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# **NBS monthly report - 2024 June**

**MET Norway - NBS team**

**Oct 17, 2024**



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## The NBS project

The European Space Agency (ESA) is in charge for the distribution of data from the Sentinel satellite constellation. In order to maintain a reliable and sustainable data hub, the creation and operation of multiples data hubs is necessary. With the purpose of keeping and maintaining a reliable and online source of data from the ESA Sentinel constellation for an Area Of Interest (AOI) covering Norway, the Norwegian Space Agency (NOSA) funded the National Bakke Segment (NBS) project. The map below is indicating the AOI in red.



Therefore, MET Norway was contracted for the operation of the NBS data. The NBS is implemented as a part of the operational infrastructure at MET Norway. As so it follows the normal procedures for planning, implementation and testing, and operations. User access to the NBS is configured according to NOSA requirements. This includes the use of ESA's DHuS software for synchronization between ESA and user accessibility.

The present report is part of MET Norway duties to inform about its performance as operator of the NBS. Monthly reports will be created monthly to regularly communicate the status of MET Norway's NBS.

## The Sentinel products

The NBS project includes the management of the data received from Sentinel-1 (S1), Sentinel-2, Sentinel-3 (S3) and Sentinel-5p (S5p) satellites for the specified AOI. Each of the Sentinels has different operational modes for achieving images with different characteristics. Those images can have different processing levels. The products included in the DHR are Level-1 images for all the Sentinels except for Sentinel-2. For which Level-1 (S2L1C) and Level-2 (S2L2A) are both included in the NBS.

## BackEnds and FrontEnds

As operator of NBS, the source of Sentinel data is ESA; and ESA spreads the Sentinel data through the Copernicus Data Space Ecosystem (CDSE - [dataspace.copernicus.eu](https://dataspace.copernicus.eu)). CDSE is ESA's FrontEnd (FE) for Sentinel data accessibility. MET Norway uses the DHS software for synchronization and creation of other FrontEnds. During the synchronization

process a BackEnd (BE) is created. MET Norway is also running two FEs, [colhub.met.no](https://colhub.met.no) and [colhub-archive.met.no](https://colhub-archive.met.no). The colhub FE includes or will include all the products mentioned for Sentinel global products plus S3 marine products from Copernicus, S1 products from the Kongsberg Satellite Services (KSAT), and S2 Digital Elevation Model (DEM). The colhub-archive FE includes data from S1, S2L1C, S2L2A, S2DEM, S3, S5p products for the AOI. An important distinction between both FEs is that colhub-archive will always maintain available online all the products for the AOI.

In order to maintain an accountability on products synchronized from ESA's CDSE and available for users at the different FEs, it is necessary to understand the architecture of MET Norway's DHR.

## ACRONYMS

Here follows a formatted list of acronyms.

**BE** BackEnd

**DEM** Digital Elevation Model

**DHuS** Data Hub Software

**ESA** European Space Agency

**FE** FrontEnd

**KSAT** Kongsberg Satellite Services

**MET Norway** Meteorological Institute of Norway

**CDSE** Copernicus Data Space Ecosystem

**S1** Sentinel-1

**S2** Sentinel-2

**S2L1C** Sentinel-2 Level-1 C

**S2L2A** Sentinel-2 Level-2 A

**S3** Sentinel-3

**S5p** Sentinel-5p





## QUICK SUMMARY

The table below shows a short overview of the NBS performance operation during the last 30 days. The number of products are compared against CDSE. All columns represents the number of products in each portal except the last 3 columns. Those 3 columns represents the data flow from MET Norway to users through the portals where Volumes are measured in Tb.

| Portals  | S1   | S2L1C | S2L2A | S3    | S5p   | Nb of users | Nb of products | Volume |
|--|------|-------|-------|-------|-------|-------------|----------------|--------|
| <a href="http://colhub.met.no">colhub.met.no</a>                     | 8211 | 39833 | 40005 | 33242 | 16088 | 19          | 37639          | 14.536 |
| <a href="http://colhub-archive.met.no">colhub-archive.met.no</a>     | 8235 | 39561 | 39728 | 32650 | 16010 | 5           | 6003           | 4.294  |
| <a href="http://dataspace.copernicus.eu">dataspace.copernicus.eu</a> | 8305 | 39904 | 39904 | 31660 | 0     |             |                |        |

Finally, the total amount of disk space dedicated to the NBS project, including either products in SAFE and NetCDF formats, represents 5662 Tb.

Due to tracking the data ingested and produced for the NBS project in the last year it is possible to forecast the upcoming need for disk space. As long as data flows follows the same pattern than last year, in 6 months the total disk space will grow until 5988 Tb; while in 12 months it is forecast to become 6866 Tb.



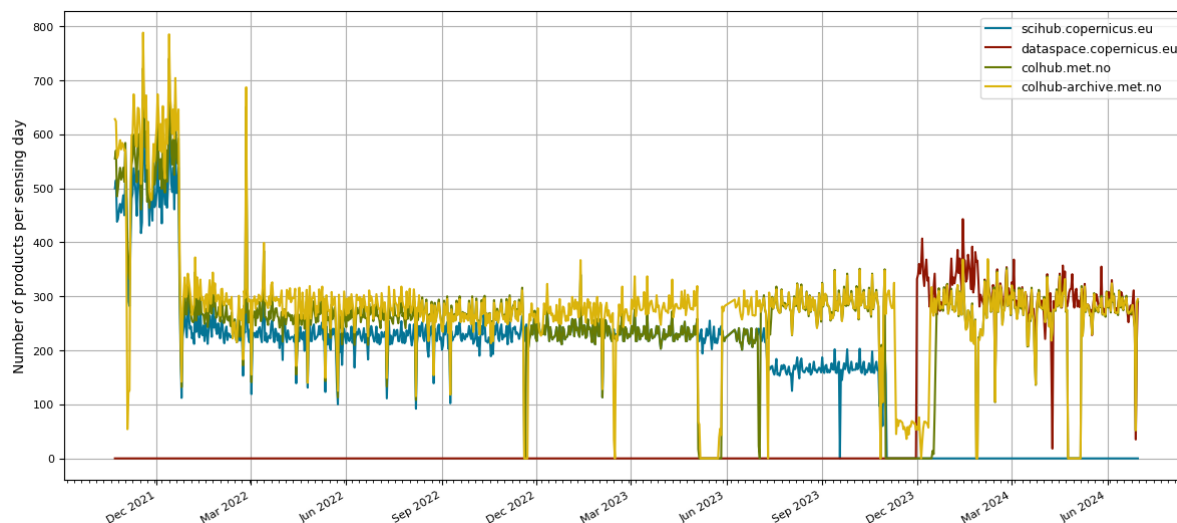
## SENTINEL-1 PRODUCTS

This section shows the performance of MET Norway for Sentinel-1 products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

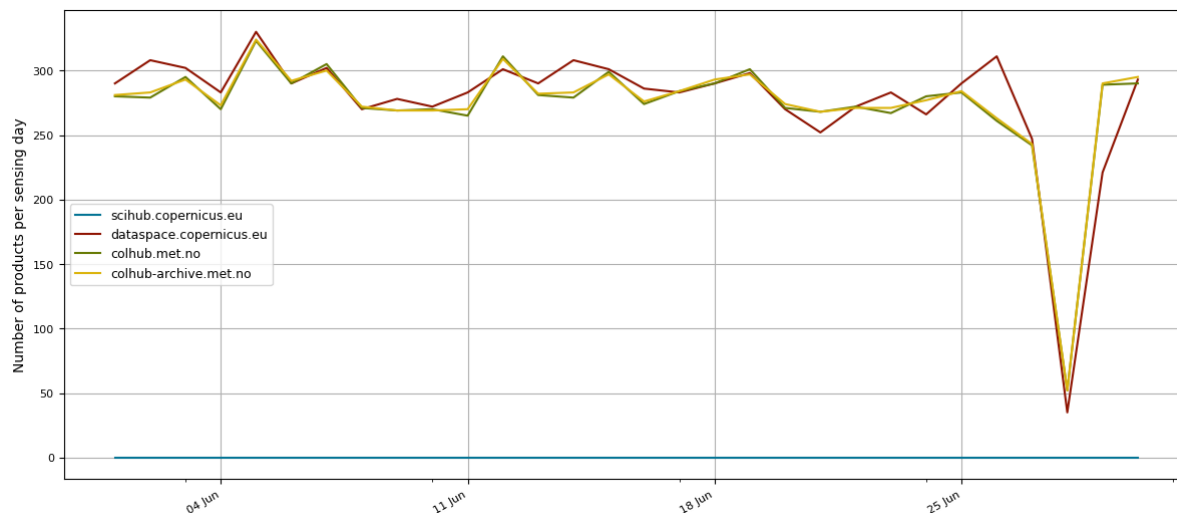
### 3.1 Products on portals

The following section contains an update on the Sentinel-1 products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-1.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

|              | colhub.met.no | dataspace.copernicus.eu | colhub-archive.met.no |
|--------------|---------------|-------------------------|-----------------------|
| sensing_date |               |                         |                       |
| 2024-06-01   | 280.0         | 290.0                   | 281.0                 |
| 2024-06-02   | 279.0         | 308.0                   | 283.0                 |
| 2024-06-03   | 295.0         | 302.0                   | 293.0                 |
| 2024-06-04   | 270.0         | 283.0                   | 273.0                 |
| 2024-06-05   | 323.0         | 330.0                   | 324.0                 |
| 2024-06-06   | 290.0         | 290.0                   | 292.0                 |
| 2024-06-07   | 305.0         | 302.0                   | 300.0                 |
| 2024-06-08   | 271.0         | 270.0                   | 272.0                 |
| 2024-06-09   | 269.0         | 278.0                   | 269.0                 |
| 2024-06-10   | 270.0         | 272.0                   | 269.0                 |
| 2024-06-11   | 265.0         | 283.0                   | 270.0                 |
| 2024-06-12   | 311.0         | 301.0                   | 309.0                 |
| 2024-06-13   | 281.0         | 290.0                   | 282.0                 |
| 2024-06-14   | 279.0         | 308.0                   | 283.0                 |
| 2024-06-15   | 299.0         | 301.0                   | 297.0                 |
| 2024-06-16   | 274.0         | 286.0                   | 276.0                 |
| 2024-06-17   | 284.0         | 283.0                   | 284.0                 |
| 2024-06-18   | 290.0         | 290.0                   | 293.0                 |
| 2024-06-19   | 301.0         | 298.0                   | 297.0                 |
| 2024-06-20   | 271.0         | 270.0                   | 274.0                 |
| 2024-06-21   | 268.0         | 252.0                   | 268.0                 |
| 2024-06-22   | 272.0         | 272.0                   | 271.0                 |
| 2024-06-23   | 267.0         | 283.0                   | 271.0                 |
| 2024-06-24   | 280.0         | 266.0                   | 277.0                 |
| 2024-06-25   | 283.0         | 290.0                   | 284.0                 |
| 2024-06-26   | 261.0         | 311.0                   | 263.0                 |
| 2024-06-27   | 242.0         | 247.0                   | 243.0                 |
| 2024-06-28   | 52.0          | 35.0                    | 52.0                  |
| 2024-06-29   | 289.0         | 221.0                   | 290.0                 |
| 2024-06-30   | 290.0         | 293.0                   | 295.0                 |

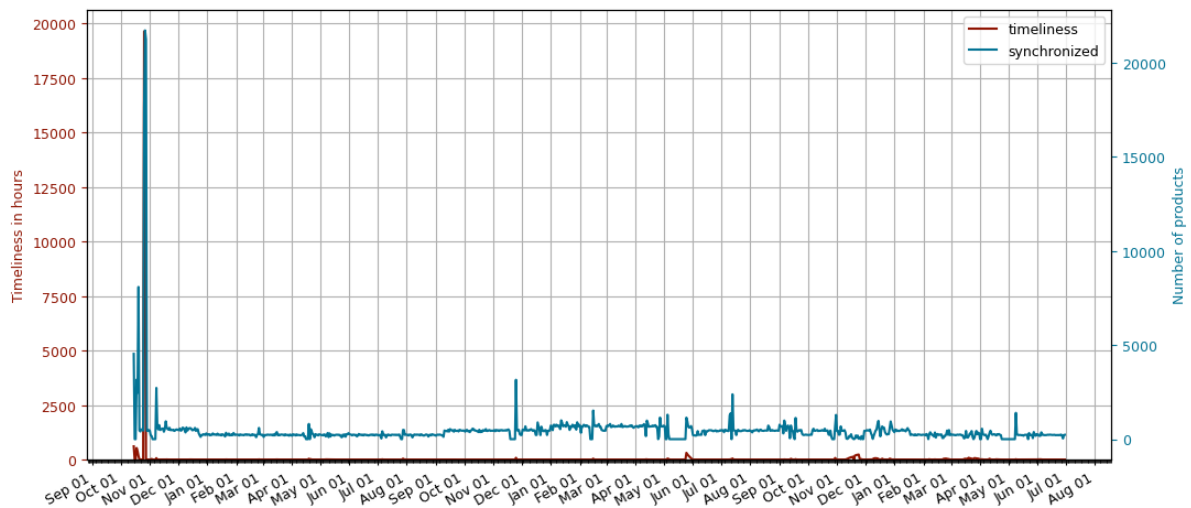
## 3.2 Missing products

The overall total number of Sentinel-1 products is 4337890. The number of overall Sentinel-1 missing products consists of 1504164 images. This represents that a 700% of the total was included in MET Norway DHR, while a -600% was not included.

The total number of Sentinel-1 products in June is 629253. The number of Sentinel-1 missing products during June consists of 493069 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

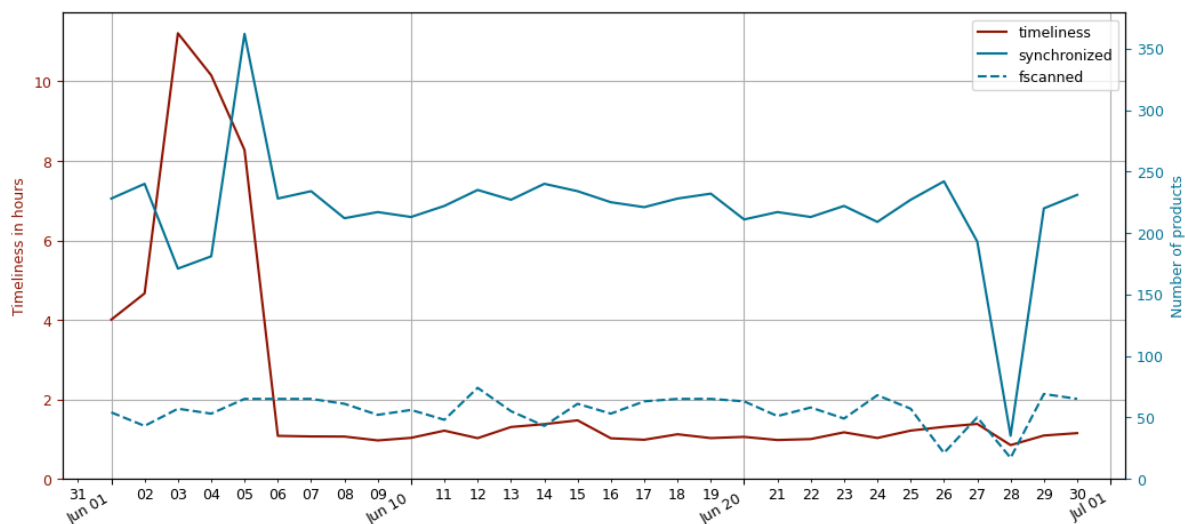
## 3.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-1 synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

| day        | size       | number | timeliness |
|------------|------------|--------|------------|
| 2024-06-01 | 573.586575 | 228    | 4.008424   |
| 2024-06-02 | 602.697822 | 240    | 4.668558   |
| 2024-06-03 | 447.361816 | 171    | 11.208645  |
| 2024-06-04 | 429.345283 | 181    | 10.151888  |
| 2024-06-05 | 878.515892 | 362    | 8.275890   |
| 2024-06-06 | 542.776345 | 228    | 1.086757   |
| 2024-06-07 | 578.055743 | 234    | 1.071858   |
| 2024-06-08 | 527.455208 | 212    | 1.068970   |
| 2024-06-09 | 484.107762 | 217    | 0.971881   |
| 2024-06-10 | 544.682446 | 213    | 1.036654   |
| 2024-06-11 | 517.138081 | 222    | 1.217173   |
| 2024-06-12 | 573.884253 | 235    | 1.028596   |
| 2024-06-13 | 565.205567 | 227    | 1.308956   |
| 2024-06-14 | 602.576150 | 240    | 1.380649   |
| 2024-06-15 | 612.980866 | 234    | 1.476652   |
| 2024-06-16 | 489.736535 | 225    | 1.025320   |
| 2024-06-17 | 545.969514 | 221    | 0.988423   |
| 2024-06-18 | 543.039621 | 228    | 1.126548   |
| 2024-06-19 | 572.158144 | 232    | 1.030332   |
| 2024-06-20 | 520.014030 | 211    | 1.060886   |
| 2024-06-21 | 482.766502 | 217    | 0.982006   |
| 2024-06-22 | 544.858943 | 213    | 1.005997   |
| 2024-06-23 | 516.937374 | 222    | 1.175407   |
| 2024-06-24 | 557.047024 | 209    | 1.033422   |
| 2024-06-25 | 565.117175 | 227    | 1.218670   |
| 2024-06-26 | 601.651127 | 242    | 1.313481   |
| 2024-06-27 | 502.955666 | 193    | 1.387046   |
| 2024-06-28 | 61.040346  | 35     | 0.853984   |
| 2024-06-29 | 544.754584 | 220    | 1.094921   |
| 2024-06-30 | 568.613085 | 231    | 1.155144   |

It is also given extra information in the table below where the data are assessed for products synchronized from KSAT.

|            | size      | number | timeliness |
|------------|-----------|--------|------------|
| day        |           |        |            |
| 2024-06-01 | 69.669634 | 54     | 0.705341   |
| 2024-06-02 | 56.503604 | 43     | 0.818488   |
| 2024-06-03 | 72.197039 | 57     | 0.808863   |
| 2024-06-04 | 57.043563 | 53     | 0.609231   |
| 2024-06-05 | 73.034795 | 65     | 0.694673   |
| 2024-06-06 | 80.657256 | 65     | 0.775067   |
| 2024-06-07 | 71.049030 | 65     | 0.649412   |
| 2024-06-08 | 75.480167 | 61     | 0.683836   |
| 2024-06-09 | 54.557210 | 52     | 0.710439   |
| 2024-06-10 | 71.837406 | 56     | 0.706597   |
| 2024-06-11 | 55.499263 | 48     | 0.668717   |
| 2024-06-12 | 76.182993 | 74     | 0.678187   |
| 2024-06-13 | 71.880973 | 55     | 0.694255   |
| 2024-06-14 | 56.110213 | 43     | 0.817927   |
| 2024-06-15 | 76.652518 | 61     | 0.833738   |
| 2024-06-16 | 50.065663 | 53     | 0.606589   |
| 2024-06-17 | 68.561495 | 63     | 0.672422   |
| 2024-06-18 | 79.179925 | 65     | 0.784177   |
| 2024-06-19 | 70.291791 | 65     | 0.639039   |
| 2024-06-20 | 77.199855 | 63     | 0.700850   |
| 2024-06-21 | 52.216735 | 51     | 0.704775   |
| 2024-06-22 | 74.452897 | 58     | 0.800489   |
| 2024-06-23 | 53.184251 | 49     | 0.700881   |
| 2024-06-24 | 68.419176 | 68     | 0.642628   |
| 2024-06-25 | 75.063522 | 57     | 0.658467   |
| 2024-06-26 | 45.085815 | 21     | 0.771415   |
| 2024-06-27 | 65.461076 | 50     | 0.884325   |
| 2024-06-28 | 10.870341 | 17     | 0.485842   |
| 2024-06-29 | 75.721124 | 69     | 0.635860   |
| 2024-06-30 | 79.632406 | 65     | 0.781336   |





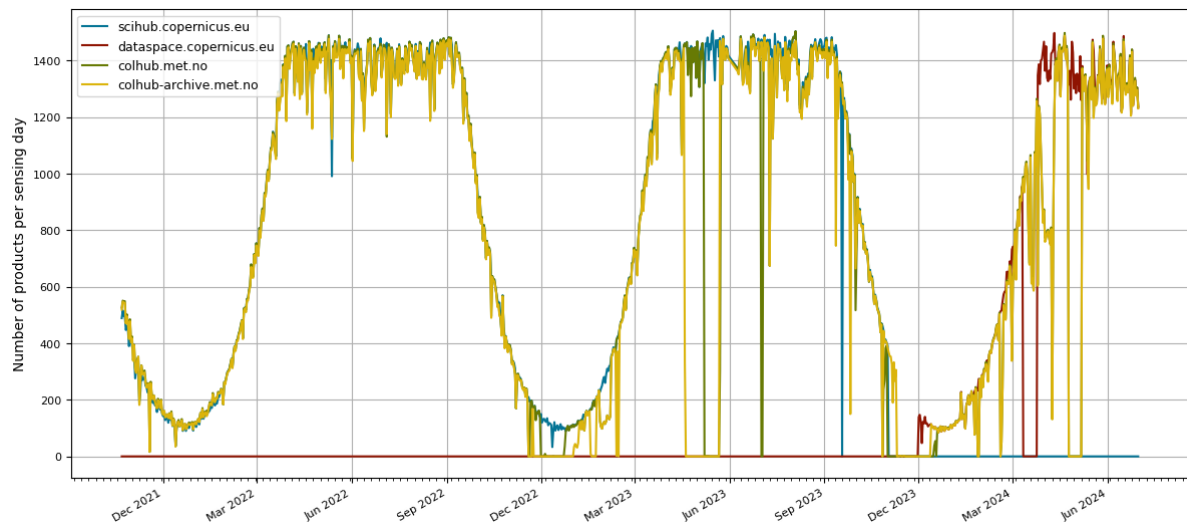
## SENTINEL-2 LEVEL-1C PRODUCTS

This section shows the performance of MET Norway for Sentinel-2 Level-1C products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

