NBS monthly report - 2024 July

MET Norway - NBS team

Oct 03, 2024

CONTENTS

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). 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 and 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.

ONE

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
colhub.met.no	8567	35878	35294	29472	15172	17	25142	12.989
colhub-archive.met.no	8574	35632	35051	29176	15158	7	3510	2.295
datas-pace.copernicus.eu	9423	36737	36737	43176	0			

Finally, the total amount of disk space dedicated to the NBS project, including either products in SAFE and NetCDF formats, represents 5962 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 6364 Tb; while in 12 months it is forecast to become 6923 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.
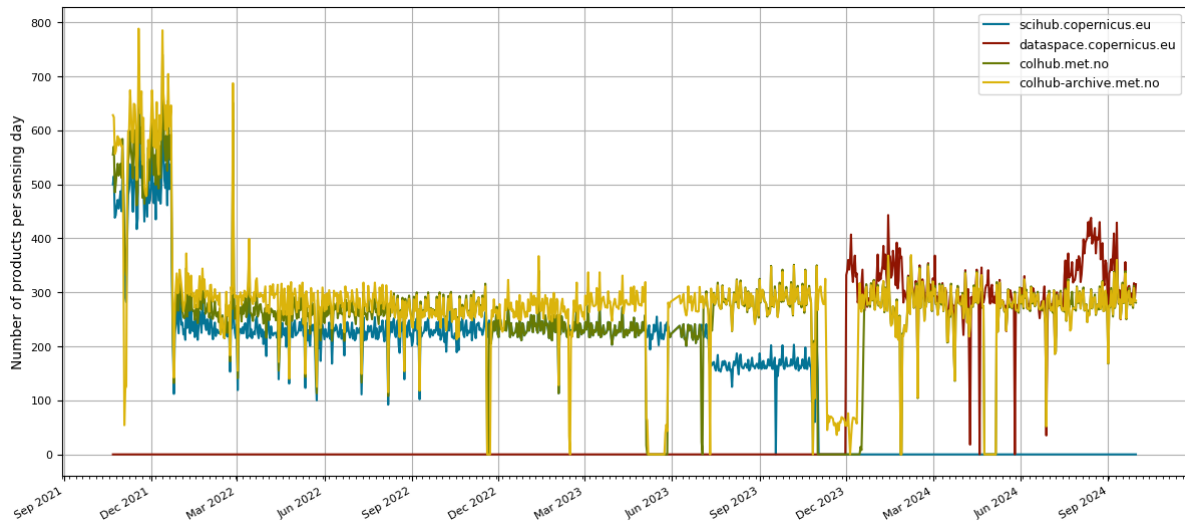
The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-1.

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

A table is also included for more detailed information.

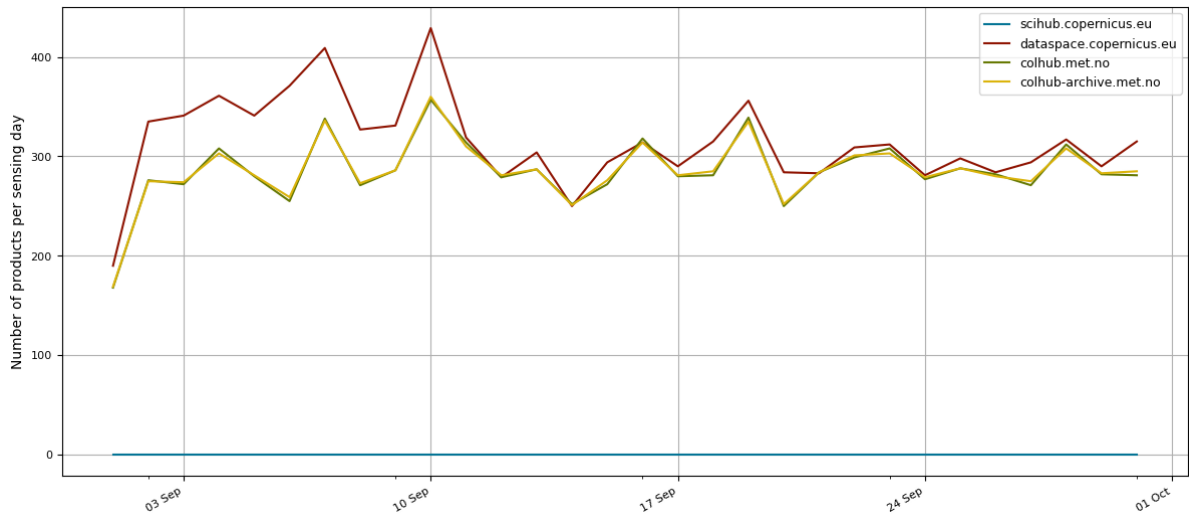|	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
sensing_date			
2024-09-01	168.0	190.0	169.0
2024-09-02	276.0	335.0	275.0
2024-09-03	272.0	341.0	274.0
2024-09-04	308.0	361.0	303.0
2024-09-05	280.0	341.0	281.0
2024-09-06	255.0	371.0	259.0
2024-09-07	338.0	409.0	336.0
2024-09-08	271.0	327.0	273.0
2024-09-09	286.0	331.0	286.0
2024-09-10	357.0	429.0	360.0
2024-09-11	314.0	319.0	310.0
2024-09-12	279.0	279.0	281.0
2024-09-13	287.0	304.0	287.0
2024-09-14	252.0	250.0	251.0
2024-09-15	272.0	294.0	276.0
2024-09-16	318.0	314.0	314.0
2024-09-17	280.0	290.0	281.0
2024-09-18	281.0	315.0	285.0
2024-09-19	339.0	356.0	335.0
2024-09-20	250.0	284.0	252.0
2024-09-21	284.0	283.0	284.0
2024-09-22	299.0	309.0	301.0
2024-09-23	308.0	312.0	303.0
2024-09-24	277.0	281.0	279.0
2024-09-25	288.0	298.0	288.0
2024-09-26	282.0	284.0	280.0
2024-09-27	271.0	294.0	275.0
2024-09-28	312.0	317.0	308.0
2024-09-29	282.0	290.0	283.0
2024-09-30	281.0	315.0	285.0

3.2 Missing products

The overall total number of Sentinel-1 products is 7787240. The number of overall Sentinel-1 missing products consists of 4546324 images. This represents that a 400% of the total was included in MET Norway DHR, while a -300% was not included.

The total number of Sentinel-1 products in September is 1268711. The number of Sentinel-1 missing products during September consists of 1145120 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.
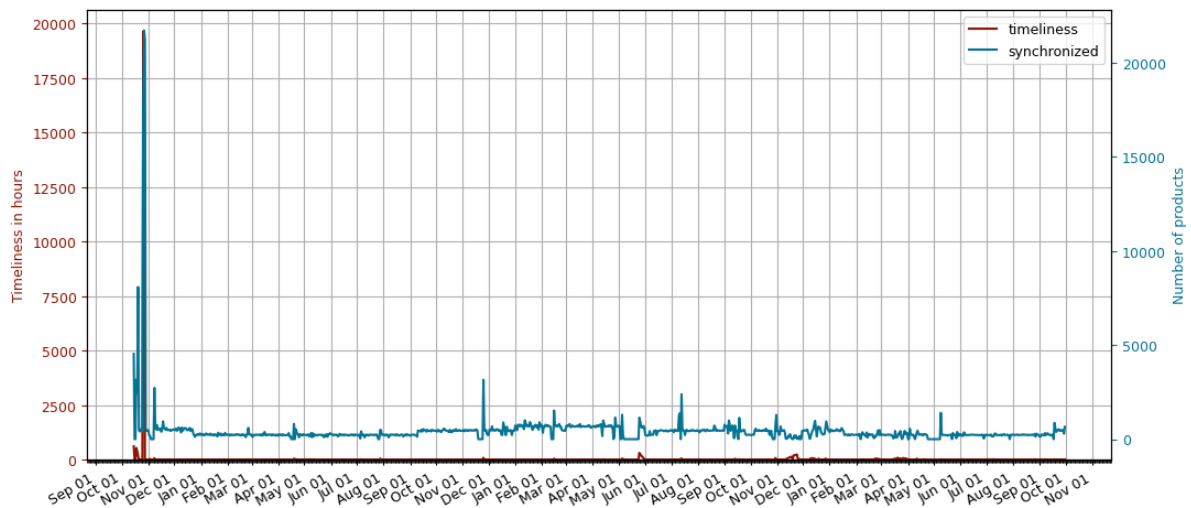
The figure above shows an overall status of the Sentinel-1 synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.
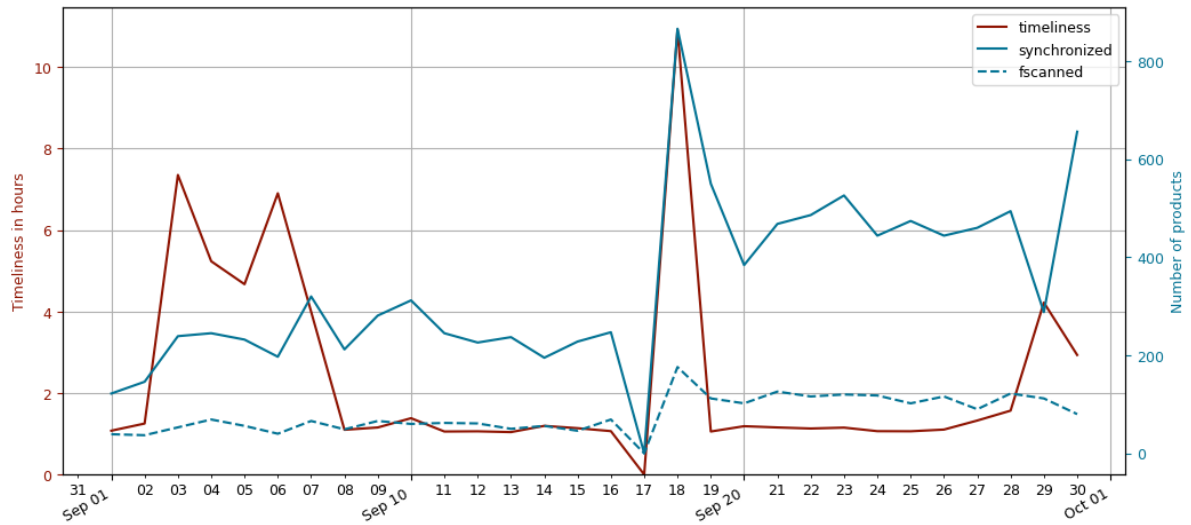
A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

```
                   size   number   timeliness
day
2024-09-01    257.058467     122     1.076639
2024-09-02    311.084371     146     1.252422
2024-09-03    545.471702     239     7.354178
2024-09-04    601.702504     245     5.235643
2024-09-05    603.967237     232     4.672049
2024-09-06    411.815771     197     6.904530
2024-09-07    715.367952     320     3.997018
2024-09-08    396.410452     212     1.099256
2024-09-09    879.454483     281     1.156002
2024-09-10    759.051743     312     1.383615
2024-09-11    591.641700     245     1.056812
2024-09-12    558.519836     226     1.061380
2024-09-13    494.118427     237     1.042278
2024-09-14    476.811903     195     1.195659
2024-09-15    507.283781     228     1.138122
2024-09-16    603.357469     247     1.066104
2024-09-17      0.000000       0     0.000000
2024-09-18   2255.502186     866    10.918072
2024-09-19   1336.540912     550     1.056664
2024-09-20    802.873653     384     1.187294
2024-09-21   1187.760131     468     1.156611
2024-09-22   1107.216736     486     1.130744
2024-09-23   1266.533958     526     1.152311
2024-09-24   1086.679172     444     1.064977
2024-09-25    988.156562     474     1.062436
2024-09-26   1094.713758     444     1.104444
2024-09-27   1045.861308     460     1.326216
2024-09-28   1170.702094     494     1.568977
2024-09-29    698.060124     288     4.222190
2024-09-30   1641.157633     656     2.935245
```

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

```
                 size   number   timeliness
day
2024-09-01   47.671929       39     0.682393
2024-09-02   49.064203       37     0.972964
2024-09-03   74.407940       53     1.240137
2024-09-04   58.448717       69     0.696907
2024-09-05   72.055160       56     0.820420
2024-09-06   48.809524       40     0.855237
2024-09-07   81.780189       66     0.839337
2024-09-08   46.524619       49     0.610966
2024-09-09   74.076073       66     0.644678
2024-09-10   69.205467       60     0.777492
2024-09-11   63.137276       62     0.652691
2024-09-12   74.305769       61     0.696929
2024-09-13   54.599945       50     0.818025
2024-09-14   73.115280       56     0.823713
2024-09-15   50.785774       46     0.694784
2024-09-16   70.655866       69     0.677456
2024-09-17    0.000000        0     0.000000
2024-09-18  217.873202      176    15.410151
2024-09-19  159.301218      112     0.811178
2024-09-20   95.883710      102     0.605297
2024-09-21  141.649488      126     0.635496
2024-09-22  142.585385      116     0.832859
2024-09-23  124.432536      120     0.708399
2024-09-24  149.559745      118     0.797421
2024-09-25  104.359419      102     0.806542
2024-09-26  143.936375      116     0.871930
2024-09-27   87.794069       90     0.698373
2024-09-28  121.719278      122     0.677887
2024-09-29  133.906956      112     0.844265
2024-09-30   97.759529       80     1.130389
```

FOUR

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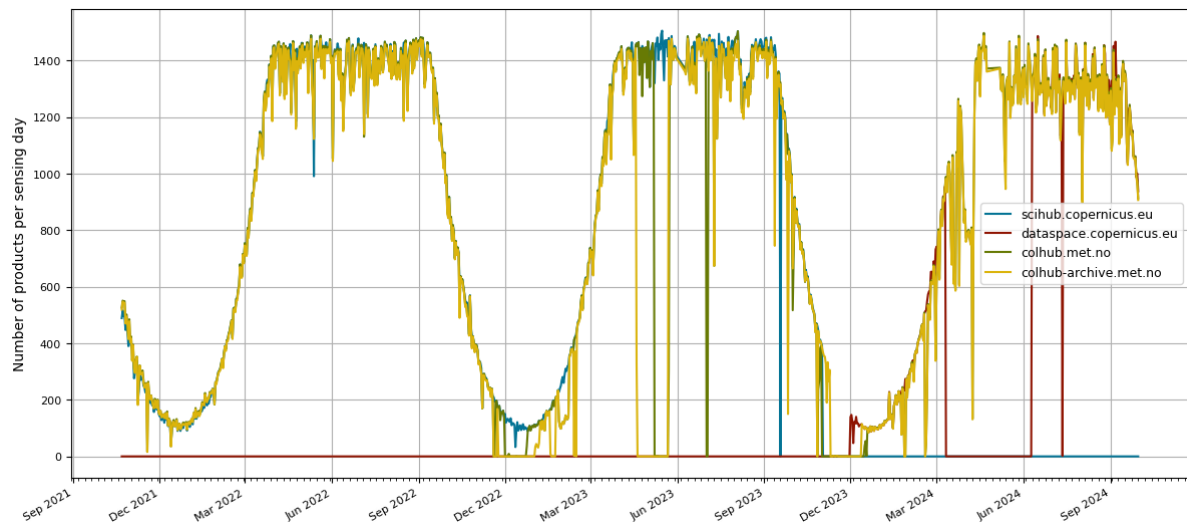
The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-2 Level-1C.

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

A table is also included for more detailed information.

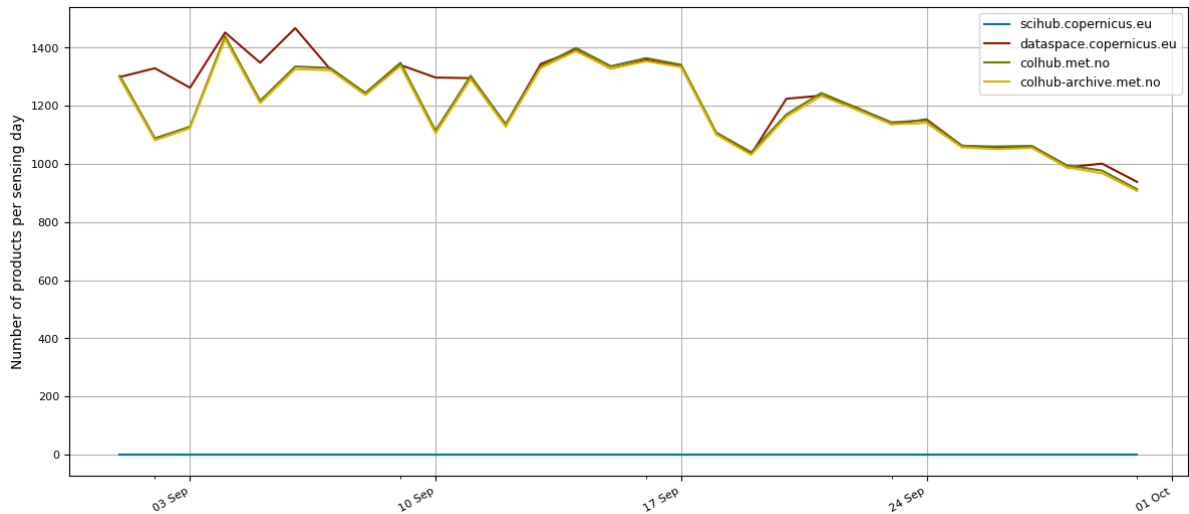|	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
sensing_date			
2024-09-01	1303.0	1299.0	1294.0
2024-09-02	1088.0	1329.0	1081.0
2024-09-03	1128.0	1262.0	1123.0
2024-09-04	1439.0	1452.0	1429.0
2024-09-05	1217.0	1348.0	1209.0
2024-09-06	1335.0	1467.0	1326.0
2024-09-07	1330.0	1325.0	1322.0
2024-09-08	1244.0	1243.0	1237.0
2024-09-09	1348.0	1340.0	1337.0
2024-09-10	1114.0	1297.0	1105.0
2024-09-11	1303.0	1295.0	1292.0
2024-09-12	1136.0	1135.0	1128.0
2024-09-13	1336.0	1344.0	1330.0
2024-09-14	1399.0	1391.0	1388.0
2024-09-15	1336.0	1328.0	1328.0
2024-09-16	1364.0	1357.0	1353.0
2024-09-17	1341.0	1337.0	1333.0
2024-09-18	1108.0	1106.0	1101.0
2024-09-19	1040.0	1034.0	1031.0
2024-09-20	1170.0	1224.0	1162.0
2024-09-21	1244.0	1235.0	1234.0
2024-09-22	1193.0	1194.0	1186.0
2024-09-23	1143.0	1137.0	1136.0
2024-09-24	1150.0	1153.0	1141.0
2024-09-25	1062.0	1063.0	1057.0
2024-09-26	1060.0	1055.0	1051.0
2024-09-27	1062.0	1060.0	1055.0
2024-09-28	995.0	988.0	988.0
2024-09-29	977.0	1001.0	968.0
2024-09-30	913.0	938.0	907.0

4.2 Missing products

The overall total number of Sentinel-2 Level-1C products is 7787240. The number of overall Sentinel-2 Level-1C missing products consists of 4546324 images. This represents that a 400% of the total was included in MET Norway DHR, while a -300% was not included.

