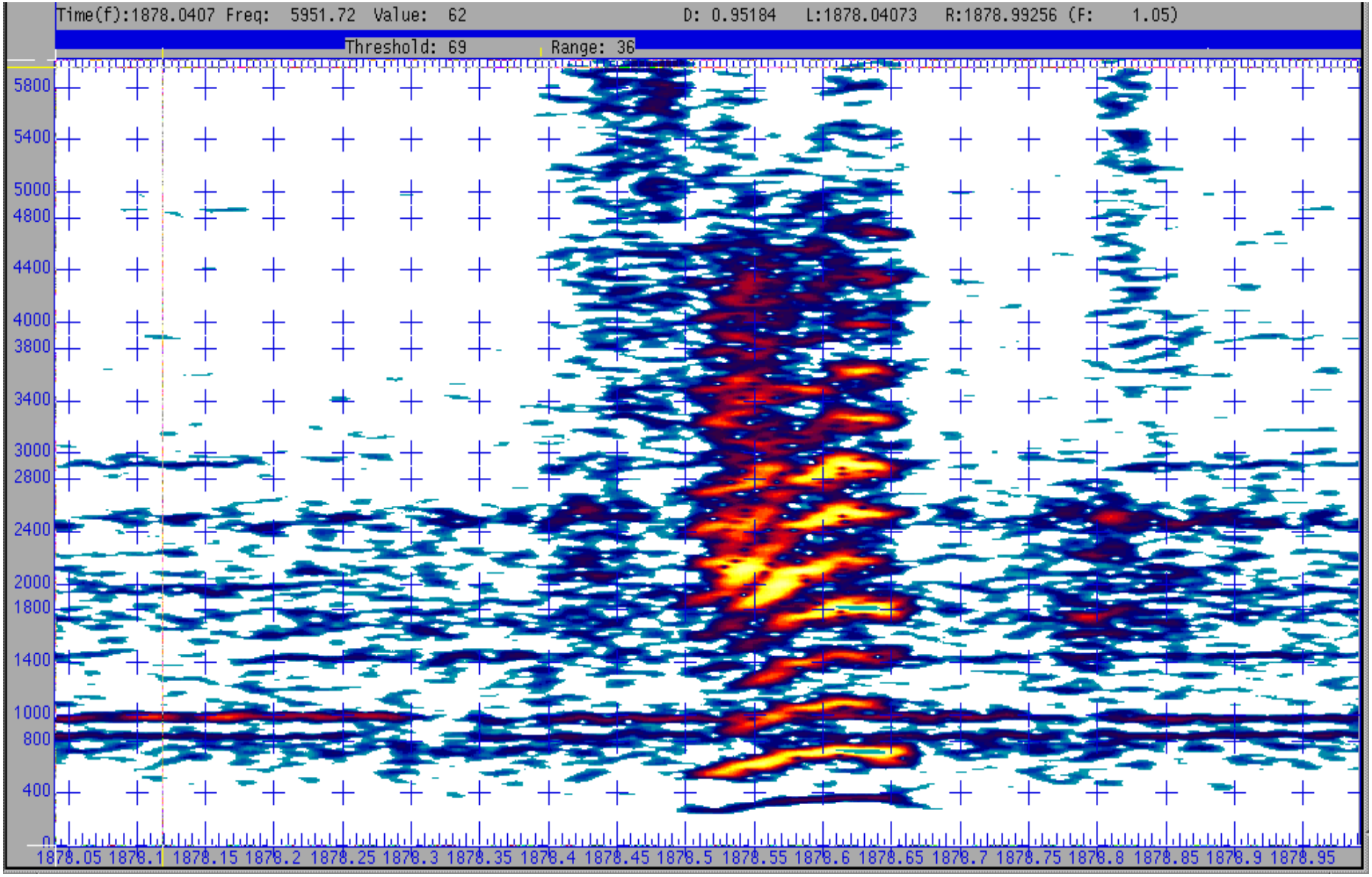


Frequency in Hertz

Response 0150:29.66

CHART 27

Time in elapsed seconds

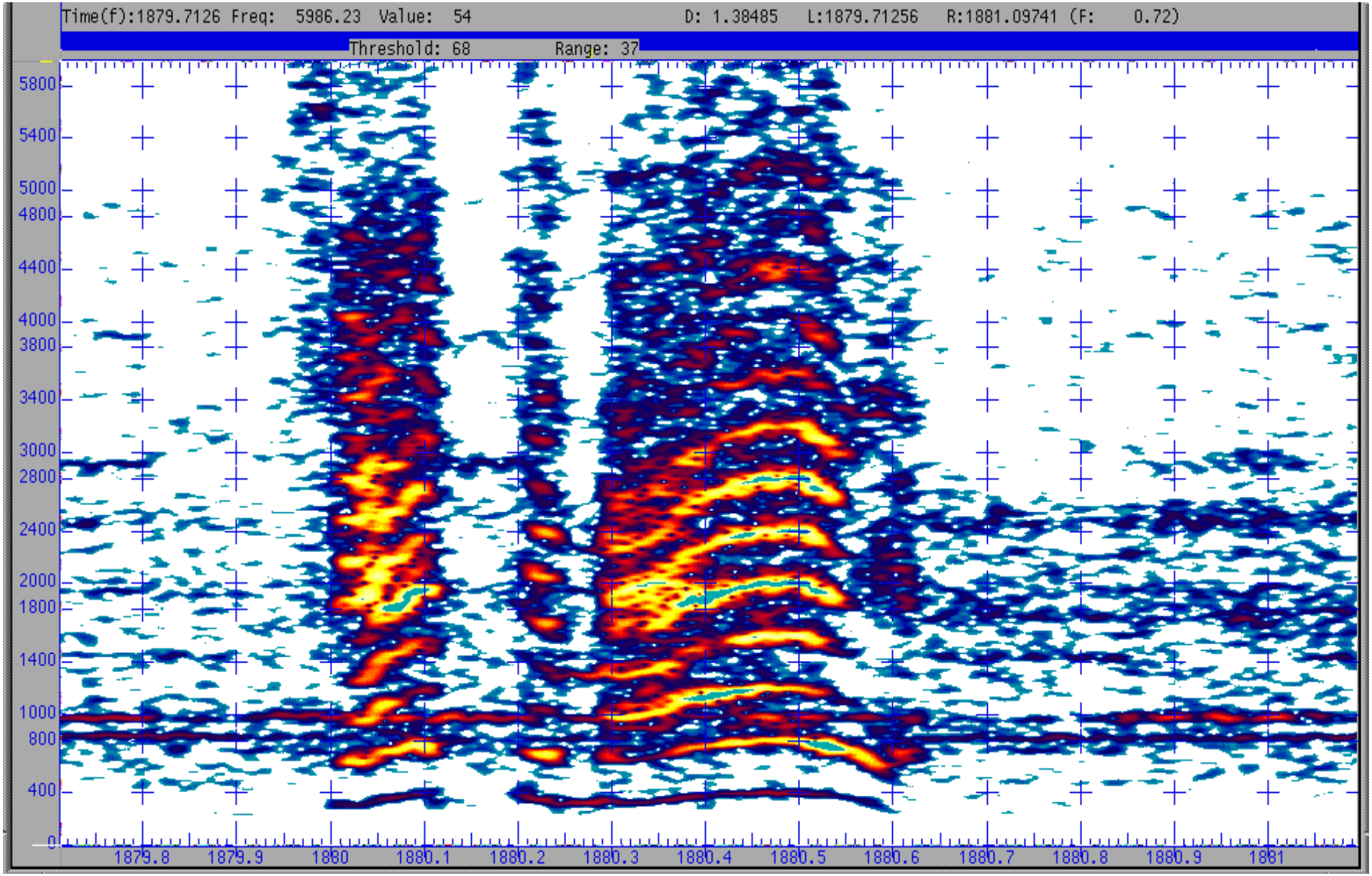


Frequency in Hertz

Pull comment #1 0150:31.25

CHART 28

