

NASA On The Air

Apollo 16



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RS0ISS

NA1SS

1/12

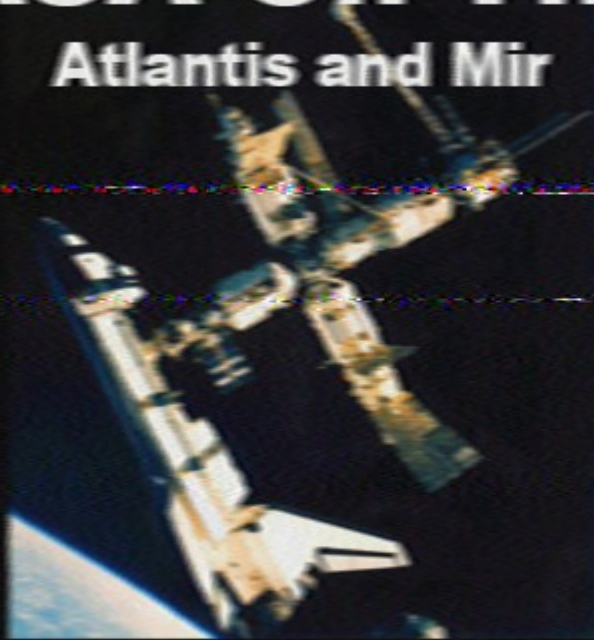
ISS sometimes transmits SSTV

e.g. Feb & Apr 2019

20190217_164932

NASA On The Air

Atlantis and Mir



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RSU1SS

NA1SS

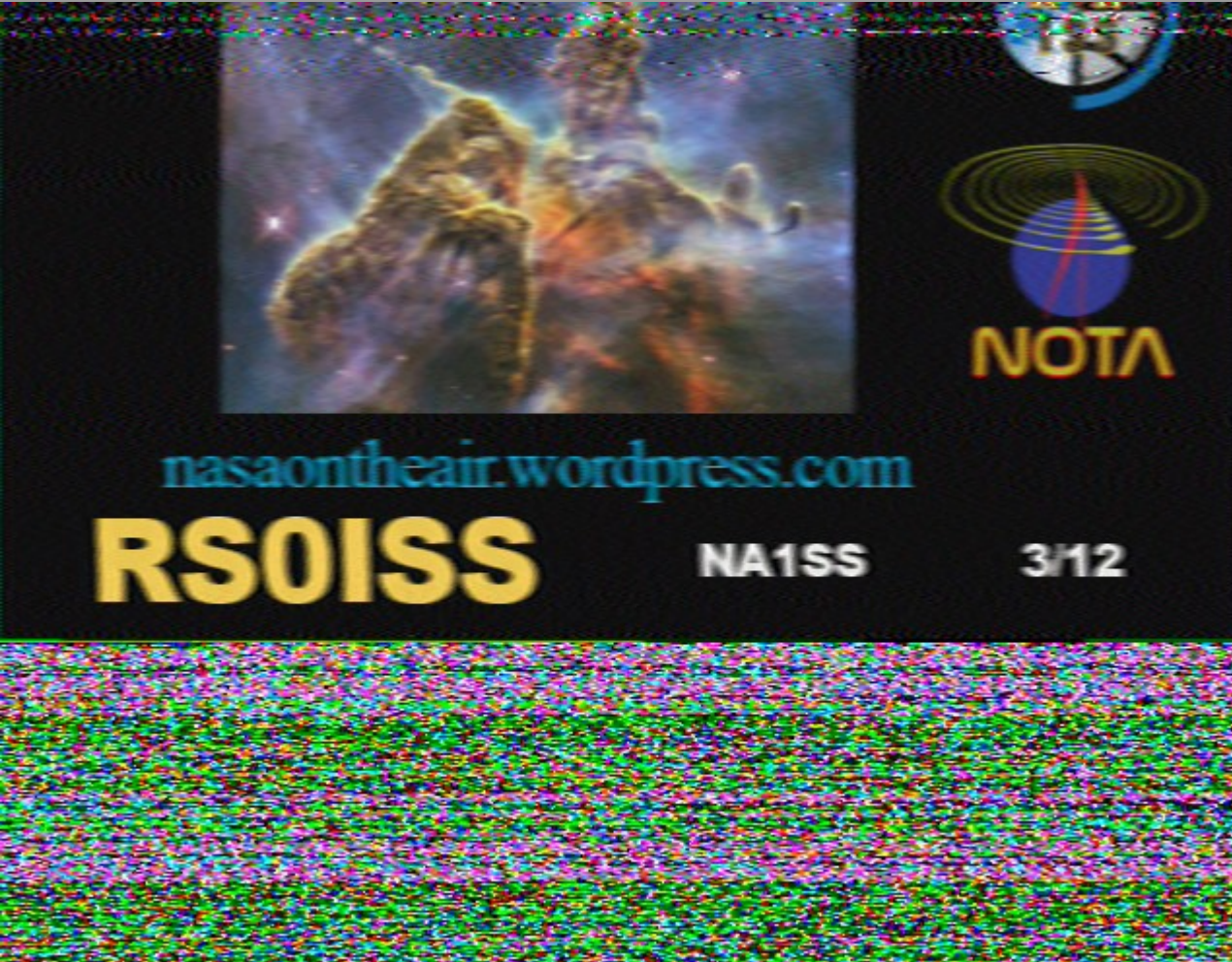
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Required equipment:

VHF FM rcvr 145.800 MHz

SSTV software

20190217_151113



Better equipment:

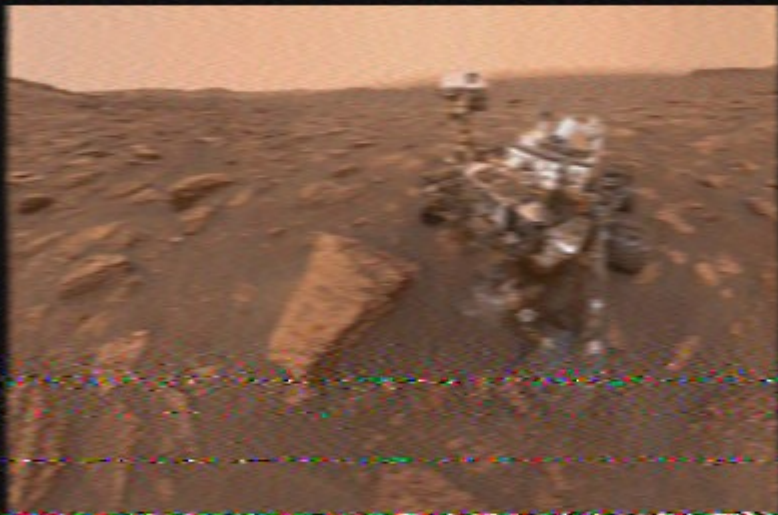
QFH or turnstile antenna

preamp at antenna

20190215_182917

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Curiosity on Mars



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What causes Fading (QSB)?

Few passes are high elevation

Polarization

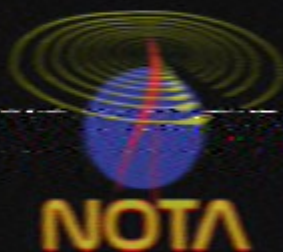
Interference (QRM)

Doppler shift

20190215_165239

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International Space Station



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Fading (QSB) mitigation?