The total number of Sentinel-2 Level-1C products in September is 1268711. The number of Sentinel-2 Level-1C missing products during September consists of 1145120 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.
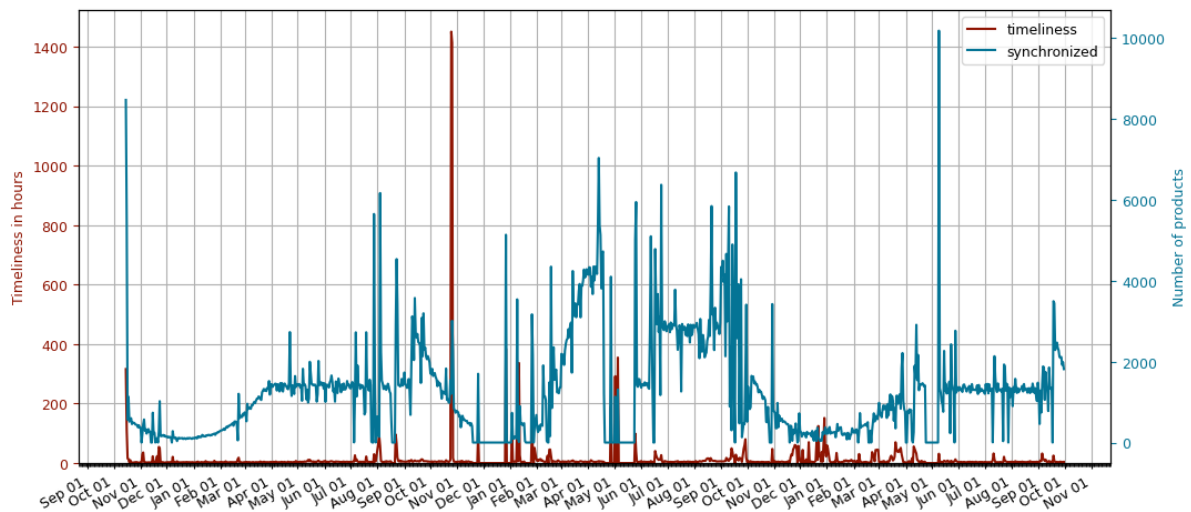
The figure above shows an overall status of the Sentinel-2 Level-1C synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.
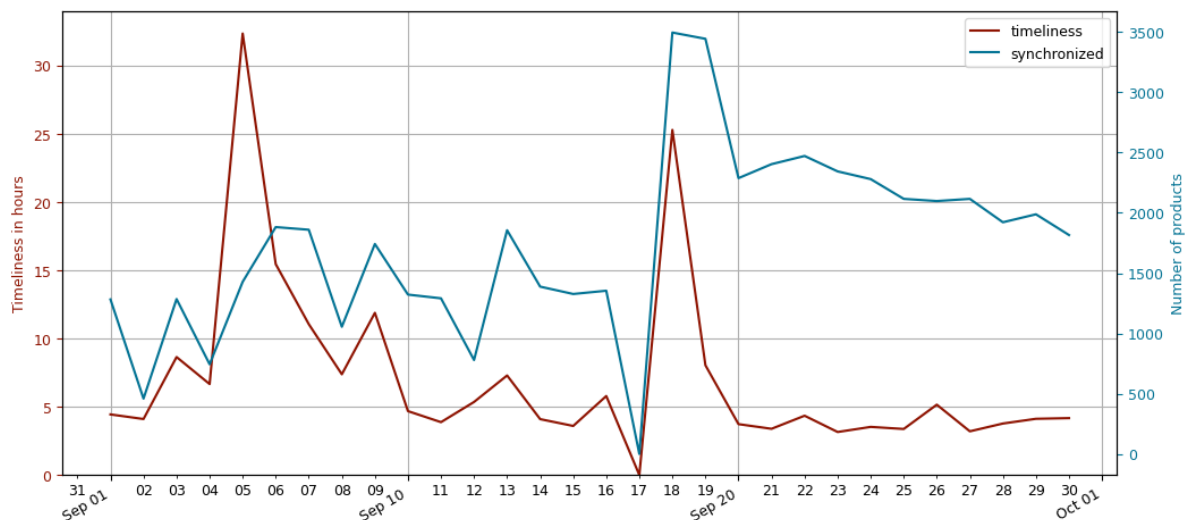
A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

```
                  size    number   timeliness
day
2024-09-01   517.374936     1282     4.436799
2024-09-02   214.096549      459     4.100088
2024-09-03   547.999255     1285     8.639290
2024-09-04   338.671279      744     6.659789
2024-09-05   651.239574     1428    32.328470
2024-09-06   847.216443     1882    15.442748
2024-09-07   832.085268     1860    11.047471
2024-09-08   470.544434     1055     7.376131
2024-09-09   814.369920     1742    11.875683
2024-09-10   602.309139     1322     4.678169
2024-09-11   592.052587     1291     3.870817
2024-09-12   351.357374      779     5.350204
2024-09-13   812.787076     1856     7.290305
2024-09-14   619.650408     1388     4.092493
2024-09-15   628.637474     1327     3.592840
2024-09-16   622.887480     1354     5.783712
2024-09-17     0.000000        0     0.000000
2024-09-18  1568.083687     3496    25.269940
2024-09-19  1535.414220     3444     8.036614
2024-09-20  1054.326456     2288     3.725821
2024-09-21  1109.316902     2404     3.384658
2024-09-22  1126.174322     2472     4.342183
2024-09-23  1059.371841     2344     3.149523
2024-09-24  1037.813407     2280     3.523456
2024-09-25   948.425047     2116     3.371530
2024-09-26   957.595429     2098     5.150515
2024-09-27   930.499941     2116     3.199957
2024-09-28   859.652509     1922     3.770354
2024-09-29   872.122721     1988     4.117262
2024-09-30   796.005962     1816     4.166925
```

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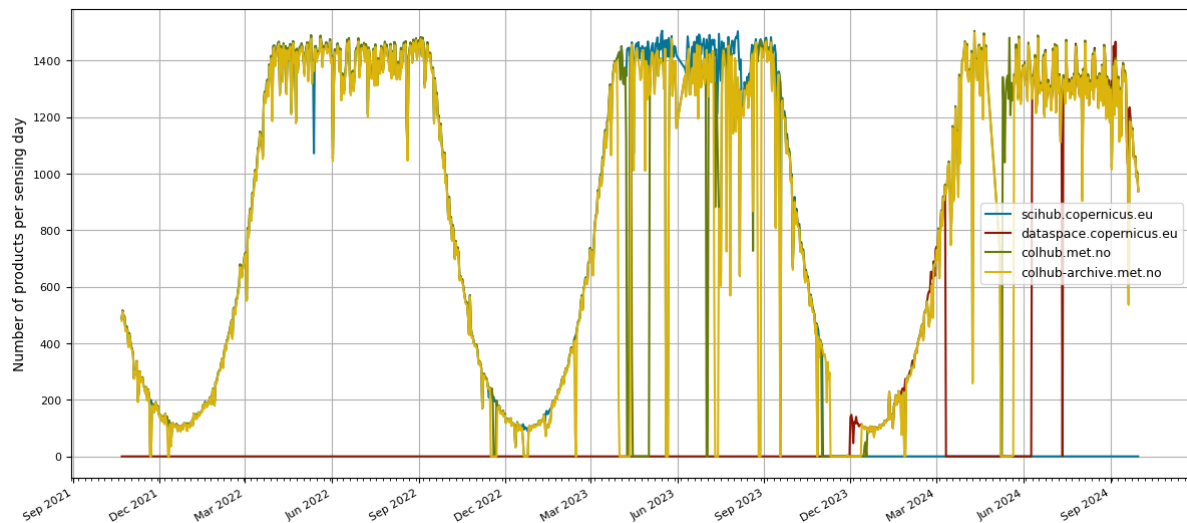
The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-2 Level-2A.

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

A table is also included for more detailed information.

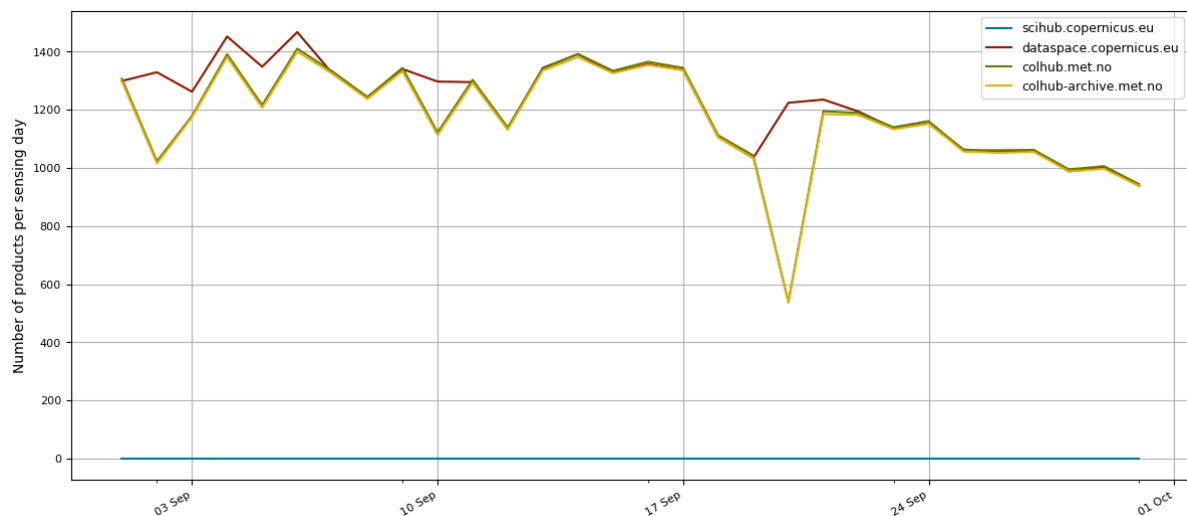| sensing_date	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
2024-09-01	1307.0	1299.0	1298.0
2024-09-02	1023.0	1329.0	1015.0
2024-09-03	1179.0	1262.0	1174.0
2024-09-04	1391.0	1452.0	1381.0
2024-09-05	1216.0	1348.0	1207.0
2024-09-06	1410.0	1467.0	1400.0
2024-09-07	1332.0	1325.0	1324.0
2024-09-08	1244.0	1243.0	1237.0
2024-09-09	1344.0	1340.0	1333.0
2024-09-10	1122.0	1297.0	1113.0
2024-09-11	1303.0	1295.0	1293.0
2024-09-12	1139.0	1135.0	1131.0
2024-09-13	1341.0	1344.0	1335.0
2024-09-14	1392.0	1391.0	1381.0
2024-09-15	1334.0	1328.0	1326.0
2024-09-16	1365.0	1357.0	1354.0
2024-09-17	1344.0	1337.0	1336.0
2024-09-18	1112.0	1106.0	1105.0
2024-09-19	1043.0	1034.0	1034.0
2024-09-20	539.0	1224.0	536.0
2024-09-21	1195.0	1235.0	1185.0
2024-09-22	1189.0	1194.0	1182.0
2024-09-23	1140.0	1137.0	1133.0
2024-09-24	1161.0	1153.0	1152.0
2024-09-25	1061.0	1063.0	1056.0
2024-09-26	1061.0	1055.0	1052.0
2024-09-27	1062.0	1060.0	1055.0
2024-09-28	995.0	988.0	988.0
2024-09-29	1006.0	1001.0	997.0
2024-09-30	944.0	938.0	938.0

5.2 Missing products

The overall total number of Sentinel-2 Level-2A products is 7787240. The number of overall Sentinel-2 Level-2A missing products consists of 4546324 images. This represents that a 400% of the total was included in MET Norway DHR, while a -300% was not included.

The total number of Sentinel-2 level-2A products in September is 1268711. The number of Sentinel-2 level-2A missing products during September consists of 1145120 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.
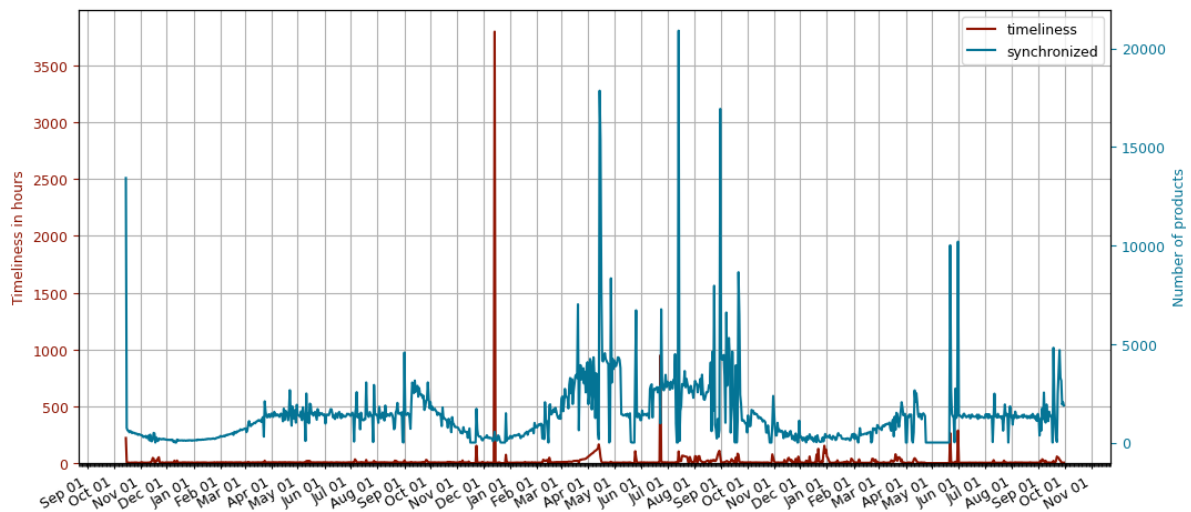
The figure above shows an overall status of the Sentinel-2 Level-2A synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.
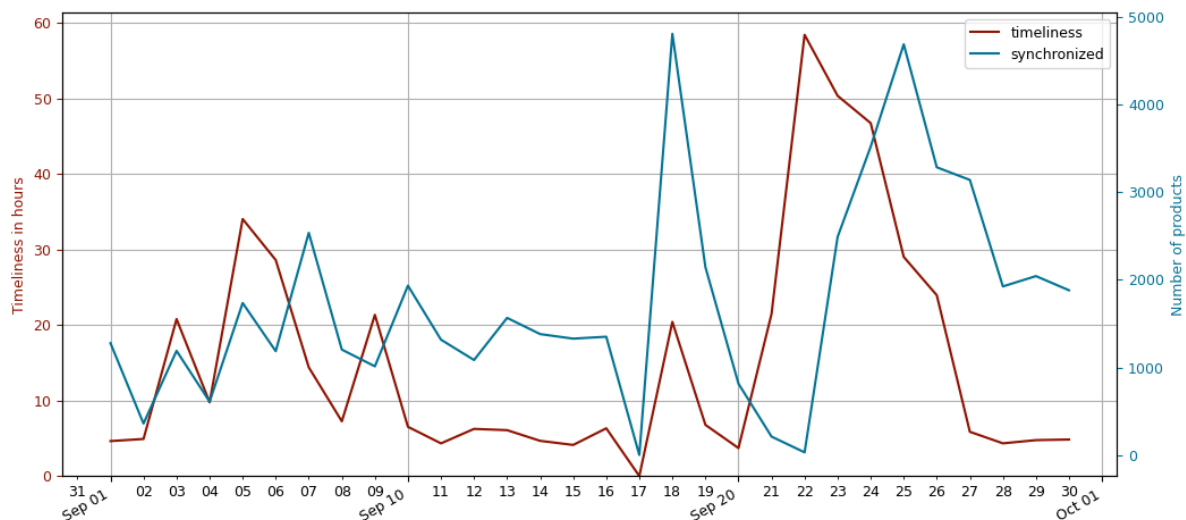
A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

```
                  size    number   timeliness
day
2024-09-01    652.832984    1277     4.629054
2024-09-02    187.015095     359     4.911936
2024-09-03    686.290368    1189    20.792007
2024-09-04    309.157023     609     9.762772
2024-09-05   1046.451145    1735    34.040061
2024-09-06    675.628209    1185    28.611510
2024-09-07   1465.623605    2536    14.400023
2024-09-08    685.601294    1203     7.250303
2024-09-09    627.888764    1012    21.351596
2024-09-10   1123.684111    1933     6.522643
2024-09-11    779.286611    1316     4.326190
2024-09-12    627.524547    1084     6.245251
2024-09-13    880.213330    1565     6.076272
2024-09-14    778.832177    1380     4.662047
2024-09-15    796.399452    1328     4.118246
2024-09-16    785.454160    1350     6.323021
2024-09-17      0.000000       0     0.000000
2024-09-18   2700.967840    4808    20.417499
2024-09-19   1223.439776    2144     6.776639
2024-09-20    498.946203     814     3.704419
2024-09-21     77.359124     210    21.464342
2024-09-22     11.546246      30    58.439062
2024-09-23   1445.176721    2490    50.356581
2024-09-24   1982.545995    3520    46.740992
2024-09-25   2792.712729    4688    29.020760
2024-09-26   1933.999099    3284    23.942829
2024-09-27   1743.215793    3140     5.862441
2024-09-28   1084.128039    1924     4.331498
2024-09-29   1140.505392    2042     4.755678
2024-09-30   1069.728491    1880     4.837913
```

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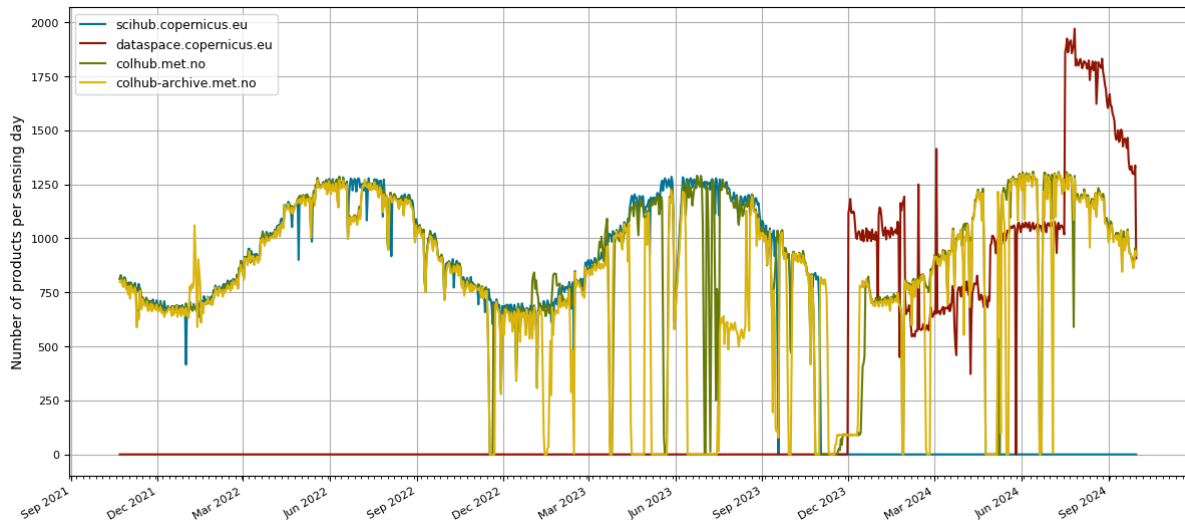
The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-3.

While the figure below shows a zoom on the last month.
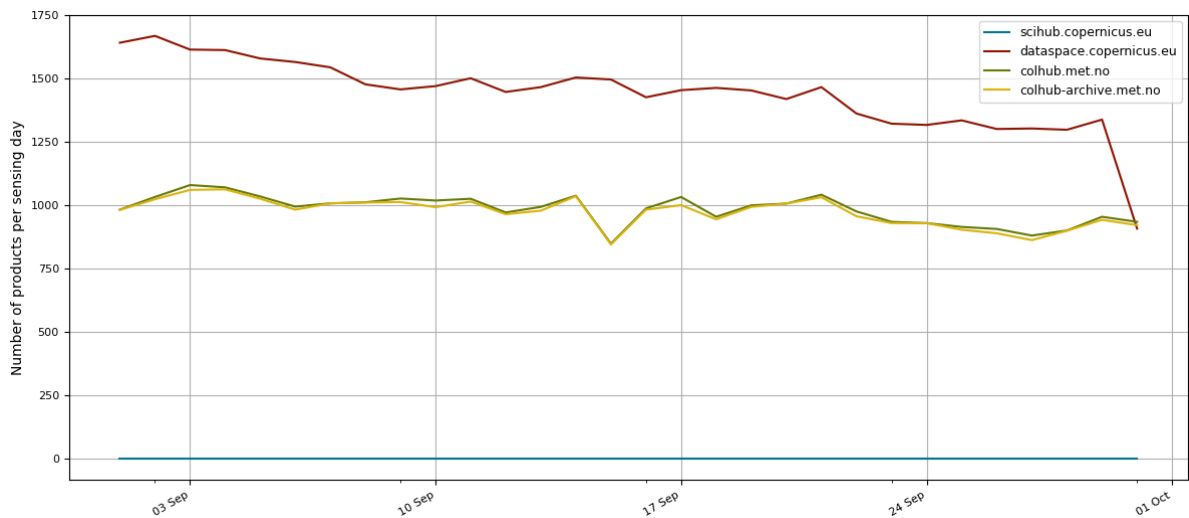
A table is also included for more detailed information.

sensing_date	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
2024-09-01	982.0	1640.0	981.0
2024-09-02	1032.0	1667.0	1023.0
2024-09-03	1079.0	1613.0	1060.0
2024-09-04	1070.0	1611.0	1062.0
2024-09-05	1034.0	1578.0	1025.0
2024-09-06	994.0	1564.0	982.0
2024-09-07	1007.0	1543.0	1007.0
2024-09-08	1011.0	1476.0	1010.0
2024-09-09	1026.0	1456.0	1012.0
2024-09-10	1018.0	1469.0	992.0
2024-09-11	1025.0	1500.0	1014.0
2024-09-12	971.0	1446.0	964.0
2024-09-13	993.0	1465.0	978.0
2024-09-14	1037.0	1503.0	1035.0
2024-09-15	848.0	1495.0	845.0
2024-09-16	987.0	1425.0	982.0
2024-09-17	1032.0	1453.0	1000.0
2024-09-18	954.0	1462.0	944.0
2024-09-19	999.0	1452.0	993.0
2024-09-20	1006.0	1418.0	1006.0
2024-09-21	1041.0	1465.0	1031.0
2024-09-22	975.0	1361.0	956.0
2024-09-23	934.0	1321.0	929.0
2024-09-24	929.0	1316.0	929.0
2024-09-25	914.0	1334.0	903.0
2024-09-26	906.0	1300.0	889.0
2024-09-27	880.0	1302.0	862.0
2024-09-28	900.0	1297.0	899.0
2024-09-29	954.0	1337.0	942.0
2024-09-30	934.0	907.0	921.0

6.2 Missing products

The overall total number of Sentinel-3 products is 7787240. The number of overall Sentinel-3 missing products consists of 4546324 images. This represents that a 400% of the total was included in MET Norway DHR, while a -300% was not included.