Time in elapsed seconds

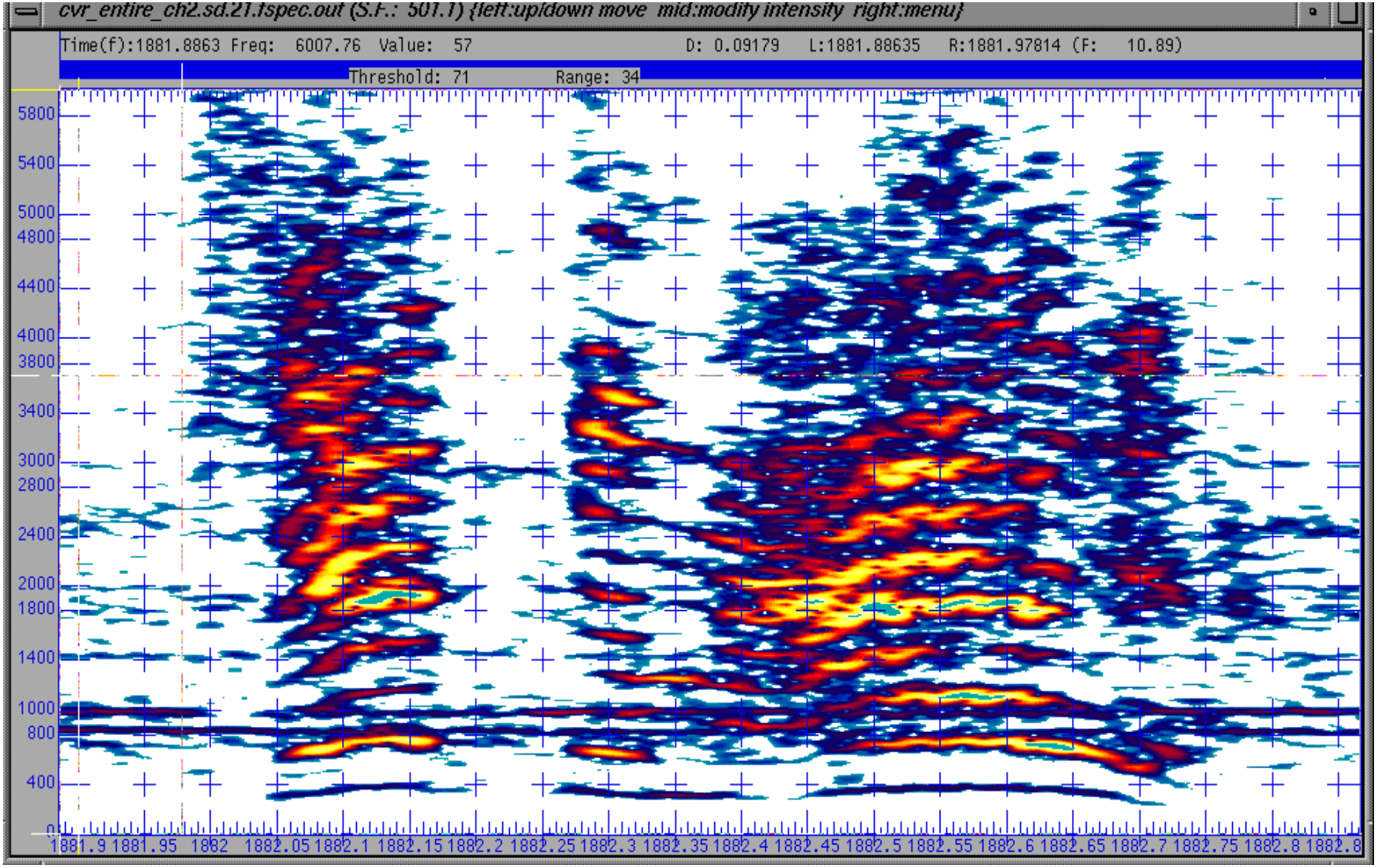


Frequency in Hertz

Pull comment #2 0150:32.75

CHART 29

Time in elapsed seconds

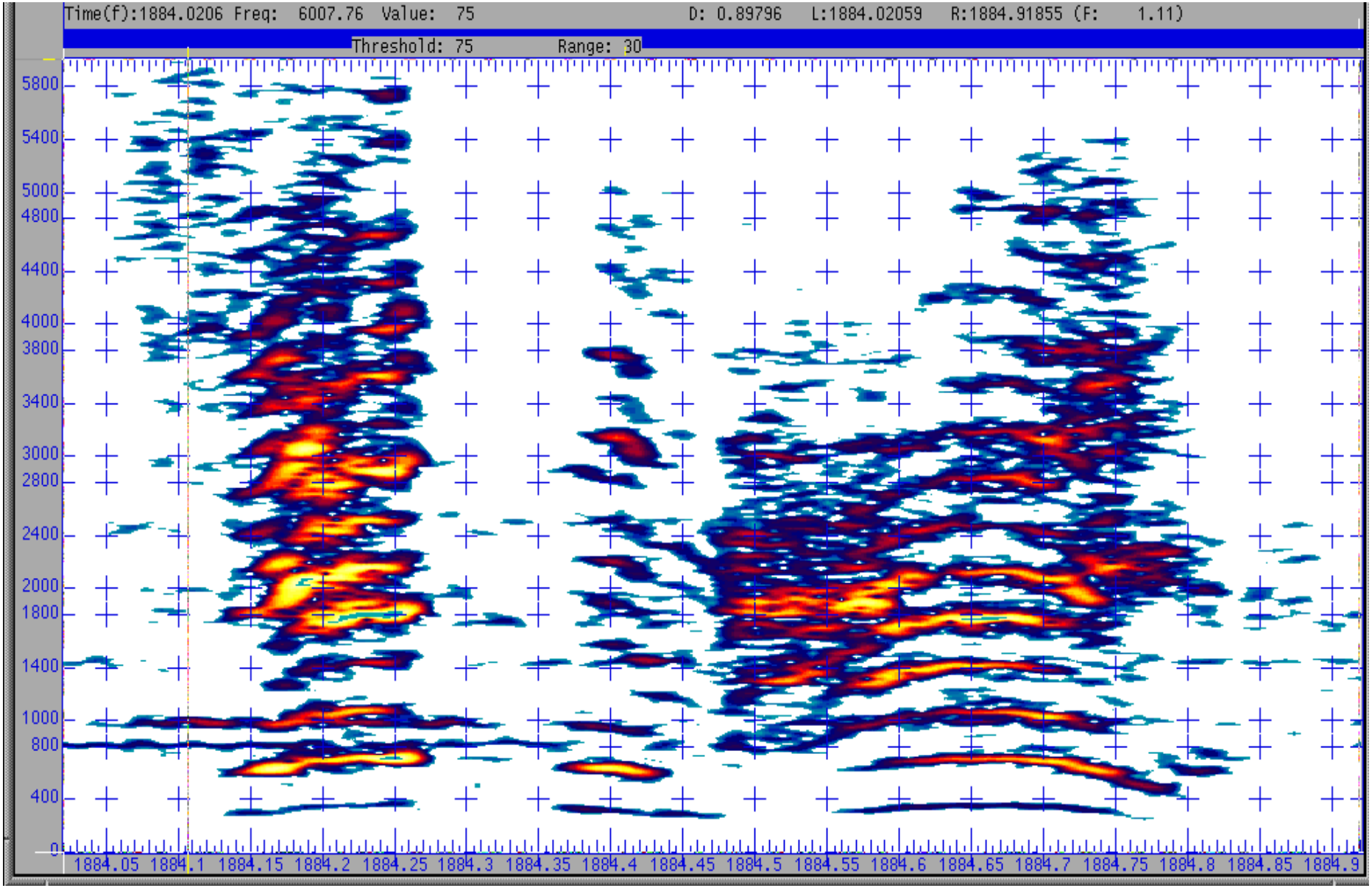


Frequency in Hertz

Pull comment #3 0150:34.78