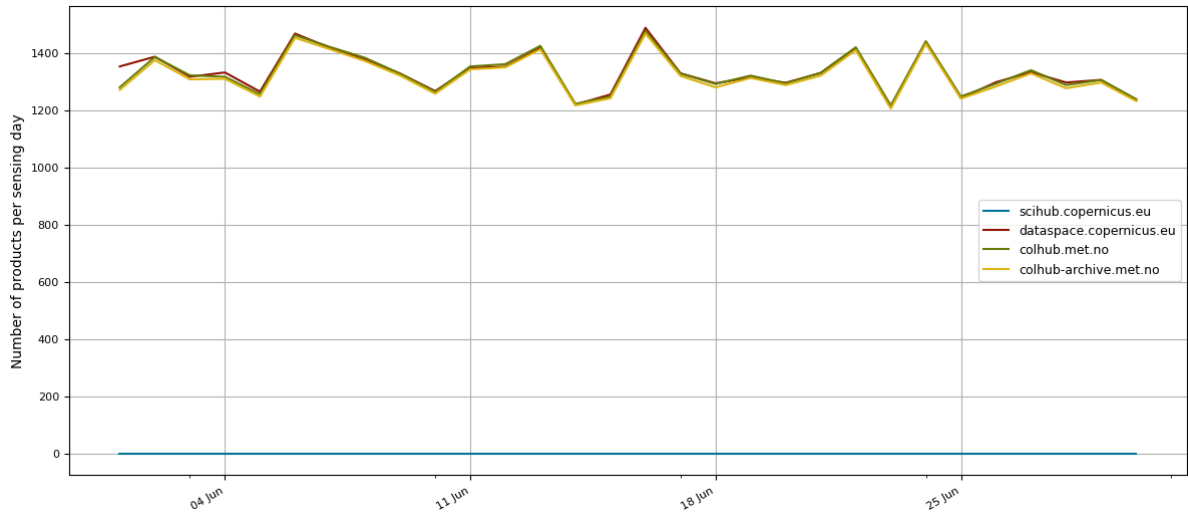
### 4.1 Products on portals

The following section contains an update on the Sentinel-2 Level-1C products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-2 Level-1C.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

|              | colhub.met.no | dataspace.copernicus.eu | colhub-archive.met.no |
|--------------|---------------|-------------------------|-----------------------|
| sensing_date |               |                         |                       |
| 2024-06-01   | 1279.0        | 1352.0                  | 1270.0                |
| 2024-06-02   | 1385.0        | 1386.0                  | 1374.0                |
| 2024-06-03   | 1321.0        | 1316.0                  | 1307.0                |
| 2024-06-04   | 1316.0        | 1331.0                  | 1309.0                |
| 2024-06-05   | 1255.0        | 1264.0                  | 1247.0                |
| 2024-06-06   | 1461.0        | 1467.0                  | 1452.0                |
| 2024-06-07   | 1420.0        | 1417.0                  | 1412.0                |
| 2024-06-08   | 1382.0        | 1376.0                  | 1371.0                |
| 2024-06-09   | 1327.0        | 1327.0                  | 1320.0                |
| 2024-06-10   | 1263.0        | 1266.0                  | 1257.0                |
| 2024-06-11   | 1352.0        | 1347.0                  | 1342.0                |
| 2024-06-12   | 1360.0        | 1351.0                  | 1349.0                |
| 2024-06-13   | 1424.0        | 1417.0                  | 1412.0                |
| 2024-06-14   | 1221.0        | 1219.0                  | 1216.0                |
| 2024-06-15   | 1247.0        | 1254.0                  | 1241.0                |
| 2024-06-16   | 1476.0        | 1487.0                  | 1467.0                |
| 2024-06-17   | 1327.0        | 1328.0                  | 1319.0                |
| 2024-06-18   | 1291.0        | 1293.0                  | 1279.0                |
| 2024-06-19   | 1320.0        | 1314.0                  | 1312.0                |
| 2024-06-20   | 1293.0        | 1295.0                  | 1287.0                |
| 2024-06-21   | 1330.0        | 1329.0                  | 1320.0                |
| 2024-06-22   | 1419.0        | 1416.0                  | 1409.0                |
| 2024-06-23   | 1216.0        | 1209.0                  | 1205.0                |
| 2024-06-24   | 1440.0        | 1438.0                  | 1431.0                |
| 2024-06-25   | 1247.0        | 1241.0                  | 1240.0                |
| 2024-06-26   | 1292.0        | 1297.0                  | 1282.0                |
| 2024-06-27   | 1339.0        | 1332.0                  | 1328.0                |
| 2024-06-28   | 1287.0        | 1296.0                  | 1276.0                |
| 2024-06-29   | 1305.0        | 1305.0                  | 1296.0                |
| 2024-06-30   | 1238.0        | 1234.0                  | 1231.0                |

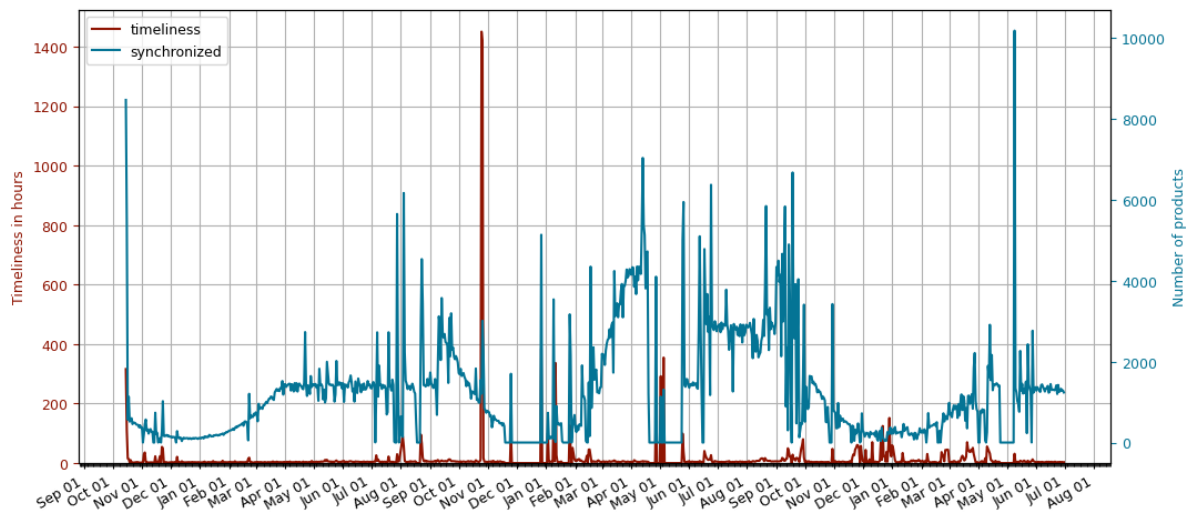
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The overall total number of Sentinel-2 Level-1C products is 4337890. The number of overall Sentinel-2 Level-1C missing products consists of 1504164 images. This represents that a 700% of the total was included in MET Norway DHR, while a -600% was not included.

The total number of Sentinel-2 Level-1C products in June is 629253. The number of Sentinel-2 Level-1C missing products during June consists of 493069 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

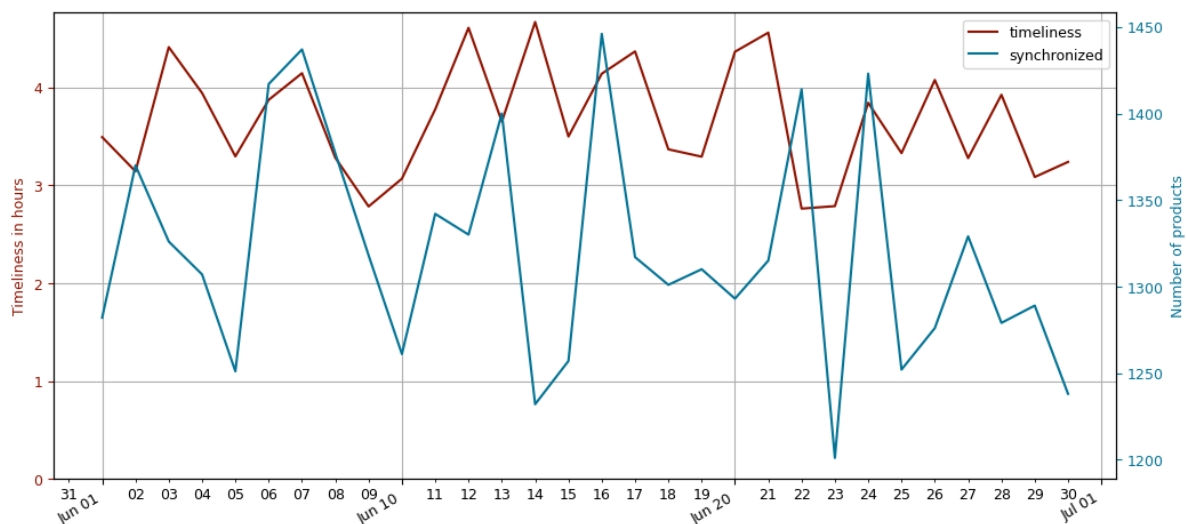
## 4.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-2 Level-1C synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

| day        | size       | number | timeliness |
|------------|------------|--------|------------|
| 2024-06-01 | 553.747496 | 1282   | 3.492392   |
| 2024-06-02 | 568.674638 | 1370   | 3.142504   |
| 2024-06-03 | 550.721056 | 1326   | 4.411189   |
| 2024-06-04 | 542.888455 | 1307   | 3.942748   |
| 2024-06-05 | 527.477135 | 1251   | 3.295593   |
| 2024-06-06 | 615.164443 | 1417   | 3.872849   |
| 2024-06-07 | 638.899162 | 1437   | 4.145169   |
| 2024-06-08 | 603.378025 | 1377   | 3.281738   |
| 2024-06-09 | 571.000241 | 1318   | 2.784092   |
| 2024-06-10 | 538.808035 | 1261   | 3.067850   |
| 2024-06-11 | 586.280206 | 1342   | 3.776335   |
| 2024-06-12 | 562.264872 | 1330   | 4.608875   |
| 2024-06-13 | 613.433905 | 1400   | 3.650066   |
| 2024-06-14 | 528.310345 | 1232   | 4.667951   |
| 2024-06-15 | 546.272540 | 1257   | 3.498300   |
| 2024-06-16 | 628.079729 | 1446   | 4.139749   |
| 2024-06-17 | 578.338833 | 1317   | 4.367522   |
| 2024-06-18 | 571.042784 | 1301   | 3.367578   |
| 2024-06-19 | 574.179022 | 1310   | 3.292580   |
| 2024-06-20 | 567.501092 | 1293   | 4.364312   |
| 2024-06-21 | 584.530328 | 1315   | 4.559234   |
| 2024-06-22 | 627.457971 | 1414   | 2.762213   |
| 2024-06-23 | 530.788140 | 1201   | 2.787432   |
| 2024-06-24 | 611.331923 | 1423   | 3.843111   |
| 2024-06-25 | 552.364147 | 1252   | 3.328838   |
| 2024-06-26 | 550.455843 | 1276   | 4.075766   |
| 2024-06-27 | 582.485452 | 1329   | 3.277750   |
| 2024-06-28 | 570.585791 | 1279   | 3.924810   |
| 2024-06-29 | 574.666335 | 1289   | 3.084740   |
| 2024-06-30 | 544.484380 | 1238   | 3.238979   |

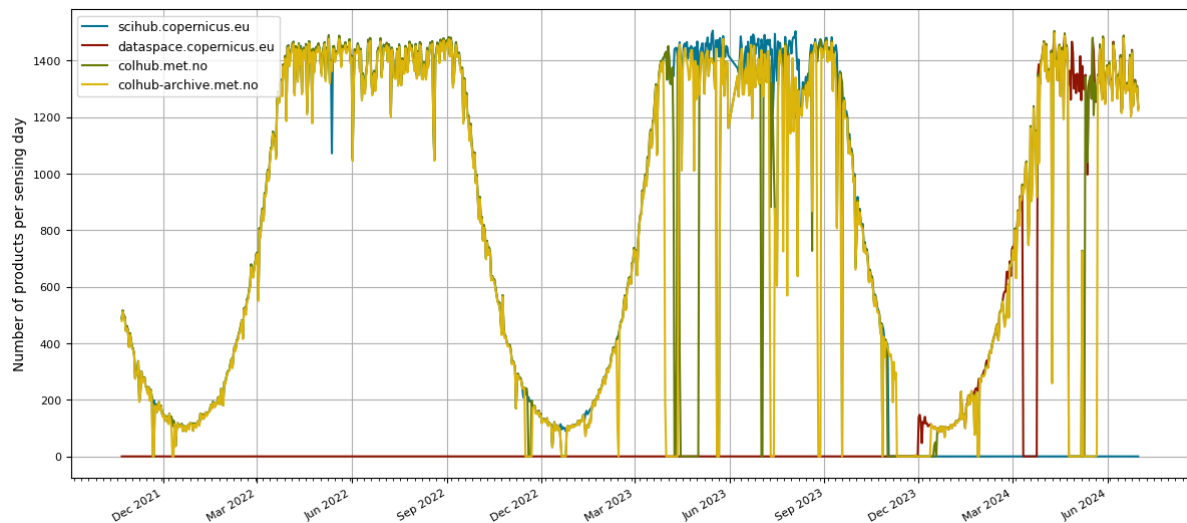
## SENTINEL-2 LEVEL-2A PRODUCTS

This section shows the performance of MET Norway for Sentinel-2 Level-2A products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

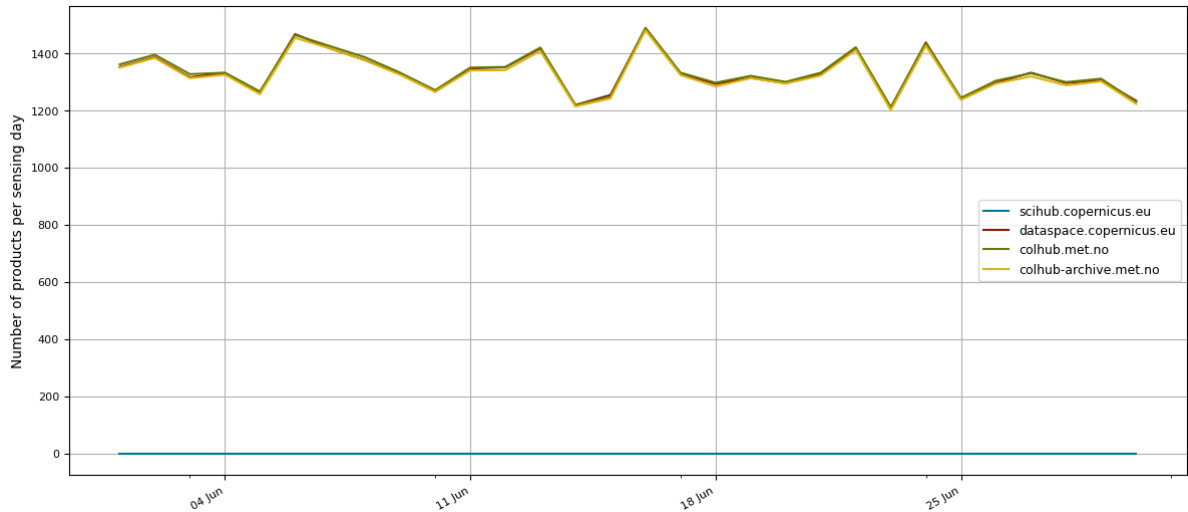
### 5.1 Products on portals

The following section contains an update on the Sentinel-2 Level-2A products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-2 Level-2A.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

|              | colhub.met.no | dataspace.copernicus.eu | colhub-archive.met.no |
|--------------|---------------|-------------------------|-----------------------|
| sensing_date |               |                         |                       |
| 2024-06-01   | 1361.0        | 1352.0                  | 1350.0                |
| 2024-06-02   | 1395.0        | 1386.0                  | 1384.0                |
| 2024-06-03   | 1327.0        | 1316.0                  | 1313.0                |
| 2024-06-04   | 1332.0        | 1331.0                  | 1325.0                |
| 2024-06-05   | 1266.0        | 1264.0                  | 1257.0                |
| 2024-06-06   | 1464.0        | 1467.0                  | 1454.0                |
| 2024-06-07   | 1425.0        | 1417.0                  | 1417.0                |
| 2024-06-08   | 1386.0        | 1376.0                  | 1375.0                |
| 2024-06-09   | 1332.0        | 1327.0                  | 1325.0                |
| 2024-06-10   | 1271.0        | 1266.0                  | 1265.0                |
| 2024-06-11   | 1350.0        | 1347.0                  | 1340.0                |
| 2024-06-12   | 1352.0        | 1351.0                  | 1341.0                |
| 2024-06-13   | 1420.0        | 1417.0                  | 1408.0                |
| 2024-06-14   | 1219.0        | 1219.0                  | 1214.0                |
| 2024-06-15   | 1248.0        | 1254.0                  | 1242.0                |
| 2024-06-16   | 1489.0        | 1487.0                  | 1480.0                |
| 2024-06-17   | 1332.0        | 1328.0                  | 1324.0                |
| 2024-06-18   | 1297.0        | 1293.0                  | 1284.0                |
| 2024-06-19   | 1321.0        | 1314.0                  | 1313.0                |
| 2024-06-20   | 1300.0        | 1295.0                  | 1294.0                |
| 2024-06-21   | 1332.0        | 1329.0                  | 1322.0                |
| 2024-06-22   | 1421.0        | 1416.0                  | 1411.0                |
| 2024-06-23   | 1212.0        | 1209.0                  | 1201.0                |
| 2024-06-24   | 1435.0        | 1438.0                  | 1426.0                |
| 2024-06-25   | 1244.0        | 1241.0                  | 1237.0                |
| 2024-06-26   | 1304.0        | 1297.0                  | 1294.0                |
| 2024-06-27   | 1330.0        | 1332.0                  | 1319.0                |
| 2024-06-28   | 1299.0        | 1296.0                  | 1288.0                |
| 2024-06-29   | 1311.0        | 1305.0                  | 1302.0                |
| 2024-06-30   | 1230.0        | 1234.0                  | 1223.0                |

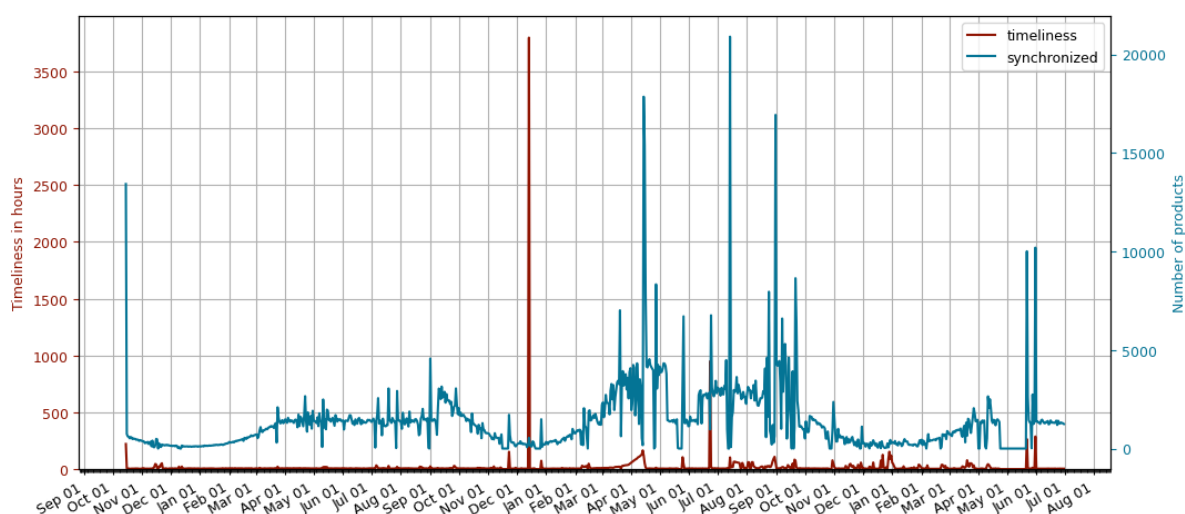
## 5.2 Missing products

The overall total number of Sentinel-2 Level-2A products is 4337890. The number of overall Sentinel-2 Level-2A missing products consists of 1504164 images. This represents that a 700% of the total was included in MET Norway DHR, while a -600% was not included.

The total number of Sentinel-2 level-2A products in June is 629253. The number of Sentinel-2 level-2A missing products during June consists of 493069 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

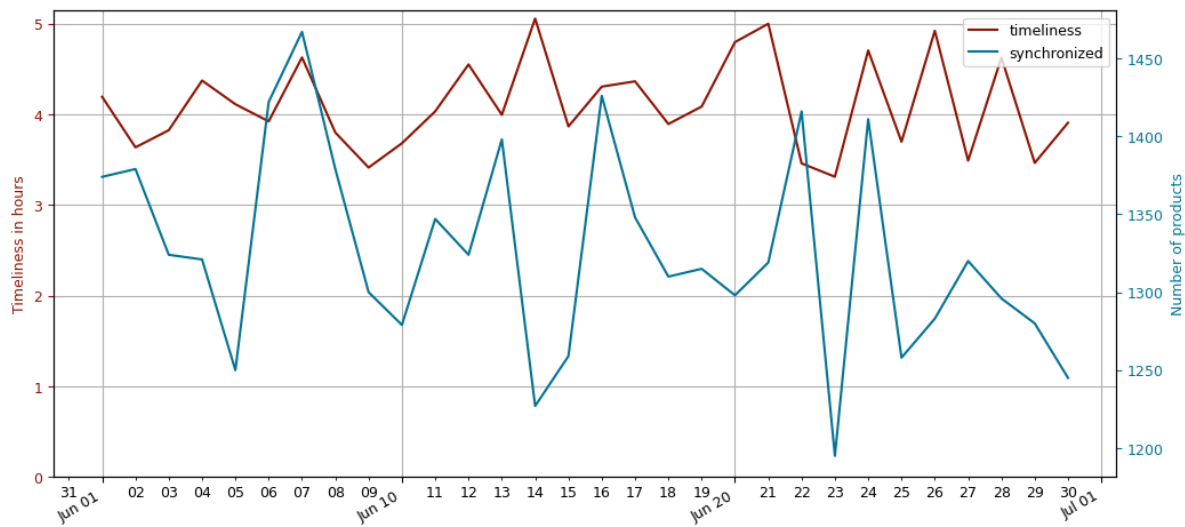
## 5.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-2 Level-2A synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

| day        | size       | number | timeliness |
|------------|------------|--------|------------|
| 2024-06-01 | 751.828423 | 1374   | 4.194378   |
| 2024-06-02 | 730.951375 | 1379   | 3.637182   |
| 2024-06-03 | 703.240031 | 1324   | 3.826123   |
| 2024-06-04 | 708.260957 | 1321   | 4.373770   |
| 2024-06-05 | 678.178996 | 1250   | 4.112707   |
| 2024-06-06 | 794.607382 | 1422   | 3.923551   |
| 2024-06-07 | 835.288848 | 1467   | 4.628696   |
| 2024-06-08 | 769.625144 | 1379   | 3.800741   |
| 2024-06-09 | 720.340181 | 1300   | 3.414381   |
| 2024-06-10 | 694.166485 | 1279   | 3.681799   |
| 2024-06-11 | 750.832721 | 1347   | 4.033959   |
| 2024-06-12 | 717.300195 | 1324   | 4.551399   |
| 2024-06-13 | 783.334471 | 1398   | 3.996254   |
| 2024-06-14 | 669.495833 | 1227   | 5.057447   |
| 2024-06-15 | 699.839532 | 1259   | 3.867628   |
| 2024-06-16 | 790.306340 | 1426   | 4.306647   |
| 2024-06-17 | 761.765863 | 1348   | 4.364976   |
| 2024-06-18 | 738.774123 | 1310   | 3.894654   |
| 2024-06-19 | 735.816630 | 1315   | 4.087011   |
| 2024-06-20 | 725.971415 | 1298   | 4.797683   |
| 2024-06-21 | 745.353117 | 1319   | 5.000396   |
| 2024-06-22 | 808.168950 | 1416   | 3.460147   |
| 2024-06-23 | 681.835591 | 1195   | 3.312844   |
| 2024-06-24 | 780.398893 | 1411   | 4.706095   |
| 2024-06-25 | 707.499509 | 1258   | 3.698696   |
| 2024-06-26 | 715.367344 | 1283   | 4.922823   |
| 2024-06-27 | 739.189200 | 1320   | 3.490652   |
| 2024-06-28 | 751.029146 | 1296   | 4.626856   |
| 2024-06-29 | 735.765350 | 1280   | 3.465305   |
| 2024-06-30 | 706.999365 | 1245   | 3.908629   |