QFH or turnstile antenna

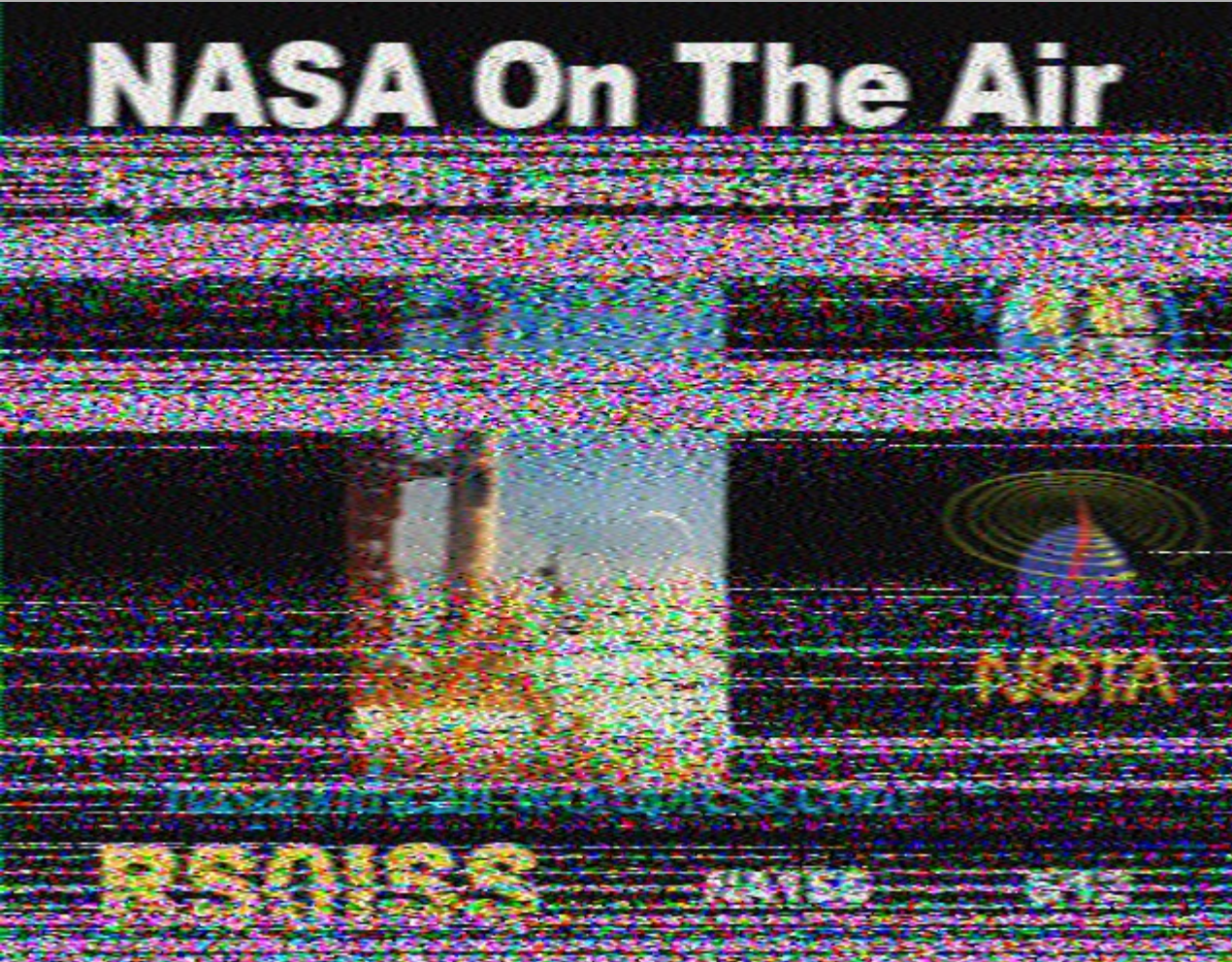
Steerable antenna

RHCP

Preamplifier at antenna

predict to mitigate Doppler

20190217_000858



20190217_001307

Fading probably caused by:

Low elevation pass

Large redwood trees in the way



Fading probably caused by:

Low elevation pass

20190216_191650

NASA On The Air

Apollo 8 50th Anniversary



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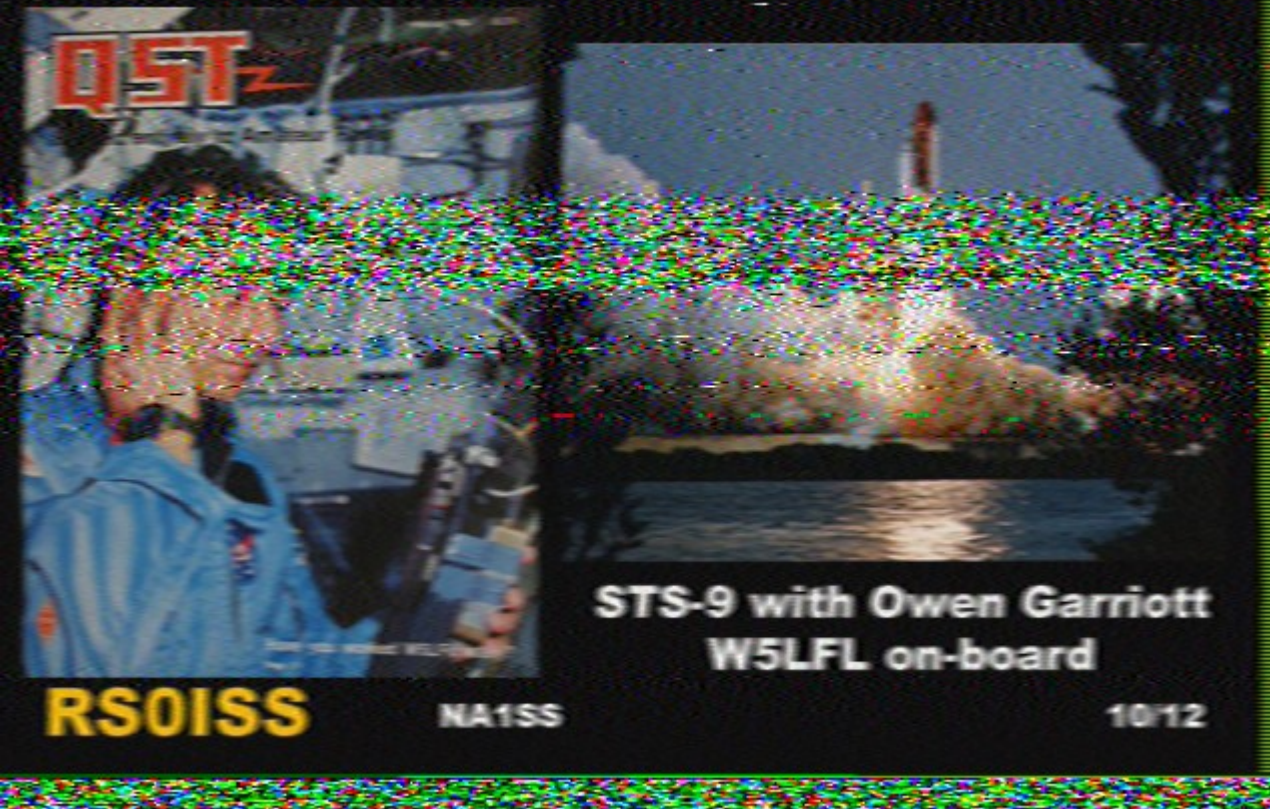
Fading probably caused by:

Low elevation pass

VHF QRM

20190216_174053

Shuttle—December 1983



Fading probably caused by:

Low elevation pass

VHF QRM

20190216_005933

Commemorating the 30th Anniversary of
Mir Ham Radio—November 1988



Mir Space Station



Andy Thomas on
Mir Radio



Valery Korzun (right)
John Blaha (left)

Aleksandr Volkov (left)
Sergey Krikalev (right)



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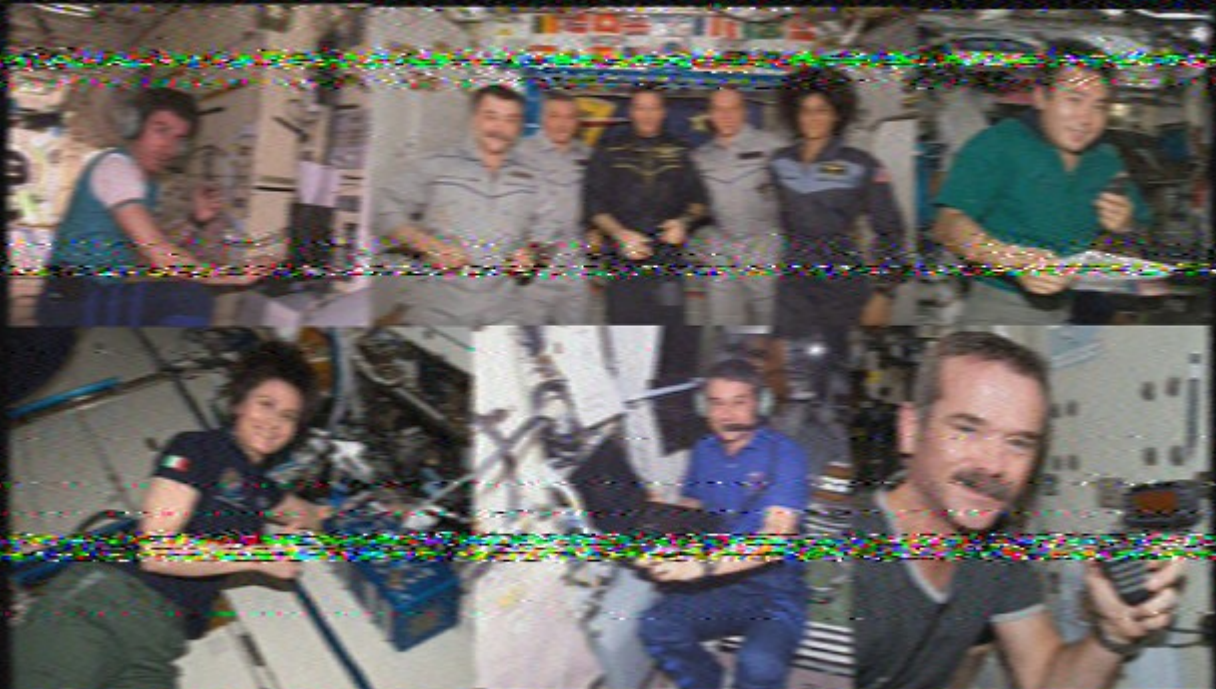
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Fading probably caused by:

Low elevation pass

20190216_010140

Commemorating 18 Years of Continuous Amateur Radio Operation from the ISS



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20190215_232315

Fading probably caused by:

Low elevation pass



1st image from high elevation pass, i.e. near overhead pass.

20190411_190459

**Commemorating Cosmonautics Day
First and Last Space Shuttle Crews
STS-1 and STS-135, 1981-2011**



2nd image from a high
elevation pass,

Overhead pass lasts 10 min,
enough time for 2 images.

20190411_190817