CHART 30

Time in elapsed seconds

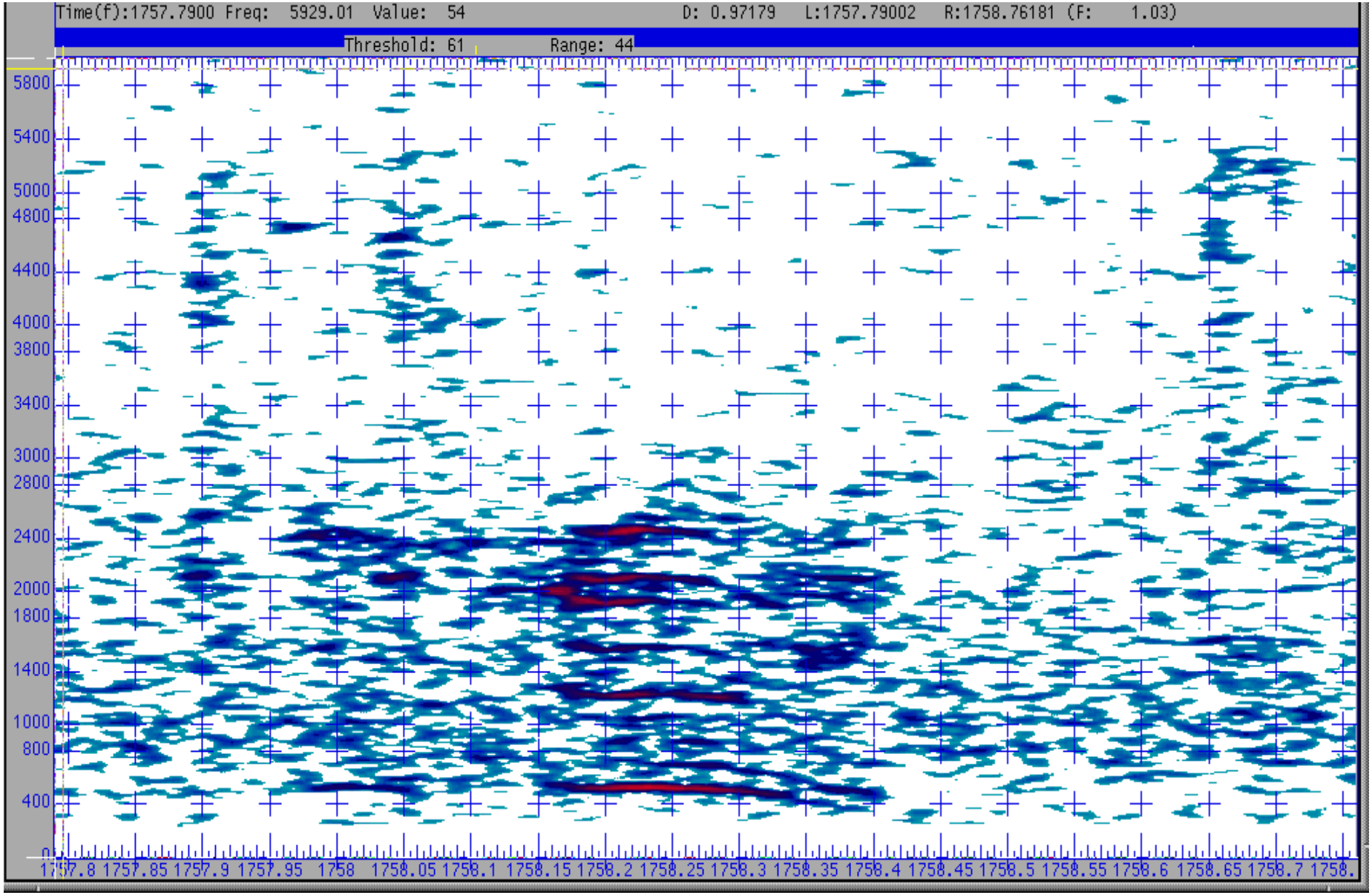


Frequency in Hertz

Pull comment #4 0150:36.84

CHART 31

Time in elapsed seconds

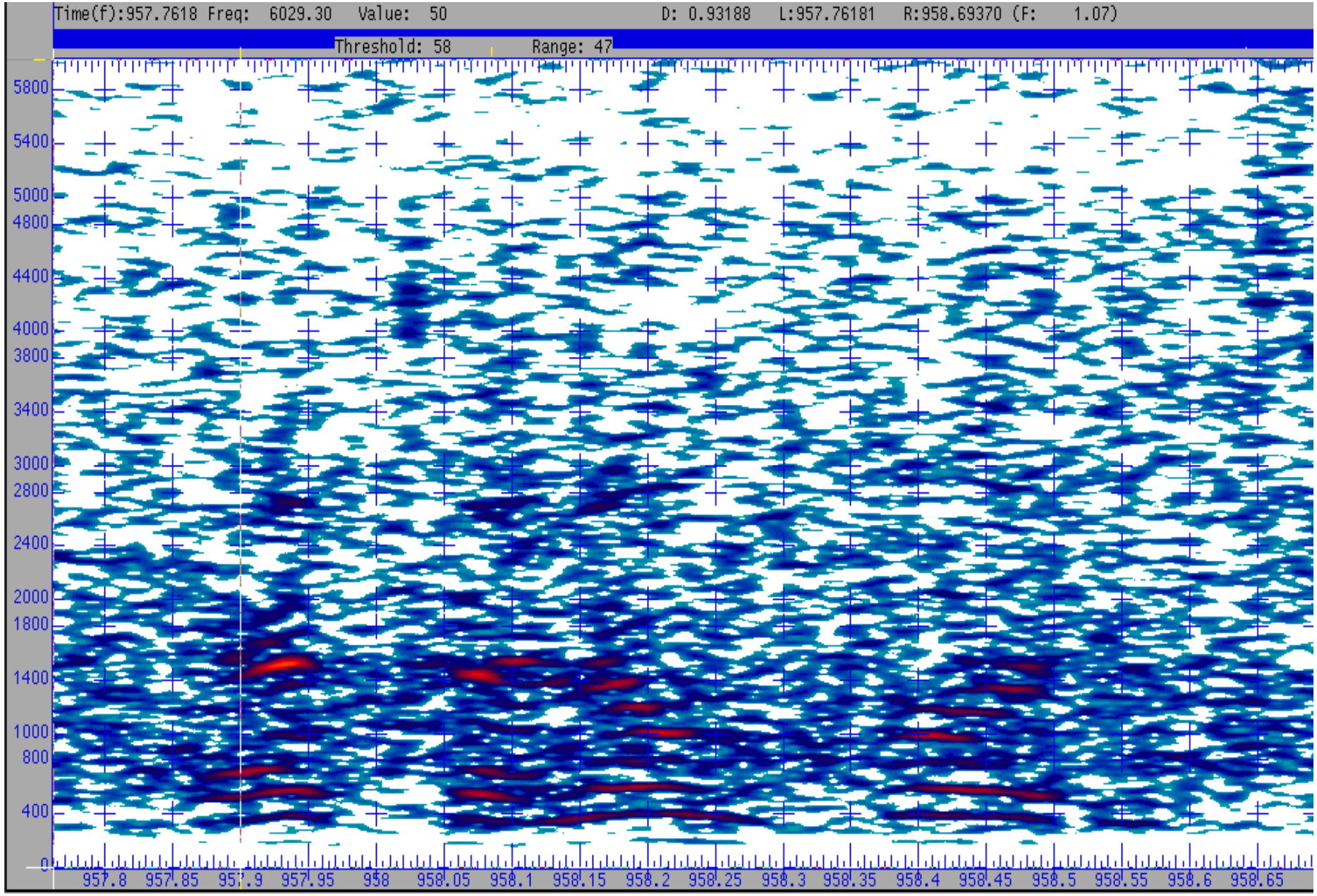


Frequency in Hertz

