

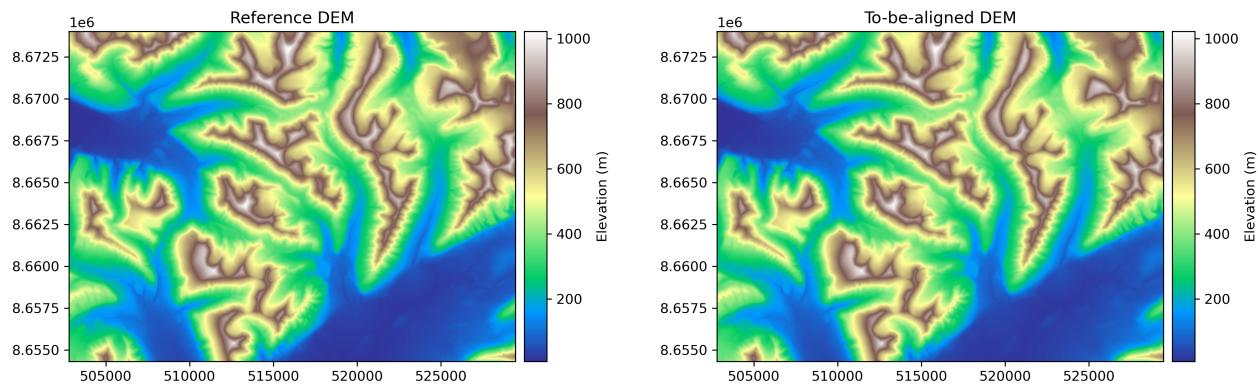
# Accuracy assessment report — xDEM

xDEM version: 0.1.7a4.dev47

Date: 07/01/2026 19:30:51

Computing time: 4.31 seconds

## Elevation datasets



## Information about inputs

| Information        | Value  |
|--------------------|--|
| reference_elev     | {'path_to_elev': '../..../xdem/example_data/Longyearbyen/data/DEM_2009_ref.tif', 'from_vcrs': 'None', 'to_vcrs': 'None', 'downsample': '1'}  |
| to_be_aligned_elev | {'path_to_elev': '../..../xdem/example_data/Longyearbyen/data/DEM_1990.tif', 'path_to_mask': '../..../xdem/example_data/Longyearbyen/data/glacier_mask/CryoClim_GAO_SJ_1990.shp', 'from_vcrs': 'None', 'to_vcrs': 'None', 'downsample': '1'} |

## Coregistration user configuration

| Information   | Value   |
|---------------|---|
| step_one      | {'method': 'LZD', 'extra_information': "{subsample": 10000}"} |
| sampling_grid | reference_elev  |
| process       | True  |

## LZD inputs

### Information Value

```
random      {'subsample': '10000', 'random_state': '42'}
fitorbin    {'fit_minimizer': 'least_squares', 'fit_loss_func': 'linear'}
iterative   {'max_iterations': '200', 'tolerance': '0.01'}
specific    {}
affine      {'only_translation': 'False'}
```

## LZD outputs

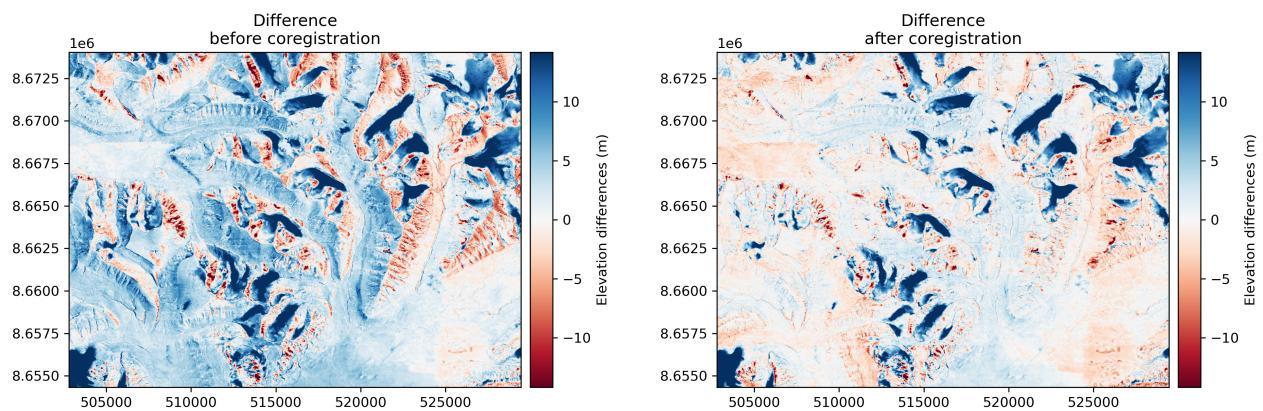
### Information Value

```
{'centroid': '(515650.83, 8663888.17, 353.11)', 'matrix':
'[[ 9.99999985e-01 1.17578419e-04 -1.30099078e-04
  1.02548967e+01]\n[-1.17594385e-04 9.99999986e-01 -1.22719549e-04
  1.90590312e+00]\n[ 1.30084647e-04 1.22734846e-04 9.99999984e-01
  -1.93544013e+00]\n[ 0.00000000e+00 0.00000000e+00
  0.00000000e+00 1.00000000e+00]]', 'shift_x': '10.25', 'shift_y': '1.91',
'shift_z': '-1.94'}
random      {'subsample_final': '10000'}
```

## Statistics

|                         | Data       | Median     | NMAD    | Valid count |
|-------------------------|------------|------------|---------|-------------|
| Aligned elevation       | 363.338928 | 291.801208 | 1309704 |             |
| Difference before coreg | 2.766407   | 3.805830   | 1312020 |             |
| Difference after coreg  | 0.254444   | 2.403943   | 1309704 |             |

# Elevation differences



# Differences histogram