The total number of Sentinel-3 products in September is 1268711. The number of Sentinel-3 missing products during September consists of 1145120 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.
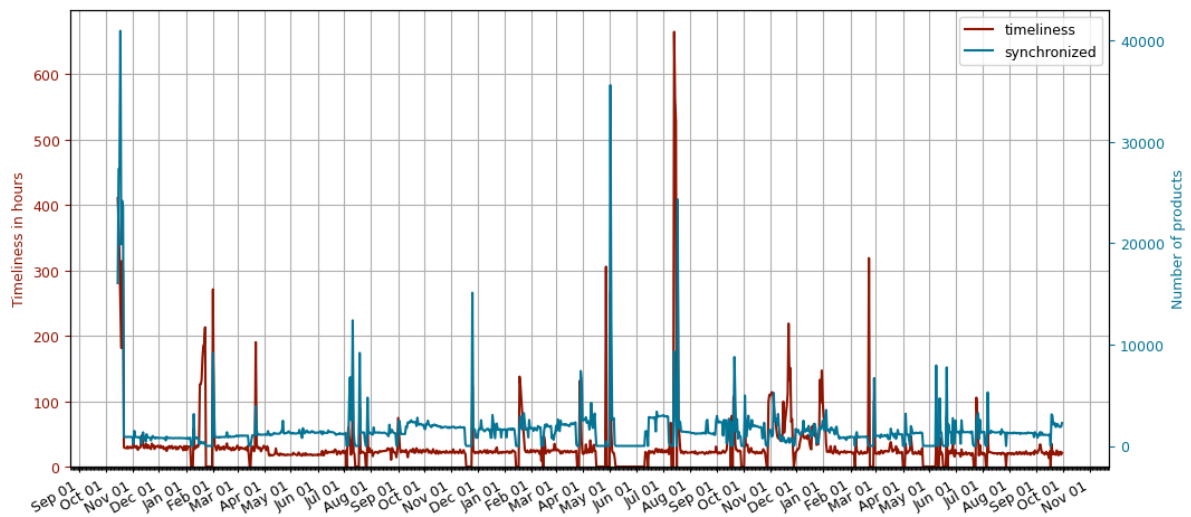
The figure above shows an overall status of the Sentinel-3 synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.
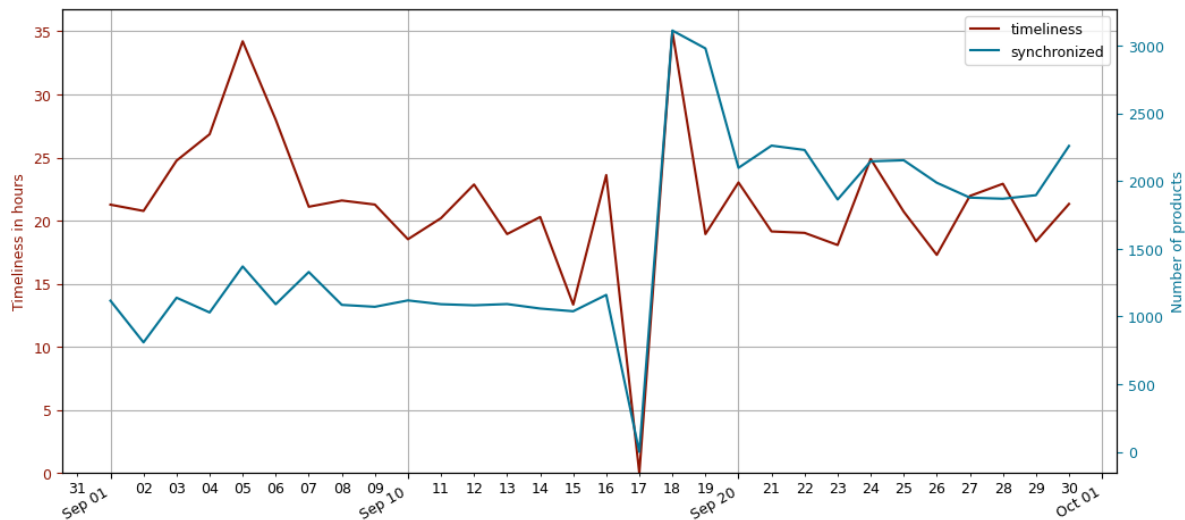
A more detailed information is given in the table below where the last month is assessed for products synchronized from ESA.

```
                    size    number   timeliness
day
2024-09-01   378.261321     1117    21.264073
2024-09-02   281.227120      809    20.767449
2024-09-03   382.069696     1139    24.753757
2024-09-04   356.988948     1030    26.845753
2024-09-05   431.162055     1370    34.209813
2024-09-06   358.519963     1091    27.996797
2024-09-07   424.438039     1329    21.099342
2024-09-08   352.386129     1086    21.594414
2024-09-09   348.211386     1072    21.272652
2024-09-10   358.785377     1119    18.524721
2024-09-11   346.813755     1091    20.196051
2024-09-12   353.193786     1083    22.865196
2024-09-13   352.220968     1092    18.934677
2024-09-14   337.531296     1059    20.288519
2024-09-15   326.351208     1039    13.346062
2024-09-16   365.233613     1160    23.611000
2024-09-17     0.000000        0     0.000000
2024-09-18   988.001778     3112    34.983350
2024-09-19   934.261854     2980    18.932965
2024-09-20   653.819258     2098    23.023759
2024-09-21   712.331269     2262    19.142418
2024-09-22   700.915749     2230    19.029596
2024-09-23   618.758815     1864    18.066840
2024-09-24   716.343000     2146    24.886073
2024-09-25   692.616520     2154    20.706350
2024-09-26   659.576739     1988    17.284674
2024-09-27   620.648108     1878    21.953142
2024-09-28   606.056575     1870    22.921142
2024-09-29   642.344648     1896    18.359313
2024-09-30   689.230837     2260    21.321881
```

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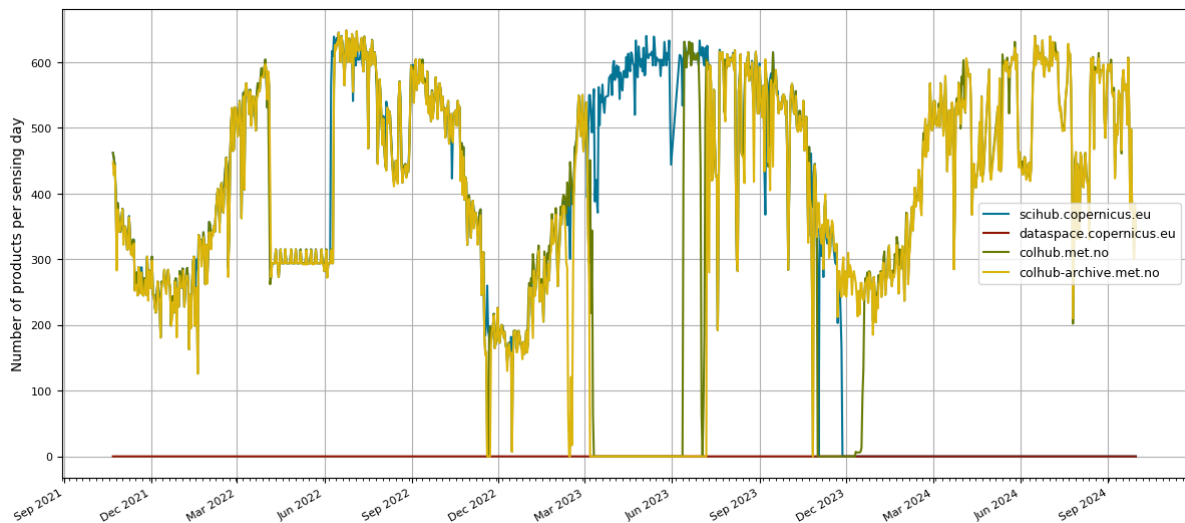
The figure above represents the overall number of products present in the different BackEnds and FrontEnds per day for Sentinel-5p.

While the figure below shows a zoom on the last month.
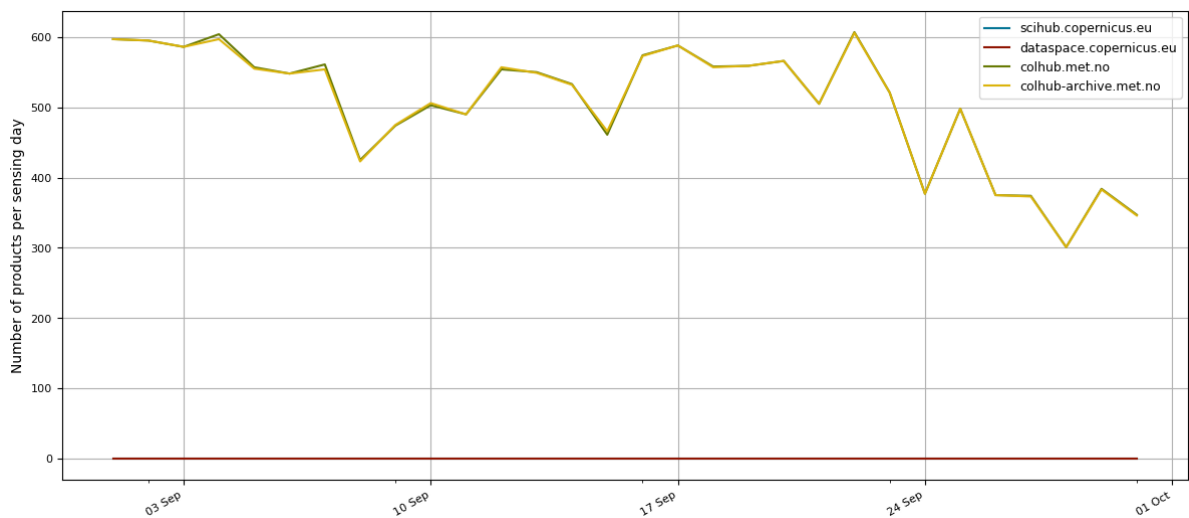
A table is also included for more detailed information.

sensing_date	colhub.met.no	dataspace.copernicus.eu	colhub-archive.met.no
2024-09-01	597.0	0.0	597.0
2024-09-02	595.0	0.0	595.0
2024-09-03	586.0	0.0	586.0
2024-09-04	604.0	0.0	597.0
2024-09-05	557.0	0.0	555.0
2024-09-06	548.0	0.0	548.0
2024-09-07	561.0	0.0	554.0
2024-09-08	425.0	0.0	423.0
2024-09-09	474.0	0.0	475.0
2024-09-10	503.0	0.0	506.0
2024-09-11	490.0	0.0	490.0
2024-09-12	554.0	0.0	557.0
2024-09-13	550.0	0.0	549.0
2024-09-14	533.0	0.0	532.0
2024-09-15	461.0	0.0	466.0
2024-09-16	574.0	0.0	573.0
2024-09-17	588.0	0.0	588.0
2024-09-18	558.0	0.0	557.0
2024-09-19	559.0	0.0	559.0
2024-09-20	566.0	0.0	566.0
2024-09-21	505.0	0.0	505.0
2024-09-22	607.0	0.0	606.0
2024-09-23	521.0	0.0	521.0
2024-09-24	377.0	0.0	377.0
2024-09-25	498.0	0.0	498.0
2024-09-26	375.0	0.0	375.0
2024-09-27	374.0	0.0	373.0
2024-09-28	301.0	0.0	301.0
2024-09-29	384.0	0.0	383.0
2024-09-30	347.0	0.0	346.0

7.2 Missing products

The overall total number of Sentinel-5p products is 7787240. The number of overall Sentinel-5p missing products consists of 4546324 images. This represents that a 400% of the total was included in MET Norway DHR, while a -300% was not included.

The total number of Sentinel-5p products in September is 1268711. The number of Sentinel-5p missing products during September consists of 1145120 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.
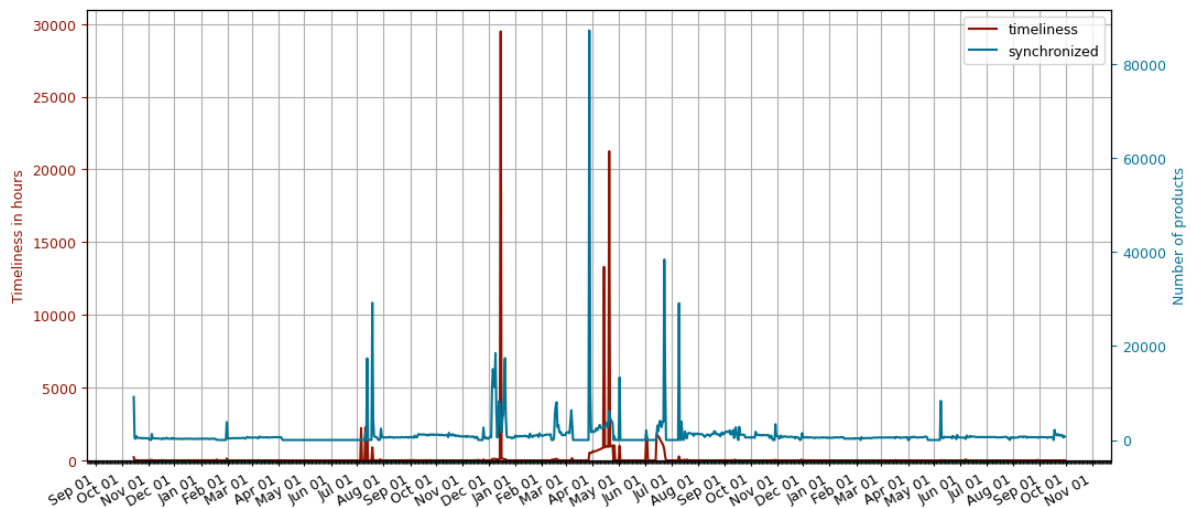
The figure above shows an overall status of the Sentinel-5p synchronization between ESA datahub and MET Norway BE. The number of products synchronized and deleted are represented by the dark and light blue lines respectively. The red line represents the timeliness.

Following previous sections, the graph below shows a zoom in the last month for the synchronization between ESA datahub and MET Norway BE.
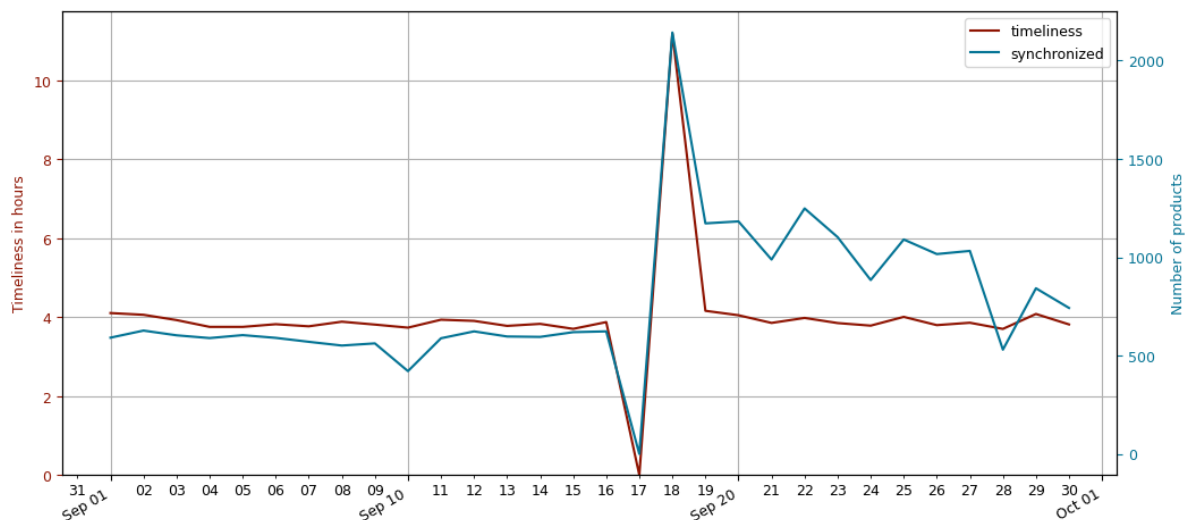
A more detailed information is given in the table below where the last month are assessed for products synchronized from ESA.

```
                   size    number   timeliness
day
2024-09-01   382.323803     591     4.104614
2024-09-02   409.308373     627     4.060646
2024-09-03   382.349753     603     3.926856
2024-09-04   380.354091     589     3.754281
2024-09-05   361.550104     604     3.754091
2024-09-06   385.142895     590     3.821941
2024-09-07   359.344329     570     3.768982
2024-09-08   351.696969     551     3.885766
2024-09-09   374.383674     562     3.812533
2024-09-10   306.189133     421     3.734936
2024-09-11   372.481713     588     3.935970
2024-09-12   414.803073     623     3.906017
2024-09-13   366.973617     597     3.779556
2024-09-14   412.260794     595     3.830579
2024-09-15   396.683110     619     3.704406
2024-09-16   385.894197     623     3.875299
2024-09-17     0.000000       0     0.000000
2024-09-18  1379.890140    2142    11.188907
2024-09-19   765.481132    1172     4.161601
2024-09-20   753.067991    1182     4.049508
2024-09-21   588.745452     988     3.854623
2024-09-22   928.203843    1248     3.981220
2024-09-23   717.988679    1102     3.850964
2024-09-24   538.971441     884     3.785712
2024-09-25   758.298396    1090     4.007829
2024-09-26   640.583951    1016     3.798496
2024-09-27   686.713537    1032     3.859104
2024-09-28   464.549815     530     3.703073
2024-09-29   777.798558     842     4.081590
2024-09-30   602.233748     742     3.816421
```

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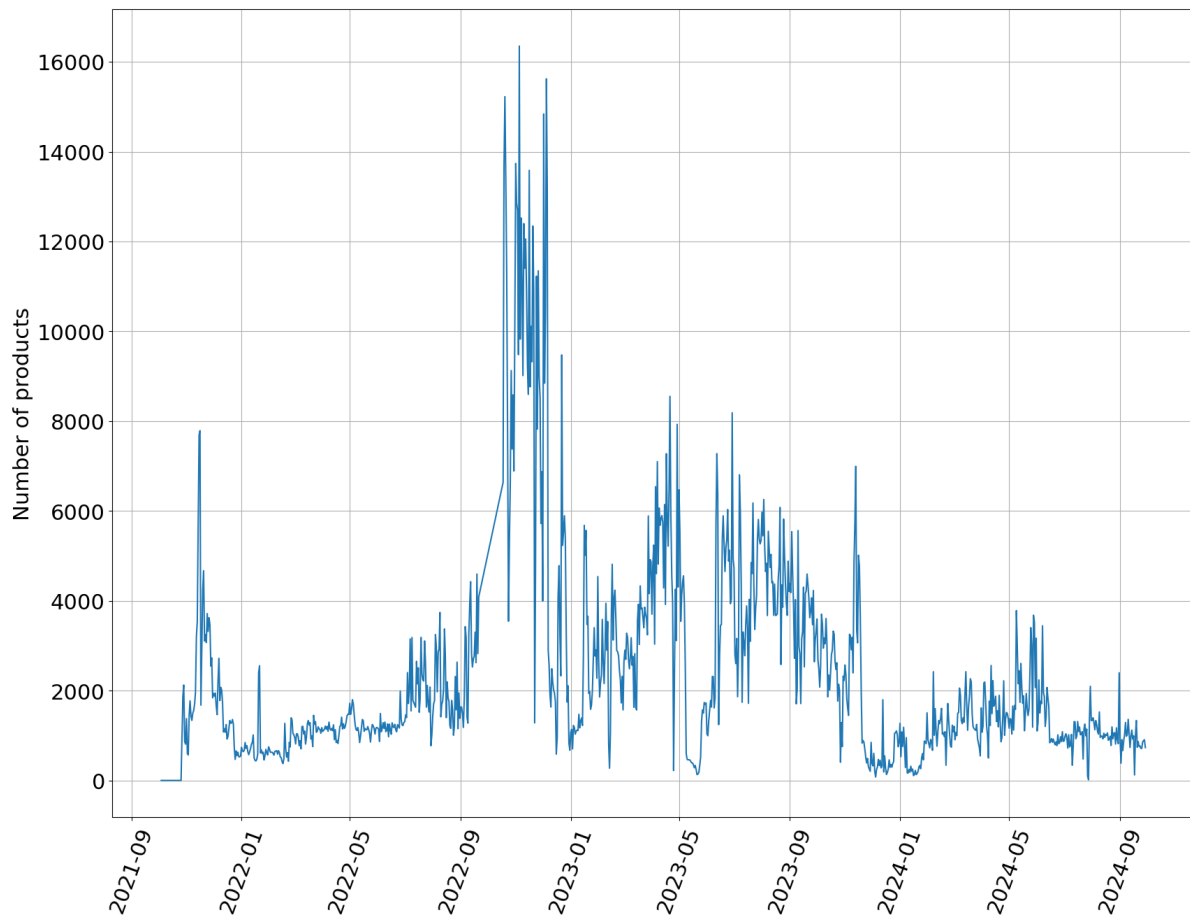
The same data is also represented below, with a difference. This time the data is not accounted by number, but by volume. Although both graphs show similar trends, they are not exactly equal due to the variability in the ratio volume per product.