Unintelligible phrase 0148:30.69

CHART 32

Time in elapsed seconds

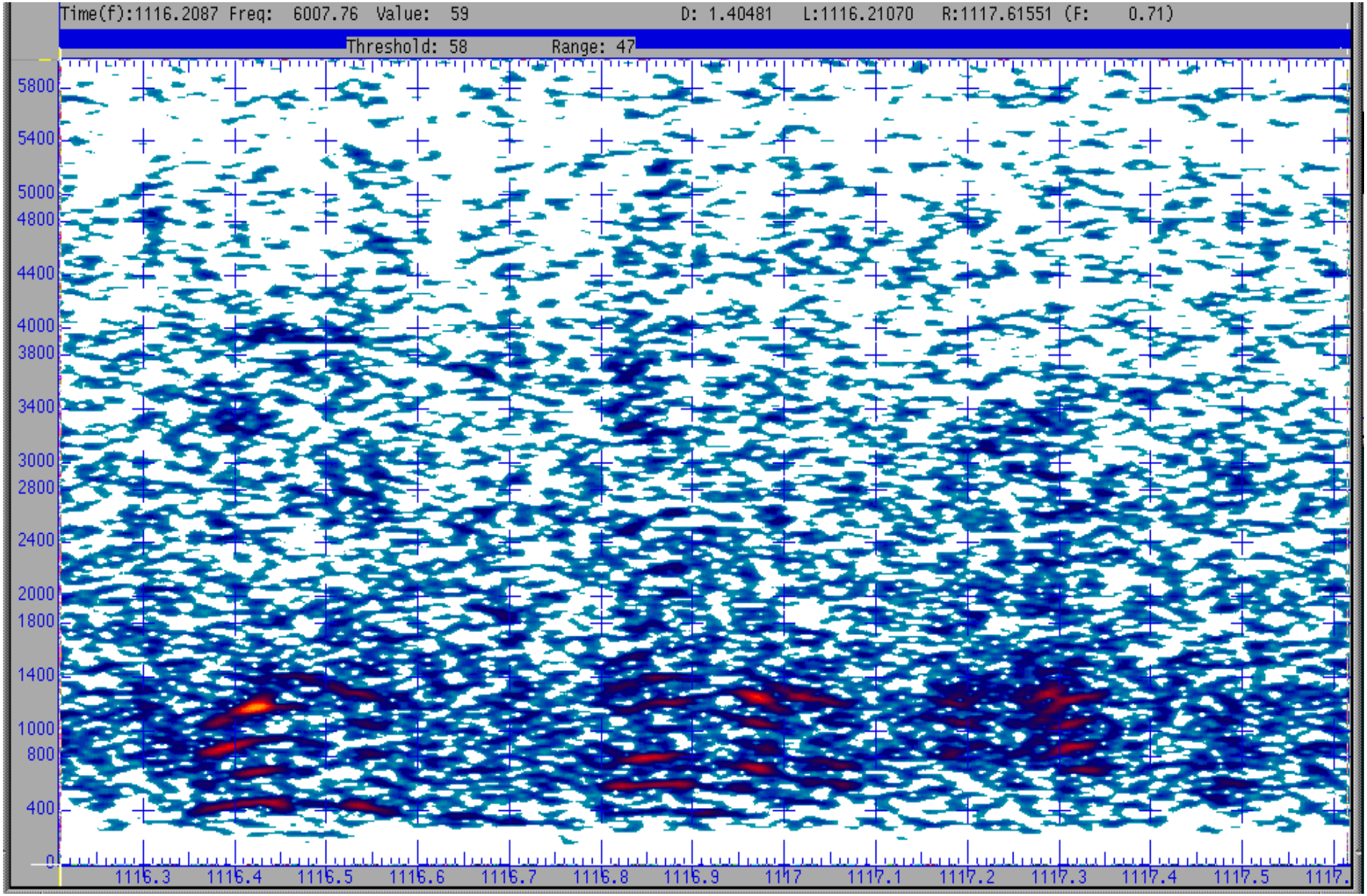


Frequency in Hertz

Captain Habashi 0135:10.00

CHART 33

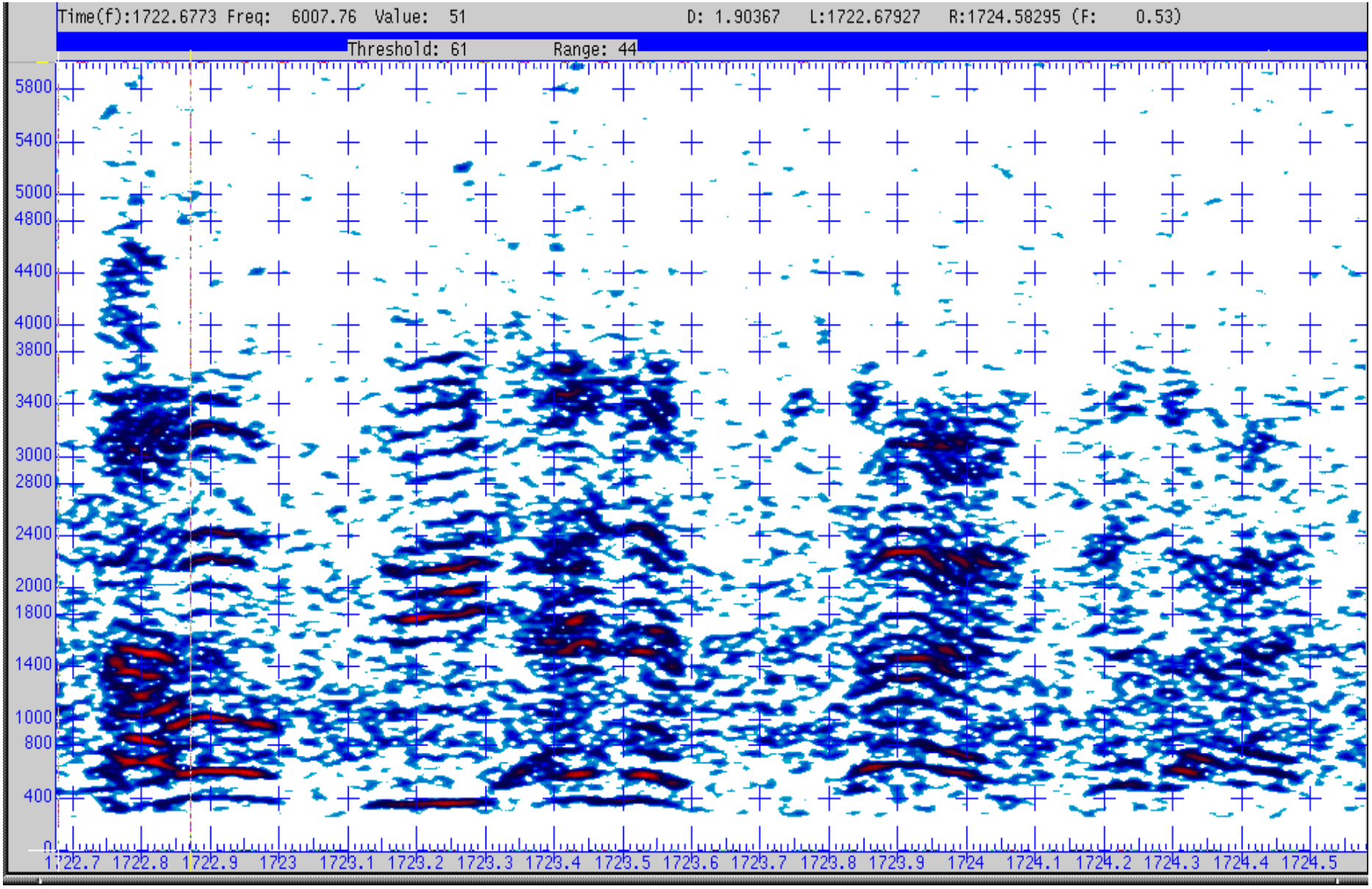