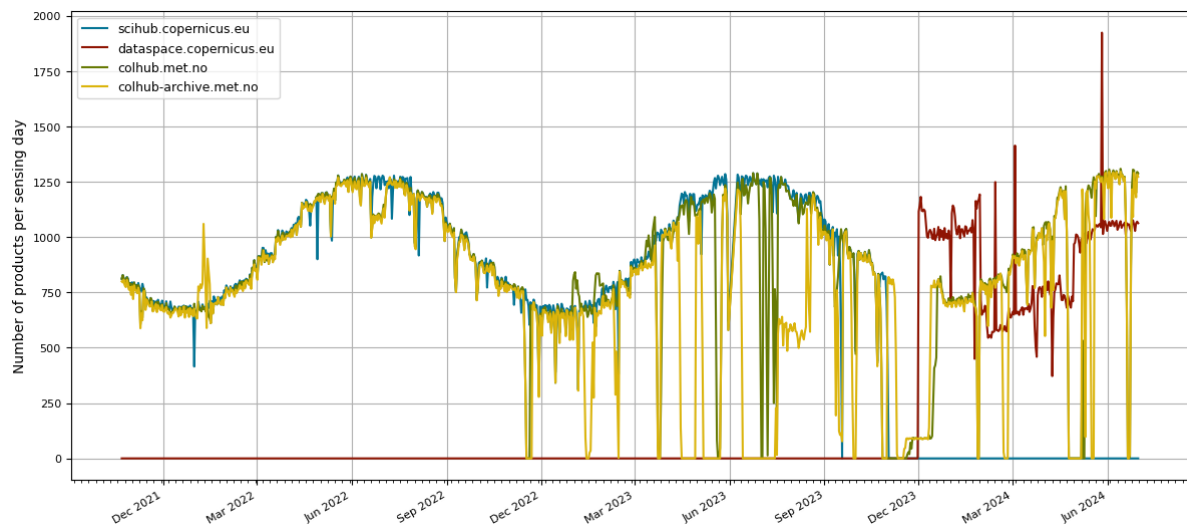
## SENTINEL-3 PRODUCTS

This section shows the performance of MET Norway for Sentinel-3 products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

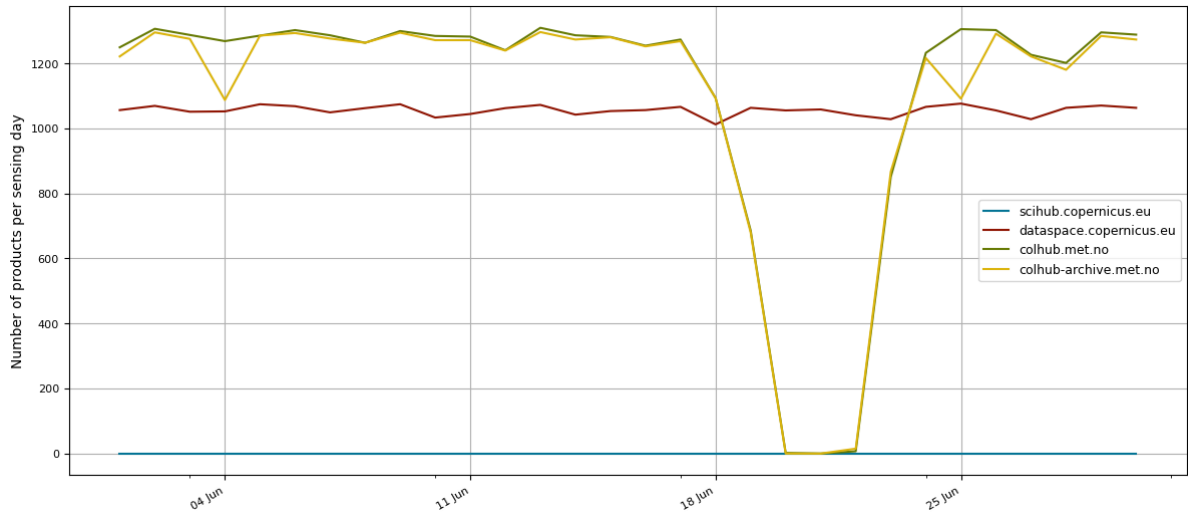
### 6.1 Products on portals

The following section contains an update on the Sentinel-3 products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-3.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

|              | colhub.met.no | dataspace.copernicus.eu | colhub-archive.met.no |
|--------------|---------------|-------------------------|-----------------------|
| sensing_date |               |                         |                       |
| 2024-06-01   | 1249.0        | 1056.0                  | 1221.0                |
| 2024-06-02   | 1306.0        | 1069.0                  | 1295.0                |
| 2024-06-03   | 1287.0        | 1051.0                  | 1275.0                |
| 2024-06-04   | 1268.0        | 1052.0                  | 1087.0                |
| 2024-06-05   | 1285.0        | 1074.0                  | 1285.0                |
| 2024-06-06   | 1302.0        | 1068.0                  | 1293.0                |
| 2024-06-07   | 1286.0        | 1049.0                  | 1276.0                |
| 2024-06-08   | 1263.0        | 1062.0                  | 1263.0                |
| 2024-06-09   | 1299.0        | 1074.0                  | 1294.0                |
| 2024-06-10   | 1284.0        | 1033.0                  | 1271.0                |
| 2024-06-11   | 1282.0        | 1044.0                  | 1271.0                |
| 2024-06-12   | 1240.0        | 1062.0                  | 1239.0                |
| 2024-06-13   | 1309.0        | 1072.0                  | 1296.0                |
| 2024-06-14   | 1286.0        | 1042.0                  | 1273.0                |
| 2024-06-15   | 1281.0        | 1053.0                  | 1280.0                |
| 2024-06-16   | 1254.0        | 1056.0                  | 1252.0                |
| 2024-06-17   | 1273.0        | 1066.0                  | 1268.0                |
| 2024-06-18   | 1093.0        | 1012.0                  | 1093.0                |
| 2024-06-19   | 686.0         | 1063.0                  | 680.0                 |
| 2024-06-20   | 2.0           | 1055.0                  | 0.0                   |
| 2024-06-21   | 0.0           | 1058.0                  | 0.0                   |
| 2024-06-22   | 7.0           | 1040.0                  | 15.0                  |
| 2024-06-23   | 851.0         | 1028.0                  | 867.0                 |
| 2024-06-24   | 1232.0        | 1066.0                  | 1216.0                |
| 2024-06-25   | 1305.0        | 1076.0                  | 1091.0                |
| 2024-06-26   | 1302.0        | 1055.0                  | 1291.0                |
| 2024-06-27   | 1226.0        | 1028.0                  | 1221.0                |
| 2024-06-28   | 1201.0        | 1063.0                  | 1180.0                |
| 2024-06-29   | 1295.0        | 1070.0                  | 1284.0                |
| 2024-06-30   | 1288.0        | 1063.0                  | 1273.0                |

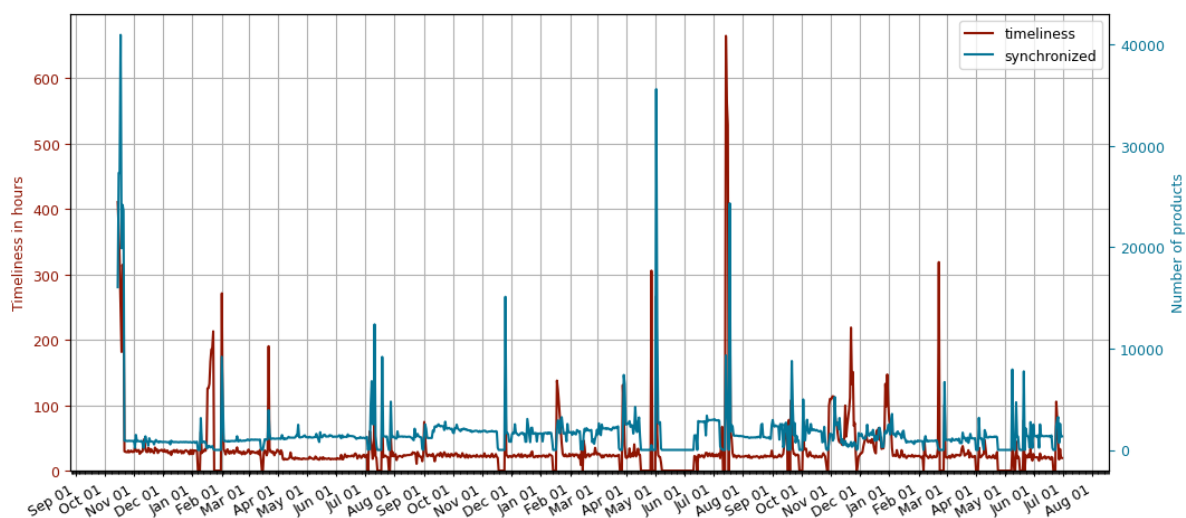
## 6.2 Missing products

The overall total number of Sentinel-3 products is 4337890. The number of overall Sentinel-3 missing products consists of 1504164 images. This represents that a 700% of the total was included in MET Norway DHR, while a -600% was not included.

The total number of Sentinel-3 products in June is 629253. The number of Sentinel-3 missing products during June consists of 493069 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

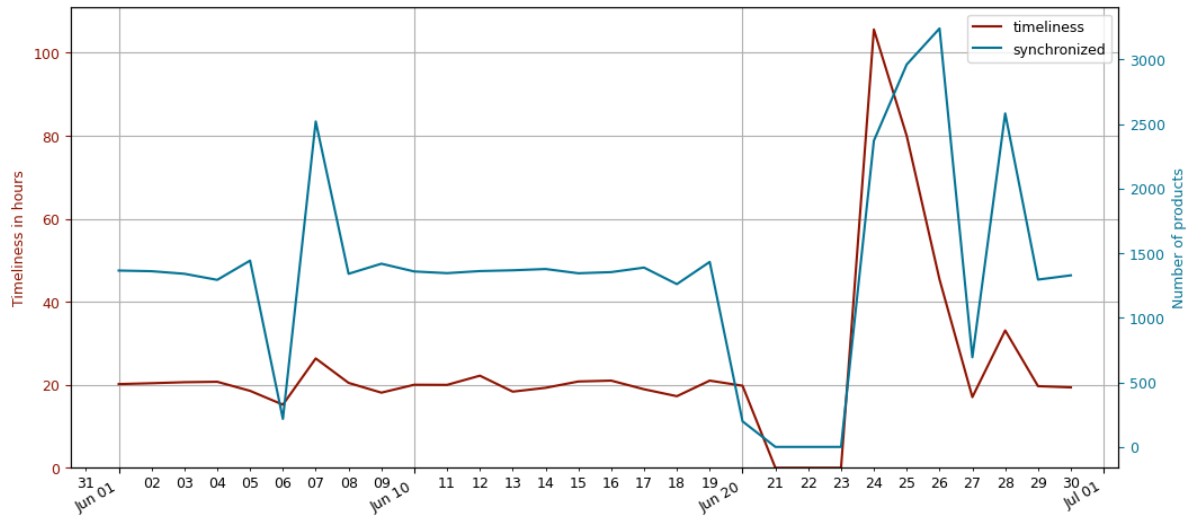
## 6.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-3 synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

| day        | size        | number | timeliness |
|------------|-------------|--------|------------|
| 2024-06-01 | 456.416364  | 1365   | 20.165028  |
| 2024-06-02 | 455.016207  | 1360   | 20.376011  |
| 2024-06-03 | 449.066853  | 1340   | 20.620741  |
| 2024-06-04 | 425.124316  | 1293   | 20.723931  |
| 2024-06-05 | 484.825448  | 1442   | 18.543762  |
| 2024-06-06 | 66.149006   | 217    | 15.212766  |
| 2024-06-07 | 850.604657  | 2519   | 26.348673  |
| 2024-06-08 | 458.055733  | 1340   | 20.460334  |
| 2024-06-09 | 475.856444  | 1418   | 18.105311  |
| 2024-06-10 | 462.679006  | 1358   | 20.009771  |
| 2024-06-11 | 454.742751  | 1345   | 19.978488  |
| 2024-06-12 | 466.241353  | 1361   | 22.191870  |
| 2024-06-13 | 460.686477  | 1367   | 18.350491  |
| 2024-06-14 | 468.078022  | 1377   | 19.271292  |
| 2024-06-15 | 454.724147  | 1344   | 20.794854  |
| 2024-06-16 | 459.850258  | 1353   | 21.002420  |
| 2024-06-17 | 467.812917  | 1388   | 18.921717  |
| 2024-06-18 | 438.963235  | 1260   | 17.250764  |
| 2024-06-19 | 481.356386  | 1432   | 21.004493  |
| 2024-06-20 | 67.649867   | 198    | 19.771868  |
| 2024-06-21 | 0.000000    | 0      | 0.000000   |
| 2024-06-22 | 0.000000    | 0      | 0.000000   |
| 2024-06-23 | 0.000000    | 0      | 0.000000   |
| 2024-06-24 | 832.699929  | 2370   | 105.575180 |
| 2024-06-25 | 967.684490  | 2960   | 79.951609  |
| 2024-06-26 | 1097.929462 | 3239   | 45.355165  |
| 2024-06-27 | 222.355496  | 694    | 17.029535  |
| 2024-06-28 | 897.890929  | 2581   | 33.086661  |
| 2024-06-29 | 445.919705  | 1295   | 19.670091  |
| 2024-06-30 | 440.081535  | 1328   | 19.370430  |

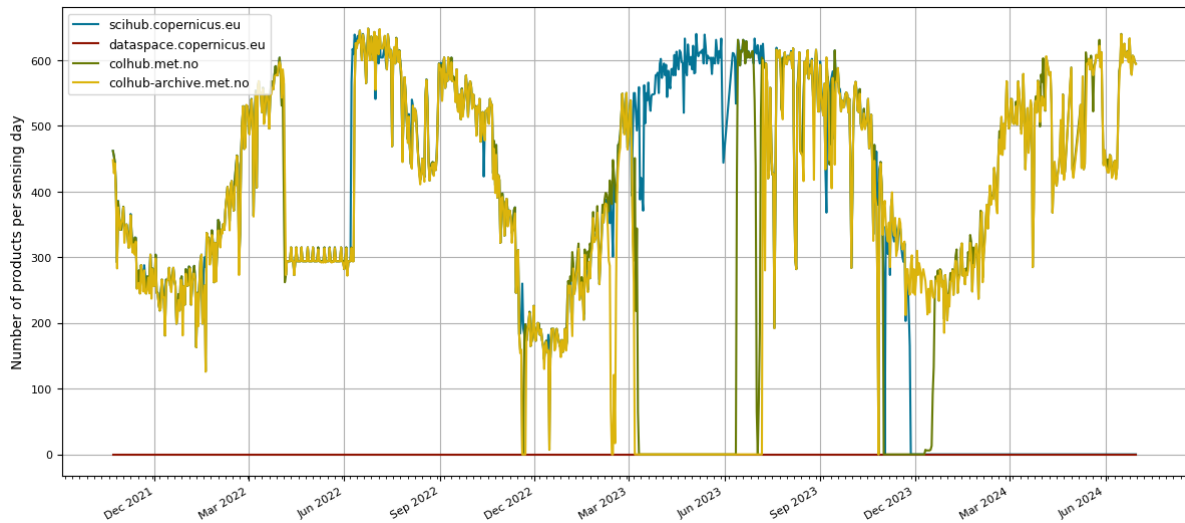
## SENTINEL-5P PRODUCTS

This section shows the performance of MET Norway for Sentinel-5p products. Both, an overall status and last month status are shown below.

Note that scihub is no longer in operation but is included for historical comparisons.

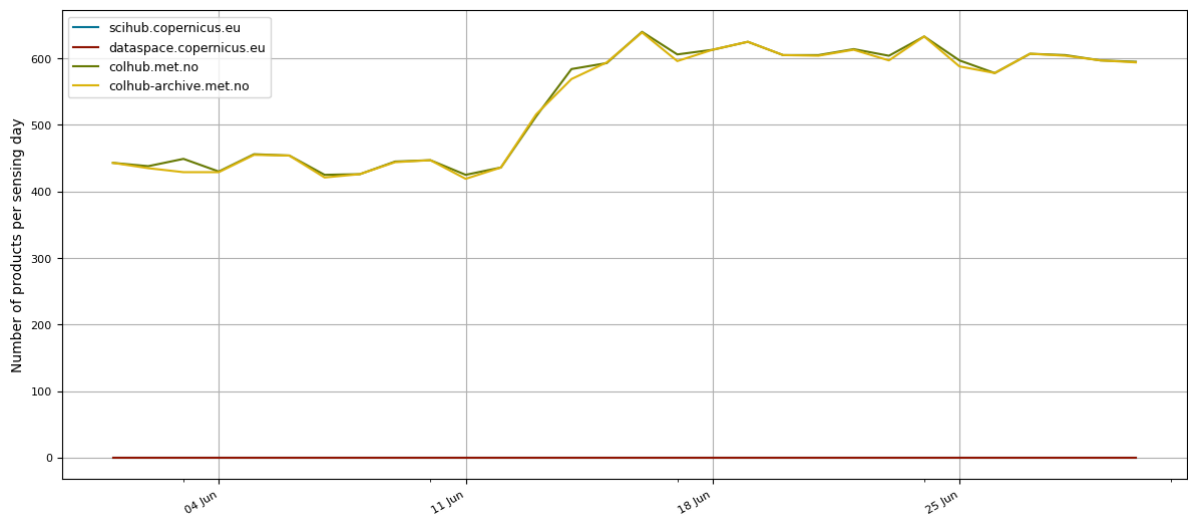
### 7.1 Products on portals

The following section contains an update on the Sentinel-5p products included in the different FEs and BEs.



The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-5p.

While the figure below shows a zoom on the last month.



A table is also included for more detailed information.

|              | colhub.met.no | dataspace.copernicus.eu | colhub-archive.met.no |
|--------------|---------------|-------------------------|-----------------------|
| sensing_date |               |                         |                       |
| 2024-06-01   | 443.0         | 0.0                     | 443.0                 |
| 2024-06-02   | 438.0         | 0.0                     | 435.0                 |
| 2024-06-03   | 449.0         | 0.0                     | 429.0                 |
| 2024-06-04   | 430.0         | 0.0                     | 429.0                 |
| 2024-06-05   | 456.0         | 0.0                     | 455.0                 |
| 2024-06-06   | 454.0         | 0.0                     | 454.0                 |
| 2024-06-07   | 425.0         | 0.0                     | 421.0                 |
| 2024-06-08   | 426.0         | 0.0                     | 426.0                 |
| 2024-06-09   | 445.0         | 0.0                     | 444.0                 |
| 2024-06-10   | 447.0         | 0.0                     | 447.0                 |
| 2024-06-11   | 425.0         | 0.0                     | 419.0                 |
| 2024-06-12   | 436.0         | 0.0                     | 436.0                 |
| 2024-06-13   | 513.0         | 0.0                     | 516.0                 |
| 2024-06-14   | 584.0         | 0.0                     | 569.0                 |
| 2024-06-15   | 593.0         | 0.0                     | 594.0                 |
| 2024-06-16   | 640.0         | 0.0                     | 639.0                 |
| 2024-06-17   | 606.0         | 0.0                     | 596.0                 |
| 2024-06-18   | 613.0         | 0.0                     | 613.0                 |
| 2024-06-19   | 625.0         | 0.0                     | 625.0                 |
| 2024-06-20   | 605.0         | 0.0                     | 605.0                 |
| 2024-06-21   | 605.0         | 0.0                     | 604.0                 |
| 2024-06-22   | 614.0         | 0.0                     | 613.0                 |
| 2024-06-23   | 604.0         | 0.0                     | 597.0                 |
| 2024-06-24   | 633.0         | 0.0                     | 633.0                 |
| 2024-06-25   | 597.0         | 0.0                     | 588.0                 |
| 2024-06-26   | 578.0         | 0.0                     | 578.0                 |
| 2024-06-27   | 607.0         | 0.0                     | 607.0                 |
| 2024-06-28   | 605.0         | 0.0                     | 604.0                 |
| 2024-06-29   | 597.0         | 0.0                     | 597.0                 |
| 2024-06-30   | 595.0         | 0.0                     | 594.0                 |

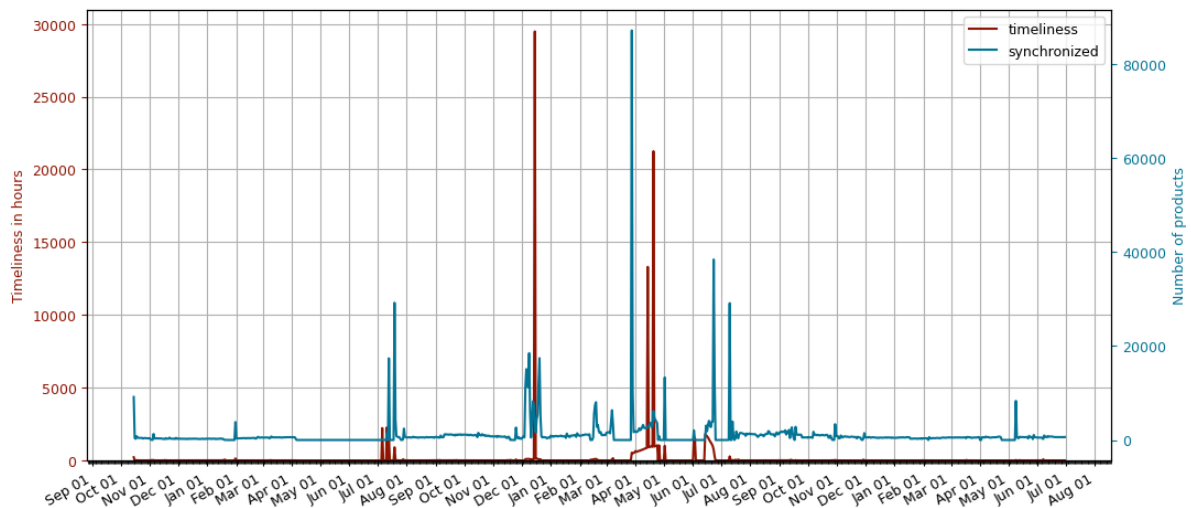
## 7.2 Missing products

The overall total number of Sentinel-5p products is 4337890. The number of overall Sentinel-5p missing products consists of 1504164 images. This represents that a 700% of the total was included in MET Norway DHR, while a -600% was not included.

The total number of Sentinel-5p products in June is 629253. The number of Sentinel-5p missing products during June consists of 493069 images. This represents that a 0% of the total was included in MET Norway DHR, while a 100% was not included.

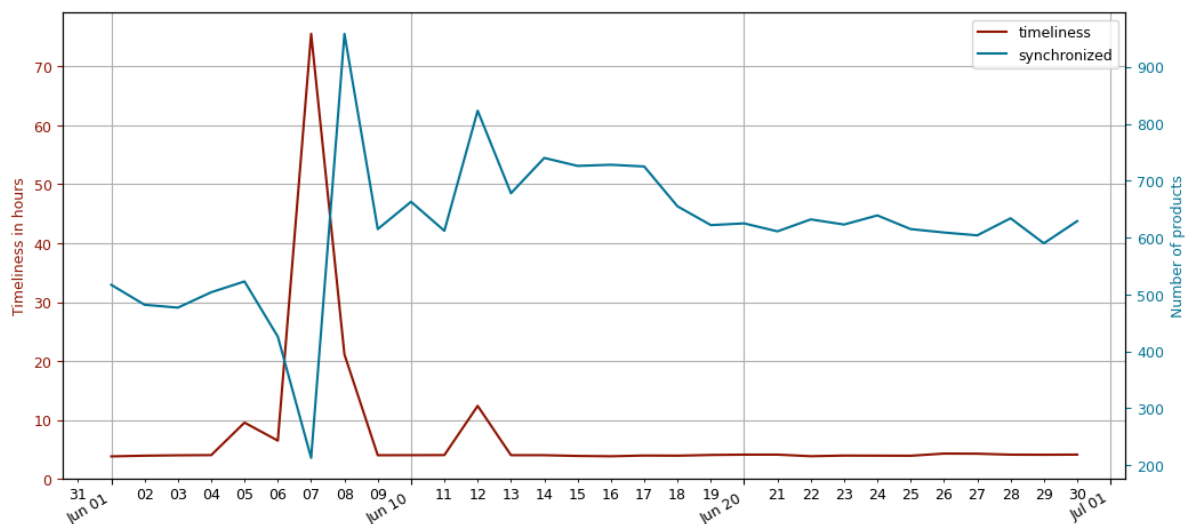
## 7.3 Data ingestion

In this section the time difference between sensing time and ingestion time at MET Norway is assessed. The ingestion time is the time at which a Sentinel product was downloaded to MET Norway BE and so, it is automatically available in at least one of the MET Norway FEs.