For instance, the seasonality of optical products could have an impact in the total volume of products.
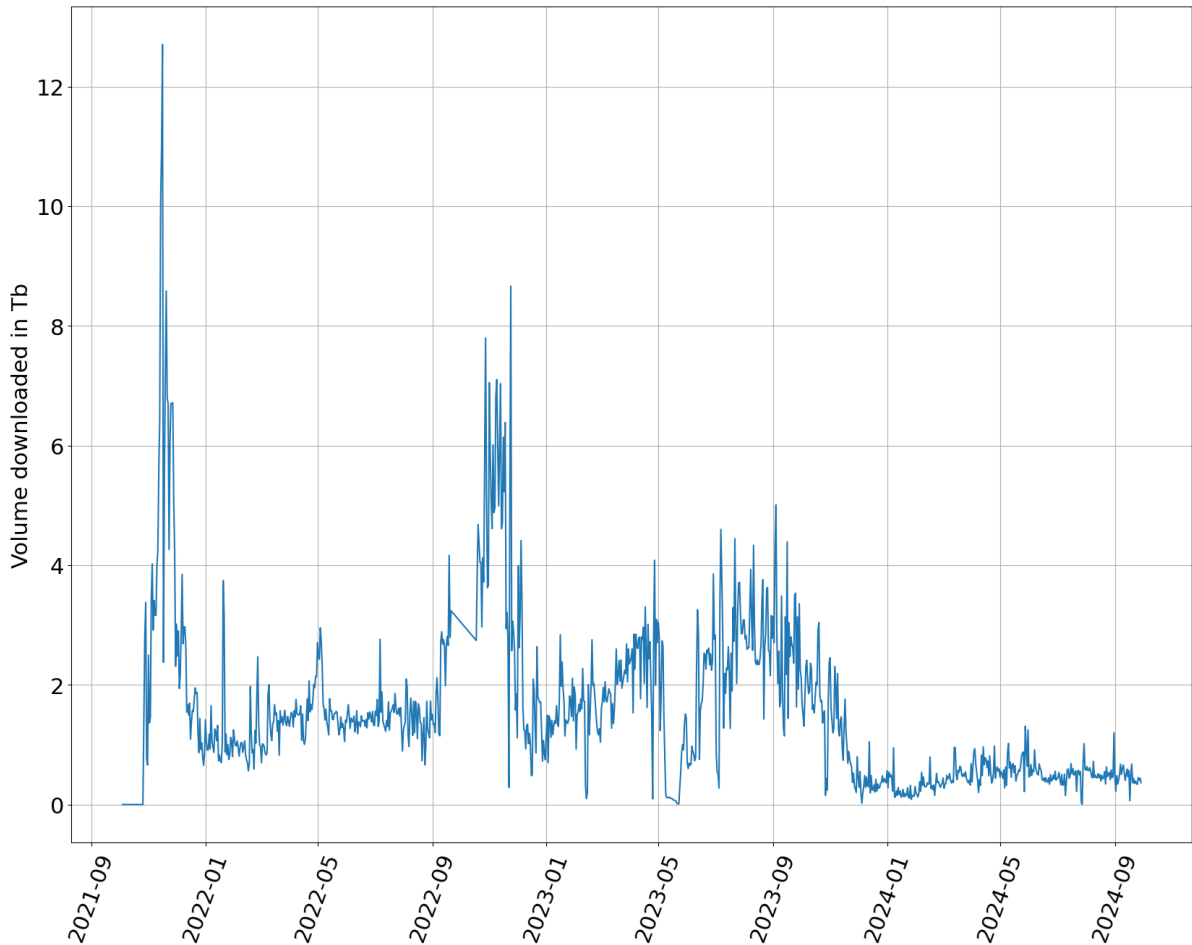
The table below is also interesting. It shows the amount of products downloaded for each the different Sentinel products. As expected, S1 and S2 are the most used Sentinels. S3 is slightly used, while S5p is not used.

```
satellite   product_type
S1          GRDH                  248717
            GRDM                  118343
            OCN                   106793
            RAW                   196353
            SLC                    62845
S2          MSIL1C                588447
            MSIL1C_DTERRENG         3100
            MSIL2A               1143757
S3          OLCI_L1                 9326
            OLCI_L2                  490
            SLSTR_L1               16411
            SLSTR_L2                  12
            SRAL_L1                   23
            SRAL_L2                   85
            SYN_L2                    41
S5          NRTI_L2                10861
            OFFL_L1B                   3
            OFFL_L2                   11
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                  15.003660
               7                  14.552019
               8                  16.372706
               9                  13.028849
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 is used by 15 to 20 users per day.
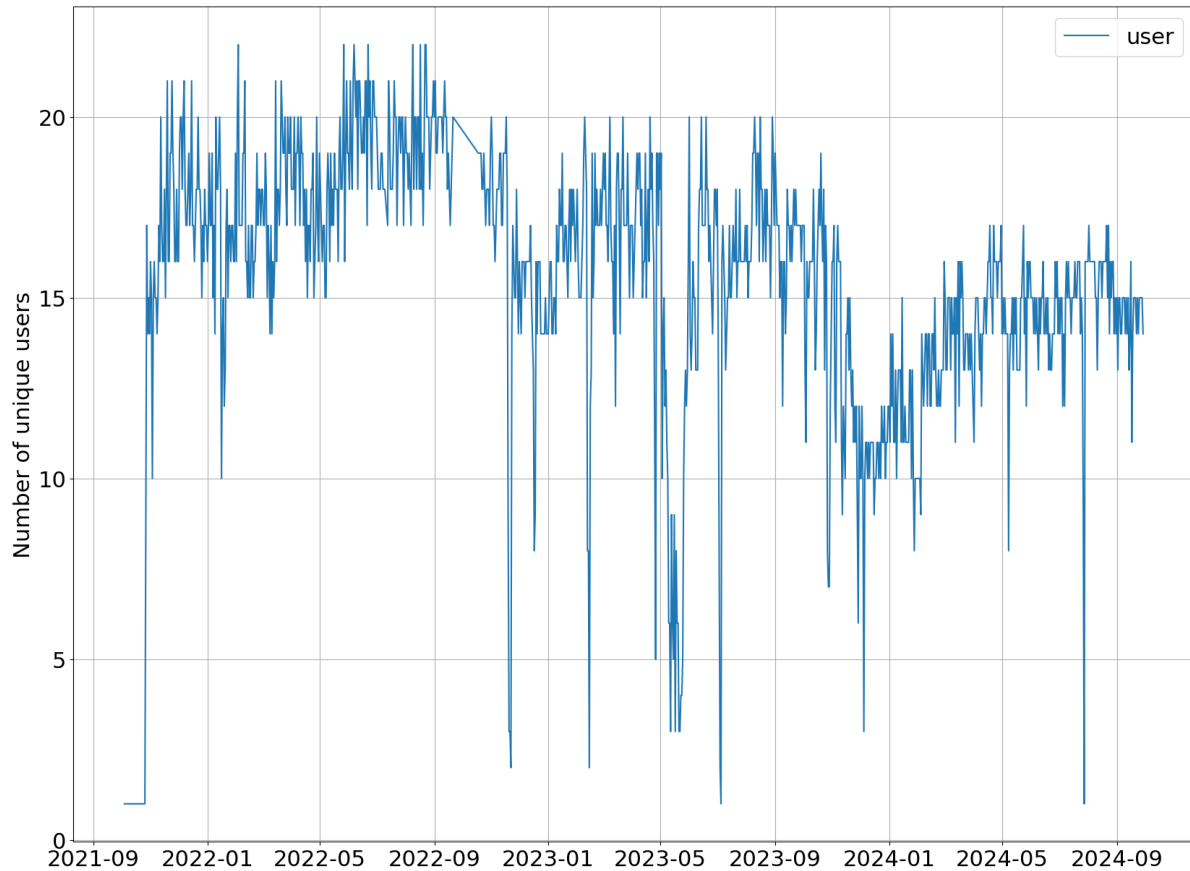
8.2 Portal: colhub-archive.met.no

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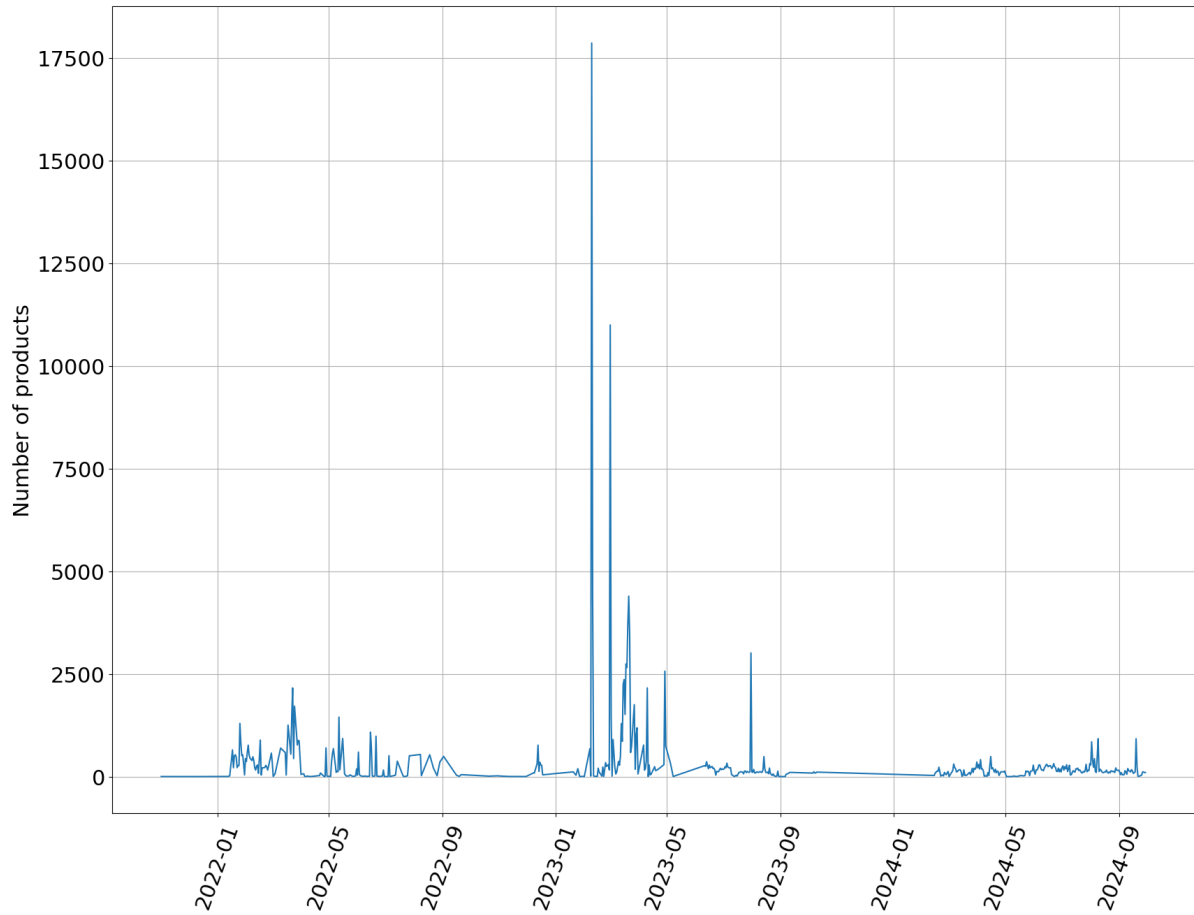
As explained and shown in the previous section, the total volume downloaded is also shown in the graphic below.

```
Index(['size', 'download_duration'], dtype='object')
```
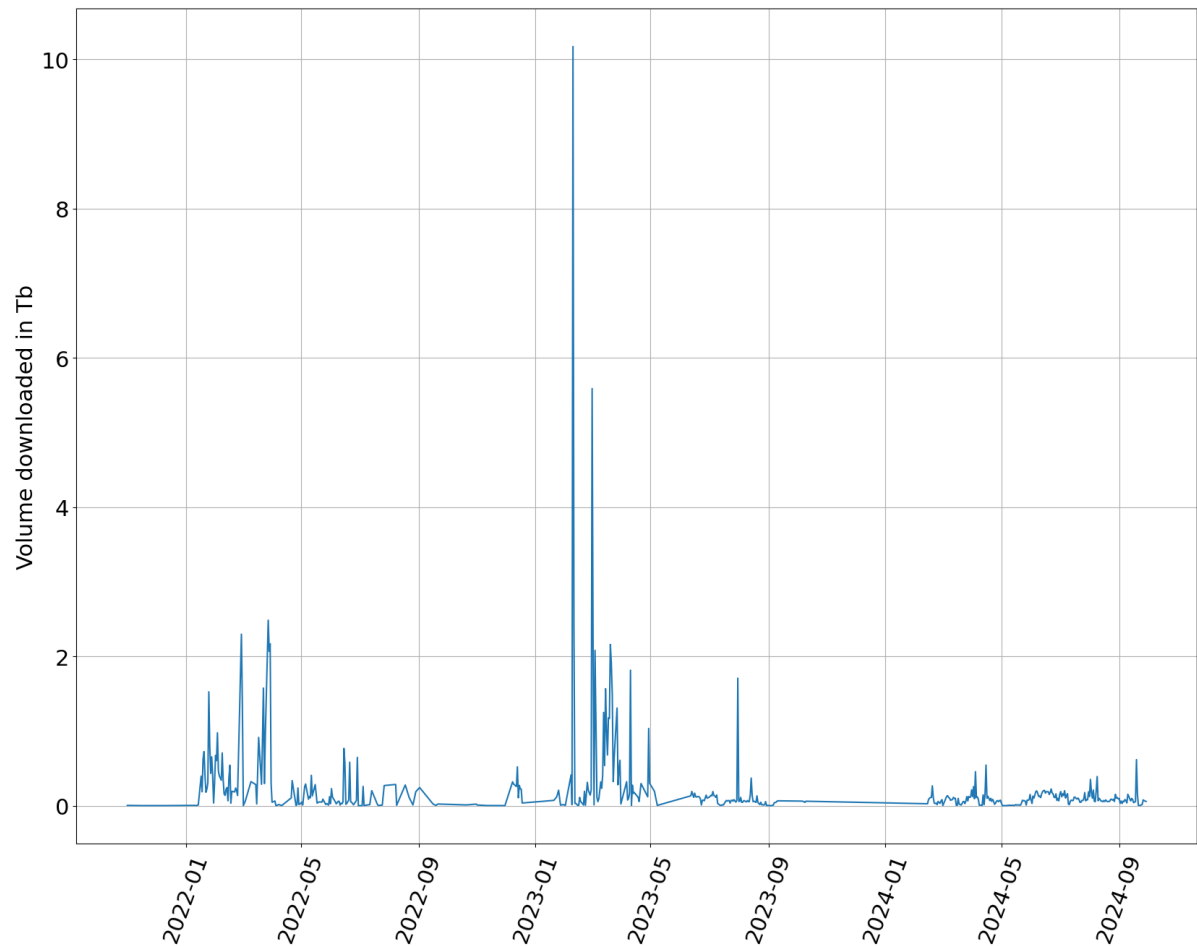
It is still interesting to see the number of products downloaded per product type. As shown in the previous section, S1 and S2 still are the most popular Sentinels.

```
satellite  product_type
S1         GRDH              32424
           GRDM              10511
           OCN                   1
           RAW                 875
           SLC                3221
S2         MSIL1C            34662
           MSIL1C_DTERRENG   16832
           MSIL2A            66710
S3         OLCI_L1               4
           OLCI_L2               1
           SLSTR_L1           4022
           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
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
                   August          3.355430
                   February        1.177107
                   July            3.158623
                   June            4.358417
                   March           2.230899
                   May             0.761791
                   September       2.295378
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.
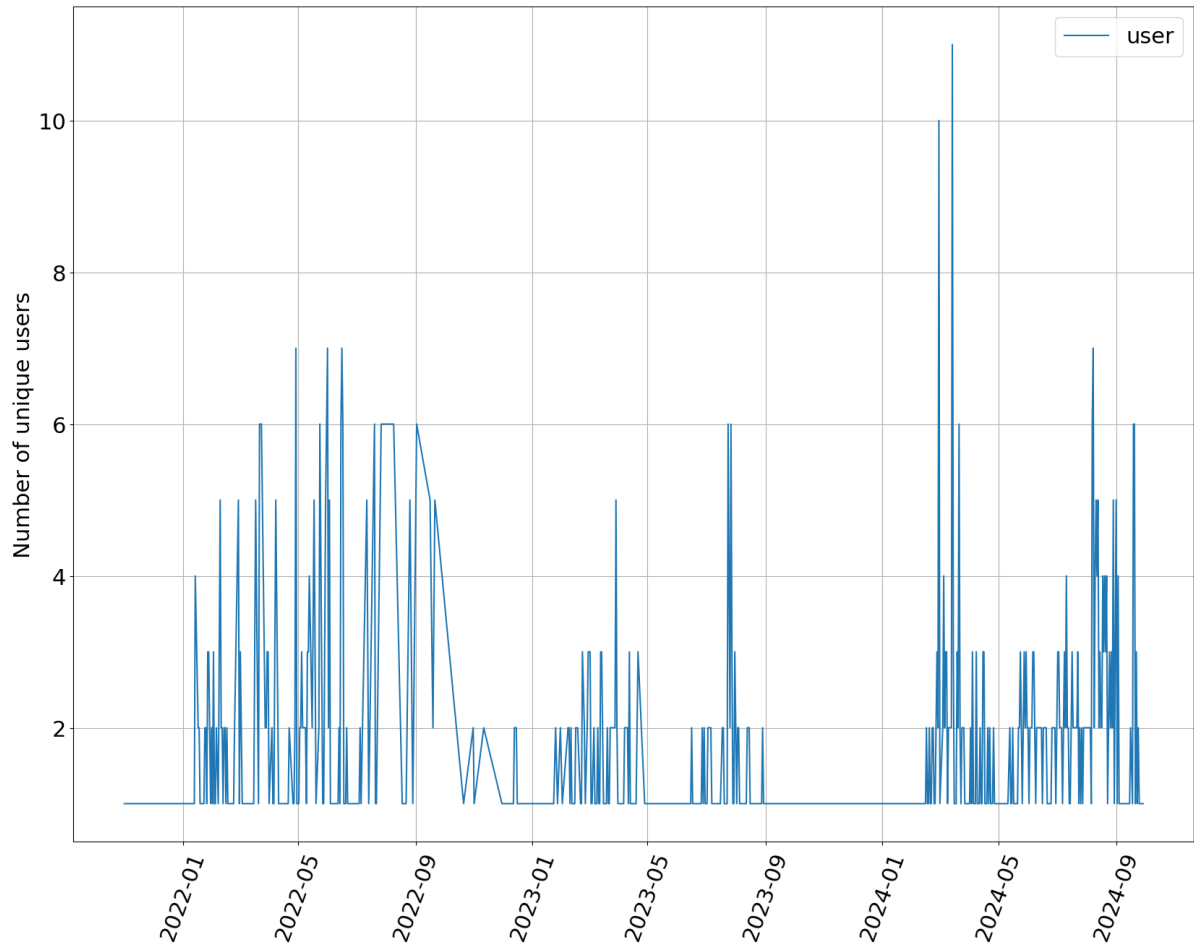
DATA VOLUMES FOR NBS

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 5047 TB
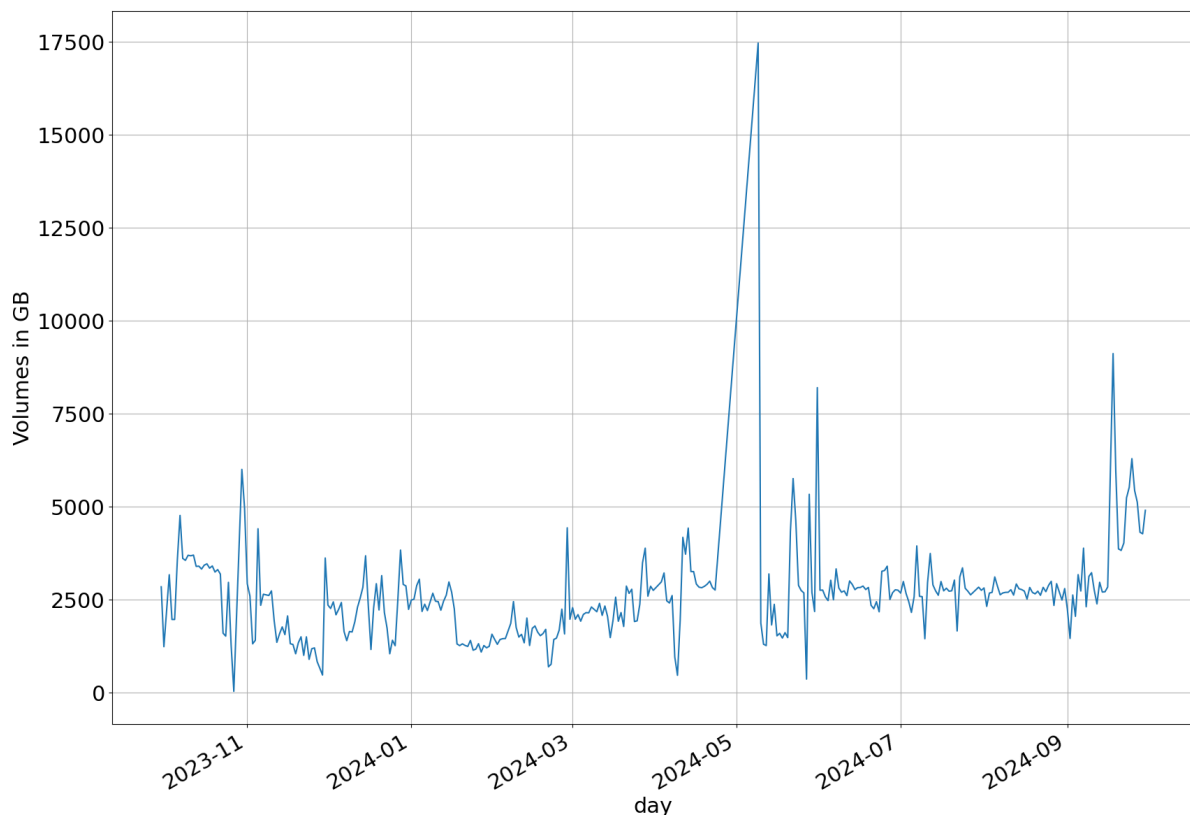
In the graphic above the volume of data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products. The table below shows the same information for the last month.
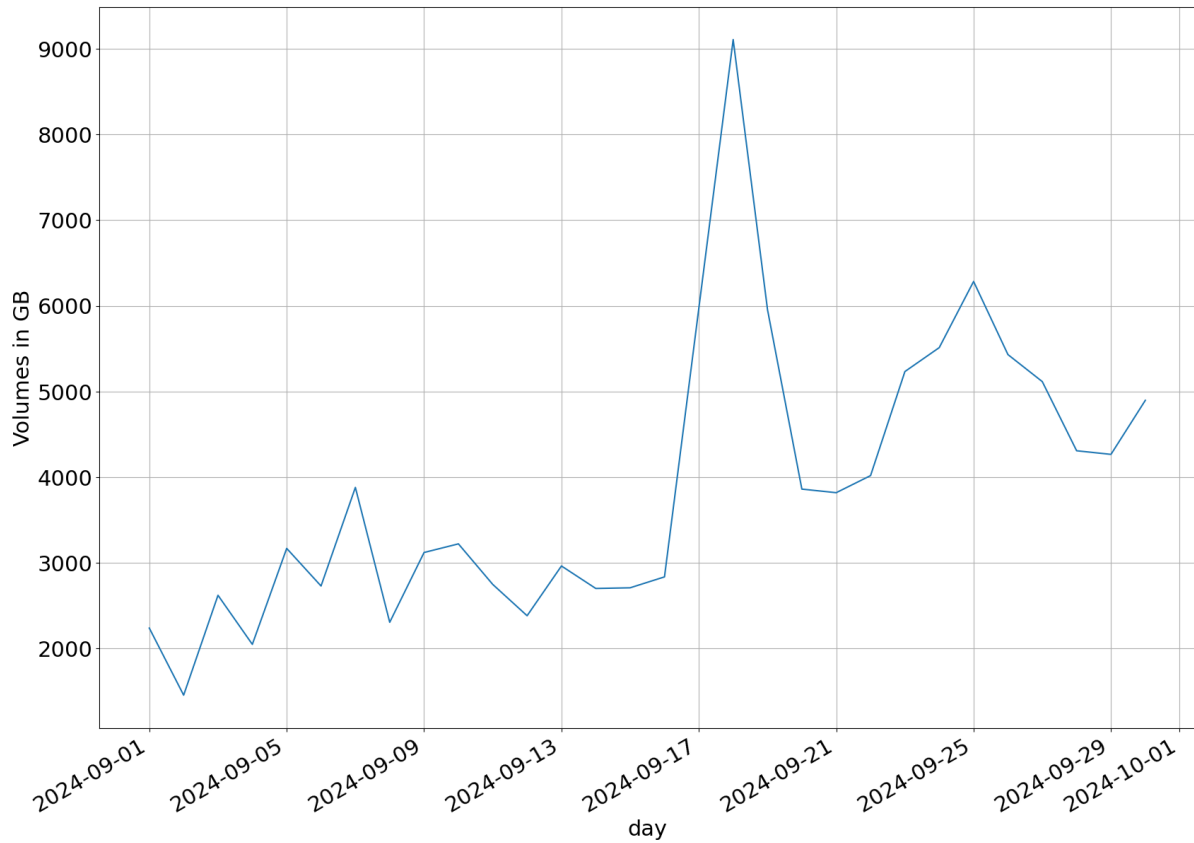
9.2 Volume for netcdf products