Time in elapsed seconds



Captain Hatem 0137:48.00

CHART 34

Time in elapsed seconds

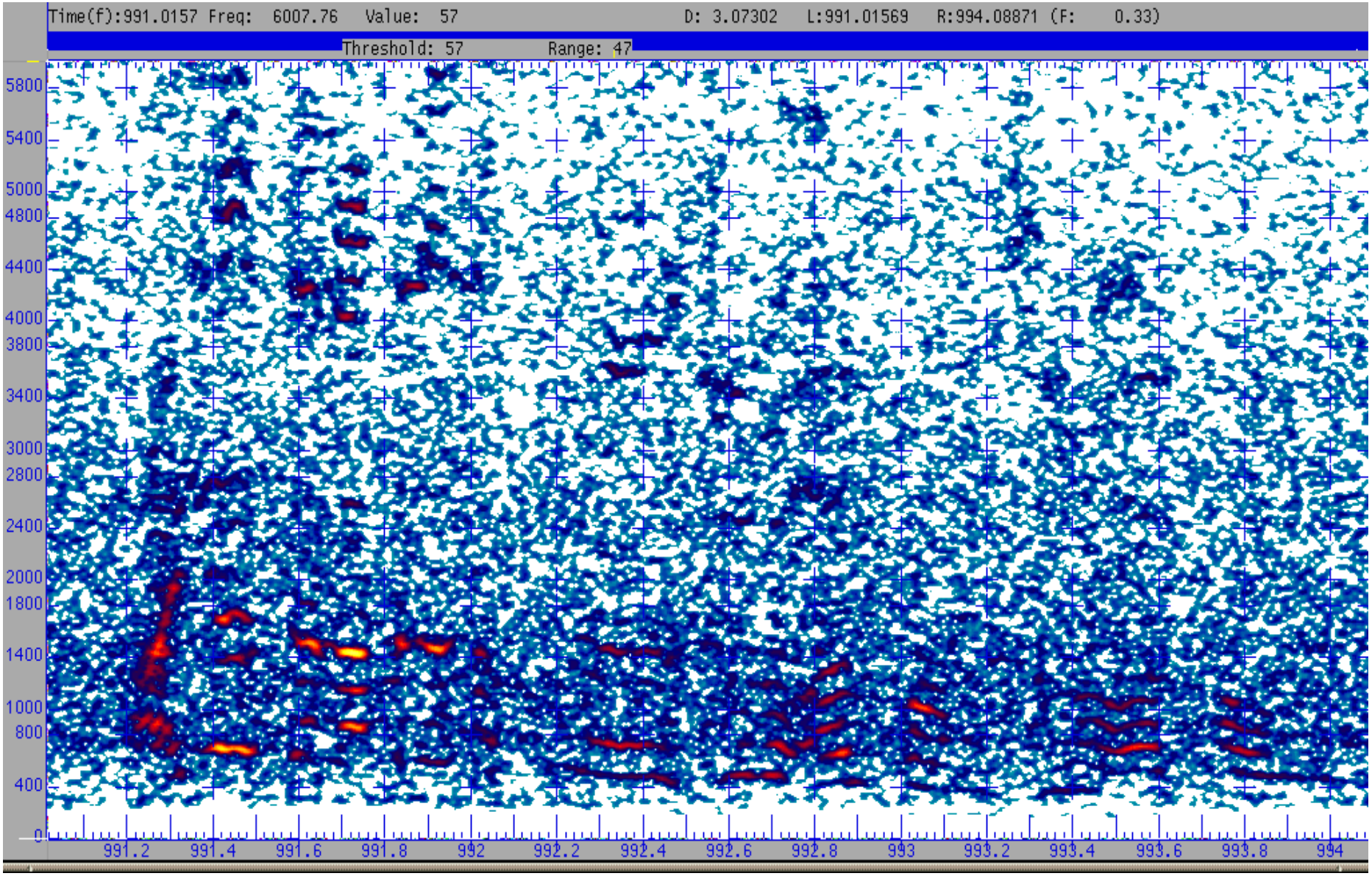


Frequency in Hertz

1st Officer Batouti 0147:55.0

CHART 35

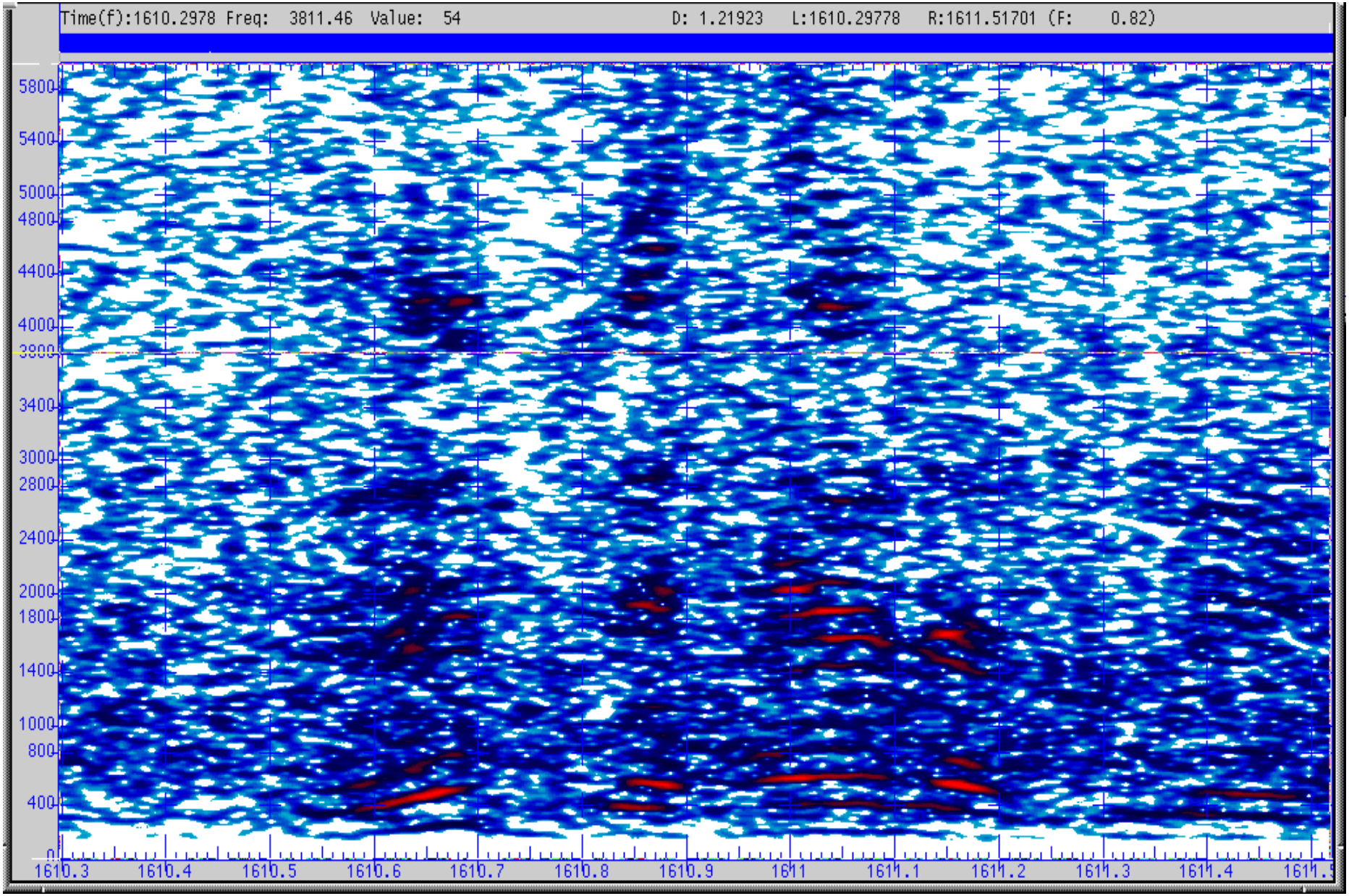
