F-SAR ICESAR 2019 SAR images at L, C, X-band

For each band, they are splittet into 10 segments (10, 10R, 11, … 14, 14R). They are delivered as stacks of 15 layers:

Layer 1: Phase HH-VV in deg

Layer 2: Correlation HH-VV

Layer 3: sigma VV in dB

Layer 4: sigma VV linear

Layer 5: gamma VV in dB

Layer 6: gamma VV linear

Layer 7: sigma HV in dB

Layer 8: sigma HV linear

Layer 9: gamma HV in dB

Layer 10: gamma HV linear

Layer 11: sigma HH in dB

Layer 12: sigma HH linear

Layer 13: local incidence angle

Layer 14: gamma HH in dB

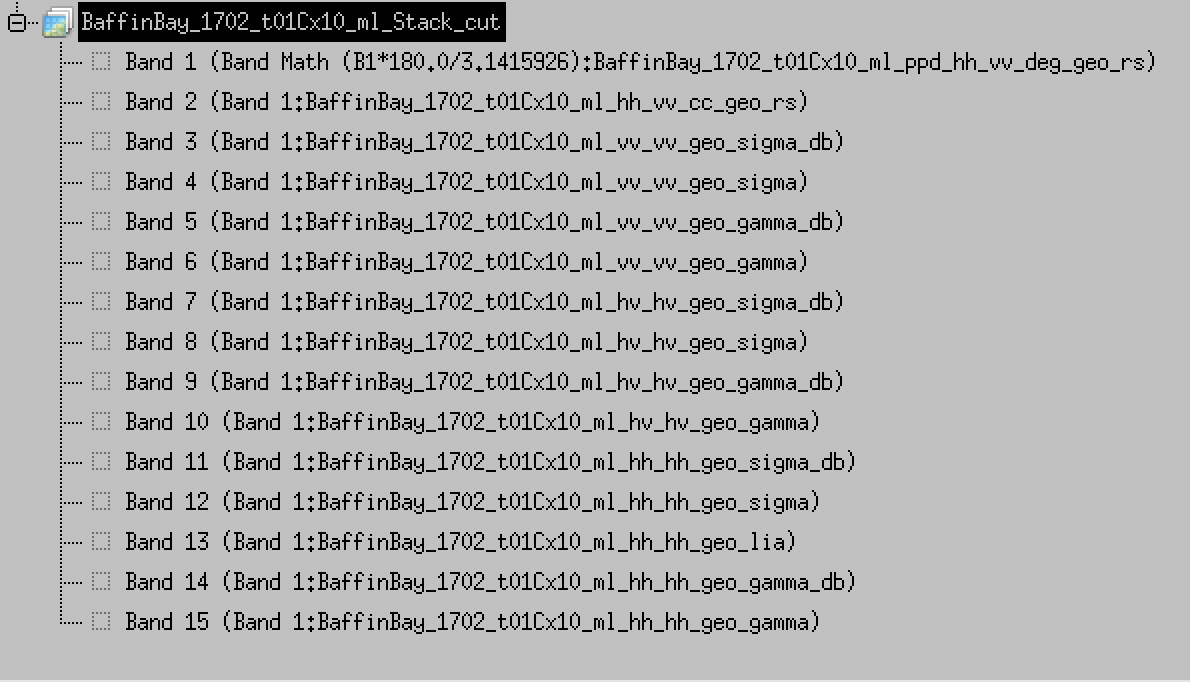
Layer 15: gamma HH linear

The ending of these files is either missing or it is .dat.

For use in ENVI there is also a .hdr file and a .enp file (the letter for building a pyramid, not necessarily needed)

All images are geocoded. The images of the different frequencies match one another.

Example:



From .hdr file:

ENVI

samples = 3340

lines = 1080

bands = 15

data type = 4

(A 32-bit, single-precision, floating-point number in the range of ±1038, with approximately six or seven significant digits.)

interleave = bsq

(Band Sequential: BSQ format is the simplest format, where each line of the data is followed immediately by the next line in the same spectral band)

file type = ENVI Standard

header offset = 0

byte order = 0

map info = {UTM, 1.000, 1.000, 528600.000, 7025001.000, 3.000000e+00, 3.000000e+00, 20, North, WGS-84, units=Meters}

coordinate system string = {PROJCS["UTM\_Zone\_20N",GEOGCS["GCS\_WGS\_1984",DATUM["D\_WGS\_1984",SPHEROID["WGS\_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Transverse\_Mercator"],PARAMETER["False\_Easting",500000.0],PARAMETER["False\_Northing",0.0],PARAMETER["Central\_Meridian",-63.0],PARAMETER["Scale\_Factor",0.9996],PARAMETER["Latitude\_Of\_Origin",0.0],UNIT["Meter",1.0]]}

x start = 444. (attention: x- and y\_start are related to the original files which were larger)

y start = 348

band names = {

Band 1 (Band Math (B1\*180.0/3.1415926):BaffinBay\_1702\_t01Cx10\_ml\_ppd\_hh\_vv\_deg\_geo\_rs),

Band 2 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hh\_vv\_cc\_geo\_rs),

Band 3 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_vv\_vv\_geo\_sigma\_db),

Band 4 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_vv\_vv\_geo\_sigma),

Band 5 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_vv\_vv\_geo\_gamma\_db),

Band 6 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_vv\_vv\_geo\_gamma),

Band 7 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hv\_hv\_geo\_sigma\_db),

Band 8 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hv\_hv\_geo\_sigma),

Band 9 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hv\_hv\_geo\_gamma\_db),

Band 10 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hv\_hv\_geo\_gamma),

Band 11 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hh\_hh\_geo\_sigma\_db),

Band 12 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hh\_hh\_geo\_sigma),

Band 13 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hh\_hh\_geo\_lia),

Band 14 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hh\_hh\_geo\_gamma\_db),

Band 15 (Band 1:BaffinBay\_1702\_t01Cx10\_ml\_hh\_hh\_geo\_gamma)}