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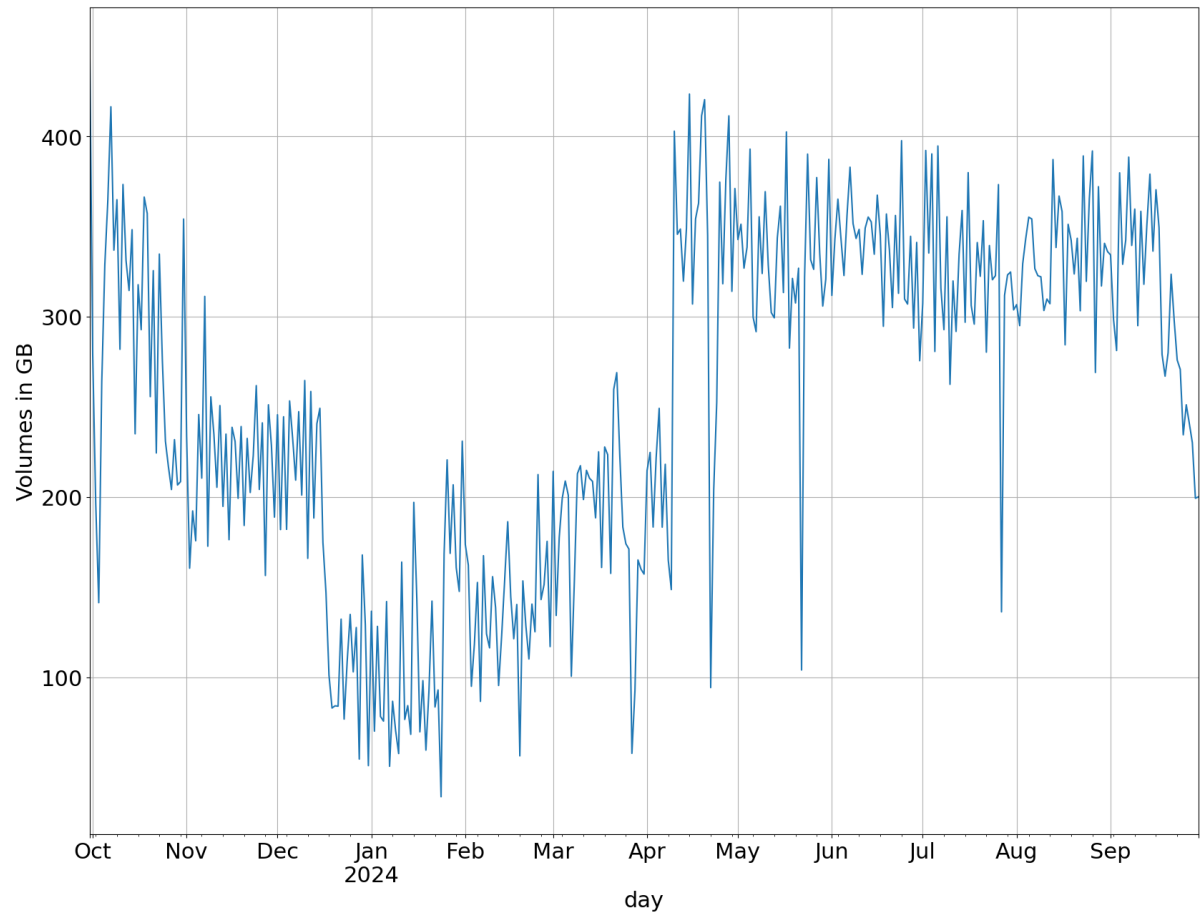
In the graphic above the volume of NetCDF-CF data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products. The table below shows the same information for the last 30 days.
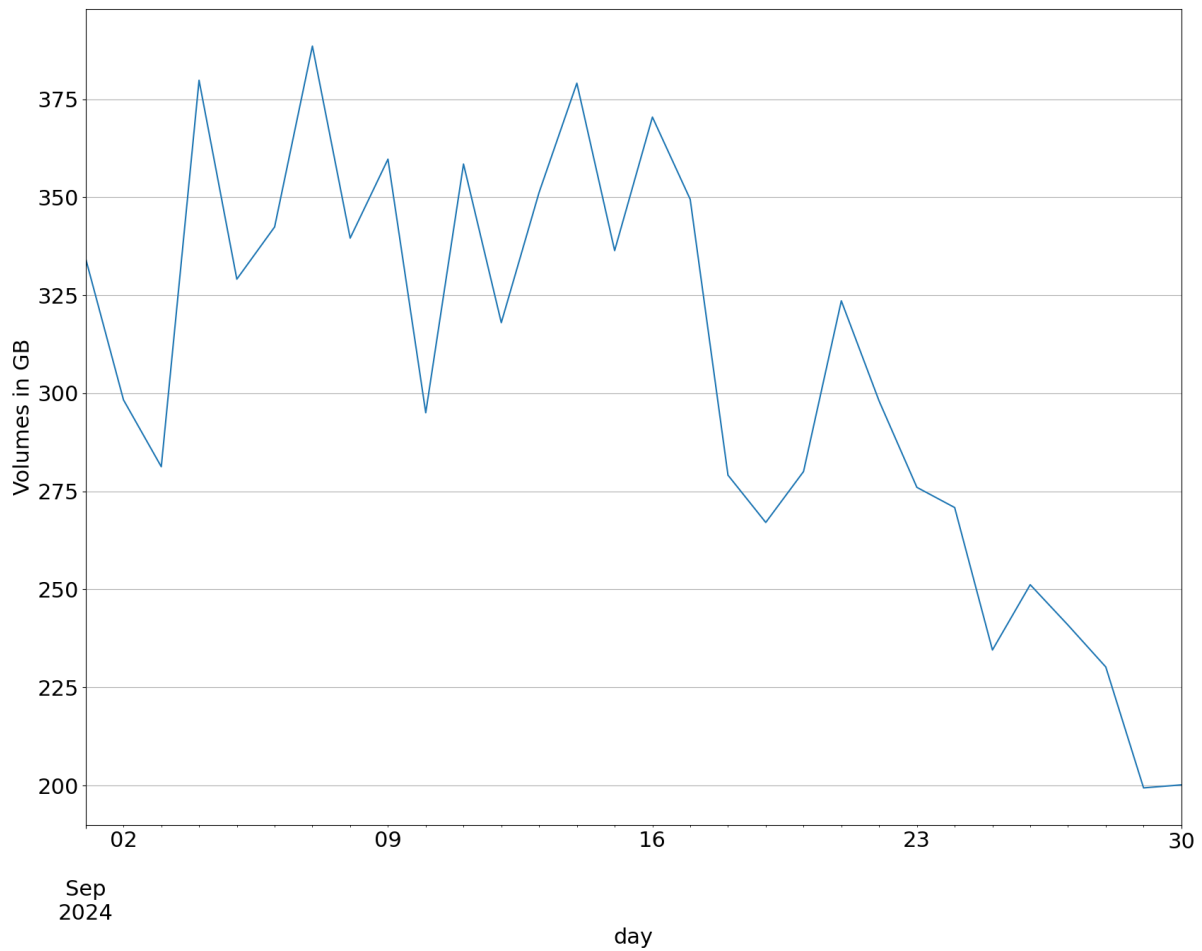
9.3 Totals

Finally, the total amount of disk space dedicated to the NBS project, including either products in SAFE and NetCDF formats, represents 5963 TB
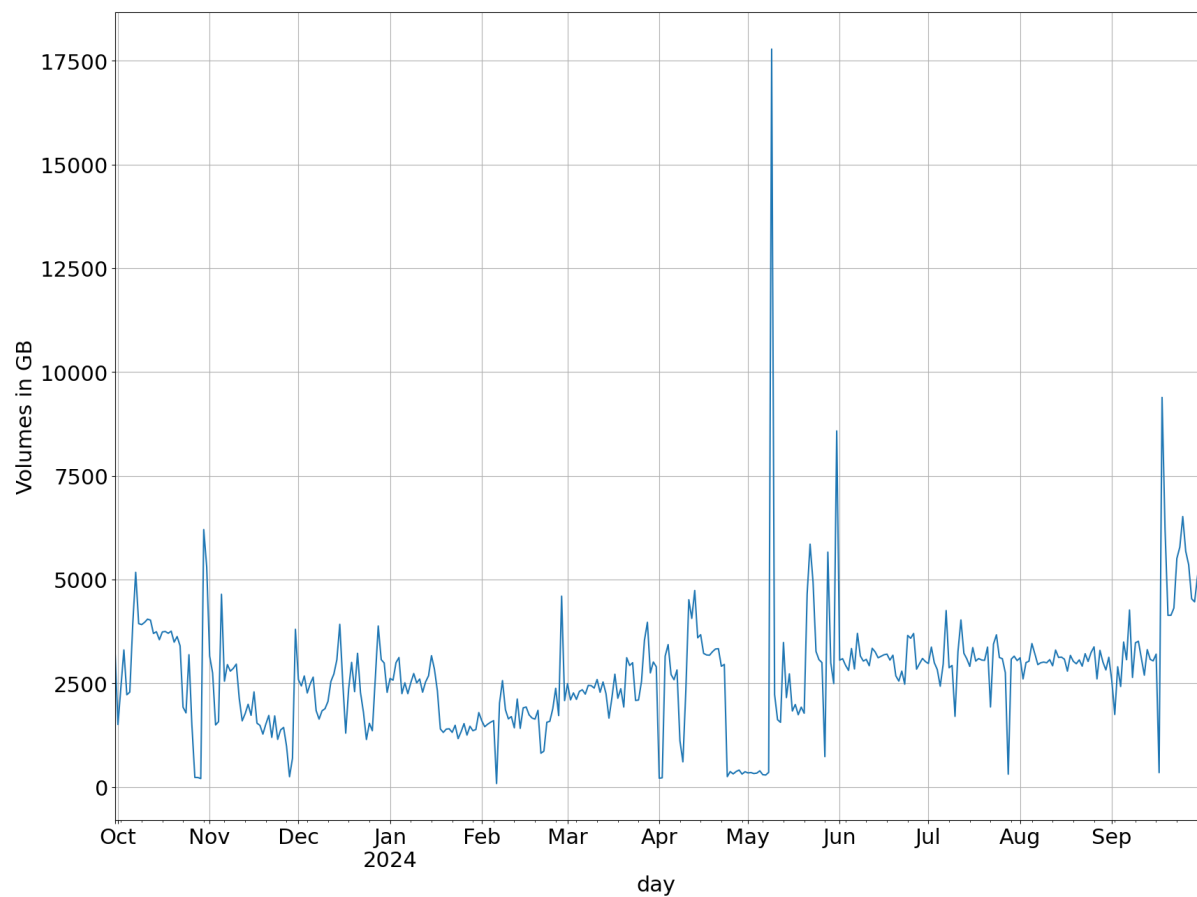
In the graphic above the total volume of data per day in GB is shown for the last year. Here we can observed seasonality due to optical sensor products again. The table below shows the same information for the last month.

day	product_type	action	volume	number	timeliness
2024-09-01	GRDH	fscanner	43.483601	15.0	0.803748
2024-09-01	GRDH	synchronized	31.630168	19.0	0.986530
2024-09-01	GRDM	fscanner	4.188328	24.0	0.561039
2024-09-01	GRDM	synchronized	5.656057	14.0	1.123768
2024-09-01	OCN	synchronized	0.687809	28.0	1.076639
2024-09-01	RAW	synchronized	47.524480	38.0	0.832221
2024-09-01	SLC	synchronized	171.559952	23.0	1.351909
2024-09-02	GRDH	fscanner	46.798806	16.0	0.867331
2024-09-02	GRDH	synchronized	44.679346	27.0	1.252422
2024-09-02	GRDM	fscanner	2.265397	21.0	1.078596
2024-09-02	GRDM	synchronized	6.831693	18.0	1.158675
2024-09-02	OCN	synchronized	0.841604	37.0	1.302849
2024-09-02	RAW	synchronized	47.585257	36.0	1.083569
2024-09-02	SLC	synchronized	211.146471	28.0	1.474832
2024-09-03	GRDH	fscanner	70.996483	25.0	1.604576
2024-09-03	GRDH	synchronized	75.542679	46.0	9.291699
2024-09-03	GRDM	fscanner	3.411457	28.0	0.875698
2024-09-03	GRDM	synchronized	7.292190	18.0	4.581331
2024-09-03	OCN	synchronized	1.103548	57.0	6.201748
2024-09-03	RAW	synchronized	94.867527	69.0	7.556501
2024-09-03	SLC	synchronized	366.665759	49.0	7.354178