Time in elapsed seconds



1st Officer Adel 0135:43.0

CHART 36

Time in elapsed seconds

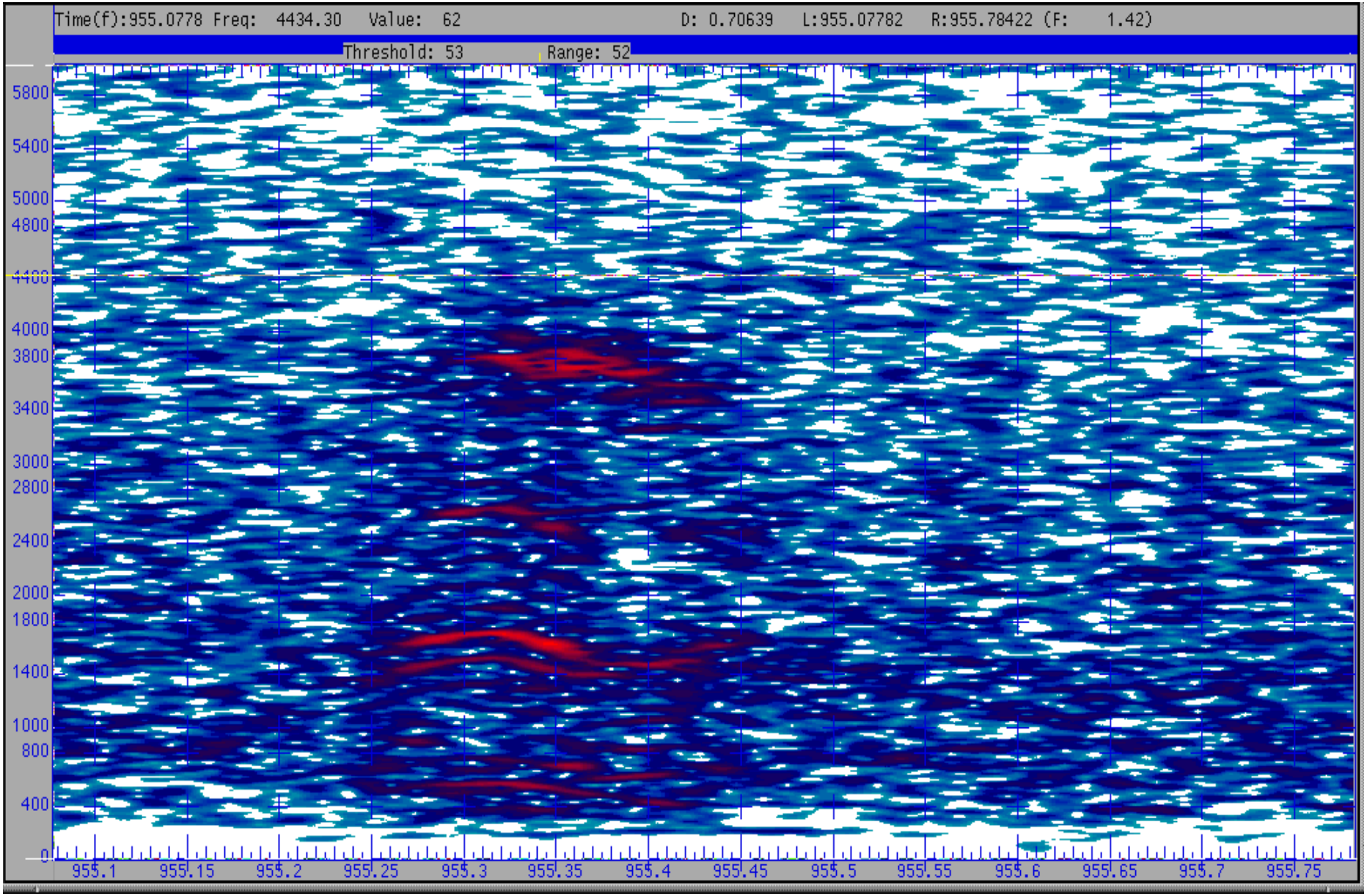


Frequency in Hertz

1st Officer Hisham 0147:03.0

CHART 37

Time in elapsed seconds