The figure above shows an overall status of the Sentinel-5p synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.



A more detailed information is given in the table below where the last month are assessed for products synchronized from ESA.

| day        | size       | number | timeliness |
|------------|------------|--------|------------|
| 2024-06-01 | 341.688066 | 517    | 3.852140   |
| 2024-06-02 | 337.323424 | 482    | 3.966846   |
| 2024-06-03 | 346.335749 | 477    | 4.035032   |
| 2024-06-04 | 305.836742 | 504    | 4.063078   |
| 2024-06-05 | 374.016056 | 523    | 9.579577   |
| 2024-06-06 | 391.600746 | 426    | 6.519840   |
| 2024-06-07 | 347.292059 | 213    | 75.535571  |
| 2024-06-08 | 374.071778 | 958    | 21.144358  |
| 2024-06-09 | 388.315185 | 615    | 4.044303   |
| 2024-06-10 | 417.406847 | 663    | 4.054087   |
| 2024-06-11 | 236.967140 | 612    | 4.071119   |
| 2024-06-12 | 600.220485 | 823    | 12.415015  |
| 2024-06-13 | 408.194557 | 678    | 4.054485   |
| 2024-06-14 | 438.594722 | 740    | 4.049392   |
| 2024-06-15 | 427.666212 | 726    | 3.924425   |
| 2024-06-16 | 403.646404 | 728    | 3.871681   |
| 2024-06-17 | 436.678748 | 725    | 3.993649   |
| 2024-06-18 | 394.859963 | 655    | 3.969201   |
| 2024-06-19 | 388.048253 | 622    | 4.088966   |
| 2024-06-20 | 383.178656 | 625    | 4.144667   |
| 2024-06-21 | 385.179444 | 611    | 4.147472   |
| 2024-06-22 | 383.868792 | 632    | 3.879444   |
| 2024-06-23 | 385.174396 | 623    | 3.985841   |
| 2024-06-24 | 407.295630 | 639    | 3.972076   |
| 2024-06-25 | 409.152278 | 615    | 3.956124   |
| 2024-06-26 | 384.165574 | 609    | 4.325651   |
| 2024-06-27 | 384.936368 | 604    | 4.304829   |
| 2024-06-28 | 389.282397 | 634    | 4.142177   |
| 2024-06-29 | 381.896223 | 590    | 4.123122   |
| 2024-06-30 | 408.940816 | 629    | 4.151191   |

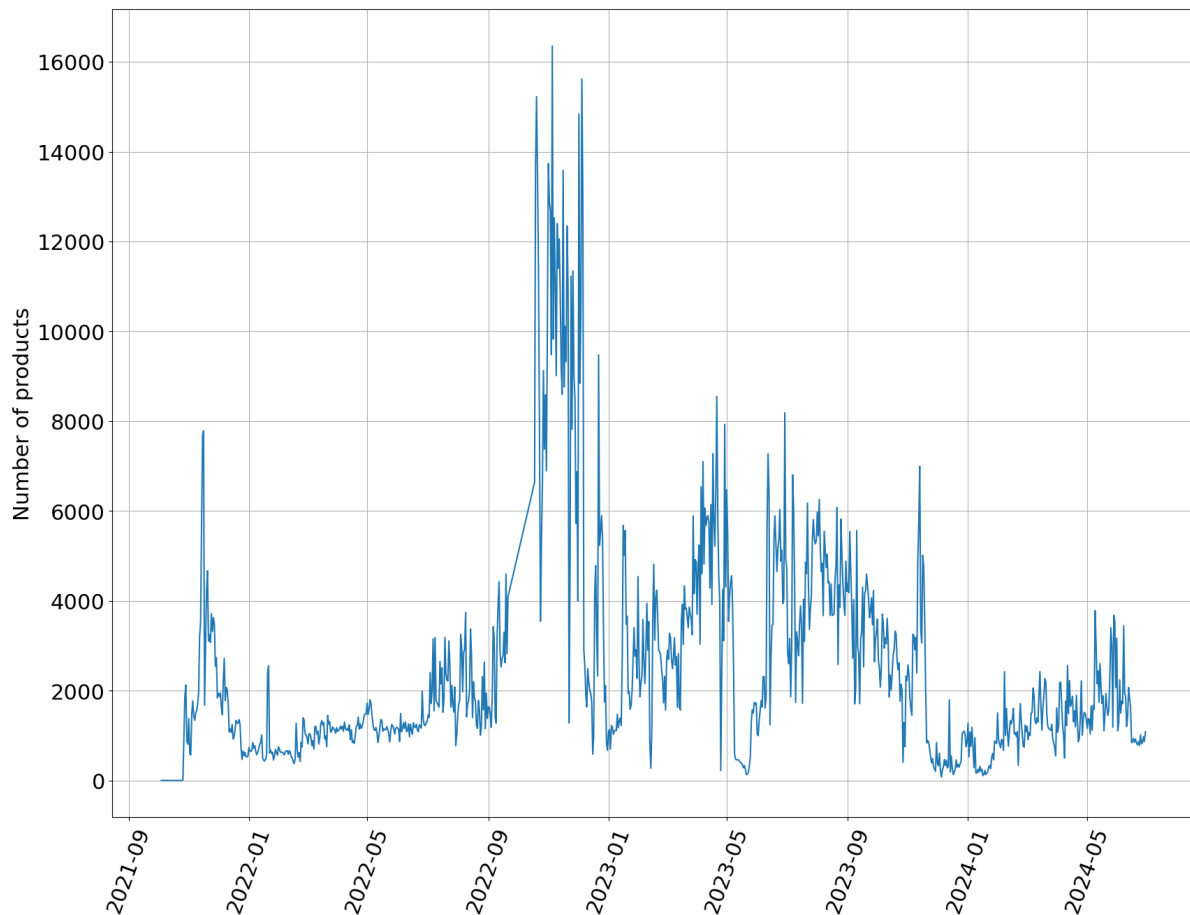


## MONITORING DATA DOWNLOADS FROM COLHUB PORTALS

In this section the performance of the FrontEnds is analyzed, for both [colhub.met.no](#) and [colhub-archive.met.no](#). The FEs performance is translated as user accessibility to the data which is one of the main goals for the project.

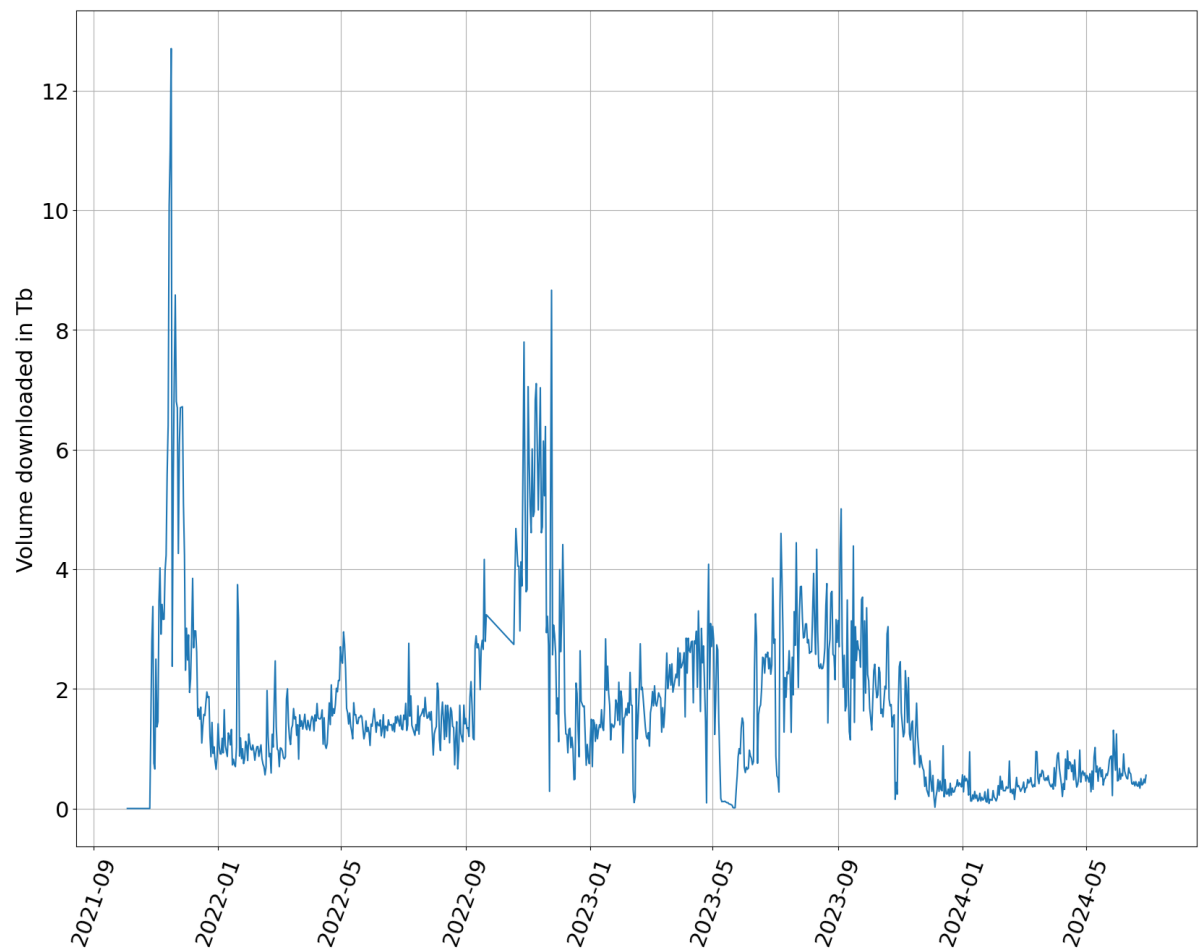
### 8.1 Portal: [colhub.met.no](#)

The first portal to analyze is [colhub.met.no](#). The target of the analysis is to check the amount of data downloaded by users, but also the number of users accessing the datahub. Below the historical amount of data per day is represented.



The same data is also represented below, with a difference. This time the data is not accounted by number, but by volume. Although both graphs show similar trends, they are not exactly equal due to the variability in the ratio volume per product.

For instance, the seasonality of optical products could have an impact in the total volume of products.



The table below is also interesting. It shows the amount of products downloaded for each the different Sentinel products. As expected, S1 and S2 are the most used Sentinels. S3 is slightly used, while S5p is not used.

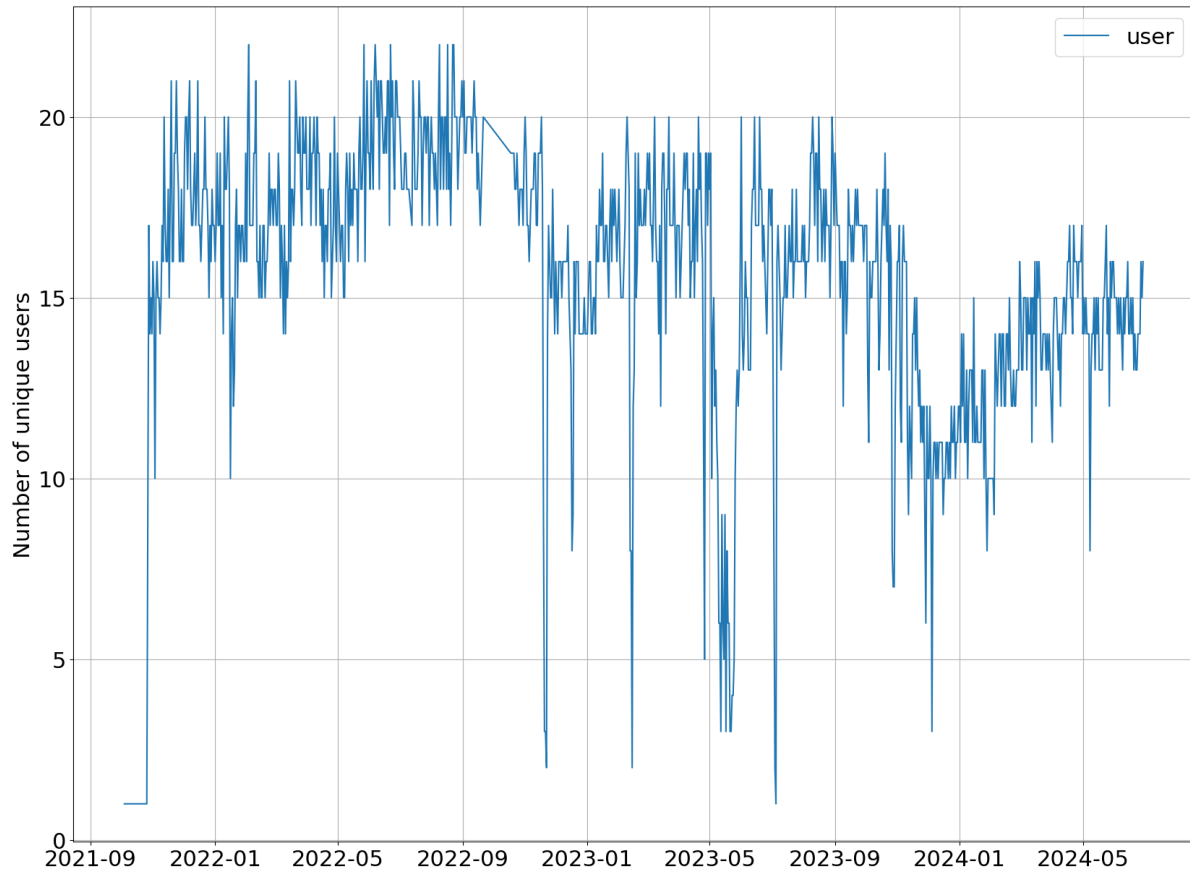
| satellite    | product_type    |         |
|--------------|-----------------|---------|
| S1           | GRDH            | 244855  |
|              | GRDM            | 111352  |
|              | OCN             | 97301   |
|              | RAW             | 196353  |
|              | SLC             | 62826   |
| S2           | MSIL1C          | 536811  |
|              | MSIL1C_DTERRENG | 3100    |
|              | MSIL2A          | 1131985 |
| S3           | OLCI_L1         | 8411    |
|              | OLCI_L2         | 490     |
|              | SLSTR_L1        | 11819   |
|              | SLSTR_L2        | 12      |
|              | SRAL_L1         | 23      |
|              | SRAL_L2         | 84      |
|              | SYN_L2          | 40      |
| S5           | NRTI_L2         | 8938    |
|              | OFFL_L1B        | 3       |
|              | OFFL_L2         | 6       |
| dtype: int64 |                 |         |

The following table shows the total downloaded volume of data in Tb per month. Here the seasonality of some Sentinel products can affect the final numbers.

| download_time | download_time |            |
|---------------|---------------|------------|
| 2021          | 10            | 7.588303   |
|               | 11            | 158.654049 |
|               | 12            | 57.675128  |
| 2022          | 1             | 36.406545  |
|               | 2             | 29.798405  |
|               | 3             | 39.869718  |
|               | 4             | 46.768604  |
|               | 5             | 51.219186  |
|               | 6             | 42.277098  |
|               | 7             | 44.565096  |
|               | 8             | 42.852304  |
|               | 9             | 47.447532  |
|               | 10            | 60.491409  |
|               | 11            | 141.031091 |
|               | 12            | 50.957670  |
| 2023          | 1             | 48.169138  |
|               | 2             | 41.604374  |
|               | 3             | 61.866205  |
|               | 4             | 74.137962  |
|               | 5             | 25.676479  |
|               | 6             | 54.858885  |
|               | 7             | 78.211367  |
|               | 8             | 88.075235  |
|               | 9             | 80.195622  |
|               | 10            | 54.828457  |
|               | 11            | 33.878596  |
|               | 12            | 10.909848  |
| 2024          | 1             | 8.061366   |
|               | 2             | 9.525797   |
|               | 3             | 15.088652  |
|               | 4             | 18.111391  |
|               | 5             | 19.999434  |
|               | 6             | 14.595280  |

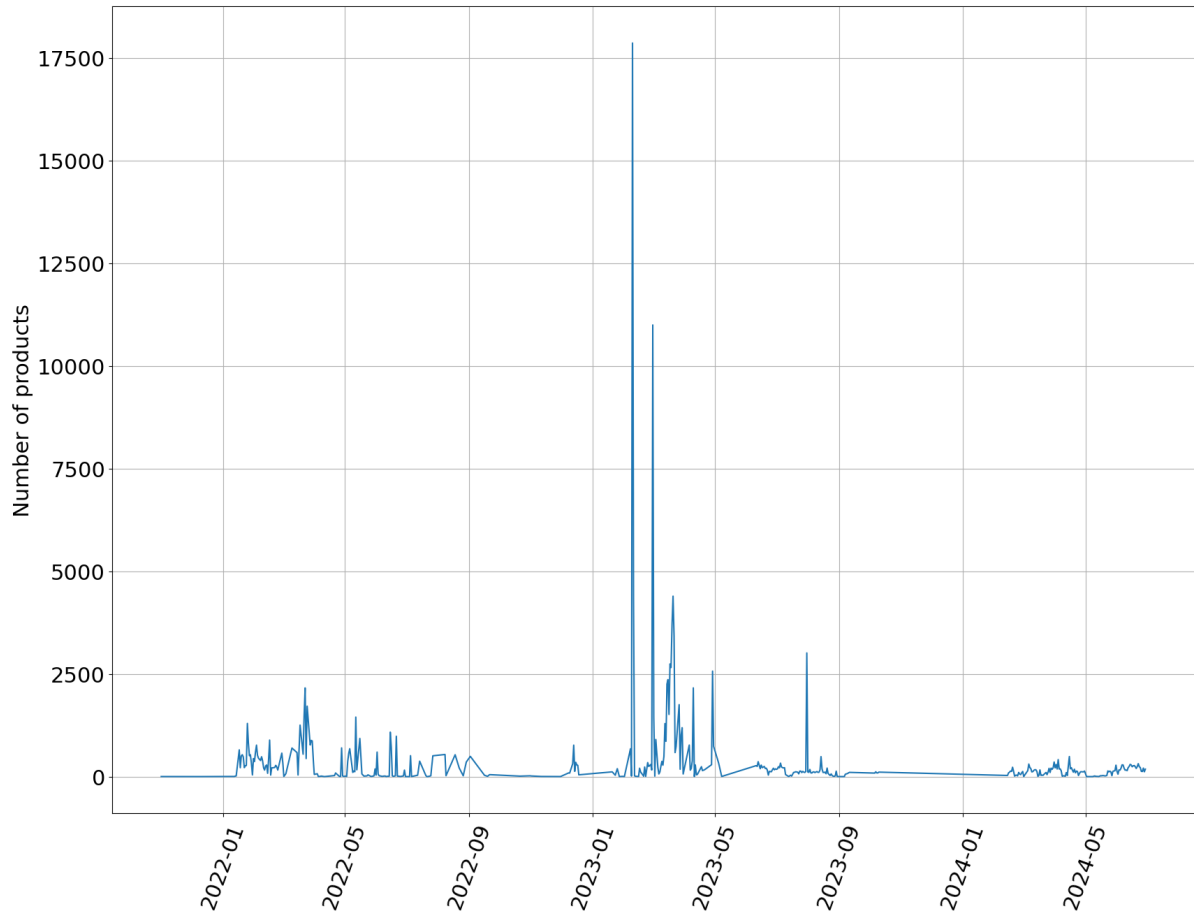
Name: size, dtype: float64

The number of users accessing and using the datahub is also important to be known. The plot below show the number of users per day. Some variability is represented in its numbers. Nevertheless, [colhub.met.no](https://colhub.met.no) is used by 15 to 20 users per day.



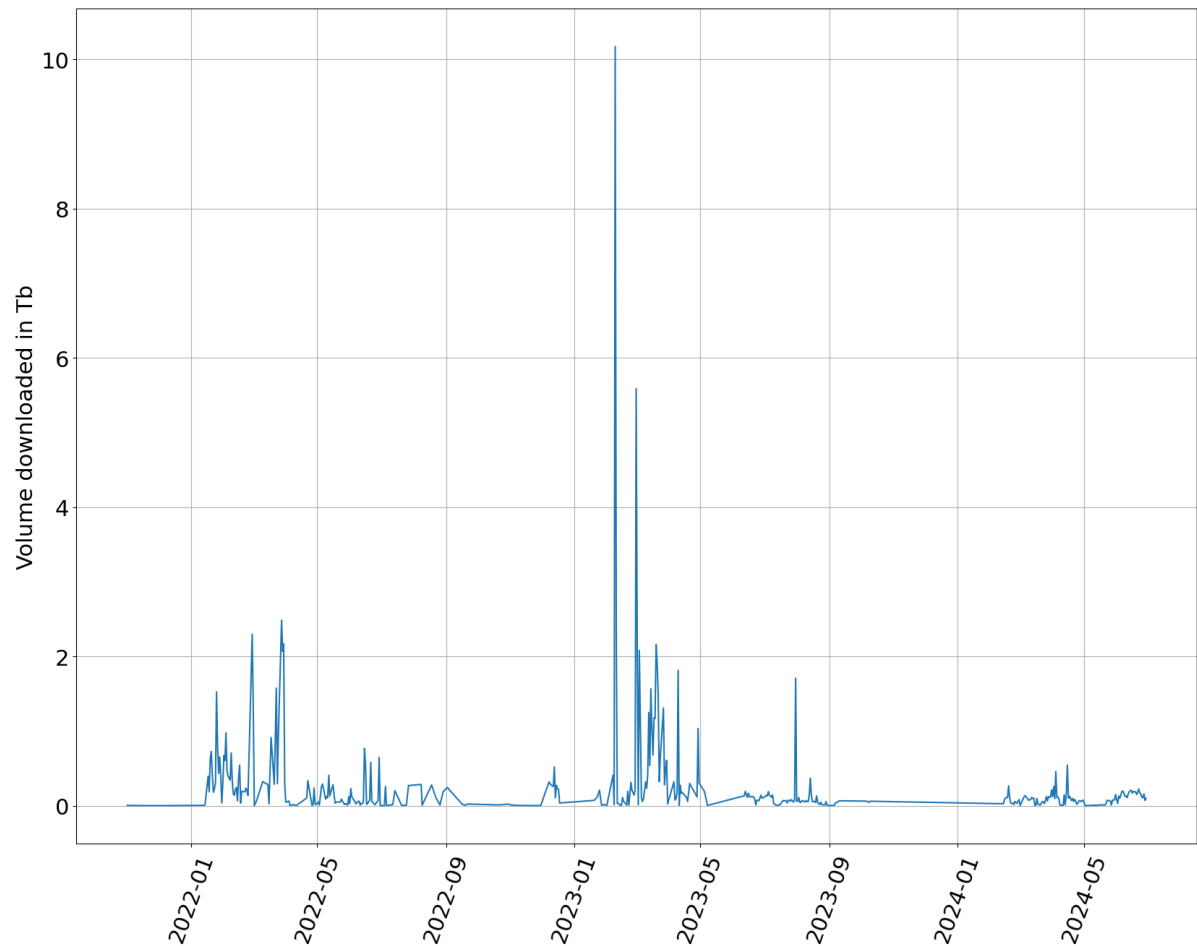
## 8.2 Portal: colhub-archive.met.no

Similar to [colhub.met.no](#), here it is presented the performance of [colhub-archive.met.no](#). First the number of products downloaded per day. As shown in the plot below, some days the number of products downloaded is null. This is a correct value which is not reflecting the performance of the FE. The archive is not as frequently accessed as [colhub.met.no](#). Only those users looking for historical data will used this portal.