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2024-09-04       GRDH       fscanner    50.328545    17.0    0.694875
2024-09-04       GRDH    synchronized   84.852208    52.0    6.008871
2024-09-04       GRDM       fscanner     8.120172    52.0    0.698940
2024-09-04       GRDM    synchronized    7.063206    18.0    4.993011
2024-09-04        OCN    synchronized    1.060290    48.0    5.235643
2024-09-04        RAW    synchronized   99.749797    72.0    4.405796
2024-09-04        SLC    synchronized  408.977003    55.0    7.730360
2024-09-05       GRDH       fscanner    68.354758    22.0    0.876958
2024-09-05       GRDH    synchronized   84.767536    51.0    7.668908
2024-09-05       GRDM       fscanner     3.700402    34.0    0.763883
2024-09-05       GRDM    synchronized    4.527433    12.0    5.325187
2024-09-05        OCN    synchronized    0.971747    52.0    4.672049
2024-09-05        RAW    synchronized   84.645745    60.0    4.013412
2024-09-05        SLC    synchronized  429.054775    57.0    4.568468
2024-09-06       GRDH       fscanner    46.070939    15.0    0.996069
2024-09-06       GRDH    synchronized   72.887184    44.0   14.252009
2024-09-06       GRDM       fscanner     2.738585    25.0    0.714404
2024-09-06       GRDM    synchronized    6.746531    17.0    5.975341
2024-09-06        OCN    synchronized    0.932200    42.0   10.649854
2024-09-06        RAW    synchronized   84.972910    61.0    6.904530
2024-09-06        SLC    synchronized  246.276947    33.0    4.733427
2024-09-07       GRDH       fscanner    77.237830    24.0    0.916667
2024-09-07       GRDH    synchronized  123.503018    76.0    3.955469
2024-09-07       GRDM       fscanner     4.542358    42.0    0.762007
2024-09-07       GRDM    synchronized    5.582156    15.0    4.120683
2024-09-07        OCN    synchronized    1.305812    77.0    3.997018
2024-09-07        RAW    synchronized  126.091268    90.0    3.759850
2024-09-07        SLC    synchronized  458.885697    62.0    4.434454
2024-09-08       GRDH       fscanner    39.910224    15.0    0.610202
2024-09-08       GRDH    synchronized   65.090430    39.0    1.099256
2024-09-08       GRDM       fscanner     6.614395    34.0    0.611730
2024-09-08       GRDM    synchronized    9.449203    24.0    0.738877
2024-09-08        OCN    synchronized    1.269843    56.0    1.129785
2024-09-08        RAW    synchronized   82.309055    62.0    0.949632
2024-09-08        SLC    synchronized  238.291920    31.0    1.664867
2024-09-09       GRDH       fscanner    68.066516    25.0    0.672502
2024-09-09       GRDH    synchronized   88.314891    54.0    1.228962
2024-09-09       GRDM       fscanner     6.009557    41.0    0.616853
2024-09-09       GRDM    synchronized    5.586092    15.0    0.639471
2024-09-09        OCN    synchronized    0.927446    47.0    1.156002
2024-09-09        RAW    synchronized  103.544685    74.0    1.014361
2024-09-09        SLC    synchronized  681.081369    91.0   25.492757
2024-09-10       GRDH       fscanner    62.515131    22.0    0.791171
2024-09-10       GRDH    synchronized  107.497066    64.0    2.101450
2024-09-10       GRDM       fscanner     6.690336    38.0    0.763813
2024-09-10       GRDM    synchronized    7.190450    20.0    0.631929
2024-09-10        OCN    synchronized    1.326191    70.0    1.383615
2024-09-10        RAW    synchronized  126.801163    91.0    1.190124
2024-09-10        SLC    synchronized  516.236872    67.0    2.083680
2024-09-11       GRDH       fscanner    57.450486    21.0    0.703565
2024-09-11       GRDH    synchronized   85.506180    51.0    1.056812
2024-09-11       GRDM       fscanner     5.686789    41.0    0.601818
2024-09-11       GRDM    synchronized    7.231139    20.0    0.993723
2024-09-11        OCN    synchronized    1.087362    52.0    1.158285
2024-09-11        RAW    synchronized   95.696733    69.0    0.964529
2024-09-11        SLC    synchronized  402.120286    53.0    1.436526
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2024-09-12        GRDH     fscanner     67.466887    22.0     0.728541
2024-09-12        GRDH   synchronized   73.496772    45.0     1.061380
2024-09-12        GRDM     fscanner      6.838881    39.0     0.665317
2024-09-12        GRDM   synchronized    6.720392    17.0     0.629217
2024-09-12         OCN   synchronized    0.993637    48.0     1.079123
2024-09-12         RAW   synchronized   86.673699    64.0     0.870514
2024-09-12         SLC   synchronized  390.635336    52.0     1.445141
2024-09-13        GRDH     fscanner     48.435220    17.0     0.832387
2024-09-13        GRDH   synchronized   65.584779    39.0     1.122352
2024-09-13        GRDM     fscanner      6.164725    33.0     0.803664
2024-09-13        GRDM   synchronized   10.821296    29.0     0.743123
2024-09-13         OCN   synchronized    1.342399    58.0     1.042278
2024-09-13         RAW   synchronized   87.843136    68.0     0.819811
2024-09-13         SLC   synchronized  328.526817    43.0     1.475013
2024-09-14        GRDH     fscanner     69.413976    22.0     0.826676
2024-09-14        GRDH   synchronized   67.493099    41.0     1.282672
2024-09-14        GRDM     fscanner      3.701304    34.0     0.820751
2024-09-14        GRDM   synchronized    5.303763    14.0     0.970984
2024-09-14         OCN   synchronized    0.818055    41.0     1.195659
2024-09-14         RAW   synchronized   75.883978    55.0     0.931154
2024-09-14         SLC   synchronized  327.313008    44.0     1.607698
2024-09-15        GRDH     fscanner     46.679780    17.0     0.727309
2024-09-15        GRDH   synchronized   73.953294    45.0     1.071883
2024-09-15        GRDM     fscanner      4.105994    29.0     0.662259
2024-09-15        GRDM   synchronized    7.718317    19.0     1.710610
2024-09-15         OCN   synchronized    1.167199    56.0     1.138122
2024-09-15         RAW   synchronized   86.315230    63.0     0.896480
2024-09-15         SLC   synchronized  338.129741    45.0     1.739011
2024-09-16        GRDH     fscanner     63.783147    23.0     0.683956
2024-09-16        GRDH   synchronized   82.868779    50.0     0.990385
2024-09-16        GRDM     fscanner      6.872719    46.0     0.670956
2024-09-16        GRDM   synchronized    7.309233    19.0     1.066104
2024-09-16         OCN   synchronized    1.100941    52.0     1.183451
2024-09-16         RAW   synchronized   97.330206    71.0     0.938404
2024-09-16         SLC   synchronized  414.748310    55.0     1.747471
2024-09-18        GRDH     fscanner    103.053928    34.0    15.423588
2024-09-18        GRDH   synchronized  155.718778    95.0    10.499001
2024-09-18        GRDM     fscanner      5.882673    54.0    15.396714
2024-09-18        GRDM   synchronized    9.061293    24.0    11.931497
2024-09-18         OCN   synchronized    1.724024    92.0    12.912760
2024-09-18         RAW   synchronized  161.868142   115.0    10.384640
2024-09-18         SLC   synchronized  799.378858   107.0    10.918072
2024-09-18     Unknown      deleted      0.000000     6.0     0.000000
2024-09-18        GRDH     fscanner    103.053928    34.0    15.423588
2024-09-18        GRDH   synchronized  155.718778    95.0    10.499001
2024-09-18        GRDM     fscanner      5.882673    54.0    15.396714
2024-09-18        GRDM   synchronized    9.061293    24.0    11.931497
2024-09-18         OCN   synchronized    1.724024    92.0    12.912760
2024-09-18         RAW   synchronized  161.868142   115.0    10.384640
2024-09-18         SLC   synchronized  799.378858   107.0    10.918072
2024-09-18     Unknown      deleted      0.000000     6.0     0.000000
2024-09-19        GRDH     fscanner     76.379572    25.0     0.936082
2024-09-19        GRDH   synchronized   99.766197    61.0     1.056664
2024-09-19        GRDM     fscanner      3.271037    31.0     0.686273
2024-09-19        GRDM   synchronized    5.999892    16.0     0.991539
2024-09-19         OCN   synchronized    1.112853    60.0     1.190816
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2024-09-19        RAW  synchronized   107.192771   77.0   0.894963
2024-09-19        SLC  synchronized   454.198743   61.0   1.414825
2024-09-19        GRDH      fscanner    76.379572   25.0   0.936082
2024-09-19        GRDH  synchronized    99.766197   61.0   1.056664
2024-09-19        GRDM      fscanner     3.271037   31.0   0.686273
2024-09-19        GRDM  synchronized     5.999892   16.0   0.991539
2024-09-19        OCN   synchronized     1.112853   60.0   1.190816
2024-09-19        RAW   synchronized   107.192771   77.0   0.894963
2024-09-19        SLC   synchronized   454.198743   61.0   1.414825
2024-09-20        GRDH      fscanner    41.214979   16.0   0.602743
2024-09-20        GRDH  synchronized    63.435540   38.0   1.497884
2024-09-20        GRDM      fscanner     6.726876   35.0   0.607851
2024-09-20        GRDM  synchronized     7.831141   20.0   0.755876
2024-09-20        OCN   synchronized     1.140027   48.0   1.187294
2024-09-20        RAW   synchronized    69.365788   52.0   0.938143
2024-09-20        SLC   synchronized   259.664330   34.0   1.767220
2024-09-20        GRDH      fscanner    41.214979   16.0   0.602743
2024-09-20        GRDH  synchronized    63.435540   38.0   1.497884
2024-09-20        GRDM      fscanner     6.726876   35.0   0.607851
2024-09-20        GRDM  synchronized     7.831141   20.0   0.755876
2024-09-20        OCN   synchronized     1.140027   48.0   1.187294
2024-09-20        RAW   synchronized    69.365788   52.0   0.938143
2024-09-20        SLC   synchronized   259.664330   34.0   1.767220
2024-09-21        GRDH      fscanner    64.870862   23.0   0.621057
2024-09-21        GRDH  synchronized    79.556183   48.0   1.156611
2024-09-21        GRDM      fscanner     5.953882   40.0   0.649935
2024-09-21        GRDM  synchronized     5.586439   15.0   0.620290
2024-09-21        OCN   synchronized     1.007709   53.0   1.260743
2024-09-21        RAW   synchronized    85.741479   62.0   0.790602
2024-09-21        SLC   synchronized   421.988255   56.0   1.466754
2024-09-21        GRDH      fscanner    64.870862   23.0   0.621057
2024-09-21        GRDH  synchronized    79.556183   48.0   1.156611
2024-09-21        GRDM      fscanner     5.953882   40.0   0.649935
2024-09-21        GRDM  synchronized     5.586439   15.0   0.620290
2024-09-21        OCN   synchronized     1.007709   53.0   1.260743
2024-09-21        RAW   synchronized    85.741479   62.0   0.790602
2024-09-21        SLC   synchronized   421.988255   56.0   1.466754
2024-09-22        GRDH      fscanner    65.551223   23.0   0.863829
2024-09-22        GRDH  synchronized    78.420373   47.0   1.130744
2024-09-22        GRDM      fscanner     5.741470   35.0   0.801889
2024-09-22        GRDM  synchronized     7.692854   20.0   0.896704
2024-09-22        OCN   synchronized     1.233254   60.0   1.250205
2024-09-22        RAW   synchronized    90.271870   67.0   0.948581
2024-09-22        SLC   synchronized   375.990018   49.0   1.433591
2024-09-22        GRDH      fscanner    65.551223   23.0   0.863829
2024-09-22        GRDH  synchronized    78.420373   47.0   1.130744
2024-09-22        GRDM      fscanner     5.741470   35.0   0.801889
2024-09-22        GRDM  synchronized     7.692854   20.0   0.896704
2024-09-22        OCN   synchronized     1.233254   60.0   1.250205
2024-09-22        RAW   synchronized    90.271870   67.0   0.948581
2024-09-22        SLC   synchronized   375.990018   49.0   1.433591
2024-09-23        GRDH      fscanner    56.637669   20.0   0.690000
2024-09-23        GRDH  synchronized    85.506521   51.0   1.038352
2024-09-23        GRDM      fscanner     5.578599   40.0   0.726798
2024-09-23        GRDM  synchronized     7.989023   22.0   1.152311
2024-09-23        OCN   synchronized     1.070919   53.0   1.197674
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2024-09-23        RAW  synchronized  110.124700   80.0   0.893295
2024-09-23        SLC  synchronized  428.575815   57.0   1.430322
2024-09-23        GRDH     fscanner   56.637669   20.0   0.690000
2024-09-23        GRDH  synchronized   85.506521   51.0   1.038352
2024-09-23        GRDM     fscanner    5.578599   40.0   0.726798
2024-09-23        GRDM  synchronized    7.989023   22.0   1.152311
2024-09-23        OCN  synchronized    1.070919   53.0   1.197674
2024-09-23        RAW  synchronized  110.124700   80.0   0.893295
2024-09-23        SLC  synchronized  428.575815   57.0   1.430322
2024-09-24        GRDH     fscanner   68.391649   21.0   0.771927
2024-09-24        GRDH  synchronized   73.496178   45.0   1.125214
2024-09-24        GRDM     fscanner    6.388223   38.0   0.822914
2024-09-24        GRDM  synchronized    6.719925   17.0   0.663089
2024-09-24        OCN  synchronized    0.994268   48.0   1.064977
2024-09-24        RAW  synchronized   84.729687   62.0   0.869472
2024-09-24        SLC  synchronized  377.399528   50.0   1.414421
2024-09-24        GRDH     fscanner   68.391649   21.0   0.771927
2024-09-24        GRDH  synchronized   73.496178   45.0   1.125214
2024-09-24        GRDM     fscanner    6.388223   38.0   0.822914
2024-09-24        GRDM  synchronized    6.719925   17.0   0.663089
2024-09-24        OCN  synchronized    0.994268   48.0   1.064977
2024-09-24        RAW  synchronized   84.729687   62.0   0.869472
2024-09-24        SLC  synchronized  377.399528   50.0   1.414421
2024-09-25        GRDH     fscanner   45.904846   17.0   0.816820
2024-09-25        GRDH  synchronized   65.589342   39.0   1.062436
2024-09-25        GRDM     fscanner    6.274864   34.0   0.796264
2024-09-25        GRDM  synchronized   10.800513   29.0   1.113388
2024-09-25        OCN  synchronized    1.341818   58.0   1.059651
2024-09-25        RAW  synchronized   87.821835   68.0   0.805181
2024-09-25        SLC  synchronized  328.524774   43.0   1.518093
2024-09-25        GRDH     fscanner   45.904846   17.0   0.816820
2024-09-25        GRDH  synchronized   65.589342   39.0   1.062436
2024-09-25        GRDM     fscanner    6.274864   34.0   0.796264
2024-09-25        GRDM  synchronized   10.800513   29.0   1.113388
2024-09-25        OCN  synchronized    1.341818   58.0   1.059651
2024-09-25        RAW  synchronized   87.821835   68.0   0.805181
2024-09-25        SLC  synchronized  328.524774   43.0   1.518093
2024-09-26        GRDH     fscanner   68.146127   23.0   0.920137
2024-09-26        GRDH  synchronized   78.152299   48.0   1.112490
2024-09-26        GRDM     fscanner    3.822060   35.0   0.823724
2024-09-26        GRDM  synchronized    5.303392   14.0   0.854260
2024-09-26        OCN  synchronized    0.892804   47.0   1.104444
2024-09-26        RAW  synchronized   86.089821   62.0   0.910570
2024-09-26        SLC  synchronized  376.918563   51.0   1.337077
2024-09-26        GRDH     fscanner   68.146127   23.0   0.920137
2024-09-26        GRDH  synchronized   78.152299   48.0   1.112490
2024-09-26        GRDM     fscanner    3.822060   35.0   0.823724
2024-09-26        GRDM  synchronized    5.303392   14.0   0.854260
2024-09-26        OCN  synchronized    0.892804   47.0   1.104444
2024-09-26        RAW  synchronized   86.089821   62.0   0.910570
2024-09-26        SLC  synchronized  376.918563   51.0   1.337077
2024-09-27        GRDH     fscanner   39.692845   15.0   0.737782
2024-09-27        GRDH  synchronized   73.951857   45.0   1.356913
2024-09-27        GRDM     fscanner    4.204189   30.0   0.658964
2024-09-27        GRDM  synchronized    7.718199   19.0   1.326216
2024-09-27        OCN  synchronized    1.172304   56.0   1.297200
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2024-09-27        RAW   synchronized    86.599096    63.0    1.002471
2024-09-27        SLC   synchronized   353.489197    47.0    1.741176
2024-09-27        GRDH      fscanner    39.692845    15.0    0.737782
2024-09-27        GRDH  synchronized    73.951857    45.0    1.356913
2024-09-27        GRDM      fscanner     4.204189    30.0    0.658964
2024-09-27        GRDM  synchronized     7.718199    19.0    1.326216
2024-09-27        OCN   synchronized     1.172304    56.0    1.297200
2024-09-27        RAW   synchronized    86.599096    63.0    1.002471
2024-09-27        SLC   synchronized   353.489197    47.0    1.741176
2024-09-28        GRDH      fscanner    54.412816    19.0    0.610715
2024-09-28        GRDH  synchronized    82.685912    50.0    1.387162
2024-09-28        GRDM      fscanner     6.446823    42.0    0.745058
2024-09-28        GRDM  synchronized     7.545326    20.0    1.619882
2024-09-28        OCN   synchronized     1.122922    53.0    1.568977
2024-09-28        RAW   synchronized    96.749595    71.0    1.251925
2024-09-28        SLC   synchronized   397.247292    53.0    1.697299
2024-09-28        GRDH      fscanner    54.412816    19.0    0.610715
2024-09-28        GRDH  synchronized    82.685912    50.0    1.387162
2024-09-28        GRDM      fscanner     6.446823    42.0    0.745058
2024-09-28        GRDM  synchronized     7.545326    20.0    1.619882
2024-09-28        OCN   synchronized     1.122922    53.0    1.568977
2024-09-28        RAW   synchronized    96.749595    71.0    1.251925
2024-09-28        SLC   synchronized   397.247292    53.0    1.697299
2024-09-29        GRDH      fscanner    63.253382    22.0    0.799714
2024-09-29        GRDH  synchronized    50.063770    30.0    4.168272
2024-09-29        GRDM      fscanner     3.700096    34.0    0.888817
2024-09-29        GRDM  synchronized     4.086147    10.0    4.222190
2024-09-29        OCN   synchronized     0.661371    32.0    4.486234
2024-09-29        RAW   synchronized    56.983581    41.0    3.955703
2024-09-29        SLC   synchronized   237.235194    31.0    4.622752
2024-09-29        GRDH      fscanner    63.253382    22.0    0.799714
2024-09-29        GRDH  synchronized    50.063770    30.0    4.168272
2024-09-29        GRDM      fscanner     3.700096    34.0    0.888817
2024-09-29        GRDM  synchronized     4.086147    10.0    4.222190
2024-09-29        OCN   synchronized     0.661371    32.0    4.486234
2024-09-29        RAW   synchronized    56.983581    41.0    3.955703
2024-09-29        SLC   synchronized   237.235194    31.0    4.622752
2024-09-30        GRDH      fscanner    46.139614    15.0    1.532096
2024-09-30        GRDH  synchronized   119.135441    73.0    2.142507
2024-09-30        GRDM      fscanner     2.740151    25.0    0.728683
2024-09-30        GRDM  synchronized     7.457234    20.0    3.723140
2024-09-30        OCN   synchronized     1.288196    66.0    2.935245
2024-09-30        RAW   synchronized   129.748880    93.0    2.927593
2024-09-30        SLC   synchronized   562.949066    76.0    3.228469
2024-09-30        GRDH      fscanner    46.139614    15.0    1.532096
2024-09-30        GRDH  synchronized   119.135441    73.0    2.142507
2024-09-30        GRDM      fscanner     2.740151    25.0    0.728683
2024-09-30        GRDM  synchronized     7.457234    20.0    3.723140
2024-09-30        OCN   synchronized     1.288196    66.0    2.935245
2024-09-30        RAW   synchronized   129.748880    93.0    2.927593
2024-09-30        SLC   synchronized   562.949066    76.0    3.228469
2024-09-01      MSIL1C  synchronized   517.374936  1282.0    4.436799
2024-09-02      MSIL1C  synchronized   214.096549   459.0    4.100088
2024-09-03      MSIL1C  synchronized   547.999255  1285.0    8.639290
2024-09-04      MSIL1C  synchronized   338.671279   744.0    6.659789
2024-09-05      MSIL1C  synchronized   651.239574  1428.0   32.328470
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2024-09-06     MSIL1C   synchronized    847.216443   1882.0   15.442748
2024-09-07     MSIL1C   synchronized    832.085268   1860.0   11.047471
2024-09-08     MSIL1C   synchronized    470.544434   1055.0    7.376131
2024-09-09     MSIL1C   synchronized    814.369920   1742.0   11.875683
2024-09-10     MSIL1C   synchronized    602.309139   1322.0    4.678169
2024-09-11     MSIL1C   synchronized    592.052587   1291.0    3.870817
2024-09-12     MSIL1C   synchronized    351.357374    779.0    5.350204
2024-09-13     MSIL1C   synchronized    812.787076   1856.0    7.290305
2024-09-14     MSIL1C   synchronized    619.650408   1388.0    4.092493
2024-09-15     MSIL1C   synchronized    628.637474   1327.0    3.592840
2024-09-16     MSIL1C   synchronized    622.887480   1354.0    5.783712
2024-09-18     MSIL1C   synchronized    784.041844   1748.0   25.269940
2024-09-18     MSIL1C   synchronized    784.041844   1748.0   25.269940
2024-09-19     MSIL1C   synchronized    767.707110   1722.0    8.036614
2024-09-19     MSIL1C   synchronized    767.707110   1722.0    8.036614
2024-09-20     MSIL1C   synchronized    527.163228   1144.0    3.725821
2024-09-20     MSIL1C   synchronized    527.163228   1144.0    3.725821
2024-09-21     MSIL1C   synchronized    554.658451   1202.0    3.384658
2024-09-21     MSIL1C   synchronized    554.658451   1202.0    3.384658
2024-09-22     MSIL1C   synchronized    563.087161   1236.0    4.342183
2024-09-22     MSIL1C   synchronized    563.087161   1236.0    4.342183
2024-09-23     MSIL1C   synchronized    529.685921   1172.0    3.149523
2024-09-23     MSIL1C   synchronized    529.685921   1172.0    3.149523
2024-09-24     MSIL1C   synchronized    518.906704   1140.0    3.523456
2024-09-24     MSIL1C   synchronized    518.906704   1140.0    3.523456
2024-09-25     MSIL1C   synchronized    474.212523   1058.0    3.371530
2024-09-25     MSIL1C   synchronized    474.212523   1058.0    3.371530
2024-09-26     MSIL1C   synchronized    478.797715   1049.0    5.150515
2024-09-26     MSIL1C   synchronized    478.797715   1049.0    5.150515
2024-09-27     MSIL1C   synchronized    465.249970   1058.0    3.199957
2024-09-27     MSIL1C   synchronized    465.249970   1058.0    3.199957
2024-09-28     MSIL1C   synchronized    429.826255    961.0    3.770354
2024-09-28     MSIL1C   synchronized    429.826255    961.0    3.770354
2024-09-29     MSIL1C   synchronized    436.061360    994.0    4.117262
2024-09-29     MSIL1C   synchronized    436.061360    994.0    4.117262
2024-09-30     MSIL1C   synchronized    398.002981    908.0    4.166925
2024-09-30     MSIL1C   synchronized    398.002981    908.0    4.166925
2024-09-01     MSIL2A   synchronized    652.832984   1277.0    4.629054
2024-09-02     MSIL2A   synchronized    187.015095    359.0    4.911936
2024-09-03     MSIL2A   synchronized    686.290368   1189.0   20.792007
2024-09-04     MSIL2A   synchronized    309.157023    609.0    9.762772
2024-09-05     MSIL2A   synchronized   1046.451145   1735.0   34.040061
2024-09-06     MSIL2A   synchronized    675.628209   1185.0   28.611510
2024-09-07     MSIL2A   synchronized   1465.623605   2536.0   14.400023
2024-09-08     MSIL2A   synchronized    685.601294   1203.0    7.250303
2024-09-09     MSIL2A   synchronized    627.888764   1012.0   21.351596
2024-09-10     MSIL2A   synchronized   1123.684111   1933.0    6.522643
2024-09-11     MSIL2A   synchronized    779.286611   1316.0    4.326190
2024-09-12     MSIL2A   synchronized    627.524547   1084.0    6.245251
2024-09-13     MSIL2A   synchronized    880.213330   1565.0    6.076272
2024-09-14     MSIL2A   synchronized    778.832177   1380.0    4.662047
2024-09-15     MSIL2A   synchronized    796.399452   1328.0    4.118246
2024-09-16     MSIL2A   synchronized    785.454160   1350.0    6.323021
2024-09-18     MSIL2A   synchronized   1350.483920   2404.0   20.417499
2024-09-18     MSIL2A   synchronized   1350.483920   2404.0   20.417499
2024-09-19     MSIL2A   synchronized    611.719888   1072.0    6.776639
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2024-09-19    MSIL2A   synchronized    611.719888  1072.0     6.776639
2024-09-20    MSIL2A   synchronized    249.473102   407.0     3.704419
2024-09-20    MSIL2A   synchronized    249.473102   407.0     3.704419
2024-09-21    MSIL2A   synchronized     38.679562   105.0    21.464342
2024-09-21    MSIL2A   synchronized     38.679562   105.0    21.464342
2024-09-22    MSIL2A   synchronized      5.773123    15.0    58.439062
2024-09-22    MSIL2A   synchronized      5.773123    15.0    58.439062
2024-09-23    MSIL2A   synchronized    722.588360  1245.0    50.356581
2024-09-23    MSIL2A   synchronized    722.588360  1245.0    50.356581
2024-09-24    MSIL2A   synchronized    991.272998  1760.0    46.740992
2024-09-24    MSIL2A   synchronized    991.272998  1760.0    46.740992
2024-09-25    MSIL2A   synchronized   1396.356364  2344.0    29.020760
2024-09-25    MSIL2A   synchronized   1396.356364  2344.0    29.020760
2024-09-26    MSIL2A   synchronized    966.999549  1642.0    23.942829
2024-09-26    MSIL2A   synchronized    966.999549  1642.0    23.942829
2024-09-27    MSIL2A   synchronized    871.607897  1570.0     5.862441
2024-09-27    MSIL2A   synchronized    871.607897  1570.0     5.862441
2024-09-28    MSIL2A   synchronized    542.064019   962.0     4.331498
2024-09-28    MSIL2A   synchronized    542.064019   962.0     4.331498
2024-09-29    MSIL2A   synchronized    570.252696  1021.0     4.755678
2024-09-29    MSIL2A   synchronized    570.252696  1021.0     4.755678
2024-09-30    MSIL2A   synchronized    534.864246   940.0     4.837913
2024-09-30    MSIL2A   synchronized    534.864246   940.0     4.837913
2024-09-01    OLCI_L1  synchronized    110.829281   139.0     6.116032
2024-09-01    OLCI_L2  synchronized     15.364736   133.0    10.059737
2024-09-01    SLSTR_L1 synchronized     61.796727   152.0     3.865299
2024-09-01    SLSTR_L2 synchronized     15.227166   243.0    21.264073
2024-09-01    SRAL_L1  synchronized    139.870350    87.0    38.568250
2024-09-01    SRAL_L2  synchronized      5.291490   202.0    39.411946
2024-09-01    SYN_L2   synchronized     29.881572   161.0    21.825744
2024-09-02    OLCI_L1  synchronized     73.437663    93.0     5.177907
2024-09-02    OLCI_L2  synchronized     10.433846    90.0     6.789482
2024-09-02    SLSTR_L1 synchronized     52.181047   128.0     3.350801
2024-09-02    SLSTR_L2 synchronized     11.788630   183.0    20.767449
2024-09-02    SRAL_L1  synchronized    107.515396    63.0    39.810844
2024-09-02    SRAL_L2  synchronized      3.774107   132.0    41.257598
2024-09-02    SYN_L2   synchronized     22.096430   120.0    26.550052
2024-09-03    OLCI_L1  synchronized    112.844759   142.0    17.477576
2024-09-03    OLCI_L2  synchronized     16.971392   152.0    19.585959
2024-09-03    SLSTR_L1 synchronized     55.954267   137.0    22.204469
2024-09-03    SLSTR_L2 synchronized     13.792547   219.0    24.753757
2024-09-03    SRAL_L1  synchronized    142.474086    90.0    40.655031
2024-09-03    SRAL_L2  synchronized      5.311233   210.0    41.427741
2024-09-03    SYN_L2   synchronized     34.721413   189.0    27.725096
2024-09-04    OLCI_L1  synchronized     90.604171   115.0    18.196408
2024-09-04    OLCI_L2  synchronized     13.536756   115.0    17.145984
2024-09-04    SLSTR_L1 synchronized     57.279721   140.0    21.854236
2024-09-04    SLSTR_L2 synchronized     14.586931   229.0    27.356310
2024-09-04    SRAL_L1  synchronized    148.837252    91.0    40.945111
2024-09-04    SRAL_L2  synchronized      5.567765   195.0    42.725926
2024-09-04    SYN_L2   synchronized     26.576351   145.0    26.845753
2024-09-05    OLCI_L1  synchronized    115.048974   151.0    19.632494
2024-09-05    OLCI_L2  synchronized     15.436828   138.0    18.810223
2024-09-05    SLSTR_L1 synchronized     98.364505   241.0    34.209813
2024-09-05    SLSTR_L2 synchronized     22.150147   351.0    34.712075
2024-09-05    SRAL_L1  synchronized    140.407761    82.0    44.004112
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2024-09-05    SRAL_L2   synchronized     5.724780   226.0   43.463197
2024-09-05     SYN_L2   synchronized    34.029061   181.0   27.976505