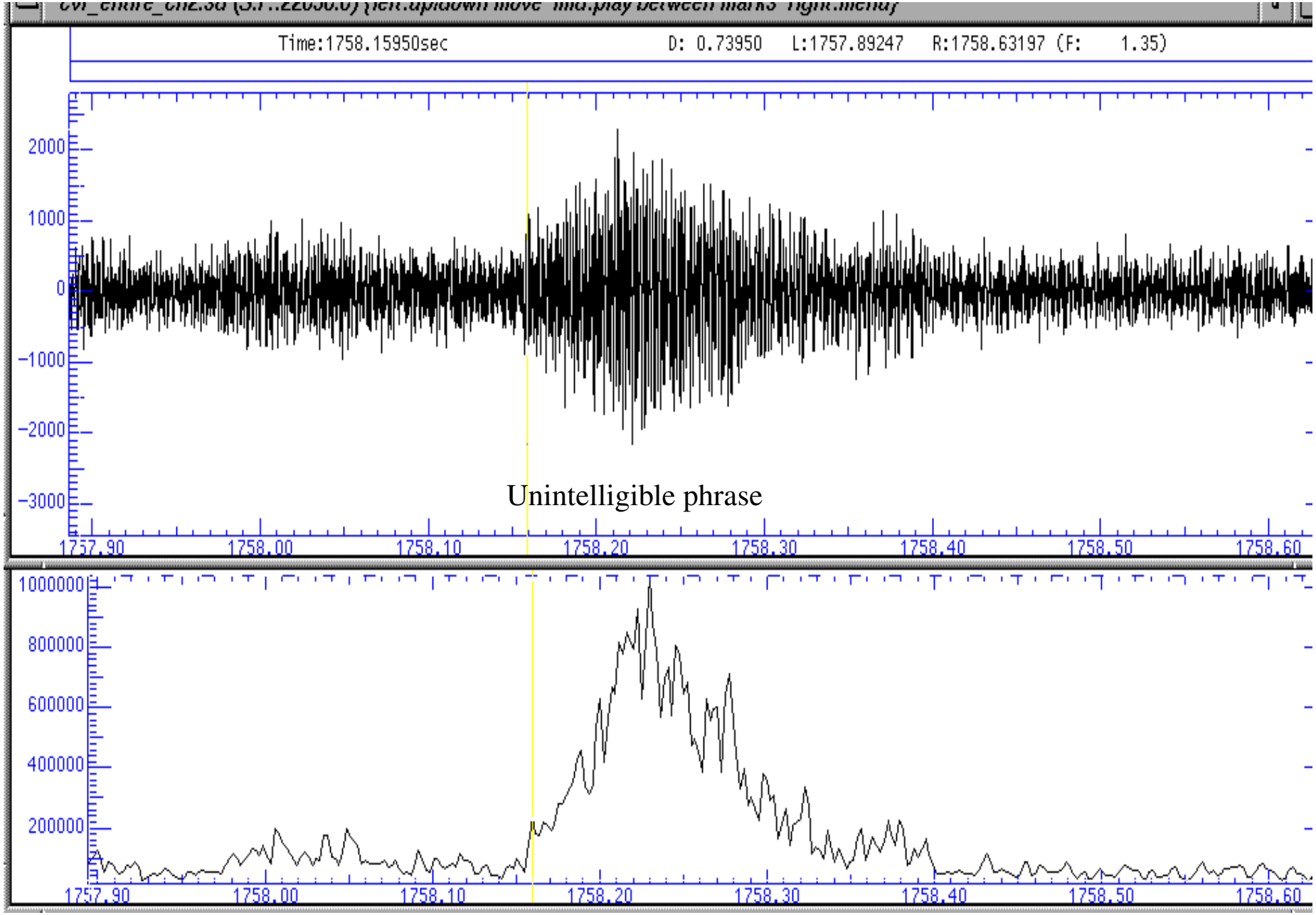


Frequency in Hertz

1st Officer Aiad 0135:07.3

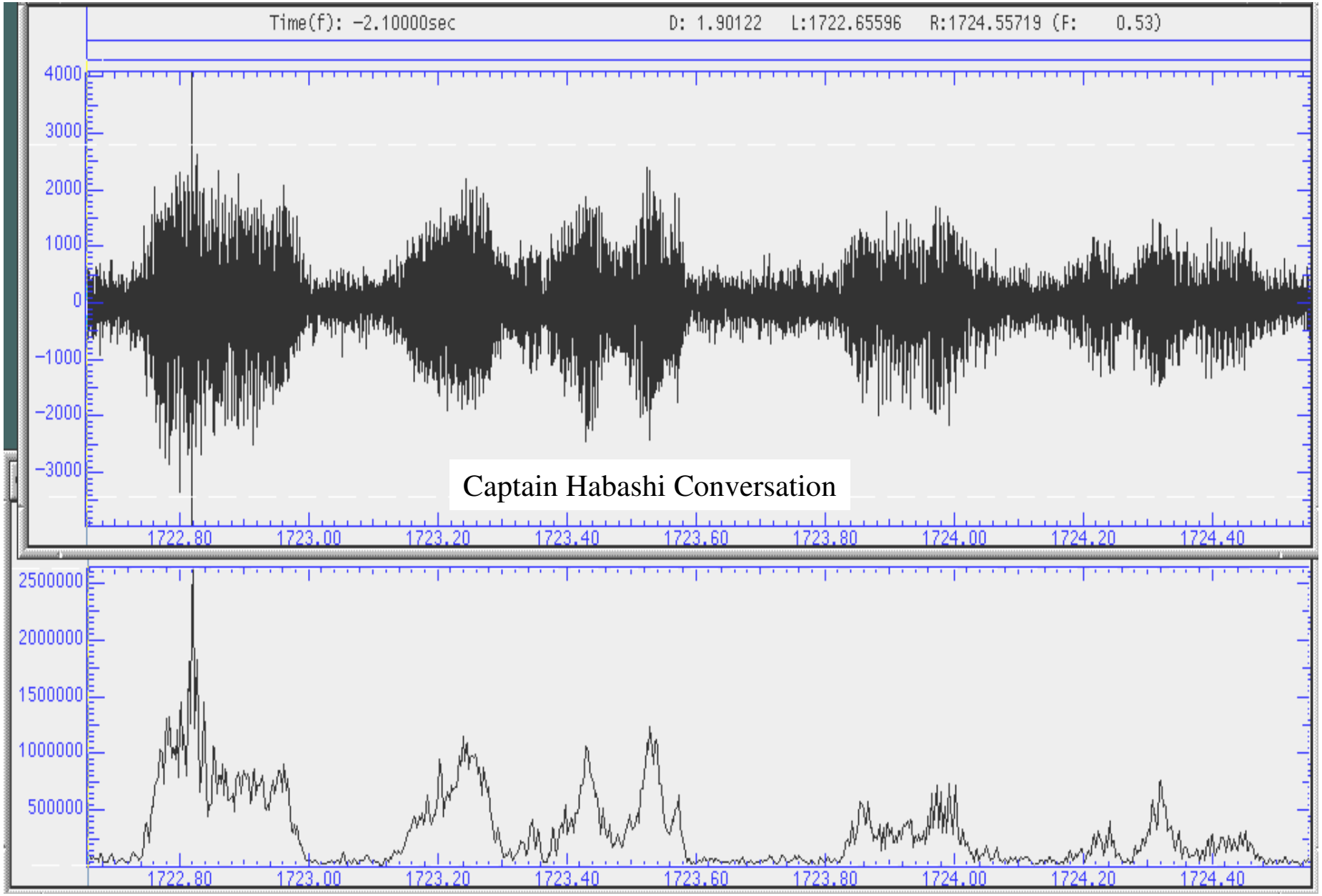
CHART 38

Time in elapsed seconds



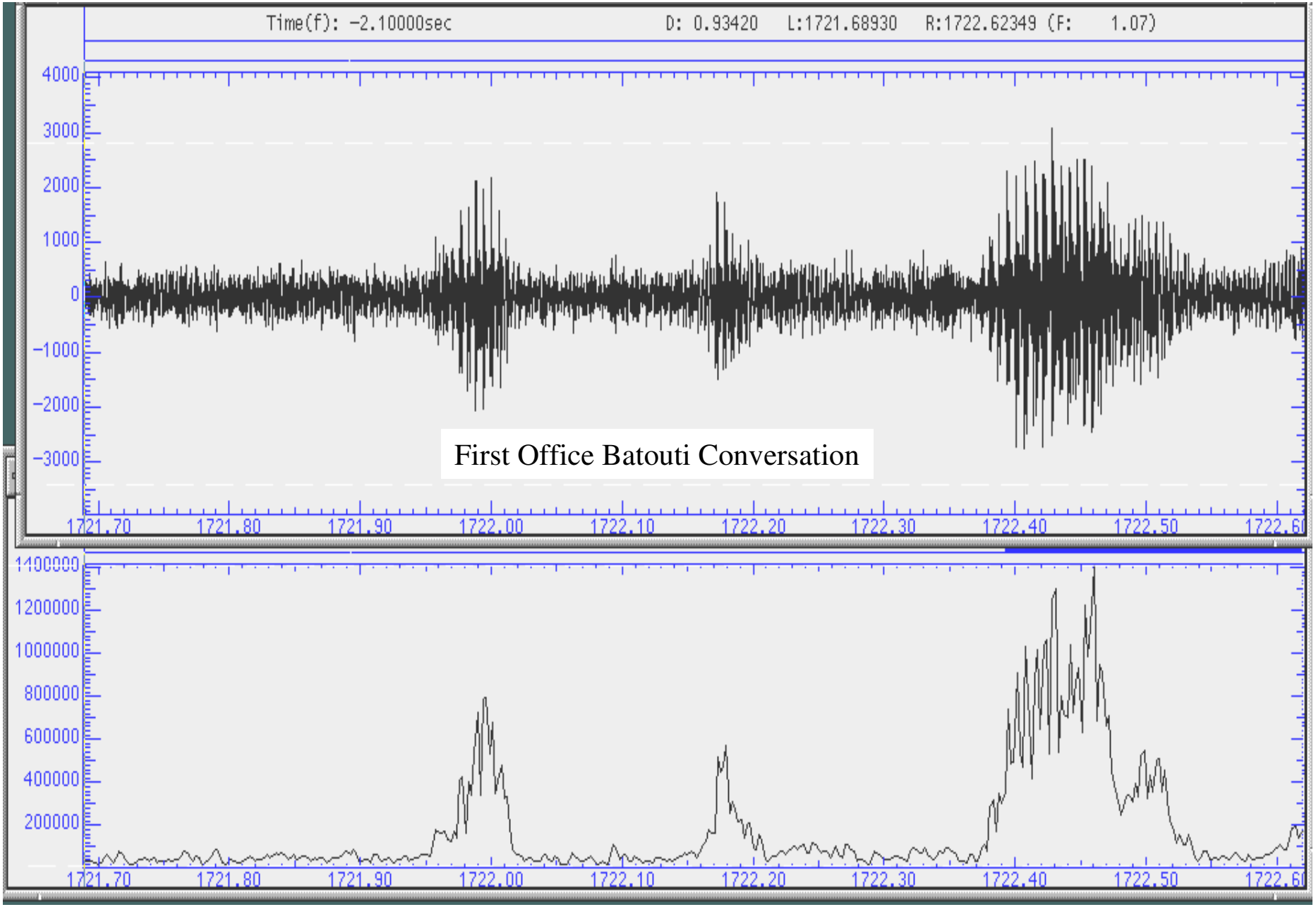
01:48:30.69

CHART 39