As explained and shown in the previous section, the total volume downloaded is also shown in the graphic below.

```
Index(['size', 'download_duration'], dtype='object')
```



It is still interesting to see the number of products downloaded per product type. As shown in the previous section, S1 and S2 still are the most popular Sentinels.

| satellite    | product_type    |       |
|--------------|-----------------|-------|
| S1           | GRDH            | 32051 |
|              | GRDM            | 9501  |
|              | OCN             | 1     |
|              | RAW             | 875   |
|              | SLC             | 3221  |
| S2           | MSIL1C          | 34589 |
|              | MSIL1C_DTERRENG | 16832 |
|              | MSIL2A          | 55600 |
| S3           | OLCI_L1         | 2     |
|              | SLSTR_L1        | 1109  |
|              | SRAL_L1         | 6     |
|              | SRAL_L2         | 160   |
| S5           | OFFL_L2         | 2     |
| dtype: int64 |                 |       |

The table below shows the monthly retrieved volume of data in Tb.

| download_time | download_time |          |
|---------------|---------------|----------|
| 2021          | December      | 0.000696 |
|               | November      | 0.005186 |

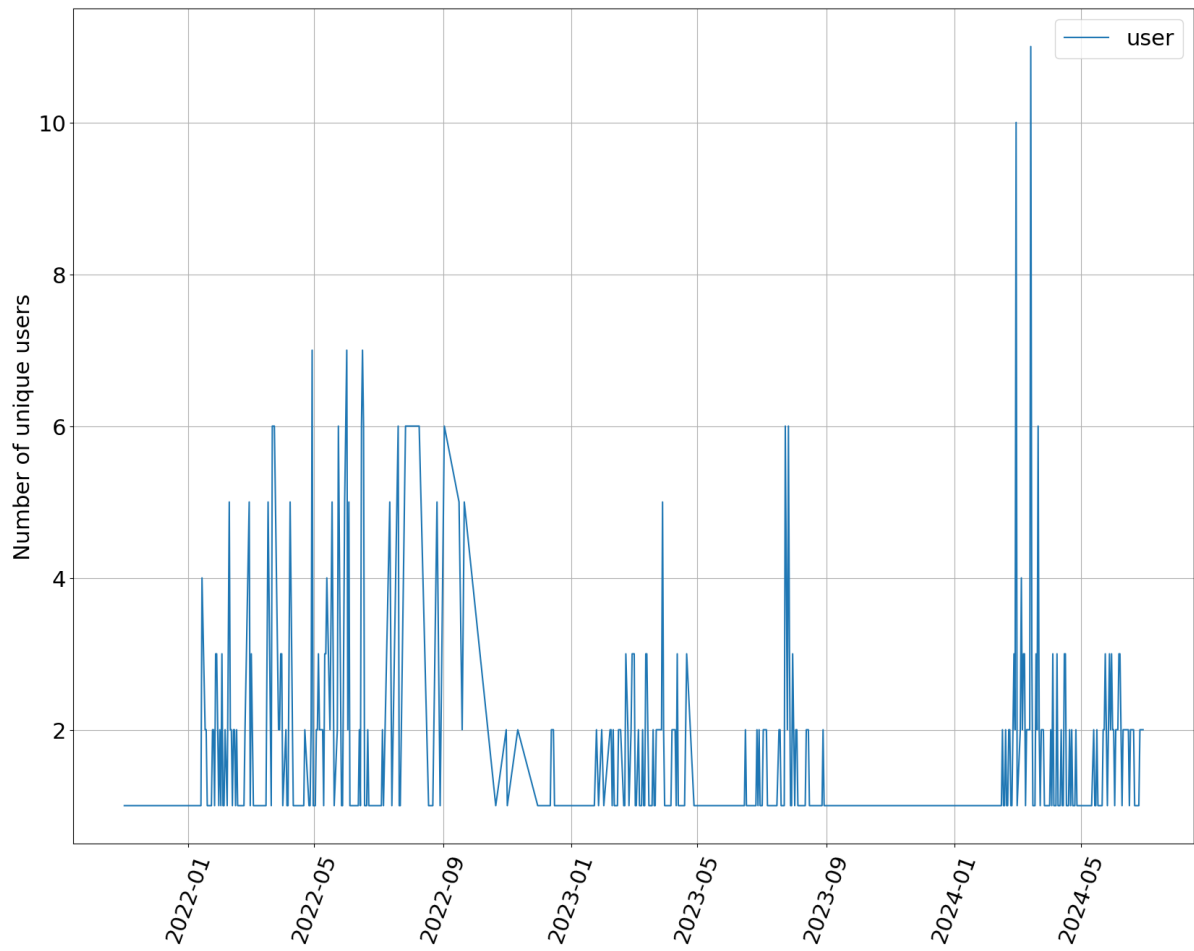
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|      |           |           |
|------|-----------|-----------|
| 2022 | April     | 0.858194  |
|      | August    | 0.874257  |
|      | December  | 2.247264  |
|      | February  | 9.514969  |
|      | January   | 7.210722  |
|      | July      | 0.771705  |
|      | June      | 3.787335  |
|      | March     | 13.999207 |
|      | May       | 2.258999  |
|      | November  | 0.011412  |
|      | October   | 0.030705  |
|      | September | 0.289683  |
| 2023 | April     | 5.010196  |
|      | August    | 1.931697  |
|      | February  | 14.316868 |
|      | January   | 0.417223  |
|      | July      | 3.804772  |
|      | June      | 2.082679  |
|      | March     | 27.805556 |
|      | May       | 0.196331  |
|      | October   | 0.276372  |
|      | September | 0.220003  |
| 2024 | April     | 3.181320  |
|      | February  | 1.177107  |
|      | June      | 4.294107  |
|      | March     | 2.230899  |
|      | May       | 0.761791  |

Name: size, dtype: float64

The last graphic show the number of users accessing and downloading data from the portal. Again, the discontinuity in numbers of users it is not a sign of the portal performance.





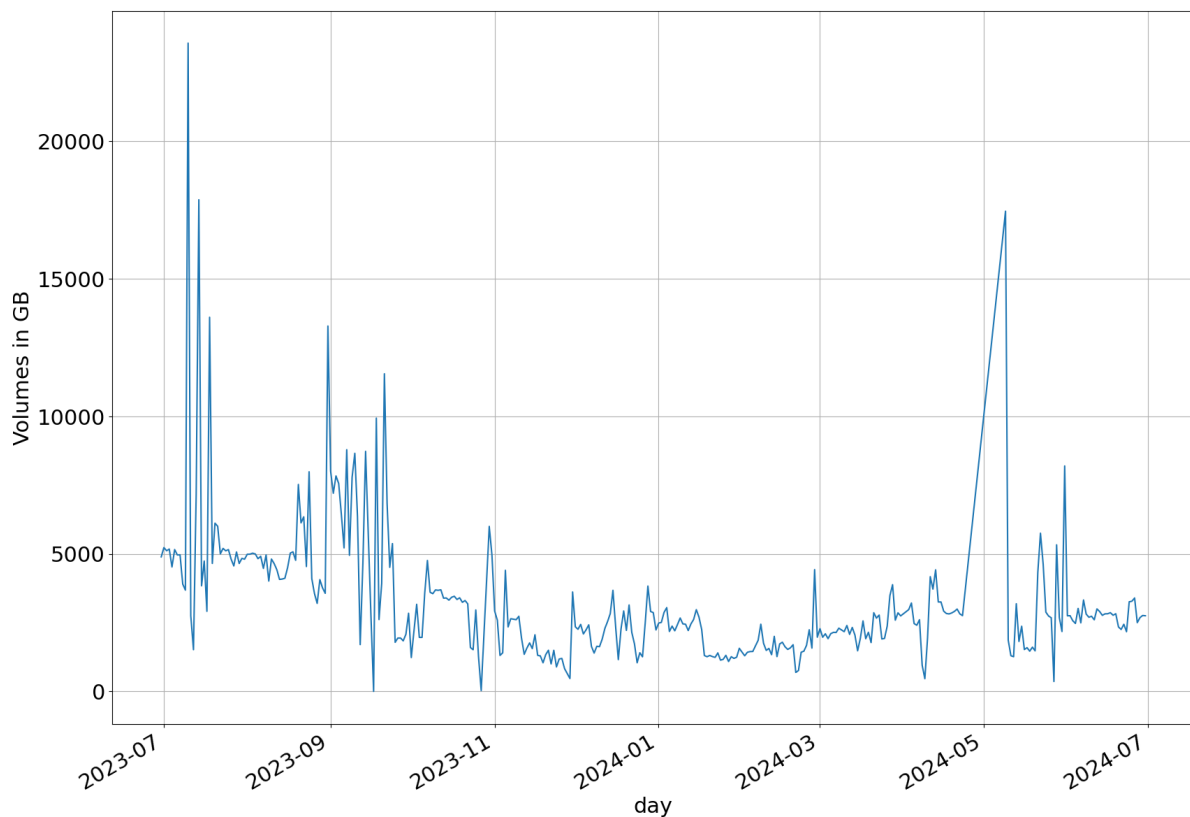
## DATA VOLUMES FOR NBS

Satellite data storage requires an important amount of disk space, especially high resolution products such as the ones produced by the Sentinel constellation. This also represents an economical cost. Hence, it is very important to keep track of the total volume of data stored at MET Norway premises. In this section those numbers are shown.

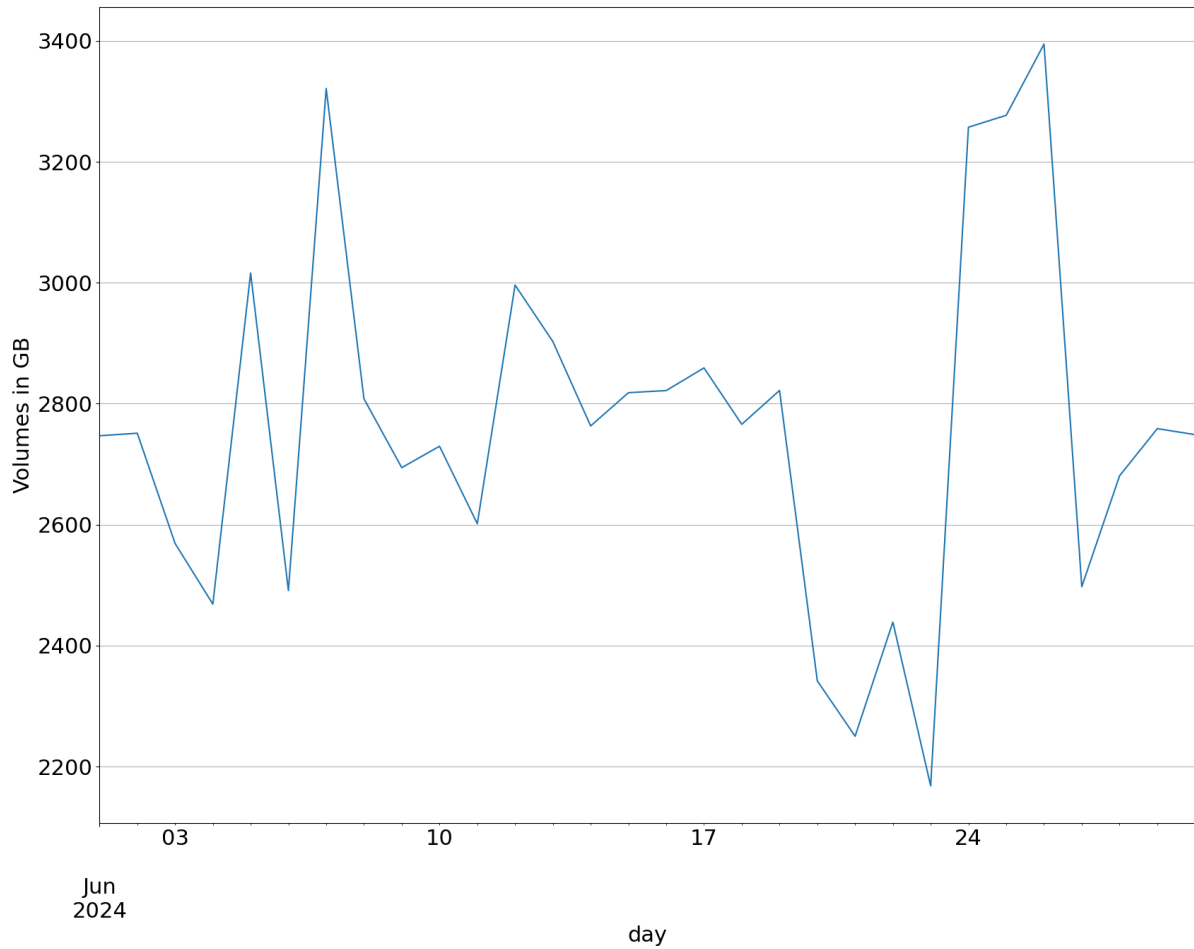
### 9.1 Volumes for AOI backends

Two type of products can be differentiated, products acquired from ESA datahub which keep the original format and Sentinel products transformed into NetCDF-CF. Those directly acquired from ESA are store at MET Norway BE for the AOI. Later on, they are made available to users through colhub-archive and colhub FEs.

The total amount of Sentinel products for the AOI, located in the AOI BE, represents 4776 TB



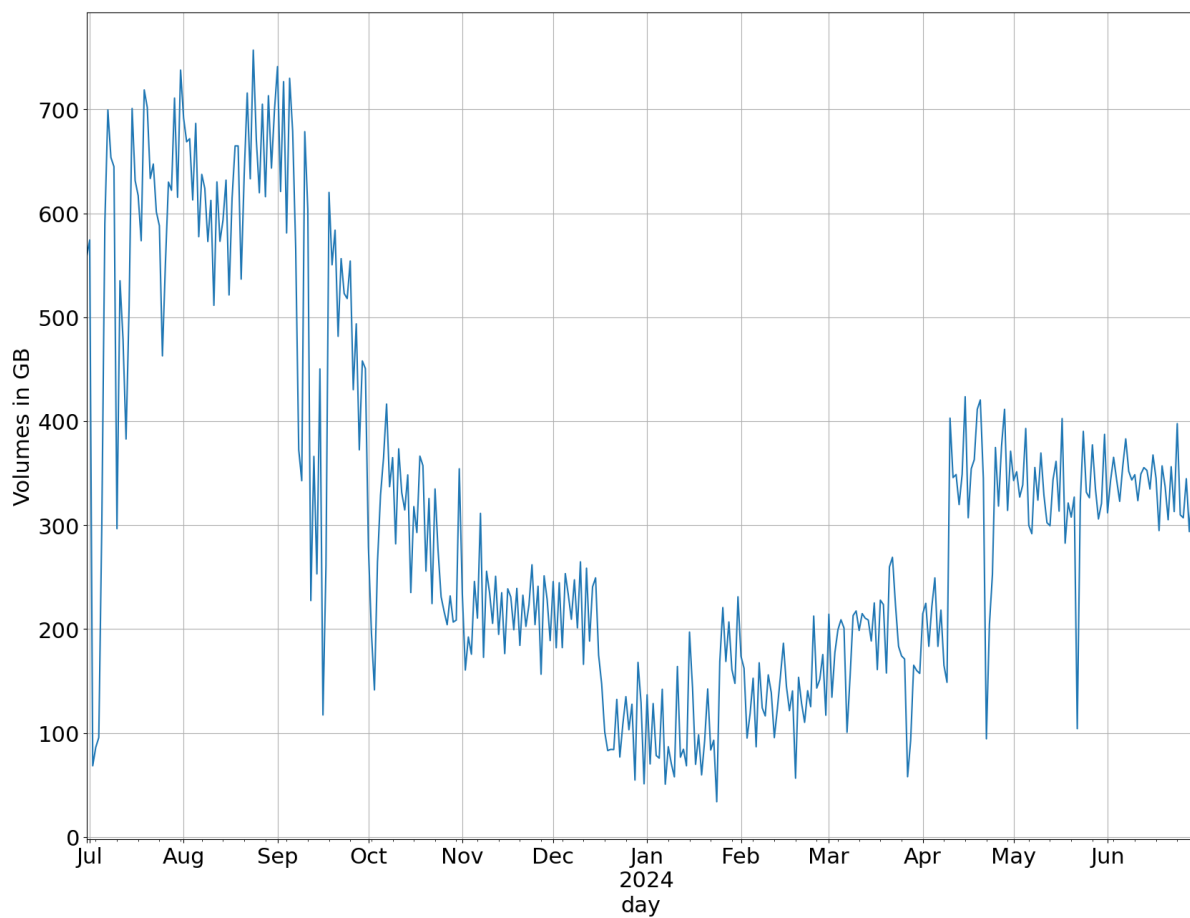
In the graphic above the volume of data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products. The table below shows the same information for the last month.



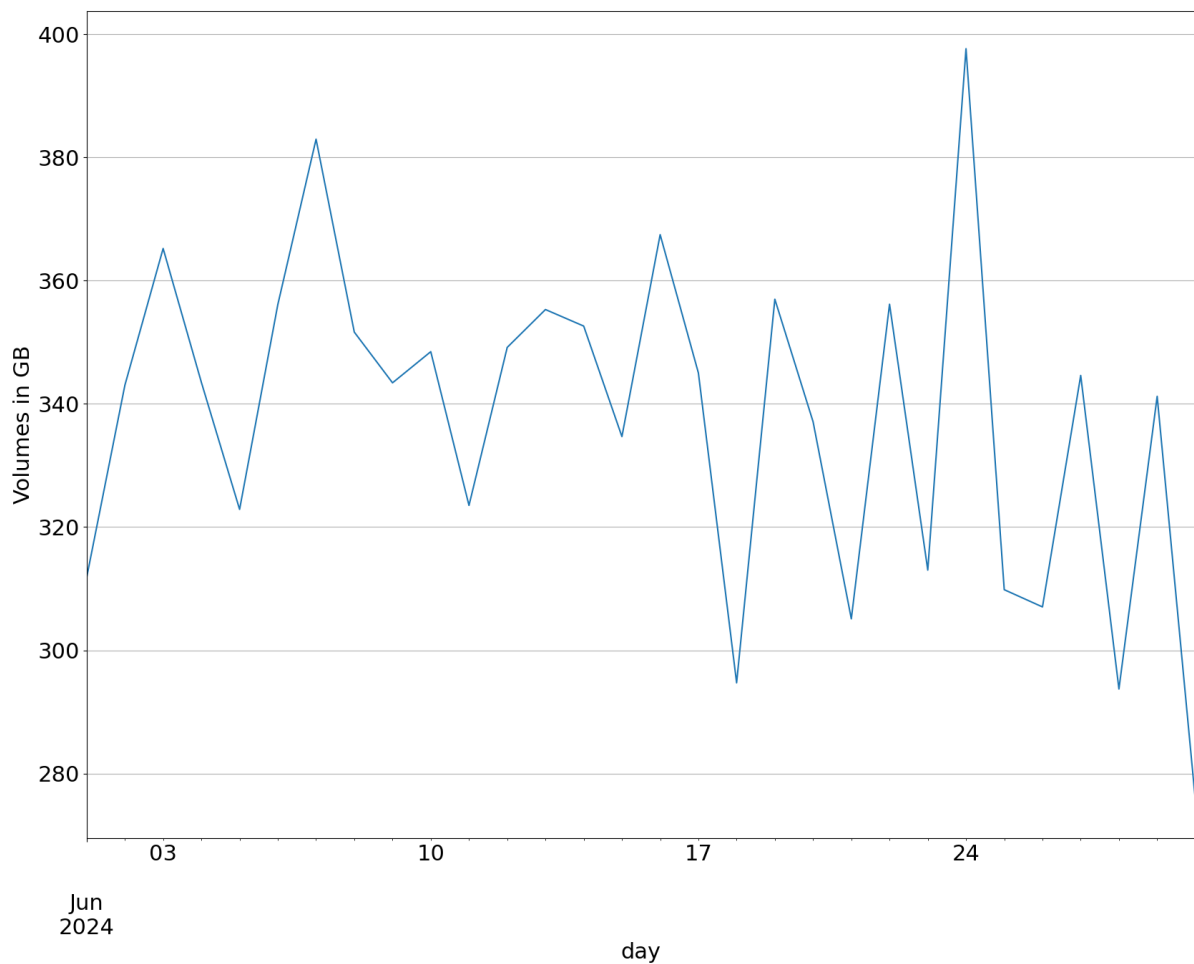
## 9.2 Volume for netcdf products

The products converted to NetCDF-CF are S1 and S2 products. These Sentinel datasets are served as SAFE format by ESA. This is not always convenient for users. Therefore as part of the NBS project, one of the MET Norway tasks as operator is to translate those products into NetCDF-CF.

The total amount of Sentinel-1 and Sentinel-2 products for the AOI transformed to NetCDF represents 917 TB

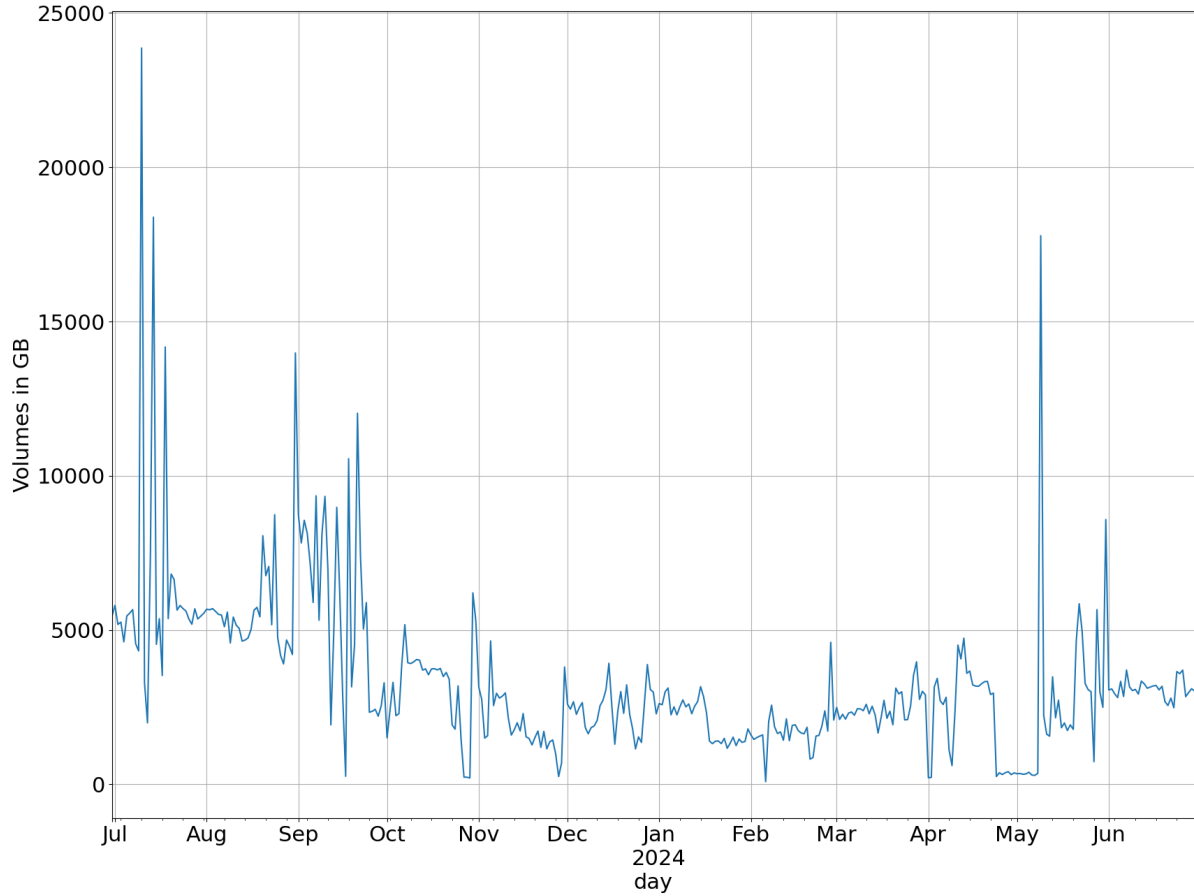


In the graphic above the volume of NetCDF-CF data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products. The table below shows the same information for the last 30 days.