2024-09-06    OLCI_L1   synchronized    97.104987   126.0   20.313622
2024-09-06    OLCI_L2   synchronized    15.462447   135.0   22.497955
2024-09-06   SLSTR_L1   synchronized    67.057424   164.0   21.333759
2024-09-06   SLSTR_L2   synchronized    14.483411   231.0   29.584904
2024-09-06    SRAL_L1   synchronized   126.147049    82.0   39.203338
2024-09-06    SRAL_L2   synchronized     5.152756   198.0   42.881282
2024-09-06     SYN_L2   synchronized    33.111889   155.0   27.996797
2024-09-07    OLCI_L1   synchronized   110.782054   147.0   11.883248
2024-09-07    OLCI_L2   synchronized    17.285102   146.0   12.884351
2024-09-07   SLSTR_L1   synchronized    85.783028   210.0   17.707598
2024-09-07   SLSTR_L2   synchronized    19.791481   312.0   24.783767
2024-09-07    SRAL_L1   synchronized   150.566624    96.0   39.540394
2024-09-07    SRAL_L2   synchronized     6.146463   241.0   39.596276
2024-09-07     SYN_L2   synchronized    34.083286   177.0   21.099342
2024-09-08    OLCI_L1   synchronized    87.382485   117.0    9.501431
2024-09-08    OLCI_L2   synchronized    14.692988   130.0   10.975513
2024-09-08   SLSTR_L1   synchronized    65.295516   160.0    6.594238
2024-09-08   SLSTR_L2   synchronized    16.110896   254.0   21.594414
2024-09-08    SRAL_L1   synchronized   135.648624    81.0   39.272561
2024-09-08    SRAL_L2   synchronized     5.153658   200.0   39.846864
2024-09-08     SYN_L2   synchronized    28.101962   144.0   21.957739
2024-09-09    OLCI_L1   synchronized    85.545369   116.0    8.773406
2024-09-09    OLCI_L2   synchronized    13.113017   115.0    3.935170
2024-09-09   SLSTR_L1   synchronized    64.371735   158.0   11.349035
2024-09-09   SLSTR_L2   synchronized    15.306910   241.0   21.272652
2024-09-09    SRAL_L1   synchronized   135.683192    87.0   38.476328
2024-09-09    SRAL_L2   synchronized     5.304147   200.0   40.138247
2024-09-09     SYN_L2   synchronized    28.887016   155.0   23.201204
2024-09-10    OLCI_L1   synchronized    84.742821   118.0    6.449456
2024-09-10    OLCI_L2   synchronized    14.583620   131.0    9.995432
2024-09-10   SLSTR_L1   synchronized    67.538376   166.0    3.885459
2024-09-10   SLSTR_L2   synchronized    17.056298   269.0   18.524721
2024-09-10    SRAL_L1   synchronized   139.426206    81.0   39.818787
2024-09-10    SRAL_L2   synchronized     5.213013   198.0   40.300006
2024-09-10     SYN_L2   synchronized    30.225043   156.0   23.192080
2024-09-11    OLCI_L1   synchronized    80.991687   114.0    9.544282
2024-09-11    OLCI_L2   synchronized    14.139424   129.0   11.236655
2024-09-11   SLSTR_L1   synchronized    64.269478   158.0    4.515466
2024-09-11   SLSTR_L2   synchronized    16.894520   267.0   20.196051
2024-09-11    SRAL_L1   synchronized   139.719340    83.0   39.805273
2024-09-11    SRAL_L2   synchronized     5.354106   198.0   39.976936
2024-09-11     SYN_L2   synchronized    25.445199   142.0   23.307847
2024-09-12    OLCI_L1   synchronized    86.756169   121.0    9.969348
2024-09-12    OLCI_L2   synchronized    13.527811   125.0   11.537864
2024-09-12   SLSTR_L1   synchronized    64.919352   160.0   16.508342
2024-09-12   SLSTR_L2   synchronized    15.083112   238.0   23.256953
2024-09-12    SRAL_L1   synchronized   136.947805    84.0   39.010752
2024-09-12    SRAL_L2   synchronized     5.284066   196.0   40.177629
2024-09-12     SYN_L2   synchronized    30.675472   159.0   22.865196
2024-09-13    OLCI_L1   synchronized    86.585413   124.0    5.058531
2024-09-13    OLCI_L2   synchronized    13.517782   125.0    3.472926
2024-09-13   SLSTR_L1   synchronized    62.110491   153.0    3.355032
2024-09-13   SLSTR_L2   synchronized    16.060579   253.0   18.934677
2024-09-13    SRAL_L1   synchronized   137.603449    87.0   38.488866
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2024-09-13     SRAL_L2   synchronized     5.199097   194.0   40.257101
2024-09-13      SYN_L2   synchronized    31.144157   156.0   23.578371
2024-09-14     OLCI_L1   synchronized    67.185194    96.0    2.835186
2024-09-14     OLCI_L2   synchronized    10.308428    97.0    2.974174
2024-09-14    SLSTR_L1   synchronized    69.798622   172.0    3.931467
2024-09-14    SLSTR_L2   synchronized    16.737800   265.0   20.288519
2024-09-14     SRAL_L1   synchronized   138.426961    83.0   39.008417
2024-09-14     SRAL_L2   synchronized     5.255045   197.0   40.134551
2024-09-14      SYN_L2   synchronized    29.819246   149.0   21.254557
2024-09-15     OLCI_L1   synchronized    80.890995   120.0   11.211908
2024-09-15     OLCI_L2   synchronized    13.849079   129.0   12.189213
2024-09-15    SLSTR_L1   synchronized    66.470293   166.0    3.797376
2024-09-15    SLSTR_L2   synchronized    15.547245   247.0   18.741863
2024-09-15     SRAL_L1   synchronized   125.761411    73.0   39.767267
2024-09-15     SRAL_L2   synchronized     5.289598   201.0   39.643527
2024-09-15      SYN_L2   synchronized    18.542588   103.0   13.346062
2024-09-16     OLCI_L1   synchronized    85.727612   127.0   11.493090
2024-09-16     OLCI_L2   synchronized    14.167427   137.0   12.114078
2024-09-16    SLSTR_L1   synchronized    66.607418   164.0   16.220099
2024-09-16    SLSTR_L2   synchronized    16.919759   268.0   23.611000
2024-09-16     SRAL_L1   synchronized   143.492541    86.0   39.468742
2024-09-16     SRAL_L2   synchronized     5.308819   197.0   39.953466
2024-09-16      SYN_L2   synchronized    33.010036   181.0   26.942068
2024-09-18     OLCI_L1   synchronized   133.490372   197.0   27.031482
2024-09-18     OLCI_L2   synchronized    19.686517   190.0   27.659273
2024-09-18    SLSTR_L1   synchronized   101.422035   250.0   28.843756
2024-09-18    SLSTR_L2   synchronized    24.348466   384.0   34.983350
2024-09-18     SRAL_L1   synchronized   174.235229   103.0   53.445936
2024-09-18     SRAL_L2   synchronized     6.783067   251.0   54.032411
2024-09-18      SYN_L2   synchronized    34.035202   181.0   46.192923
2024-09-18     OLCI_L1   synchronized   133.490372   197.0   27.031482
2024-09-18     OLCI_L2   synchronized    19.686517   190.0   27.659273
2024-09-18    SLSTR_L1   synchronized   101.422035   250.0   28.843756
2024-09-18    SLSTR_L2   synchronized    24.348466   384.0   34.983350
2024-09-18     SRAL_L1   synchronized   174.235229   103.0   53.445936
2024-09-18     SRAL_L2   synchronized     6.783067   251.0   54.032411
2024-09-18      SYN_L2   synchronized    34.035202   181.0   46.192923
2024-09-19     OLCI_L1   synchronized   110.408519   167.0   12.757173
2024-09-19     OLCI_L2   synchronized    15.630944   153.0   13.146407
2024-09-19    SLSTR_L1   synchronized    86.523170   214.0   10.304884
2024-09-19    SLSTR_L2   synchronized    20.339651   322.0   23.412102
2024-09-19     SRAL_L1   synchronized   187.229154   122.0   39.863332
2024-09-19     SRAL_L2   synchronized     7.499994   290.0   40.252178
2024-09-19      SYN_L2   synchronized    39.499495   222.0   18.932965
2024-09-19     OLCI_L1   synchronized   110.408519   167.0   12.757173
2024-09-19     OLCI_L2   synchronized    15.630944   153.0   13.146407
2024-09-19    SLSTR_L1   synchronized    86.523170   214.0   10.304884
2024-09-19    SLSTR_L2   synchronized    20.339651   322.0   23.412102
2024-09-19     SRAL_L1   synchronized   187.229154   122.0   39.863332
2024-09-19     SRAL_L2   synchronized     7.499994   290.0   40.252178
2024-09-19      SYN_L2   synchronized    39.499495   222.0   18.932965
2024-09-20     OLCI_L1   synchronized    76.759507   118.0    8.639381
2024-09-20     OLCI_L2   synchronized    12.081171   120.0   10.238489
2024-09-20    SLSTR_L1   synchronized    64.370045   159.0   15.823310
2024-09-20    SLSTR_L2   synchronized    15.288793   241.0   23.023759
2024-09-20     SRAL_L1   synchronized   127.913125    79.0   38.494029
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2024-09-20    SRAL_L2   synchronized      4.889893   186.0   39.821091
2024-09-20     SYN_L2   synchronized     25.607095   146.0   23.334677
2024-09-20    OLCI_L1   synchronized     76.759507   118.0    8.639381
2024-09-20    OLCI_L2   synchronized     12.081171   120.0   10.238489
2024-09-20   SLSTR_L1   synchronized     64.370045   159.0   15.823310
2024-09-20   SLSTR_L2   synchronized     15.288793   241.0   23.023759
2024-09-20    SRAL_L1   synchronized    127.913125    79.0   38.494029
2024-09-20    SRAL_L2   synchronized      4.889893   186.0   39.821091
2024-09-20     SYN_L2   synchronized     25.607095   146.0   23.334677
2024-09-21    OLCI_L1   synchronized     80.995247   122.0    8.439441
2024-09-21    OLCI_L2   synchronized     12.343518   120.0    7.650160
2024-09-21   SLSTR_L1   synchronized     71.566498   177.0    4.213062
2024-09-21   SLSTR_L2   synchronized     17.298143   272.0   19.142418
2024-09-21    SRAL_L1   synchronized    139.439989    86.0   38.464559
2024-09-21    SRAL_L2   synchronized      5.409418   205.0   39.883184
2024-09-21     SYN_L2   synchronized     29.112822   149.0   22.226200
2024-09-21    OLCI_L1   synchronized     80.995247   122.0    8.439441
2024-09-21    OLCI_L2   synchronized     12.343518   120.0    7.650160
2024-09-21   SLSTR_L1   synchronized     71.566498   177.0    4.213062
2024-09-21   SLSTR_L2   synchronized     17.298143   272.0   19.142418
2024-09-21    SRAL_L1   synchronized    139.439989    86.0   38.464559
2024-09-21    SRAL_L2   synchronized      5.409418   205.0   39.883184
2024-09-21     SYN_L2   synchronized     29.112822   149.0   22.226200
2024-09-22    OLCI_L1   synchronized     75.100575   104.0    9.158588
2024-09-22    OLCI_L2   synchronized     11.485770   105.0   10.349201
2024-09-22   SLSTR_L1   synchronized     74.232077   184.0    6.199511
2024-09-22   SLSTR_L2   synchronized     18.175669   286.0   19.029596
2024-09-22    SRAL_L1   synchronized    137.354151    83.0   39.168045
2024-09-22    SRAL_L2   synchronized      5.414293   211.0   39.784097
2024-09-22     SYN_L2   synchronized     28.695340   142.0   24.597722
2024-09-22    OLCI_L1   synchronized     75.100575   104.0    9.158588
2024-09-22    OLCI_L2   synchronized     11.485770   105.0   10.349201
2024-09-22   SLSTR_L1   synchronized     74.232077   184.0    6.199511
2024-09-22   SLSTR_L2   synchronized     18.175669   286.0   19.029596
2024-09-22    SRAL_L1   synchronized    137.354151    83.0   39.168045
2024-09-22    SRAL_L2   synchronized      5.414293   211.0   39.784097
2024-09-22     SYN_L2   synchronized     28.695340   142.0   24.597722
2024-09-23    OLCI_L1   synchronized     73.548019    91.0    9.434366
2024-09-23    OLCI_L2   synchronized     11.322933    91.0   10.235996
2024-09-23   SLSTR_L1   synchronized     63.598660   159.0    6.173068
2024-09-23   SLSTR_L2   synchronized     13.330367   211.0   18.066840
2024-09-23    SRAL_L1   synchronized    123.327827    80.0   38.412468
2024-09-23    SRAL_L2   synchronized      5.188509   199.0   39.407598
2024-09-23     SYN_L2   synchronized     19.063092   101.0   26.449059
2024-09-23    OLCI_L1   synchronized     73.548019    91.0    9.434366
2024-09-23    OLCI_L2   synchronized     11.322933    91.0   10.235996
2024-09-23   SLSTR_L1   synchronized     63.598660   159.0    6.173068
2024-09-23   SLSTR_L2   synchronized     13.330367   211.0   18.066840
2024-09-23    SRAL_L1   synchronized    123.327827    80.0   38.412468
2024-09-23    SRAL_L2   synchronized      5.188509   199.0   39.407598
2024-09-23     SYN_L2   synchronized     19.063092   101.0   26.449059
2024-09-24    OLCI_L1   synchronized     77.343167    94.0    9.562748
2024-09-24    OLCI_L2   synchronized     11.445281    92.0   10.228475
2024-09-24   SLSTR_L1   synchronized     70.793633   176.0   17.477401
2024-09-24   SLSTR_L2   synchronized     17.247722   271.0   24.886073
2024-09-24    SRAL_L1   synchronized    148.590059    92.0   40.193194
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2024-09-24    SRAL_L2   synchronized      5.643575   212.0   40.652355
2024-09-24     SYN_L2   synchronized     27.108064   136.0   25.155238
2024-09-24    OLCI_L1   synchronized     77.343167    94.0    9.562748
2024-09-24    OLCI_L2   synchronized     11.445281    92.0   10.228475
2024-09-24   SLSTR_L1   synchronized     70.793633   176.0   17.477401
2024-09-24   SLSTR_L2   synchronized     17.247722   271.0   24.886073
2024-09-24    SRAL_L1   synchronized    148.590059    92.0   40.193194
2024-09-24    SRAL_L2   synchronized      5.643575   212.0   40.652355
2024-09-24     SYN_L2   synchronized     27.108064   136.0   25.155238
2024-09-25    OLCI_L1   synchronized     68.719243    84.0    5.007757
2024-09-25    OLCI_L2   synchronized     11.238438    90.0    9.038991
2024-09-25   SLSTR_L1   synchronized     76.334595   191.0   14.640585
2024-09-25   SLSTR_L2   synchronized     19.327006   299.0   20.706350
2024-09-25    SRAL_L1   synchronized    141.405497    87.0   38.627611
2024-09-25    SRAL_L2   synchronized      5.464527   204.0   40.568641
2024-09-25     SYN_L2   synchronized     23.818955   122.0   22.861236
2024-09-25    OLCI_L1   synchronized     68.719243    84.0    5.007757
2024-09-25    OLCI_L2   synchronized     11.238438    90.0    9.038991
2024-09-25   SLSTR_L1   synchronized     76.334595   191.0   14.640585
2024-09-25   SLSTR_L2   synchronized     19.327006   299.0   20.706350
2024-09-25    SRAL_L1   synchronized    141.405497    87.0   38.627611
2024-09-25    SRAL_L2   synchronized      5.464527   204.0   40.568641
2024-09-25     SYN_L2   synchronized     23.818955   122.0   22.861236
2024-09-26    OLCI_L1   synchronized     71.581201    89.0    9.113126
2024-09-26    OLCI_L2   synchronized     10.216420    85.0    4.922939
2024-09-26   SLSTR_L1   synchronized     66.255542   165.0    3.445959
2024-09-26   SLSTR_L2   synchronized     16.024576   252.0   17.284674
2024-09-26    SRAL_L1   synchronized    138.300235    83.0   39.162475
2024-09-26    SRAL_L2   synchronized      5.339113   205.0   38.849266
2024-09-26     SYN_L2   synchronized     22.071283   115.0   23.768714
2024-09-26    OLCI_L1   synchronized     71.581201    89.0    9.113126
2024-09-26    OLCI_L2   synchronized     10.216420    85.0    4.922939
2024-09-26   SLSTR_L1   synchronized     66.255542   165.0    3.445959
2024-09-26   SLSTR_L2   synchronized     16.024576   252.0   17.284674
2024-09-26    SRAL_L1   synchronized    138.300235    83.0   39.162475
2024-09-26    SRAL_L2   synchronized      5.339113   205.0   38.849266
2024-09-26     SYN_L2   synchronized     22.071283   115.0   23.768714
2024-09-27    OLCI_L1   synchronized     66.365896    83.0    9.521800
2024-09-27    OLCI_L2   synchronized      9.152981    77.0    3.170740
2024-09-27   SLSTR_L1   synchronized     61.023492   151.0   16.796721
2024-09-27   SLSTR_L2   synchronized     15.325314   242.0   22.478800
2024-09-27    SRAL_L1   synchronized    134.941868    85.0   38.498968
2024-09-27    SRAL_L2   synchronized      5.146067   193.0   40.431590
2024-09-27     SYN_L2   synchronized     18.368437   108.0   21.953142
2024-09-27    OLCI_L1   synchronized     66.365896    83.0    9.521800
2024-09-27    OLCI_L2   synchronized      9.152981    77.0    3.170740
2024-09-27   SLSTR_L1   synchronized     61.023492   151.0   16.796721
2024-09-27   SLSTR_L2   synchronized     15.325314   242.0   22.478800
2024-09-27    SRAL_L1   synchronized    134.941868    85.0   38.498968
2024-09-27    SRAL_L2   synchronized      5.146067   193.0   40.431590
2024-09-27     SYN_L2   synchronized     18.368437   108.0   21.953142
2024-09-28    OLCI_L1   synchronized     66.746218    84.0    8.547976
2024-09-28    OLCI_L2   synchronized      9.887992    86.0   10.436879
2024-09-28   SLSTR_L1   synchronized     62.703918   156.0   16.206749
2024-09-28   SLSTR_L2   synchronized     14.782389   234.0   22.973489
2024-09-28    SRAL_L1   synchronized    125.499962    80.0   38.436406
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2024-09-28    SRAL_L2   synchronized     4.924551   187.0   39.943500
2024-09-28    SYN_L2    synchronized    18.483259   108.0   22.921142
2024-09-28    OLCI_L1   synchronized    66.746218    84.0    8.547976
2024-09-28    OLCI_L2   synchronized     9.887992    86.0   10.436879
2024-09-28    SLSTR_L1  synchronized    62.703918   156.0   16.206749
2024-09-28    SLSTR_L2  synchronized    14.782389   234.0   22.973489
2024-09-28    SRAL_L1   synchronized   125.499962    80.0   38.436406
2024-09-28    SRAL_L2   synchronized     4.924551   187.0   39.943500
2024-09-28    SYN_L2    synchronized    18.483259   108.0   22.921142
2024-09-29    OLCI_L1   synchronized    70.216212    90.0    8.689960
2024-09-29    OLCI_L2   synchronized    10.056276    87.0    3.223059
2024-09-29    SLSTR_L1  synchronized    66.956076   167.0    3.858872
2024-09-29    SLSTR_L2  synchronized    15.439535   244.0   18.359313
2024-09-29    SRAL_L1   synchronized   139.631017    85.0   38.589866
2024-09-29    SRAL_L2   synchronized     5.088017   194.0   40.219445
2024-09-29    SYN_L2    synchronized    13.785191    81.0   23.239084
2024-09-29    OLCI_L1   synchronized    70.216212    90.0    8.689960
2024-09-29    OLCI_L2   synchronized    10.056276    87.0    3.223059
2024-09-29    SLSTR_L1  synchronized    66.956076   167.0    3.858872
2024-09-29    SLSTR_L2  synchronized    15.439535   244.0   18.359313
2024-09-29    SRAL_L1   synchronized   139.631017    85.0   38.589866
2024-09-29    SRAL_L2   synchronized     5.088017   194.0   40.219445
2024-09-29    SYN_L2    synchronized    13.785191    81.0   23.239084
2024-09-30    OLCI_L1   synchronized    61.994129    85.0    6.391751
2024-09-30    OLCI_L2   synchronized     9.445273    85.0    3.190750
2024-09-30    SLSTR_L1  synchronized    77.759127   195.0   15.856113
2024-09-30    SLSTR_L2  synchronized    19.263462   305.0   21.321881
2024-09-30    SRAL_L1   synchronized   146.171343    90.0   39.585241
2024-09-30    SRAL_L2   synchronized     6.016360   225.0   40.228980
2024-09-30    SYN_L2    synchronized    23.965725   145.0   22.971265
2024-09-30    OLCI_L1   synchronized    61.994129    85.0    6.391751
2024-09-30    OLCI_L2   synchronized     9.445273    85.0    3.190750
2024-09-30    SLSTR_L1  synchronized    77.759127   195.0   15.856113
2024-09-30    SLSTR_L2  synchronized    19.263462   305.0   21.321881
2024-09-30    SRAL_L1   synchronized   146.171343    90.0   39.585241
2024-09-30    SRAL_L2   synchronized     6.016360   225.0   40.228980
2024-09-30    SYN_L2    synchronized    23.965725   145.0   22.971265
2024-09-01    NRTI_L2   synchronized     9.509081   297.0    1.853022
2024-09-01    OFFL_L1B  synchronized   305.718296   112.0    4.104614
2024-09-01    OFFL_L2   synchronized    67.096426   182.0   39.403837
2024-09-02    NRTI_L2   synchronized    10.716430   315.0    1.886190
2024-09-02    OFFL_L1B  synchronized   327.690809   120.0    4.060646
2024-09-02    OFFL_L2   synchronized    70.901134   192.0   39.660987
2024-09-03    NRTI_L2   synchronized    10.046964   306.0    1.869617
2024-09-03    OFFL_L1B  synchronized   305.664773   112.0    3.926856
2024-09-03    OFFL_L2   synchronized    66.638017   185.0   39.218300
2024-09-04    NRTI_L2   synchronized     9.884517   290.0    1.877943
2024-09-04    OFFL_L1B  synchronized   305.753218   112.0    3.754281
2024-09-04    OFFL_L2   synchronized    64.716356   187.0   39.220703
2024-09-05    NRTI_L2   synchronized     9.742195   317.0    1.886205
2024-09-05    OFFL_L1B  synchronized   286.029583   104.0    3.754091
2024-09-05    OFFL_L2   synchronized    65.778326   183.0   39.247724
2024-09-06    NRTI_L2   synchronized     9.891931   293.0    1.853079
2024-09-06    OFFL_L1B  synchronized   308.038268   112.0    3.821941
2024-09-06    OFFL_L2   synchronized    67.212697   185.0   39.184156
2024-09-07    NRTI_L2   synchronized    10.075713   294.0    1.869552
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2024-09-07    OFFL_L1B   synchronized   285.996511   104.0     3.768982
2024-09-07     OFFL_L2   synchronized    63.272105   172.0    39.249121
2024-09-08     NRTI_L2   synchronized     9.491547   287.0     1.869710
2024-09-08    OFFL_L1B   synchronized   283.470114   104.0     3.885766
2024-09-08     OFFL_L2   synchronized    58.735307   160.0    39.508928
2024-09-09     NRTI_L2   synchronized     8.881361   297.0     1.886662
2024-09-09    OFFL_L1B   synchronized   308.008669   112.0     3.812533
2024-09-09     OFFL_L2   synchronized    57.493644   153.0    40.331343
2024-09-10     NRTI_L2   synchronized     9.517370   297.0     1.853040
2024-09-10    OFFL_L1B   synchronized   285.926085   104.0     3.734936
2024-09-10     OFFL_L2   synchronized    10.745678    20.0   191.816425
2024-09-11     NRTI_L2   synchronized     9.328830   287.0     1.964843
2024-09-11    OFFL_L1B   synchronized   305.499952   112.0     3.935970
2024-09-11     OFFL_L2   synchronized    57.652931   189.0    67.916596
2024-09-12     NRTI_L2   synchronized     9.660375   297.0     1.881473
2024-09-12    OFFL_L1B   synchronized   327.465136   120.0     3.906017
2024-09-12     OFFL_L2   synchronized    77.677562   206.0    70.410166
2024-09-13     NRTI_L2   synchronized     9.623420   283.0     1.881592
2024-09-13    OFFL_L1B   synchronized   281.073583   104.0     3.779556
2024-09-13     OFFL_L2   synchronized    76.276614   210.0    64.533425
2024-09-14     NRTI_L2   synchronized     8.306591   261.0     1.898205
2024-09-14    OFFL_L1B   synchronized   327.493269   120.0     3.830579
2024-09-14     OFFL_L2   synchronized    76.460934   214.0    59.347479
2024-09-15     NRTI_L2   synchronized     8.261374   282.0     1.914867
2024-09-15    OFFL_L1B   synchronized   305.312793   112.0     3.704406
2024-09-15     OFFL_L2   synchronized    83.108943   225.0    53.692087
2024-09-16     NRTI_L2   synchronized     9.477331   311.0     1.881628
2024-09-16    OFFL_L1B   synchronized   305.334276   112.0     3.875299
2024-09-16     OFFL_L2   synchronized    71.082591   200.0    48.481981
2024-09-18     NRTI_L2   synchronized    15.867786   521.0     9.664785
2024-09-18    OFFL_L1B   synchronized   544.693117   200.0    11.188907
2024-09-18     OFFL_L2   synchronized   129.384167   350.0    52.185354
2024-09-18     NRTI_L2   synchronized    15.867786   521.0     9.664785
2024-09-18    OFFL_L1B   synchronized   544.693117   200.0    11.188907
2024-09-18     OFFL_L2   synchronized   129.384167   350.0    52.185354
2024-09-19     NRTI_L2   synchronized     7.772983   279.0     1.898128
2024-09-19    OFFL_L1B   synchronized   302.913094   112.0     4.161601
2024-09-19     OFFL_L2   synchronized    72.054489   195.0    40.500705
2024-09-19     NRTI_L2   synchronized     7.772983   279.0     1.898128
2024-09-19    OFFL_L1B   synchronized   302.913094   112.0     4.161601
2024-09-19     OFFL_L2   synchronized    72.054489   195.0    40.500705
2024-09-20     NRTI_L2   synchronized     8.773673   306.0     1.898150
2024-09-20    OFFL_L1B   synchronized   305.312990   112.0     4.049508
2024-09-20     OFFL_L2   synchronized    62.447333   173.0    38.844283
2024-09-20     NRTI_L2   synchronized     8.773673   306.0     1.898150
2024-09-20    OFFL_L1B   synchronized   305.312990   112.0     4.049508
2024-09-20     OFFL_L2   synchronized    62.447333   173.0    38.844283
2024-09-21     NRTI_L2   synchronized     6.930265   225.0     1.898096
2024-09-21    OFFL_L1B   synchronized   219.823687    80.0     3.854623
2024-09-21     OFFL_L2   synchronized    67.618774   189.0    39.430775
2024-09-21     NRTI_L2   synchronized     6.930265   225.0     1.898096
2024-09-21    OFFL_L1B   synchronized   219.823687    80.0     3.854623
2024-09-21     OFFL_L2   synchronized    67.618774   189.0    39.430775
2024-09-22     NRTI_L2   synchronized     8.882965   306.0     1.863981
2024-09-22    OFFL_L1B   synchronized   390.959948   144.0     3.981220
2024-09-22     OFFL_L2   synchronized    64.259008   174.0    39.694876
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2024-09-22    NRTI_L2   synchronized     8.882965   306.0     1.863981
2024-09-22   OFFL_L1B   synchronized   390.959948   144.0     3.981220
2024-09-22    OFFL_L2   synchronized    64.259008   174.0    39.694876
2024-09-23    NRTI_L2   synchronized     8.112090   270.0     1.897364
2024-09-23   OFFL_L1B   synchronized   285.922629   104.0     3.850964
2024-09-23    OFFL_L2   synchronized    64.959621   177.0    39.877051
2024-09-23    NRTI_L2   synchronized     8.112090   270.0     1.897364
2024-09-23   OFFL_L1B   synchronized   285.922629   104.0     3.850964
2024-09-23    OFFL_L2   synchronized    64.959621   177.0    39.877051
2024-09-24    NRTI_L2   synchronized     5.027005   188.0     1.918882
2024-09-24   OFFL_L1B   synchronized   198.108454    72.0     3.785712
2024-09-24    OFFL_L2   synchronized    66.350262   182.0    40.799244
2024-09-24    NRTI_L2   synchronized     5.027005   188.0     1.918882
2024-09-24   OFFL_L1B   synchronized   198.108454    72.0     3.785712
2024-09-24    OFFL_L2   synchronized    66.350262   182.0    40.799244
2024-09-25    NRTI_L2   synchronized     7.694154   269.0     1.890356
2024-09-25   OFFL_L1B   synchronized   313.800419   120.0     4.007829
2024-09-25    OFFL_L2   synchronized    57.654625   156.0    40.530547
2024-09-25    NRTI_L2   synchronized     7.694154   269.0     1.890356
2024-09-25   OFFL_L1B   synchronized   313.800419   120.0     4.007829
2024-09-25    OFFL_L2   synchronized    57.654625   156.0    40.530547
2024-09-26    NRTI_L2   synchronized     7.986351   271.0     1.857338
2024-09-26   OFFL_L1B   synchronized   263.755080    96.0     3.798496
2024-09-26    OFFL_L2   synchronized    48.550544   141.0    40.433025
2024-09-26    NRTI_L2   synchronized     7.986351   271.0     1.857338
2024-09-26   OFFL_L1B   synchronized   263.755080    96.0     3.798496
2024-09-26    OFFL_L2   synchronized    48.550544   141.0    40.433025
2024-09-27    NRTI_L2   synchronized     8.178627   287.0     1.873696
2024-09-27   OFFL_L1B   synchronized   285.706125   104.0     3.859104
2024-09-27    OFFL_L2   synchronized    49.472017   125.0    48.101554
2024-09-27    NRTI_L2   synchronized     8.178627   287.0     1.873696
2024-09-27   OFFL_L1B   synchronized   285.706125   104.0     3.859104
2024-09-27    OFFL_L2   synchronized    49.472017   125.0    48.101554
2024-09-28    NRTI_L2   synchronized     4.688413   171.0     1.857022
2024-09-28   OFFL_L1B   synchronized   219.743228    80.0     3.703073
2024-09-28    OFFL_L2   synchronized     7.843266    14.0   197.144697
2024-09-28    NRTI_L2   synchronized     4.688413   171.0     1.857022
2024-09-28   OFFL_L1B   synchronized   219.743228    80.0     3.703073
2024-09-28    OFFL_L2   synchronized     7.843266    14.0   197.144697
2024-09-29    NRTI_L2   synchronized     7.552590   271.0     1.872654
2024-09-29   OFFL_L1B   synchronized   373.298688   136.0     4.081590
2024-09-29    OFFL_L2   synchronized     8.048001    14.0   197.680251
2024-09-29    NRTI_L2   synchronized     7.552590   271.0     1.872654
2024-09-29   OFFL_L1B   synchronized   373.298688   136.0     4.081590
2024-09-29    OFFL_L2   synchronized     8.048001    14.0   197.680251
2024-09-30    NRTI_L2   synchronized     7.052504   251.0     1.905624
2024-09-30   OFFL_L1B   synchronized   285.590735   104.0     3.816421
2024-09-30    OFFL_L2   synchronized     8.473634    16.0   196.374387
2024-09-30    NRTI_L2   synchronized     7.052504   251.0     1.905624
2024-09-30   OFFL_L1B   synchronized   285.590735   104.0     3.816421
2024-09-30    OFFL_L2   synchronized     8.473634    16.0   196.374387
2024-09-01     s1_iw            NaN    37.260723    21.0          NaN
2024-09-01     s1_ew            NaN    16.676712     7.0          NaN
2024-09-01    s2_l1c            NaN   274.482002   482.0          NaN
2024-09-01    s2_l2a            NaN     5.881111     8.0          NaN
2024-09-02    s2_l2a            NaN    28.116276     0.0          NaN
```

