

Change Detection STAC Metadata

A complete description of Capella's STAC metadata is in the [SAR Imagery Products Format Specification](#). The following table presents a subset of fields specific to the ACD STAC metadata.

| Element Name | Description | Data Type | Unit |
|---------------------------|---|-----------|----------|
| collection | The id of the STAC Collection this Item references to. ACD products are referenced to the "capella-acd" collection. | String | - |
| geometry | Contains two polygons that denote the footprints of the two source scenes. | Number | |
| bbox | Bounding box encapsulating the common area described by the polygon contained in the "geometry" key. | Number | |
| properties | A dictionary of additional metadata for the item. | | |
| instruments | The name of the SAR instrument | | |
| 0 | The name of the SAR instrument that acquired the first collect in the ACD pair | String | |
| 1 | The name of the SAR instrument that acquired the second collect in the ACD pair | String | |
| datetime | Date and time of the second acquisition of the ACD pair | String | |
| start_datetime | Date and time of the first acquisition of the ACD pair | String | |
| end_datetime | Date and time of the second acquisition of the ACD pair | String | |
| sar: product_type | "ACD" is the | String | |
| processing:software | Describes the Capella ACD processing software version number, e.g. "0.2.2" | number | |
| capella:collect_id | the Collect ID of the second image of the ACD pair | String | |
| capella:look_angles | Instrument mode. E.g., "stripmap", "spotlight", "sliding_spotlight" | | |
| 0 | The look angle of the first image of the ACD pair | Number | [degree] |
| 1 | The look angle of the second image of the ACD pair | Number | [degree] |
| capella:look_angle_delta | The difference in look angle between the ACD pair | Number | |
| capella:orbital_plane | The orbital plane of the instruments that acquired the ACD pair E.g. "97", "45", "53" | Number | |
| sar:observation_direction | The observation direction of the instruments that acquired the ACD pair. E.g., "left", "right" | String | |

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|---------------|---|---------|
| assets | Dictionary of asset objects that can be downloaded, each with a unique key. These are further defined and described in the article "ACD File Descriptions". | String |
| changemap | The primary ACD file for use. Raster with values with the range [-1,1] | GeoTIFF |
| preview | The preview image used on Console and colorized according to the "Red is Fled, Blue is New" mnemonic | GeoTIFF |
| thumbnail | Thumbnail image used on Console for ACD | |
| log | Log file for Capella Space internal use | |
| links | | |
| 0 | Link to the STAC ID of the first image that the ACD pair was derived from | |
| 1 | Link to the STAC ID of the second image that the ACD pair was derived from | |