## 9.3 Totals

Finally, the total amount of disk space dedicated to the NBS project, including either products in SAFE and NetCDF formats, represents 5694 TB



In the graphic above the total volume of data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products again. The table below shows the same information for the last month.

| day        | product_type | action       | volume     | number | timeliness |
|------------|--------------|--------------|------------|--------|------------|
| 2024-06-01 | GRDH         | fscanner     | 66.199185  | 22.0   | 0.646563   |
| 2024-06-01 | GRDH         | synchronized | 82.893847  | 50.0   | 3.900058   |
| 2024-06-01 | GRDM         | fscanner     | 3.470449   | 32.0   | 0.764118   |
| 2024-06-01 | GRDM         | synchronized | 5.110899   | 13.0   | 4.008424   |
| 2024-06-01 | OCN          | synchronized | 0.942571   | 49.0   | 4.280370   |
| 2024-06-01 | RAW          | synchronized | 90.515336  | 64.0   | 3.792674   |
| 2024-06-01 | SLC          | synchronized | 394.123921 | 52.0   | 4.380262   |
| 2024-06-02 | GRDH         | fscanner     | 53.777287  | 18.0   | 0.922276   |
| 2024-06-02 | GRDH         | synchronized | 86.297627  | 53.0   | 4.006469   |
| 2024-06-02 | GRDM         | fscanner     | 2.726317   | 25.0   | 0.714699   |
| 2024-06-02 | GRDM         | synchronized | 5.950297   | 15.0   | 6.522792   |
| 2024-06-02 | OCN          | synchronized | 0.971935   | 48.0   | 4.668558   |
| 2024-06-02 | RAW          | synchronized | 95.937826  | 68.0   | 4.643114   |
| 2024-06-02 | SLC          | synchronized | 413.540136 | 56.0   | 4.777525   |
| 2024-06-03 | GRDH         | fscanner     | 68.396421  | 22.0   | 0.837601   |
| 2024-06-03 | GRDH         | synchronized | 65.571965  | 40.0   | 11.208645  |
| 2024-06-03 | GRDM         | fscanner     | 3.800618   | 35.0   | 0.780124   |
| 2024-06-03 | GRDM         | synchronized | 3.470278   | 9.0    | 10.462162  |
| 2024-06-03 | OCN          | synchronized | 0.594791   | 30.0   | 11.226669  |
| 2024-06-03 | RAW          | synchronized | 73.473613  | 52.0   | 10.611357  |
| 2024-06-03 | SLC          | synchronized | 304.251169 | 40.0   | 11.510113  |

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|            |      |              |            |       |           |
|------------|------|--------------|------------|-------|-----------|
| 2024-06-04 | GRDH | fscanner     | 50.431329  | 19.0  | 0.602879  |
| 2024-06-04 | GRDH | synchronized | 62.372720  | 37.0  | 10.151888 |
| 2024-06-04 | GRDM | fscanner     | 6.612233   | 34.0  | 0.615584  |
| 2024-06-04 | GRDM | synchronized | 4.978560   | 13.0  | 10.034305 |
| 2024-06-04 | OCN  | synchronized | 0.862643   | 44.0  | 10.164601 |
| 2024-06-04 | RAW  | synchronized | 66.438239  | 48.0  | 9.899042  |
| 2024-06-04 | SLC  | synchronized | 294.693121 | 39.0  | 13.995240 |
| 2024-06-05 | GRDH | fscanner     | 67.079979  | 25.0  | 0.671427  |
| 2024-06-05 | GRDH | synchronized | 124.234968 | 75.0  | 8.137589  |
| 2024-06-05 | GRDM | fscanner     | 5.954816   | 40.0  | 0.717919  |
| 2024-06-05 | GRDM | synchronized | 10.252194  | 27.0  | 8.344327  |
| 2024-06-05 | OCN  | synchronized | 1.572896   | 79.0  | 8.443730  |
| 2024-06-05 | RAW  | synchronized | 140.398173 | 101.0 | 8.135840  |
| 2024-06-05 | SLC  | synchronized | 602.057662 | 80.0  | 8.275890  |
| 2024-06-06 | GRDH | fscanner     | 73.991341  | 27.0  | 0.785749  |
| 2024-06-06 | GRDH | synchronized | 78.417144  | 47.0  | 1.086757  |
| 2024-06-06 | GRDM | fscanner     | 6.665914   | 38.0  | 0.764385  |
| 2024-06-06 | GRDM | synchronized | 4.980309   | 15.0  | 0.555944  |
| 2024-06-06 | OCN  | synchronized | 0.989169   | 55.0  | 1.143683  |
| 2024-06-06 | RAW  | synchronized | 83.798248  | 62.0  | 0.888558  |
| 2024-06-06 | SLC  | synchronized | 374.591476 | 49.0  | 1.563994  |
| 2024-06-07 | GRDH | fscanner     | 65.471390  | 25.0  | 0.700810  |
| 2024-06-07 | GRDH | synchronized | 85.317875  | 51.0  | 1.071858  |
| 2024-06-07 | GRDM | fscanner     | 5.577640   | 40.0  | 0.598014  |
| 2024-06-07 | GRDM | synchronized | 5.489184   | 16.0  | 0.846325  |
| 2024-06-07 | OCN  | synchronized | 0.927478   | 48.0  | 1.102098  |
| 2024-06-07 | RAW  | synchronized | 92.786220  | 67.0  | 0.921052  |
| 2024-06-07 | SLC  | synchronized | 393.534985 | 52.0  | 1.459735  |
| 2024-06-08 | GRDH | fscanner     | 69.077537  | 23.0  | 0.710907  |
| 2024-06-08 | GRDH | synchronized | 73.494334  | 45.0  | 1.068970  |
| 2024-06-08 | GRDM | fscanner     | 6.402630   | 38.0  | 0.656765  |
| 2024-06-08 | GRDM | synchronized | 5.328894   | 14.0  | 0.611958  |
| 2024-06-08 | OCN  | synchronized | 0.868632   | 45.0  | 1.124231  |
| 2024-06-08 | RAW  | synchronized | 81.297744  | 59.0  | 0.876971  |
| 2024-06-08 | SLC  | synchronized | 366.465604 | 49.0  | 1.405339  |
| 2024-06-09 | GRDH | fscanner     | 48.283192  | 18.0  | 0.810881  |
| 2024-06-09 | GRDH | synchronized | 65.585516  | 39.0  | 1.188694  |
| 2024-06-09 | GRDM | fscanner     | 6.274018   | 34.0  | 0.609998  |
| 2024-06-09 | GRDM | synchronized | 8.164225   | 22.0  | 0.623366  |
| 2024-06-09 | OCN  | synchronized | 1.134042   | 52.0  | 0.971881  |
| 2024-06-09 | RAW  | synchronized | 80.660322  | 61.0  | 0.818643  |
| 2024-06-09 | SLC  | synchronized | 328.563657 | 43.0  | 1.551974  |
| 2024-06-10 | GRDH | fscanner     | 68.147857  | 22.0  | 0.620618  |
| 2024-06-10 | GRDH | synchronized | 78.328173  | 48.0  | 1.036654  |
| 2024-06-10 | GRDM | fscanner     | 3.689550   | 34.0  | 0.792575  |
| 2024-06-10 | GRDM | synchronized | 4.240220   | 11.0  | 0.840988  |
| 2024-06-10 | OCN  | synchronized | 0.797853   | 44.0  | 1.042870  |
| 2024-06-10 | RAW  | synchronized | 83.684002  | 59.0  | 0.785777  |
| 2024-06-10 | SLC  | synchronized | 377.632198 | 51.0  | 1.417712  |
| 2024-06-11 | GRDH | fscanner     | 51.415623  | 19.0  | 0.674471  |
| 2024-06-11 | GRDH | synchronized | 73.949730  | 45.0  | 1.164782  |
| 2024-06-11 | GRDM | fscanner     | 4.083640   | 29.0  | 0.662963  |
| 2024-06-11 | GRDM | synchronized | 6.250231   | 16.0  | 1.222295  |
| 2024-06-11 | OCN  | synchronized | 1.071207   | 54.0  | 1.217173  |
| 2024-06-11 | RAW  | synchronized | 82.378766  | 60.0  | 0.978508  |
| 2024-06-11 | SLC  | synchronized | 353.488147 | 47.0  | 1.536093  |

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|            |      |              |            |      |          |
|------------|------|--------------|------------|------|----------|
| 2024-06-12 | GRDH | fscanner     | 69.202269  | 27.0 | 0.682118 |
| 2024-06-12 | GRDH | synchronized | 81.400290  | 49.0 | 1.028596 |
| 2024-06-12 | GRDM | fscanner     | 6.980724   | 47.0 | 0.674257 |
| 2024-06-12 | GRDM | synchronized | 6.268537   | 17.0 | 0.969086 |
| 2024-06-12 | OCN  | synchronized | 0.995803   | 49.0 | 1.064307 |
| 2024-06-12 | RAW  | synchronized | 93.517309  | 68.0 | 0.809023 |
| 2024-06-12 | SLC  | synchronized | 391.702313 | 52.0 | 1.468379 |
| 2024-06-13 | GRDH | fscanner     | 68.410585  | 23.0 | 0.711671 |
| 2024-06-13 | GRDH | synchronized | 82.720098  | 50.0 | 1.075002 |
| 2024-06-13 | GRDM | fscanner     | 3.470388   | 32.0 | 0.676838 |
| 2024-06-13 | GRDM | synchronized | 5.110615   | 13.0 | 2.191396 |
| 2024-06-13 | OCN  | synchronized | 0.940289   | 49.0 | 1.308956 |
| 2024-06-13 | RAW  | synchronized | 90.559411  | 64.0 | 0.927231 |
| 2024-06-13 | SLC  | synchronized | 385.875154 | 51.0 | 1.541049 |
| 2024-06-14 | GRDH | fscanner     | 53.380648  | 18.0 | 0.921476 |
| 2024-06-14 | GRDH | synchronized | 86.298507  | 53.0 | 1.141900 |
| 2024-06-14 | GRDM | fscanner     | 2.729565   | 25.0 | 0.714377 |
| 2024-06-14 | GRDM | synchronized | 5.950248   | 15.0 | 2.419295 |
| 2024-06-14 | OCN  | synchronized | 0.971265   | 48.0 | 1.380649 |
| 2024-06-14 | RAW  | synchronized | 95.817189  | 68.0 | 0.952951 |
| 2024-06-14 | SLC  | synchronized | 413.538941 | 56.0 | 1.564632 |
| 2024-06-15 | GRDH | fscanner     | 72.536923  | 23.0 | 0.891621 |
| 2024-06-15 | GRDH | synchronized | 92.735632  | 56.0 | 1.257075 |
| 2024-06-15 | GRDM | fscanner     | 4.115595   | 38.0 | 0.775855 |
| 2024-06-15 | GRDM | synchronized | 3.237002   | 9.0  | 1.596826 |
| 2024-06-15 | OCN  | synchronized | 0.806798   | 48.0 | 1.476652 |
| 2024-06-15 | RAW  | synchronized | 93.348252  | 65.0 | 0.940435 |
| 2024-06-15 | SLC  | synchronized | 422.853182 | 56.0 | 1.569334 |
| 2024-06-16 | GRDH | fscanner     | 43.352410  | 18.0 | 0.605320 |
| 2024-06-16 | GRDH | synchronized | 65.272593  | 39.0 | 1.025320 |
| 2024-06-16 | GRDM | fscanner     | 6.713253   | 35.0 | 0.607857 |
| 2024-06-16 | GRDM | synchronized | 9.449642   | 24.0 | 0.694157 |
| 2024-06-16 | OCN  | synchronized | 1.271436   | 56.0 | 1.073120 |
| 2024-06-16 | RAW  | synchronized | 83.920219  | 63.0 | 0.833168 |
| 2024-06-16 | SLC  | synchronized | 329.822644 | 43.0 | 1.518992 |
| 2024-06-17 | GRDH | fscanner     | 62.608856  | 23.0 | 0.653923 |
| 2024-06-17 | GRDH | synchronized | 77.865316  | 47.0 | 0.988423 |
| 2024-06-17 | GRDM | fscanner     | 5.952639   | 40.0 | 0.690920 |
| 2024-06-17 | GRDM | synchronized | 5.586424   | 15.0 | 0.605619 |
| 2024-06-17 | OCN  | synchronized | 0.925879   | 47.0 | 1.498688 |
| 2024-06-17 | RAW  | synchronized | 86.447148  | 62.0 | 0.837256 |
| 2024-06-17 | SLC  | synchronized | 375.144748 | 50.0 | 1.548343 |
| 2024-06-18 | GRDH | fscanner     | 72.512125  | 27.0 | 0.784116 |
| 2024-06-18 | GRDH | synchronized | 78.417125  | 47.0 | 1.126548 |
| 2024-06-18 | GRDM | fscanner     | 6.667800   | 38.0 | 0.784239 |
| 2024-06-18 | GRDM | synchronized | 4.980216   | 15.0 | 0.543970 |
| 2024-06-18 | OCN  | synchronized | 0.987395   | 55.0 | 1.164538 |
| 2024-06-18 | RAW  | synchronized | 84.063874  | 62.0 | 0.914925 |
| 2024-06-18 | SLC  | synchronized | 374.591011 | 49.0 | 1.604381 |
| 2024-06-19 | GRDH | fscanner     | 64.594981  | 24.0 | 0.683730 |
| 2024-06-19 | GRDH | synchronized | 83.084727  | 50.0 | 1.181454 |
| 2024-06-19 | GRDM | fscanner     | 5.696810   | 41.0 | 0.594349 |
| 2024-06-19 | GRDM | synchronized | 5.169176   | 16.0 | 0.825857 |
| 2024-06-19 | OCN  | synchronized | 0.880928   | 47.0 | 1.030332 |
| 2024-06-19 | RAW  | synchronized | 92.450171  | 67.0 | 0.862288 |
| 2024-06-19 | SLC  | synchronized | 390.573142 | 52.0 | 1.624930 |

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|            |      |              |            |      |          |
|------------|------|--------------|------------|------|----------|
| 2024-06-20 | GRDH | fscanner     | 70.810057  | 25.0 | 0.744925 |
| 2024-06-20 | GRDH | synchronized | 73.315459  | 45.0 | 1.147166 |
| 2024-06-20 | GRDM | fscanner     | 6.389798   | 38.0 | 0.656774 |
| 2024-06-20 | GRDM | synchronized | 5.328627   | 14.0 | 0.636107 |
| 2024-06-20 | OCN  | synchronized | 0.865099   | 45.0 | 1.060886 |
| 2024-06-20 | RAW  | synchronized | 81.882219  | 59.0 | 0.967447 |
| 2024-06-20 | SLC  | synchronized | 358.622626 | 48.0 | 1.598646 |
| 2024-06-21 | GRDH | fscanner     | 45.934300  | 17.0 | 0.799832 |
| 2024-06-21 | GRDH | synchronized | 65.414058  | 39.0 | 0.982006 |
| 2024-06-21 | GRDM | fscanner     | 6.282435   | 34.0 | 0.609719 |
| 2024-06-21 | GRDM | synchronized | 8.163864   | 22.0 | 0.673737 |
| 2024-06-21 | OCN  | synchronized | 1.130641   | 52.0 | 0.996532 |
| 2024-06-21 | RAW  | synchronized | 80.795047  | 61.0 | 0.834099 |
| 2024-06-21 | SLC  | synchronized | 327.262892 | 43.0 | 1.401981 |
| 2024-06-22 | GRDH | fscanner     | 70.764920  | 24.0 | 0.808642 |
| 2024-06-22 | GRDH | synchronized | 78.328121  | 48.0 | 1.005997 |
| 2024-06-22 | GRDM | fscanner     | 3.687977   | 34.0 | 0.792336 |
| 2024-06-22 | GRDM | synchronized | 4.240201   | 11.0 | 0.925734 |
| 2024-06-22 | OCN  | synchronized | 0.795347   | 44.0 | 1.166219 |
| 2024-06-22 | RAW  | synchronized | 83.864510  | 59.0 | 0.851994 |
| 2024-06-22 | SLC  | synchronized | 377.630765 | 51.0 | 1.384685 |
| 2024-06-23 | GRDH | fscanner     | 49.638634  | 22.0 | 0.739857 |
| 2024-06-23 | GRDH | synchronized | 73.872637  | 45.0 | 1.404079 |
| 2024-06-23 | GRDM | fscanner     | 3.545618   | 27.0 | 0.661906 |
| 2024-06-23 | GRDM | synchronized | 6.247630   | 16.0 | 1.109821 |
| 2024-06-23 | OCN  | synchronized | 1.067126   | 54.0 | 1.175407 |
| 2024-06-23 | RAW  | synchronized | 82.821388  | 60.0 | 0.919343 |
| 2024-06-23 | SLC  | synchronized | 352.928593 | 47.0 | 1.715118 |
| 2024-06-24 | GRDH | fscanner     | 61.644258  | 23.0 | 0.610963 |
| 2024-06-24 | GRDH | synchronized | 82.857727  | 50.0 | 1.084169 |
| 2024-06-24 | GRDM | fscanner     | 6.774918   | 45.0 | 0.674293 |
| 2024-06-24 | GRDM | synchronized | 2.901858   | 8.0  | 0.556656 |
| 2024-06-24 | OCN  | synchronized | 0.705464   | 41.0 | 1.033422 |
| 2024-06-24 | RAW  | synchronized | 85.085535  | 59.0 | 0.879684 |
| 2024-06-24 | SLC  | synchronized | 385.496439 | 51.0 | 1.408612 |
| 2024-06-25 | GRDH | fscanner     | 71.593454  | 25.0 | 0.667691 |
| 2024-06-25 | GRDH | synchronized | 82.711067  | 50.0 | 1.128004 |
| 2024-06-25 | GRDM | fscanner     | 3.470068   | 32.0 | 0.649242 |
| 2024-06-25 | GRDM | synchronized | 5.110446   | 13.0 | 1.908412 |
| 2024-06-25 | OCN  | synchronized | 0.938586   | 49.0 | 1.218670 |
| 2024-06-25 | RAW  | synchronized | 90.513229  | 64.0 | 0.966079 |
| 2024-06-25 | SLC  | synchronized | 385.843847 | 51.0 | 1.424775 |
| 2024-06-26 | GRDH | fscanner     | 44.428454  | 15.0 | 0.818121 |
| 2024-06-26 | GRDH | synchronized | 86.208350  | 53.0 | 1.249132 |
| 2024-06-26 | GRDM | fscanner     | 0.657361   | 6.0  | 0.724708 |
| 2024-06-26 | GRDM | synchronized | 5.901252   | 16.0 | 2.202934 |
| 2024-06-26 | OCN  | synchronized | 0.956329   | 48.0 | 1.313481 |
| 2024-06-26 | RAW  | synchronized | 95.811852  | 69.0 | 1.091549 |
| 2024-06-26 | SLC  | synchronized | 412.773345 | 56.0 | 1.524357 |
| 2024-06-27 | GRDH | fscanner     | 62.244562  | 20.0 | 0.930203 |
| 2024-06-27 | GRDH | synchronized | 74.431229  | 45.0 | 1.214540 |
| 2024-06-27 | GRDM | fscanner     | 3.216514   | 30.0 | 0.838446 |
| 2024-06-27 | GRDM | synchronized | 3.469882   | 9.0  | 1.404916 |
| 2024-06-27 | OCN  | synchronized | 0.695555   | 38.0 | 1.387046 |
| 2024-06-27 | RAW  | synchronized | 78.115115  | 55.0 | 0.981473 |
| 2024-06-27 | SLC  | synchronized | 346.243886 | 46.0 | 1.704094 |

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|------------|--------|--------------|------------|--------|----------|
| 2024-06-28 | GRDH   | fscanner     | 8.263883   | 5.0    | 0.473611 |
| 2024-06-28 | GRDH   | synchronized | 8.205624   | 5.0    | 0.914829 |
| 2024-06-28 | GRDM   | fscanner     | 2.606457   | 12.0   | 0.498072 |
| 2024-06-28 | GRDM   | synchronized | 2.090207   | 5.0    | 0.707073 |
| 2024-06-28 | OCN    | synchronized | 0.256116   | 10.0   | 0.853984 |
| 2024-06-28 | RAW    | synchronized | 13.136656  | 10.0   | 0.690013 |
| 2024-06-28 | SLC    | synchronized | 37.351742  | 5.0    | 1.255442 |
| 2024-06-29 | GRDH   | fscanner     | 69.722556  | 28.0   | 0.637747 |
| 2024-06-29 | GRDH   | synchronized | 75.924762  | 46.0   | 1.094921 |
| 2024-06-29 | GRDM   | fscanner     | 5.998567   | 41.0   | 0.633973 |
| 2024-06-29 | GRDM   | synchronized | 5.586734   | 15.0   | 0.620277 |
| 2024-06-29 | OCN    | synchronized | 0.926769   | 47.0   | 1.225902 |
| 2024-06-29 | RAW    | synchronized | 86.466191  | 62.0   | 0.843509 |
| 2024-06-29 | SLC    | synchronized | 375.850128 | 50.0   | 1.420917 |
| 2024-06-30 | GRDH   | fscanner     | 72.951503  | 27.0   | 0.784527 |
| 2024-06-30 | GRDH   | synchronized | 87.216797  | 49.0   | 1.416176 |
| 2024-06-30 | GRDM   | fscanner     | 6.680903   | 38.0   | 0.778144 |
| 2024-06-30 | GRDM   | synchronized | 4.980419   | 15.0   | 0.656260 |
| 2024-06-30 | OCN    | synchronized | 0.987459   | 55.0   | 1.155144 |
| 2024-06-30 | RAW    | synchronized | 83.898872  | 62.0   | 0.947091 |
| 2024-06-30 | SLC    | synchronized | 391.529538 | 50.0   | 1.878332 |
| 2024-06-01 | MSIL1C | synchronized | 553.747496 | 1282.0 | 3.492392 |
| 2024-06-02 | MSIL1C | synchronized | 568.674638 | 1370.0 | 3.142504 |
| 2024-06-03 | MSIL1C | synchronized | 550.721056 | 1326.0 | 4.411189 |
| 2024-06-04 | MSIL1C | synchronized | 542.888455 | 1307.0 | 3.942748 |
| 2024-06-05 | MSIL1C | synchronized | 527.477135 | 1251.0 | 3.295593 |
| 2024-06-06 | MSIL1C | synchronized | 615.164443 | 1417.0 | 3.872849 |
| 2024-06-07 | MSIL1C | synchronized | 638.899162 | 1437.0 | 4.145169 |
| 2024-06-08 | MSIL1C | synchronized | 603.378025 | 1377.0 | 3.281738 |
| 2024-06-09 | MSIL1C | synchronized | 571.000241 | 1318.0 | 2.784092 |
| 2024-06-10 | MSIL1C | synchronized | 538.808035 | 1261.0 | 3.067850 |
| 2024-06-11 | MSIL1C | synchronized | 586.280206 | 1342.0 | 3.776335 |
| 2024-06-12 | MSIL1C | synchronized | 562.264872 | 1330.0 | 4.608875 |
| 2024-06-13 | MSIL1C | synchronized | 613.433905 | 1400.0 | 3.650066 |
| 2024-06-14 | MSIL1C | synchronized | 528.310345 | 1232.0 | 4.667951 |
| 2024-06-15 | MSIL1C | synchronized | 546.272540 | 1257.0 | 3.498300 |
| 2024-06-16 | MSIL1C | synchronized | 628.079729 | 1446.0 | 4.139749 |
| 2024-06-17 | MSIL1C | synchronized | 578.338833 | 1317.0 | 4.367522 |
| 2024-06-18 | MSIL1C | synchronized | 571.042784 | 1301.0 | 3.367578 |
| 2024-06-19 | MSIL1C | synchronized | 574.179022 | 1310.0 | 3.292580 |
| 2024-06-20 | MSIL1C | synchronized | 567.501092 | 1293.0 | 4.364312 |
| 2024-06-21 | MSIL1C | synchronized | 584.530328 | 1315.0 | 4.559234 |
| 2024-06-22 | MSIL1C | synchronized | 627.457971 | 1414.0 | 2.762213 |
| 2024-06-23 | MSIL1C | synchronized | 530.788140 | 1201.0 | 2.787432 |
| 2024-06-24 | MSIL1C | synchronized | 611.331923 | 1423.0 | 3.843111 |
| 2024-06-25 | MSIL1C | synchronized | 552.364147 | 1252.0 | 3.328838 |
| 2024-06-26 | MSIL1C | synchronized | 550.455843 | 1276.0 | 4.075766 |
| 2024-06-27 | MSIL1C | synchronized | 582.485452 | 1329.0 | 3.277750 |
| 2024-06-28 | MSIL1C | synchronized | 570.585791 | 1279.0 | 3.924810 |
| 2024-06-29 | MSIL1C | synchronized | 574.666335 | 1289.0 | 3.084740 |
| 2024-06-30 | MSIL1C | synchronized | 544.484380 | 1238.0 | 3.238979 |
| 2024-06-01 | MSIL2A | synchronized | 751.828423 | 1374.0 | 4.194378 |
| 2024-06-02 | MSIL2A | synchronized | 730.951375 | 1379.0 | 3.637182 |
| 2024-06-03 | MSIL2A | synchronized | 703.240031 | 1324.0 | 3.826123 |
| 2024-06-04 | MSIL2A | synchronized | 708.260957 | 1321.0 | 4.373770 |
| 2024-06-05 | MSIL2A | synchronized | 678.178996 | 1250.0 | 4.112707 |