```
2024-09-02      s2_l1c      NaN    194.944557    347.0      NaN
2024-09-02      s1_iw       NaN     61.210560     36.0      NaN
2024-09-02      s1_ew       NaN     14.046265      5.0      NaN
2024-09-03      s1_iw       NaN     19.702728     13.0      NaN
2024-09-03      s1_ew       NaN     20.230541      9.0      NaN
2024-09-03      s2_l1c      NaN    238.642872    421.0      NaN
2024-09-03      s2_l2a      NaN      2.702362      4.0      NaN
2024-09-04      s2_l1c      NaN    317.976658    512.0      NaN
2024-09-04      s2_l2a      NaN      1.190063      4.0      NaN
2024-09-04      s1_ew       NaN     13.746555      7.0      NaN
2024-09-04      s1_iw       NaN     46.907654     36.0      NaN
2024-09-05      s1_iw       NaN     41.737553     11.0      NaN
2024-09-05      s1_ew       NaN      8.940060      3.0      NaN
2024-09-05      s2_l1c      NaN    276.753952    475.0      NaN
2024-09-05      s2_l2a      NaN      1.676056      3.0      NaN
2024-09-06      s1_iw       NaN     46.472561     11.0      NaN
2024-09-06      s1_ew       NaN      9.070698      3.0      NaN
2024-09-06      s2_l1c      NaN    281.062889    476.0      NaN
2024-09-06      s2_l2a      NaN      5.820236      8.0      NaN
2024-09-07      s2_l2a      NaN     28.102886      0.0      NaN
2024-09-07      s1_iw       NaN     69.064583     17.0      NaN
2024-09-07      s1_ew       NaN     11.848759      4.0      NaN
2024-09-07      s2_l1c      NaN    279.523605    488.0      NaN
2024-09-08      s1_ew       NaN     25.524891     12.0      NaN
2024-09-08      s2_l1c      NaN    283.051765    468.0      NaN
2024-09-08      s1_iw       NaN     24.806477     17.0      NaN
2024-09-08      s2_l2a      NaN      6.191410      8.0      NaN
2024-09-09      s2_l2a      NaN      1.120598      4.0      NaN
2024-09-09      s2_l1c      NaN    279.412399    461.0      NaN
2024-09-09      s1_ew       NaN     20.538082      9.0      NaN
2024-09-09      s1_iw       NaN     58.634636     38.0      NaN
2024-09-10      s1_iw       NaN     18.719990     13.0      NaN
2024-09-10      s1_ew       NaN     19.960636     11.0      NaN
2024-09-10      s2_l1c      NaN    254.516319    432.0      NaN
2024-09-10      s2_l2a      NaN      1.852367      3.0      NaN
2024-09-11      s1_iw       NaN     55.905998     39.0      NaN
2024-09-11      s1_ew       NaN     11.086544      7.0      NaN
2024-09-11      s2_l1c      NaN    285.889515    469.0      NaN
2024-09-11      s2_l2a      NaN      5.580975      8.0      NaN
2024-09-12      s2_l2a      NaN     28.102959      0.0      NaN
2024-09-12      s2_l1c      NaN    223.409958    380.0      NaN
2024-09-12      s1_ew       NaN     12.503040      4.0      NaN
2024-09-12      s1_iw       NaN     53.999298     14.0      NaN
2024-09-13      s1_iw       NaN     32.387566      7.0      NaN
2024-09-13      s1_ew       NaN     19.206203      6.0      NaN
2024-09-13      s2_l1c      NaN    292.986881    508.0      NaN
2024-09-13      s2_l2a      NaN      6.636253      8.0      NaN
2024-09-14      s1_iw       NaN     62.442295     14.0      NaN
2024-09-14      s1_ew       NaN     14.165310      5.0      NaN
2024-09-14      s2_l2a      NaN      1.552094      4.0      NaN
2024-09-14      s2_l1c      NaN    300.920170    493.0      NaN
2024-09-15      s2_l2a      NaN      1.678276      3.0      NaN
2024-09-15      s1_iw       NaN     21.695789     14.0      NaN
2024-09-15      s1_ew       NaN     20.173073      9.0      NaN
2024-09-15      s2_l1c      NaN    292.846489    478.0      NaN
2024-09-16      s1_iw       NaN     39.724354     34.0      NaN
```

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2024-09-16        s1_ew        NaN      18.257072        9.0        NaN
2024-09-16        s2_l1c       NaN     284.806625      490.0        NaN
2024-09-16        s2_l2a       NaN      27.650158        0.0        NaN
2024-09-17        s1_iw        NaN      38.667892       23.0        NaN
2024-09-17        s1_ew        NaN       9.102013        3.0        NaN
2024-09-17        s2_l1c       NaN     274.046696      466.0        NaN
2024-09-17        s2_l2a       NaN      27.651073        0.0        NaN
2024-09-18        s2_l2a       NaN       6.426720        8.0        NaN
2024-09-18        s1_iw        NaN      34.272339       24.0        NaN
2024-09-18        s1_ew        NaN       8.874165        3.0        NaN
2024-09-18        s2_l1c       NaN     229.553677      399.0        NaN
2024-09-19        s2_l1c       NaN     190.550888      328.0        NaN
2024-09-19        s2_l2a       NaN       1.578972        4.0        NaN
2024-09-19        s1_iw        NaN      61.589600       16.0        NaN
2024-09-19        s1_ew        NaN      13.344086        5.0        NaN
2024-09-20        s1_iw        NaN      21.659626        5.0        NaN
2024-09-20        s1_ew        NaN      22.278133        7.0        NaN
2024-09-20        s2_l1c       NaN     234.399742      397.0        NaN
2024-09-20        s2_l2a       NaN       1.717014        2.0        NaN
2024-09-21        s2_l1c       NaN     236.724174      408.0        NaN
2024-09-21        s2_l2a       NaN      27.651161        0.0        NaN
2024-09-21        s1_iw        NaN      44.626286       11.0        NaN
2024-09-21        s1_ew        NaN      14.580788        5.0        NaN
2024-09-22        s1_iw        NaN      24.183208       14.0        NaN
2024-09-22        s1_ew        NaN      19.724915        9.0        NaN
2024-09-22        s2_l1c       NaN     226.484447      392.0        NaN
2024-09-22        s2_l2a       NaN      27.643288        0.0        NaN
2024-09-23        s2_l2a       NaN       6.888748        8.0        NaN
2024-09-23        s1_iw        NaN      50.139374       38.0        NaN
2024-09-23        s1_ew        NaN       9.838692        6.0        NaN
2024-09-23        s2_l1c       NaN     209.150021      357.0        NaN
2024-09-24        s2_l1c       NaN     197.092407      341.0        NaN
2024-09-24        s2_l2a       NaN       1.479527        4.0        NaN
2024-09-24        s1_iw        NaN      58.617554       32.0        NaN
2024-09-24        s1_ew        NaN      13.681252        6.0        NaN
2024-09-25        s1_iw        NaN      28.069248       19.0        NaN
2024-09-25        s1_ew        NaN      21.576279       10.0        NaN
2024-09-25        s2_l1c       NaN     183.062641      318.0        NaN
2024-09-25        s2_l2a       NaN       1.833839        3.0        NaN
2024-09-26        s1_iw        NaN      46.916813       11.0        NaN
2024-09-26        s1_ew        NaN      20.745979        7.0        NaN
2024-09-26        s2_l1c       NaN     177.590130      301.0        NaN
2024-09-26        s2_l2a       NaN       5.938763        8.0        NaN
2024-09-27        s2_l2a       NaN      27.643356        0.0        NaN
2024-09-27        s2_l1c       NaN     174.139256      308.0        NaN
2024-09-27        s1_ew        NaN      18.698692        6.0        NaN
2024-09-27        s1_iw        NaN      20.417404        5.0        NaN
2024-09-28        s1_iw        NaN      48.489368       12.0        NaN
2024-09-28        s1_ew        NaN      11.910492        4.0        NaN
2024-09-28        s2_l1c       NaN     163.206699      285.0        NaN
2024-09-28        s2_l2a       NaN       6.605152        8.0        NaN
2024-09-29        s2_l2a       NaN       1.430008        4.0        NaN
2024-09-29        s1_iw        NaN      42.864395       26.0        NaN
2024-09-29        s1_ew        NaN       9.234928        3.0        NaN
2024-09-29        s2_l1c       NaN     145.852917      264.0        NaN
2024-09-30        s2_l2a       NaN       1.690968        3.0        NaN
```

```
2024-09-30        s1_ew           NaN      9.195755      3.0        NaN
2024-09-30        s1_iw           NaN     49.540180     26.0        NaN
2024-09-30        s2_l1c          NaN    139.719761    250.0        NaN
```

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