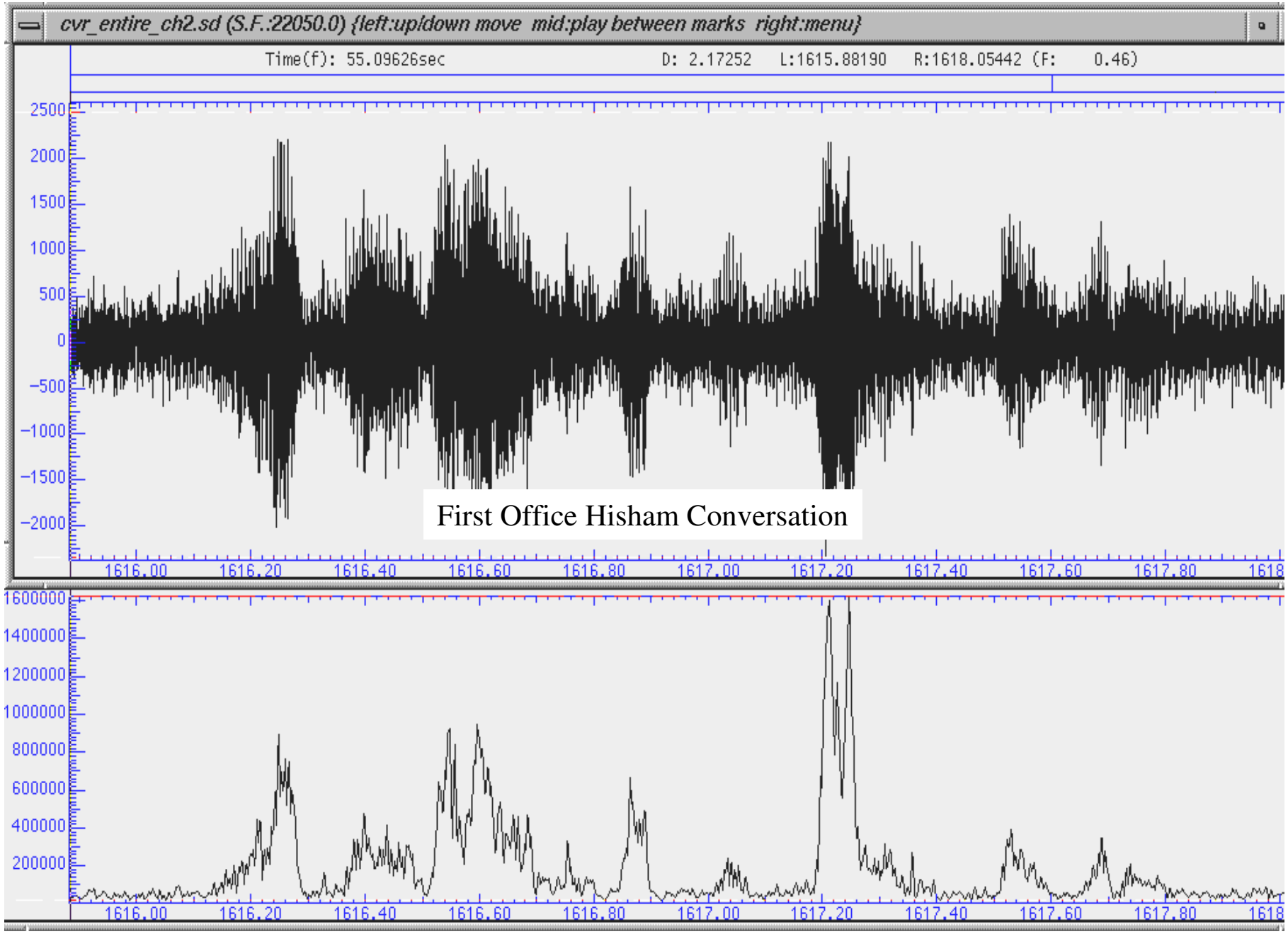
01:48:03

CHART 40



01:48:01

CHART 41



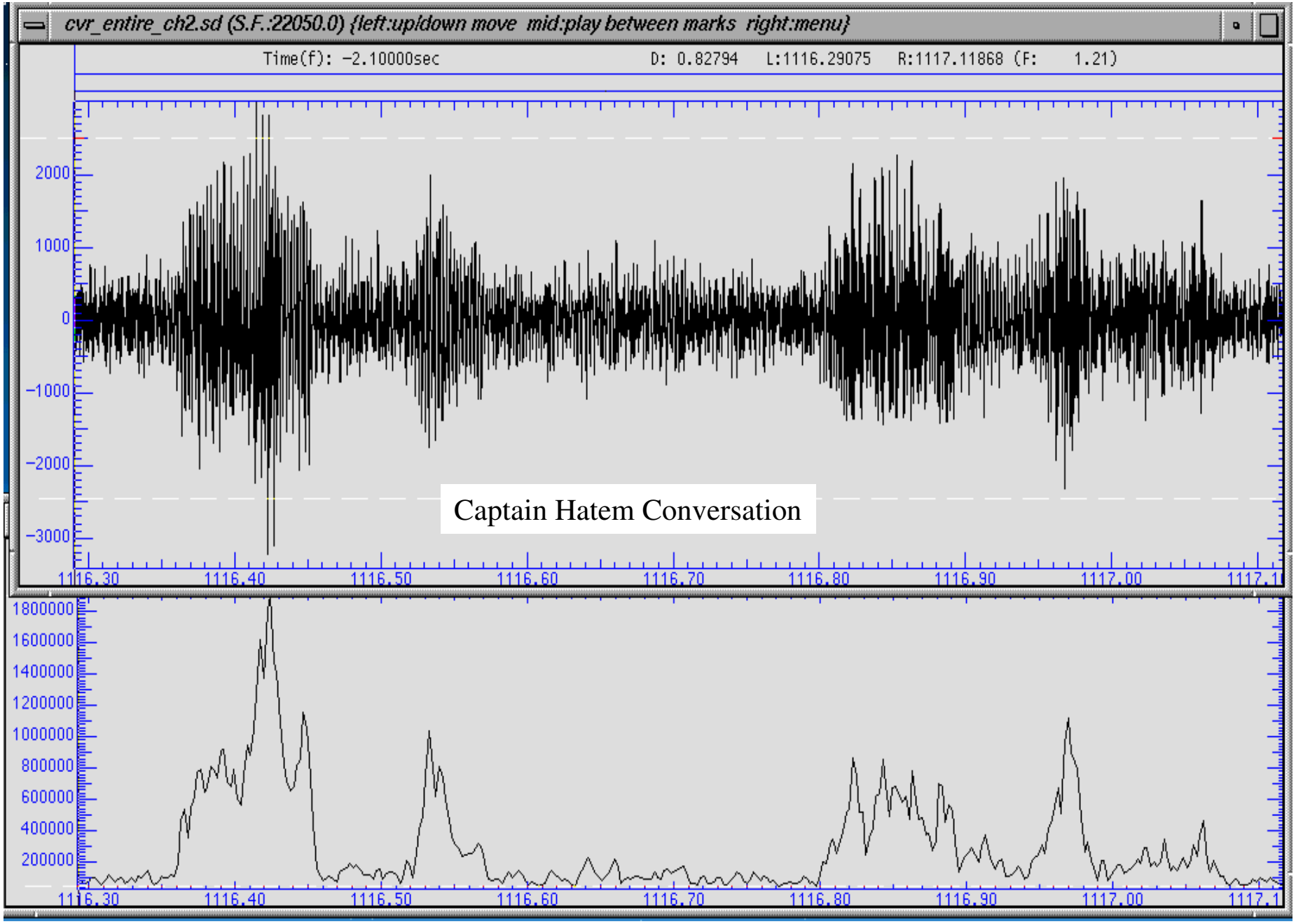
Amplitude Waveform

Energy of signal

Time in elapsed seconds

01:46:05

CHART 42



01:37:49

CHART 43