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|------------|----------|--------------|------------|--------|-----------|
| 2024-06-06 | MSIL2A   | synchronized | 794.607382 | 1422.0 | 3.923551  |
| 2024-06-07 | MSIL2A   | synchronized | 835.288848 | 1467.0 | 4.628696  |
| 2024-06-08 | MSIL2A   | synchronized | 769.625144 | 1379.0 | 3.800741  |
| 2024-06-09 | MSIL2A   | synchronized | 720.340181 | 1300.0 | 3.414381  |
| 2024-06-10 | MSIL2A   | synchronized | 694.166485 | 1279.0 | 3.681799  |
| 2024-06-11 | MSIL2A   | synchronized | 750.832721 | 1347.0 | 4.033959  |
| 2024-06-12 | MSIL2A   | synchronized | 717.300195 | 1324.0 | 4.551399  |
| 2024-06-13 | MSIL2A   | synchronized | 783.334471 | 1398.0 | 3.996254  |
| 2024-06-14 | MSIL2A   | synchronized | 669.495833 | 1227.0 | 5.057447  |
| 2024-06-15 | MSIL2A   | synchronized | 699.839532 | 1259.0 | 3.867628  |
| 2024-06-16 | MSIL2A   | synchronized | 790.306340 | 1426.0 | 4.306647  |
| 2024-06-17 | MSIL2A   | synchronized | 761.765863 | 1348.0 | 4.364976  |
| 2024-06-18 | MSIL2A   | synchronized | 738.774123 | 1310.0 | 3.894654  |
| 2024-06-19 | MSIL2A   | synchronized | 735.816630 | 1315.0 | 4.087011  |
| 2024-06-20 | MSIL2A   | synchronized | 725.971415 | 1298.0 | 4.797683  |
| 2024-06-21 | MSIL2A   | synchronized | 745.353117 | 1319.0 | 5.000396  |
| 2024-06-22 | MSIL2A   | synchronized | 808.168950 | 1416.0 | 3.460147  |
| 2024-06-23 | MSIL2A   | synchronized | 681.835591 | 1195.0 | 3.312844  |
| 2024-06-24 | MSIL2A   | synchronized | 780.398893 | 1411.0 | 4.706095  |
| 2024-06-25 | MSIL2A   | synchronized | 707.499509 | 1258.0 | 3.698696  |
| 2024-06-26 | MSIL2A   | synchronized | 715.367344 | 1283.0 | 4.922823  |
| 2024-06-27 | MSIL2A   | synchronized | 739.189200 | 1320.0 | 3.490652  |
| 2024-06-28 | MSIL2A   | synchronized | 751.029146 | 1296.0 | 4.626856  |
| 2024-06-29 | MSIL2A   | synchronized | 735.765350 | 1280.0 | 3.465305  |
| 2024-06-30 | MSIL2A   | synchronized | 706.999365 | 1245.0 | 3.908629  |
| 2024-06-01 | OLCI_L1  | synchronized | 163.882937 | 212.0  | 7.768512  |
| 2024-06-01 | OLCI_L2  | synchronized | 21.705006  | 200.0  | 3.621654  |
| 2024-06-01 | SLSTR_L1 | synchronized | 70.440368  | 169.0  | 5.669726  |
| 2024-06-01 | SLSTR_L2 | synchronized | 15.975660  | 258.0  | 20.165028 |
| 2024-06-01 | SRAL_L1  | synchronized | 132.038849 | 84.0   | 38.560182 |
| 2024-06-01 | SRAL_L2  | synchronized | 5.298139   | 205.0  | 40.249050 |
| 2024-06-01 | SYN_L2   | synchronized | 47.075405  | 237.0  | 21.880650 |
| 2024-06-02 | OLCI_L1  | synchronized | 154.338152 | 200.0  | 7.621162  |
| 2024-06-02 | OLCI_L2  | synchronized | 21.616614  | 201.0  | 4.852927  |
| 2024-06-02 | SLSTR_L1 | synchronized | 73.036382  | 175.0  | 3.237262  |
| 2024-06-02 | SLSTR_L2 | synchronized | 16.093540  | 260.0  | 20.376011 |
| 2024-06-02 | SRAL_L1  | synchronized | 137.479013 | 82.0   | 39.298466 |
| 2024-06-02 | SRAL_L2  | synchronized | 5.315892   | 203.0  | 40.526598 |
| 2024-06-02 | SYN_L2   | synchronized | 47.136614  | 239.0  | 21.980176 |
| 2024-06-03 | OLCI_L1  | synchronized | 151.175077 | 196.0  | 9.783043  |
| 2024-06-03 | OLCI_L2  | synchronized | 20.173070  | 188.0  | 10.818875 |
| 2024-06-03 | SLSTR_L1 | synchronized | 70.599588  | 169.0  | 6.458945  |
| 2024-06-03 | SLSTR_L2 | synchronized | 15.755998  | 254.0  | 20.620741 |
| 2024-06-03 | SRAL_L1  | synchronized | 139.241784 | 87.0   | 38.475244 |
| 2024-06-03 | SRAL_L2  | synchronized | 5.323050   | 203.0  | 40.356785 |
| 2024-06-03 | SYN_L2   | synchronized | 46.798285  | 243.0  | 21.504707 |
| 2024-06-04 | OLCI_L1  | synchronized | 130.124065 | 171.0  | 4.510069  |
| 2024-06-04 | OLCI_L2  | synchronized | 18.643903  | 177.0  | 3.295074  |
| 2024-06-04 | SLSTR_L1 | synchronized | 71.369715  | 171.0  | 15.889858 |
| 2024-06-04 | SLSTR_L2 | synchronized | 15.934773  | 257.0  | 20.723931 |
| 2024-06-04 | SRAL_L1  | synchronized | 139.155638 | 87.0   | 38.511499 |
| 2024-06-04 | SRAL_L2  | synchronized | 5.068982   | 197.0  | 39.227335 |
| 2024-06-04 | SYN_L2   | synchronized | 44.827240  | 233.0  | 21.990128 |
| 2024-06-05 | OLCI_L1  | synchronized | 182.767215 | 235.0  | 11.761539 |
| 2024-06-05 | OLCI_L2  | synchronized | 25.591434  | 232.0  | 12.561440 |
| 2024-06-05 | SLSTR_L1 | synchronized | 72.033782  | 173.0  | 6.114647  |

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|------------|----------|--------------|------------|-------|-----------|
| 2024-06-05 | SLSTR_L2 | synchronized | 17.248293  | 277.0 | 18.543762 |
| 2024-06-05 | SRAL_L1  | synchronized | 133.331487 | 82.0  | 38.530426 |
| 2024-06-05 | SRAL_L2  | synchronized | 5.301714   | 202.0 | 40.471840 |
| 2024-06-05 | SYN_L2   | synchronized | 48.551524  | 241.0 | 21.209271 |
| 2024-06-06 | OLCI_L1  | synchronized | 7.844811   | 13.0  | 2.848465  |
| 2024-06-06 | OLCI_L2  | synchronized | 1.366738   | 14.0  | 2.847590  |
| 2024-06-06 | SLSTR_L1 | synchronized | 17.407084  | 42.0  | 15.212766 |
| 2024-06-06 | SLSTR_L2 | synchronized | 2.364037   | 39.0  | 18.495257 |
| 2024-06-06 | SRAL_L1  | synchronized | 25.290198  | 15.0  | 38.566769 |
| 2024-06-06 | SRAL_L2  | synchronized | 1.086332   | 43.0  | 39.459294 |
| 2024-06-06 | SYN_L2   | synchronized | 10.789806  | 51.0  | 9.215335  |
| 2024-06-07 | OLCI_L1  | synchronized | 298.136288 | 384.0 | 20.311398 |
| 2024-06-07 | OLCI_L2  | synchronized | 42.428129  | 390.0 | 20.210135 |
| 2024-06-07 | SLSTR_L1 | synchronized | 132.960033 | 319.0 | 22.516459 |
| 2024-06-07 | SLSTR_L2 | synchronized | 29.655092  | 478.0 | 26.348673 |
| 2024-06-07 | SRAL_L1  | synchronized | 252.722292 | 157.0 | 45.062136 |
| 2024-06-07 | SRAL_L2  | synchronized | 9.791984   | 376.0 | 43.489889 |
| 2024-06-07 | SYN_L2   | synchronized | 84.910837  | 415.0 | 28.567869 |
| 2024-06-07 | Unknown  | deleted      | 0.000000   | 9.0   | 0.000000  |
| 2024-06-08 | OLCI_L1  | synchronized | 157.465190 | 201.0 | 6.207417  |
| 2024-06-08 | OLCI_L2  | synchronized | 21.318547  | 194.0 | 9.810847  |
| 2024-06-08 | SLSTR_L1 | synchronized | 70.130114  | 168.0 | 15.944500 |
| 2024-06-08 | SLSTR_L2 | synchronized | 15.555416  | 251.0 | 21.535729 |
| 2024-06-08 | SRAL_L1  | synchronized | 136.979518 | 86.0  | 38.723351 |
| 2024-06-08 | SRAL_L2  | synchronized | 5.084786   | 196.0 | 39.408370 |
| 2024-06-08 | SYN_L2   | synchronized | 51.522163  | 244.0 | 20.460334 |
| 2024-06-09 | OLCI_L1  | synchronized | 166.733811 | 212.0 | 7.534968  |
| 2024-06-09 | OLCI_L2  | synchronized | 23.321454  | 214.0 | 5.268360  |
| 2024-06-09 | SLSTR_L1 | synchronized | 76.916921  | 184.0 | 10.148477 |
| 2024-06-09 | SLSTR_L2 | synchronized | 17.581767  | 282.0 | 18.105311 |
| 2024-06-09 | SRAL_L1  | synchronized | 134.266985 | 84.0  | 38.484862 |
| 2024-06-09 | SRAL_L2  | synchronized | 5.271395   | 202.0 | 40.415255 |
| 2024-06-09 | SYN_L2   | synchronized | 51.764111  | 240.0 | 21.622254 |
| 2024-06-10 | OLCI_L1  | synchronized | 158.051511 | 199.0 | 9.145840  |
| 2024-06-10 | OLCI_L2  | synchronized | 21.471742  | 200.0 | 3.195219  |
| 2024-06-10 | SLSTR_L1 | synchronized | 74.522391  | 178.0 | 4.904883  |
| 2024-06-10 | SLSTR_L2 | synchronized | 15.855456  | 256.0 | 20.342093 |
| 2024-06-10 | SRAL_L1  | synchronized | 137.893847 | 83.0  | 38.745294 |
| 2024-06-10 | SRAL_L2  | synchronized | 5.359439   | 207.0 | 39.312338 |
| 2024-06-10 | SYN_L2   | synchronized | 49.524619  | 235.0 | 20.009771 |
| 2024-06-11 | OLCI_L1  | synchronized | 157.953003 | 204.0 | 9.673905  |
| 2024-06-11 | OLCI_L2  | synchronized | 21.612598  | 204.0 | 10.122993 |
| 2024-06-11 | SLSTR_L1 | synchronized | 66.531290  | 159.0 | 6.746440  |
| 2024-06-11 | SLSTR_L2 | synchronized | 15.566802  | 250.0 | 19.978488 |
| 2024-06-11 | SRAL_L1  | synchronized | 139.343809 | 87.0  | 38.683187 |
| 2024-06-11 | SRAL_L2  | synchronized | 5.346179   | 204.0 | 40.314603 |
| 2024-06-11 | SYN_L2   | synchronized | 48.389071  | 237.0 | 22.777951 |
| 2024-06-12 | OLCI_L1  | synchronized | 160.336009 | 203.0 | 6.239873  |
| 2024-06-12 | OLCI_L2  | synchronized | 21.541541  | 199.0 | 3.350453  |
| 2024-06-12 | SLSTR_L1 | synchronized | 73.680865  | 176.0 | 15.914372 |
| 2024-06-12 | SLSTR_L2 | synchronized | 15.820826  | 250.0 | 22.564594 |
| 2024-06-12 | SRAL_L1  | synchronized | 139.442762 | 87.0  | 38.501451 |
| 2024-06-12 | SRAL_L2  | synchronized | 5.221378   | 202.0 | 39.288499 |
| 2024-06-12 | SYN_L2   | synchronized | 50.197973  | 244.0 | 22.191870 |
| 2024-06-13 | OLCI_L1  | synchronized | 156.180531 | 197.0 | 6.088263  |
| 2024-06-13 | OLCI_L2  | synchronized | 21.361419  | 198.0 | 4.365293  |

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|------------|----------|--------------|------------|-------|-----------|
| 2024-06-13 | SLSTR_L1 | synchronized | 71.687292  | 171.0 | 4.388912  |
| 2024-06-13 | SLSTR_L2 | synchronized | 17.334251  | 273.0 | 18.350491 |
| 2024-06-13 | SRAL_L1  | synchronized | 137.132692 | 86.0  | 39.710645 |
| 2024-06-13 | SRAL_L2  | synchronized | 5.252145   | 197.0 | 40.945408 |
| 2024-06-13 | SYN_L2   | synchronized | 51.738147  | 245.0 | 22.886842 |
| 2024-06-14 | OLCI_L1  | synchronized | 161.844967 | 205.0 | 9.441738  |
| 2024-06-14 | OLCI_L2  | synchronized | 21.486187  | 199.0 | 3.543685  |
| 2024-06-14 | SLSTR_L1 | synchronized | 75.916120  | 181.0 | 15.204054 |
| 2024-06-14 | SLSTR_L2 | synchronized | 16.790659  | 265.0 | 19.271292 |
| 2024-06-14 | SRAL_L1  | synchronized | 138.050239 | 85.0  | 38.892583 |
| 2024-06-14 | SRAL_L2  | synchronized | 5.376701   | 206.0 | 39.637524 |
| 2024-06-14 | SYN_L2   | synchronized | 48.613149  | 236.0 | 20.479095 |
| 2024-06-15 | OLCI_L1  | synchronized | 156.714467 | 199.0 | 9.878118  |
| 2024-06-15 | OLCI_L2  | synchronized | 22.155691  | 205.0 | 10.564443 |
| 2024-06-15 | SLSTR_L1 | synchronized | 69.740263  | 167.0 | 5.010473  |
| 2024-06-15 | SLSTR_L2 | synchronized | 15.565725  | 245.0 | 21.974041 |
| 2024-06-15 | SRAL_L1  | synchronized | 138.824708 | 85.0  | 38.910993 |
| 2024-06-15 | SRAL_L2  | synchronized | 5.418760   | 208.0 | 39.921239 |
| 2024-06-15 | SYN_L2   | synchronized | 46.304533  | 235.0 | 20.794854 |
| 2024-06-16 | OLCI_L1  | synchronized | 159.346482 | 200.0 | 6.456375  |
| 2024-06-16 | OLCI_L2  | synchronized | 22.387860  | 204.0 | 9.288880  |
| 2024-06-16 | SLSTR_L1 | synchronized | 69.979709  | 167.0 | 6.333371  |
| 2024-06-16 | SLSTR_L2 | synchronized | 15.942843  | 252.0 | 21.002420 |
| 2024-06-16 | SRAL_L1  | synchronized | 139.857193 | 89.0  | 38.530719 |
| 2024-06-16 | SRAL_L2  | synchronized | 5.213223   | 203.0 | 39.380122 |
| 2024-06-16 | SYN_L2   | synchronized | 47.122948  | 238.0 | 22.079920 |
| 2024-06-17 | OLCI_L1  | synchronized | 160.883038 | 203.0 | 6.283846  |
| 2024-06-17 | OLCI_L2  | synchronized | 21.920175  | 201.0 | 3.149409  |
| 2024-06-17 | SLSTR_L1 | synchronized | 76.581420  | 183.0 | 5.434191  |
| 2024-06-17 | SLSTR_L2 | synchronized | 17.864860  | 280.0 | 18.921717 |
| 2024-06-17 | SRAL_L1  | synchronized | 136.098882 | 83.0  | 39.820144 |
| 2024-06-17 | SRAL_L2  | synchronized | 5.273499   | 199.0 | 40.337689 |
| 2024-06-17 | SYN_L2   | synchronized | 49.191042  | 239.0 | 21.630201 |
| 2024-06-18 | OLCI_L1  | synchronized | 154.050516 | 194.0 | 8.739736  |
| 2024-06-18 | OLCI_L2  | synchronized | 21.647042  | 196.0 | 5.282895  |
| 2024-06-18 | SLSTR_L1 | synchronized | 64.369578  | 154.0 | 4.886778  |
| 2024-06-18 | SLSTR_L2 | synchronized | 14.333223  | 227.0 | 17.250764 |
| 2024-06-18 | SRAL_L1  | synchronized | 137.889664 | 84.0  | 39.231042 |
| 2024-06-18 | SRAL_L2  | synchronized | 5.308709   | 204.0 | 39.482291 |
| 2024-06-18 | SYN_L2   | synchronized | 41.364503  | 201.0 | 23.805045 |
| 2024-06-19 | OLCI_L1  | synchronized | 162.003275 | 203.0 | 9.840716  |
| 2024-06-19 | OLCI_L2  | synchronized | 22.490315  | 202.0 | 10.061957 |
| 2024-06-19 | SLSTR_L1 | synchronized | 78.055277  | 186.0 | 17.612722 |
| 2024-06-19 | SLSTR_L2 | synchronized | 18.109448  | 284.0 | 23.669639 |
| 2024-06-19 | SRAL_L1  | synchronized | 139.283737 | 87.0  | 38.640217 |
| 2024-06-19 | SRAL_L2  | synchronized | 5.441693   | 210.0 | 40.381656 |
| 2024-06-19 | SYN_L2   | synchronized | 55.972642  | 260.0 | 21.004493 |
| 2024-06-20 | OLCI_L1  | synchronized | 15.732504  | 21.0  | 3.396701  |
| 2024-06-20 | OLCI_L2  | synchronized | 1.868937   | 18.0  | 3.018302  |
| 2024-06-20 | SLSTR_L1 | synchronized | 11.077691  | 27.0  | 16.072898 |
| 2024-06-20 | SLSTR_L2 | synchronized | 2.195648   | 35.0  | 19.771868 |
| 2024-06-20 | SRAL_L1  | synchronized | 26.962930  | 15.0  | 38.526379 |
| 2024-06-20 | SRAL_L2  | synchronized | 0.925774   | 37.0  | 38.991496 |
| 2024-06-20 | SYN_L2   | synchronized | 8.886382   | 45.0  | 19.889272 |
| 2024-06-24 | OLCI_L1  | synchronized | 299.550509 | 373.0 | 96.793565 |
| 2024-06-24 | OLCI_L2  | synchronized | 39.189277  | 355.0 | 97.193262 |

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|            |          |              |            |       |            |
|------------|----------|--------------|------------|-------|------------|
| 2024-06-24 | SLSTR_L1 | synchronized | 125.018824 | 298.0 | 99.509086  |
| 2024-06-24 | SLSTR_L2 | synchronized | 28.342460  | 446.0 | 105.575180 |
| 2024-06-24 | SRAL_L1  | synchronized | 241.603033 | 148.0 | 125.296594 |
| 2024-06-24 | SRAL_L2  | synchronized | 8.940379   | 335.0 | 125.793128 |
| 2024-06-24 | SYN_L2   | synchronized | 90.055447  | 415.0 | 106.348416 |
| 2024-06-25 | OLCI_L1  | synchronized | 315.227338 | 403.0 | 69.516631  |
| 2024-06-25 | OLCI_L2  | synchronized | 47.767045  | 439.0 | 70.214916  |
| 2024-06-25 | SLSTR_L1 | synchronized | 149.557352 | 358.0 | 72.733816  |
| 2024-06-25 | SLSTR_L2 | synchronized | 37.337538  | 588.0 | 79.951609  |
| 2024-06-25 | SRAL_L1  | synchronized | 297.097561 | 185.0 | 96.639297  |
| 2024-06-25 | SRAL_L2  | synchronized | 12.017119  | 462.0 | 96.106206  |
| 2024-06-25 | SYN_L2   | synchronized | 108.680538 | 525.0 | 80.065322  |
| 2024-06-26 | OLCI_L1  | synchronized | 371.706000 | 467.0 | 37.792312  |
| 2024-06-26 | OLCI_L2  | synchronized | 53.920777  | 482.0 | 37.804097  |
| 2024-06-26 | SLSTR_L1 | synchronized | 172.653406 | 412.0 | 39.664058  |
| 2024-06-26 | SLSTR_L2 | synchronized | 40.913938  | 645.0 | 45.355165  |
| 2024-06-26 | SRAL_L1  | synchronized | 331.103921 | 198.0 | 65.102807  |
| 2024-06-26 | SRAL_L2  | synchronized | 12.721676  | 476.0 | 64.909680  |
| 2024-06-26 | SYN_L2   | synchronized | 114.909744 | 559.0 | 47.789718  |
| 2024-06-27 | OLCI_L1  | synchronized | 76.583090  | 99.0  | 12.478738  |
| 2024-06-27 | OLCI_L2  | synchronized | 11.292458  | 106.0 | 12.727572  |
| 2024-06-27 | SLSTR_L1 | synchronized | 33.418937  | 80.0  | 11.955514  |
| 2024-06-27 | SLSTR_L2 | synchronized | 7.860965   | 124.0 | 22.293004  |
| 2024-06-27 | SRAL_L1  | synchronized | 64.586462  | 48.0  | 25.194449  |
| 2024-06-27 | SRAL_L2  | synchronized | 2.964554   | 117.0 | 41.249596  |
| 2024-06-27 | SYN_L2   | synchronized | 25.649030  | 120.0 | 17.029535  |
| 2024-06-28 | OLCI_L1  | synchronized | 320.777952 | 402.0 | 21.202351  |
| 2024-06-28 | OLCI_L2  | synchronized | 43.193717  | 387.0 | 20.897641  |
| 2024-06-28 | SLSTR_L1 | synchronized | 133.549027 | 318.0 | 24.674732  |
| 2024-06-28 | SLSTR_L2 | synchronized | 30.712415  | 483.0 | 34.265972  |
| 2024-06-28 | SRAL_L1  | synchronized | 265.183819 | 164.0 | 45.971320  |
| 2024-06-28 | SRAL_L2  | synchronized | 9.913254   | 380.0 | 44.688642  |
| 2024-06-28 | SYN_L2   | synchronized | 94.560745  | 447.0 | 33.086661  |
| 2024-06-29 | OLCI_L1  | synchronized | 154.474982 | 196.0 | 5.697383   |
| 2024-06-29 | OLCI_L2  | synchronized | 22.234873  | 199.0 | 2.939705   |
| 2024-06-29 | SLSTR_L1 | synchronized | 65.053323  | 155.0 | 3.073896   |
| 2024-06-29 | SLSTR_L2 | synchronized | 14.283940  | 227.0 | 22.700151  |
| 2024-06-29 | SRAL_L1  | synchronized | 134.996170 | 81.0  | 38.587442  |
| 2024-06-29 | SRAL_L2  | synchronized | 5.389304   | 202.0 | 40.283355  |
| 2024-06-29 | SYN_L2   | synchronized | 49.487112  | 235.0 | 19.670091  |
| 2024-06-30 | OLCI_L1  | synchronized | 163.400526 | 206.0 | 9.790701   |
| 2024-06-30 | OLCI_L2  | synchronized | 21.761893  | 196.0 | 5.293513   |
| 2024-06-30 | SLSTR_L1 | synchronized | 74.114218  | 177.0 | 15.337433  |
| 2024-06-30 | SLSTR_L2 | synchronized | 16.642524  | 262.0 | 19.370430  |
| 2024-06-30 | SRAL_L1  | synchronized | 111.317704 | 75.0  | 37.765705  |
| 2024-06-30 | SRAL_L2  | synchronized | 4.406656   | 175.0 | 38.614549  |
| 2024-06-30 | SYN_L2   | synchronized | 48.438014  | 237.0 | 21.491445  |
| 2024-06-01 | NRTI_L2  | synchronized | 13.952834  | 345.0 | 1.935999   |
| 2024-06-01 | OFFL_L1B | synchronized | 305.673949 | 112.0 | 3.852140   |
| 2024-06-01 | OFFL_L2  | synchronized | 22.061283  | 60.0  | 67.331071  |
| 2024-06-02 | NRTI_L2  | synchronized | 13.636689  | 327.0 | 1.902920   |
| 2024-06-02 | OFFL_L1B | synchronized | 305.542558 | 112.0 | 3.966846   |
| 2024-06-02 | OFFL_L2  | synchronized | 18.144177  | 43.0  | 79.539158  |
| 2024-06-03 | NRTI_L2  | synchronized | 12.279216  | 318.0 | 1.902751   |
| 2024-06-03 | OFFL_L1B | synchronized | 314.482132 | 117.0 | 4.035032   |
| 2024-06-03 | OFFL_L2  | synchronized | 19.574401  | 42.0  | 96.930706  |

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|            |          |              |            |       |            |
|------------|----------|--------------|------------|-------|------------|
| 2024-06-04 | NRTI_L2  | synchronized | 12.099266  | 317.0 | 1.919239   |
| 2024-06-04 | OFFL_L1B | synchronized | 252.687841 | 91.0  | 4.063078   |
| 2024-06-04 | OFFL_L2  | synchronized | 41.049635  | 96.0  | 115.847798 |
| 2024-06-05 | NRTI_L2  | synchronized | 12.936103  | 324.0 | 1.985906   |
| 2024-06-05 | OFFL_L1B | synchronized | 327.900752 | 120.0 | 9.579577   |
| 2024-06-05 | OFFL_L2  | synchronized | 33.179200  | 79.0  | 125.747633 |
| 2024-06-06 | NRTI_L2  | synchronized | 9.171984   | 226.0 | 1.961003   |
| 2024-06-06 | OFFL_L1B | synchronized | 352.318645 | 128.0 | 6.519840   |
| 2024-06-06 | OFFL_L2  | synchronized | 30.110117  | 72.0  | 140.552208 |
| 2024-06-07 | OFFL_L1B | synchronized | 305.825242 | 112.0 | 3.738337   |
| 2024-06-07 | OFFL_L2  | synchronized | 41.466816  | 101.0 | 147.332804 |
| 2024-06-08 | NRTI_L2  | synchronized | 29.053679  | 750.0 | 21.144358  |
| 2024-06-08 | OFFL_L1B | synchronized | 305.859621 | 112.0 | 3.819054   |
| 2024-06-08 | OFFL_L2  | synchronized | 39.158477  | 96.0  | 145.528075 |
| 2024-06-09 | NRTI_L2  | synchronized | 12.979000  | 323.0 | 1.935951   |
| 2024-06-09 | OFFL_L1B | synchronized | 305.803564 | 112.0 | 4.044303   |
| 2024-06-09 | OFFL_L2  | synchronized | 69.532621  | 180.0 | 154.520285 |
| 2024-06-10 | NRTI_L2  | synchronized | 13.383706  | 326.0 | 1.902634   |
| 2024-06-10 | OFFL_L1B | synchronized | 325.375537 | 120.0 | 4.054087   |
| 2024-06-10 | OFFL_L2  | synchronized | 78.647604  | 217.0 | 146.624802 |
| 2024-06-11 | NRTI_L2  | synchronized | 11.370547  | 300.0 | 1.957737   |
| 2024-06-11 | OFFL_L1B | synchronized | 129.784766 | 48.0  | 4.071119   |
| 2024-06-11 | OFFL_L2  | synchronized | 95.811827  | 264.0 | 133.600673 |
| 2024-06-12 | NRTI_L2  | synchronized | 13.764792  | 340.0 | 1.912887   |
| 2024-06-12 | OFFL_L1B | synchronized | 479.416841 | 176.0 | 12.415015  |
| 2024-06-12 | OFFL_L2  | synchronized | 107.038852 | 307.0 | 119.575105 |
| 2024-06-13 | NRTI_L2  | synchronized | 12.648442  | 308.0 | 1.896250   |
| 2024-06-13 | OFFL_L1B | synchronized | 305.967411 | 112.0 | 4.054485   |
| 2024-06-13 | OFFL_L2  | synchronized | 89.578705  | 258.0 | 105.375120 |
| 2024-06-14 | NRTI_L2  | synchronized | 12.408979  | 327.0 | 1.912883   |
| 2024-06-14 | OFFL_L1B | synchronized | 328.027291 | 120.0 | 4.049392   |
| 2024-06-14 | OFFL_L2  | synchronized | 98.158452  | 293.0 | 90.350760  |
| 2024-06-15 | NRTI_L2  | synchronized | 12.655176  | 322.0 | 1.937947   |
| 2024-06-15 | OFFL_L1B | synchronized | 306.067820 | 112.0 | 3.924425   |
| 2024-06-15 | OFFL_L2  | synchronized | 108.943217 | 292.0 | 76.875566  |
| 2024-06-16 | NRTI_L2  | synchronized | 13.269262  | 323.0 | 1.912887   |
| 2024-06-16 | OFFL_L1B | synchronized | 281.518457 | 104.0 | 3.871681   |
| 2024-06-16 | OFFL_L2  | synchronized | 108.858686 | 301.0 | 61.592164  |
| 2024-06-17 | NRTI_L2  | synchronized | 13.704531  | 341.0 | 1.912979   |
| 2024-06-17 | OFFL_L1B | synchronized | 327.960281 | 120.0 | 3.993649   |
| 2024-06-17 | OFFL_L2  | synchronized | 95.013936  | 264.0 | 47.758687  |
| 2024-06-18 | NRTI_L2  | synchronized | 12.879637  | 335.0 | 1.912911   |
| 2024-06-18 | OFFL_L1B | synchronized | 306.079904 | 112.0 | 3.969201   |
| 2024-06-18 | OFFL_L2  | synchronized | 75.900422  | 208.0 | 39.837971  |
| 2024-06-19 | NRTI_L2  | synchronized | 12.714306  | 325.0 | 1.929541   |
| 2024-06-19 | OFFL_L1B | synchronized | 308.639863 | 114.0 | 4.088966   |
| 2024-06-19 | OFFL_L2  | synchronized | 66.694085  | 183.0 | 39.317969  |
| 2024-06-20 | NRTI_L2  | synchronized | 13.559588  | 333.0 | 1.912883   |
| 2024-06-20 | OFFL_L1B | synchronized | 303.394490 | 110.0 | 4.144667   |
| 2024-06-20 | OFFL_L2  | synchronized | 66.224579  | 182.0 | 39.351884  |
| 2024-06-21 | NRTI_L2  | synchronized | 12.701366  | 315.0 | 1.929633   |
| 2024-06-21 | OFFL_L1B | synchronized | 306.024551 | 112.0 | 4.147472   |
| 2024-06-21 | OFFL_L2  | synchronized | 66.453528  | 184.0 | 39.355951  |
| 2024-06-22 | NRTI_L2  | synchronized | 12.428057  | 332.0 | 1.896250   |
| 2024-06-22 | OFFL_L1B | synchronized | 303.558605 | 112.0 | 3.879444   |
| 2024-06-22 | OFFL_L2  | synchronized | 67.882130  | 188.0 | 39.352204  |

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|------------|----------|--------------|------------|-------|-----------|
| 2024-06-23 | NRTI_L2  | synchronized | 12.923394  | 327.0 | 1.946226  |
| 2024-06-23 | OFFL_L1B | synchronized | 306.071058 | 112.0 | 3.985841  |
| 2024-06-23 | OFFL_L2  | synchronized | 66.179944  | 184.0 | 39.436159 |
| 2024-06-24 | NRTI_L2  | synchronized | 13.677068  | 333.0 | 1.896270  |
| 2024-06-24 | OFFL_L1B | synchronized | 325.718948 | 120.0 | 3.972076  |
| 2024-06-24 | OFFL_L2  | synchronized | 67.899614  | 186.0 | 39.299033 |
| 2024-06-25 | NRTI_L2  | synchronized | 12.759210  | 314.0 | 1.913106  |
| 2024-06-25 | OFFL_L1B | synchronized | 330.455894 | 120.0 | 3.956124  |
| 2024-06-25 | OFFL_L2  | synchronized | 65.937175  | 181.0 | 39.386598 |
| 2024-06-26 | NRTI_L2  | synchronized | 12.199723  | 316.0 | 1.946205  |
| 2024-06-26 | OFFL_L1B | synchronized | 306.042878 | 112.0 | 4.325651  |
| 2024-06-26 | OFFL_L2  | synchronized | 65.922973  | 181.0 | 39.645722 |
| 2024-06-27 | NRTI_L2  | synchronized | 12.468949  | 306.0 | 1.929544  |
| 2024-06-27 | OFFL_L1B | synchronized | 306.063067 | 112.0 | 4.304829  |
| 2024-06-27 | OFFL_L2  | synchronized | 66.404352  | 186.0 | 39.337597 |
| 2024-06-28 | NRTI_L2  | synchronized | 14.037159  | 332.0 | 1.929666  |
| 2024-06-28 | OFFL_L1B | synchronized | 306.088814 | 112.0 | 4.142177  |
| 2024-06-28 | OFFL_L2  | synchronized | 69.156423  | 190.0 | 39.409290 |
| 2024-06-29 | NRTI_L2  | synchronized | 12.617062  | 298.0 | 1.912967  |
| 2024-06-29 | OFFL_L1B | synchronized | 303.649000 | 112.0 | 4.123122  |
| 2024-06-29 | OFFL_L2  | synchronized | 65.630161  | 180.0 | 39.184781 |
| 2024-06-30 | NRTI_L2  | synchronized | 12.570511  | 322.0 | 1.912881  |
| 2024-06-30 | OFFL_L1B | synchronized | 328.190913 | 120.0 | 4.151191  |
| 2024-06-30 | OFFL_L2  | synchronized | 68.179392  | 187.0 | 39.372984 |
| 2024-06-01 | s2_l1c   | NaN          | 268.907948 | 441.0 | NaN       |
| 2024-06-01 | s2_l2a   | NaN          | 1.507496   | 4.0   | NaN       |
| 2024-06-01 | s1_iw    | NaN          | 35.154308  | 22.0  | NaN       |
| 2024-06-01 | s1_ew    | NaN          | 6.263279   | 3.0   | NaN       |
| 2024-06-02 | s1_iw    | NaN          | 41.207150  | 27.0  | NaN       |
| 2024-06-02 | s1_ew    | NaN          | 8.883518   | 3.0   | NaN       |
| 2024-06-02 | s2_l1c   | NaN          | 291.126003 | 507.0 | NaN       |
| 2024-06-02 | s2_l2a   | NaN          | 1.819084   | 3.0   | NaN       |
| 2024-06-03 | s2_l2a   | NaN          | 6.216671   | 10.0  | NaN       |
| 2024-06-03 | s1_iw    | NaN          | 66.728027  | 38.0  | NaN       |
| 2024-06-03 | s1_ew    | NaN          | 6.364029   | 2.0   | NaN       |
| 2024-06-03 | s2_l1c   | NaN          | 285.905521 | 490.0 | NaN       |
| 2024-06-04 | s2_l1c   | NaN          | 274.256725 | 473.0 | NaN       |
| 2024-06-04 | s2_l2a   | NaN          | 22.704861  | 0.0   | NaN       |
| 2024-06-04 | s1_iw    | NaN          | 18.669586  | 15.0  | NaN       |
| 2024-06-04 | s1_ew    | NaN          | 27.863140  | 13.0  | NaN       |
| 2024-06-05 | s1_iw    | NaN          | 40.595215  | 34.0  | NaN       |
| 2024-06-05 | s1_ew    | NaN          | 20.020847  | 9.0   | NaN       |
| 2024-06-05 | s2_l1c   | NaN          | 255.915466 | 443.0 | NaN       |
| 2024-06-05 | s2_l2a   | NaN          | 6.342407   | 12.0  | NaN       |
| 2024-06-06 | s1_iw    | NaN          | 16.805904  | 12.0  | NaN       |
| 2024-06-06 | s1_ew    | NaN          | 17.196571  | 10.0  | NaN       |
| 2024-06-06 | s2_l1c   | NaN          | 320.584591 | 522.0 | NaN       |
| 2024-06-06 | s2_l2a   | NaN          | 1.535221   | 4.0   | NaN       |
| 2024-06-07 | s2_l2a   | NaN          | 1.822842   | 3.0   | NaN       |
| 2024-06-07 | s2_l1c   | NaN          | 322.883629 | 536.0 | NaN       |
| 2024-06-07 | s1_ew    | NaN          | 11.339066  | 8.0   | NaN       |
| 2024-06-07 | s1_iw    | NaN          | 46.908043  | 38.0  | NaN       |
| 2024-06-08 | s1_iw    | NaN          | 48.474842  | 31.0  | NaN       |
| 2024-06-08 | s1_ew    | NaN          | 11.927479  | 6.0   | NaN       |
| 2024-06-08 | s2_l1c   | NaN          | 286.939255 | 477.0 | NaN       |
| 2024-06-08 | s2_l2a   | NaN          | 4.301796   | 8.0   | NaN       |

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|------------|--------|-----|------------|-------|-----|
| 2024-06-09 | s2_l2a | NaN | 22.703514  | 0.0   | NaN |
| 2024-06-09 | s1_iw  | NaN | 21.424259  | 17.0  | NaN |
| 2024-06-09 | s1_ew  | NaN | 23.389000  | 11.0  | NaN |
| 2024-06-09 | s2_l1c | NaN | 275.896328 | 466.0 | NaN |
| 2024-06-10 | s2_l2a | NaN | 6.328899   | 8.0   | NaN |
| 2024-06-10 | s2_l1c | NaN | 280.359802 | 471.0 | NaN |
| 2024-06-10 | s1_ew  | NaN | 12.666798  | 5.0   | NaN |
| 2024-06-10 | s1_iw  | NaN | 49.112476  | 34.0  | NaN |
| 2024-06-11 | s1_iw  | NaN | 13.014717  | 12.0  | NaN |
| 2024-06-11 | s1_ew  | NaN | 18.804882  | 9.0   | NaN |
| 2024-06-11 | s2_l1c | NaN | 290.276356 | 469.0 | NaN |
| 2024-06-11 | s2_l2a | NaN | 1.422707   | 4.0   | NaN |
| 2024-06-12 | s2_l1c | NaN | 279.057583 | 495.0 | NaN |
| 2024-06-12 | s2_l2a | NaN | 1.717209   | 3.0   | NaN |
| 2024-06-12 | s1_iw  | NaN | 47.548000  | 38.0  | NaN |
| 2024-06-12 | s1_ew  | NaN | 20.837746  | 10.0  | NaN |
| 2024-06-13 | s1_iw  | NaN | 37.677109  | 23.0  | NaN |
| 2024-06-13 | s1_ew  | NaN | 9.410110   | 4.0   | NaN |
| 2024-06-13 | s2_l1c | NaN | 302.572636 | 499.0 | NaN |
| 2024-06-13 | s2_l2a | NaN | 5.647015   | 8.0   | NaN |
| 2024-06-14 | s1_iw  | NaN | 37.220554  | 25.0  | NaN |
| 2024-06-14 | s1_ew  | NaN | 8.782238   | 3.0   | NaN |
| 2024-06-14 | s2_l1c | NaN | 283.915966 | 480.0 | NaN |
| 2024-06-14 | s2_l2a | NaN | 22.704224  | 0.0   | NaN |
| 2024-06-15 | s2_l2a | NaN | 5.595997   | 8.0   | NaN |
| 2024-06-15 | s2_l1c | NaN | 257.943207 | 427.0 | NaN |
| 2024-06-15 | s1_ew  | NaN | 4.694038   | 2.0   | NaN |
| 2024-06-15 | s1_iw  | NaN | 66.455704  | 41.0  | NaN |
| 2024-06-16 | s1_iw  | NaN | 19.030491  | 16.0  | NaN |
| 2024-06-16 | s1_ew  | NaN | 24.283131  | 12.0  | NaN |
| 2024-06-16 | s2_l1c | NaN | 322.700523 | 529.0 | NaN |
| 2024-06-16 | s2_l2a | NaN | 1.444309   | 4.0   | NaN |
| 2024-06-17 | s2_l1c | NaN | 287.643539 | 468.0 | NaN |
| 2024-06-17 | s2_l2a | NaN | 1.827545   | 3.0   | NaN |
| 2024-06-17 | s1_iw  | NaN | 46.760979  | 36.0  | NaN |
| 2024-06-17 | s1_ew  | NaN | 8.790352   | 5.0   | NaN |
| 2024-06-18 | s1_iw  | NaN | 16.837048  | 12.0  | NaN |
| 2024-06-18 | s1_ew  | NaN | 17.333893  | 11.0  | NaN |
| 2024-06-18 | s2_l1c | NaN | 256.338993 | 437.0 | NaN |
| 2024-06-18 | s2_l2a | NaN | 4.215137   | 6.0   | NaN |
| 2024-06-19 | s2_l2a | NaN | 22.706512  | 0.0   | NaN |
| 2024-06-19 | s1_iw  | NaN | 48.386658  | 39.0  | NaN |
| 2024-06-19 | s1_ew  | NaN | 7.381763   | 6.0   | NaN |
| 2024-06-19 | s2_l1c | NaN | 278.507568 | 457.0 | NaN |
| 2024-06-20 | s2_l1c | NaN | 274.634743 | 467.0 | NaN |
| 2024-06-20 | s2_l2a | NaN | 6.795879   | 8.0   | NaN |
| 2024-06-20 | s1_iw  | NaN | 43.495934  | 30.0  | NaN |
| 2024-06-20 | s1_ew  | NaN | 12.167397  | 7.0   | NaN |
| 2024-06-21 | s1_iw  | NaN | 16.739605  | 16.0  | NaN |
| 2024-06-21 | s1_ew  | NaN | 19.799400  | 10.0  | NaN |
| 2024-06-21 | s2_l1c | NaN | 266.985619 | 445.0 | NaN |
| 2024-06-21 | s2_l2a | NaN | 1.587059   | 4.0   | NaN |
| 2024-06-22 | s2_l1c | NaN | 298.088589 | 509.0 | NaN |
| 2024-06-22 | s2_l2a | NaN | 1.361736   | 4.0   | NaN |
| 2024-06-22 | s1_iw  | NaN | 44.058258  | 33.0  | NaN |
| 2024-06-22 | s1_ew  | NaN | 12.659081  | 6.0   | NaN |

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|            |        |     |            |       |     |
|------------|--------|-----|------------|-------|-----|
| 2024-06-23 | s1_iw  | NaN | 17.855591  | 14.0  | NaN |
| 2024-06-23 | s1_ew  | NaN | 17.664658  | 9.0   | NaN |
| 2024-06-23 | s2_l1c | NaN | 271.573208 | 464.0 | NaN |
| 2024-06-23 | s2_l2a | NaN | 5.927685   | 8.0   | NaN |
| 2024-06-24 | s2_l2a | NaN | 22.773720  | 0.0   | NaN |
| 2024-06-24 | s1_iw  | NaN | 54.360203  | 40.0  | NaN |
| 2024-06-24 | s1_ew  | NaN | 10.845615  | 6.0   | NaN |
| 2024-06-24 | s2_l1c | NaN | 309.658516 | 517.0 | NaN |
| 2024-06-25 | s2_l1c | NaN | 262.522083 | 420.0 | NaN |
| 2024-06-25 | s2_l2a | NaN | 6.818718   | 8.0   | NaN |
| 2024-06-25 | s1_iw  | NaN | 31.179279  | 22.0  | NaN |
| 2024-06-25 | s1_ew  | NaN | 9.319271   | 4.0   | NaN |
| 2024-06-26 | s1_iw  | NaN | 27.591740  | 8.0   | NaN |
| 2024-06-26 | s1_ew  | NaN | 8.459206   | 3.0   | NaN |
| 2024-06-26 | s2_l1c | NaN | 269.390945 | 442.0 | NaN |
| 2024-06-26 | s2_l2a | NaN | 1.600040   | 4.0   | NaN |
| 2024-06-27 | s1_iw  | NaN | 52.088158  | 32.0  | NaN |
| 2024-06-27 | s1_ew  | NaN | 5.026974   | 2.0   | NaN |
| 2024-06-27 | s2_l1c | NaN | 286.590672 | 477.0 | NaN |
| 2024-06-27 | s2_l2a | NaN | 0.902771   | 2.0   | NaN |
| 2024-06-28 | s2_l2a | NaN | 5.931614   | 8.0   | NaN |
| 2024-06-28 | s2_l1c | NaN | 258.796921 | 452.0 | NaN |
| 2024-06-28 | s1_ew  | NaN | 6.220688   | 5.0   | NaN |
| 2024-06-28 | s1_iw  | NaN | 22.774284  | 0.0   | NaN |
| 2024-06-29 | s1_iw  | NaN | 52.352833  | 38.0  | NaN |
| 2024-06-29 | s1_ew  | NaN | 19.423386  | 9.0   | NaN |
| 2024-06-29 | s2_l1c | NaN | 246.669785 | 424.0 | NaN |
| 2024-06-29 | s2_l2a | NaN | 22.774597  | 0.0   | NaN |
| 2024-06-30 | s1_iw  | NaN | 15.827576  | 13.0  | NaN |
| 2024-06-30 | s1_ew  | NaN | 16.813709  | 10.0  | NaN |
| 2024-06-30 | s2_l1c | NaN | 236.790611 | 401.0 | NaN |
| 2024-06-30 | s2_l2a | NaN | 6.180733   | 8.0   | NaN |



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