

# Flares

## Tuesday, 1 September 2020

Observer Site User Site, France

WGS84: Lon: +1d03m49.10s Lat: +43d14m03.25s Alt: 311m Geoid Alt: 261m

All times in CET or CEST (during summer)

## Wednesday, 2 September 2020

6h42m02s Flare from unknown Mirror Magnitude= 3.7mag



 COSMO-SkyMed 3

Azimuth= 34.6° NE altitude= 34.9° in constellation Ursa Major

RA= 9h55.6m Dec=+62°07'

Flare angle=7.02°

In a clock-face concept, the satellite will seem to move toward 8:07 Angular Velocity=23.2'/s

**Flare center line, closest point** →MapIt: Longitude=2.952°E Latitude=+43.729° (WGS84) Distance=161.9 km Azimuth= 69.5° ENE Peak Magnitude=-1.5mag

Satellite above: longitude=7.1°E latitude=+48.1° height above Earth=629.4 km distance to satellite=1013.0 km

Altitude of Sun=-7.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h04m55s Flare from SAR-Panel Magnitude=-0.6mag



 COSMO-SkyMed 2

Azimuth= 69.3° ENE altitude= 76.4° in constellation Auriga

RA= 5h10.9m Dec=+46°35'

Flare angle=7.08°

In a clock-face concept, the satellite will seem to move toward 8:48 Angular Velocity=40.8'/s

**Flare center line, closest point** →MapIt: Longitude=0.073°E Latitude=+43.004° (WGS84) Distance=84.4 km Azimuth=252.7° WSW Peak Magnitude=-2.6mag

Satellite above: longitude=2.7°E latitude=+43.6° height above Earth=628.2 km

distance to satellite=644.3 km

Altitude of Sun=-3.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h27m27s

Flare from SAR-Panel **Magnitude=-1.7mag**



 COSMO-SkyMed 2

Azimuth=277.9° W altitude= 60.3° in constellation Bootes

RA=14h41.2m Dec=+40°07'

Flare angle=2.70°

In a clock-face concept, the satellite will seem to move toward 8:45 Angular Velocity=36.7'/s

**Flare center line, closest point** →MapIt: Longitude=0.619°E Latitude=+43.329° (WGS84) **Distance=37.5 km** Azimuth=286.5° WNW Peak Magnitude=-2.5mag

Satellite above: longitude=2.9°W latitude=+43.6° height above Earth=628.5 km distance to satellite=713.2 km

Altitude of Sun=-0.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h28m11s

Flare from unknown Mirror **Magnitude= 4.3mag**



 COSMO-SkyMed 2

Azimuth=238.9° WSW altitude= 49.6° in constellation Bootes

RA=15h00.8m Dec=+16°06'

Flare angle=8.64°

In a clock-face concept, the satellite will seem to move toward 7:37 Angular Velocity=29.6'/s

**Flare center line, closest point** →MapIt: Longitude=2.910°E Latitude=+42.819° (WGS84) **Distance=156.9 km** Azimuth=106.5° ESE Peak Magnitude=-1.5mag

Satellite above: longitude=3.9°W latitude=+40.6° height above Earth=627.9 km distance to satellite=799.3 km

Altitude of Sun=-0.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h46m29s

Flare from unknown Mirror **Magnitude= 4.4mag**



 COSMO-SkyMed 4

Azimuth=254.1° WSW altitude= 32.3° in constellation Bootes

RA=13h56.0m Dec=+11°21'

Flare angle=7.83°

In a clock-face concept, the satellite will seem to move toward 8:11 Angular Velocity=22.0'/s

**Flare center line, closest point →MapIt:** Longitude=1.226°W Latitude=+43.799° (WGS84) **Distance=194.9 km** Azimuth=289.6° WNW Peak Magnitude=-1.5mag

Satellite above: longitude=8.1°W latitude=+41.5° height above Earth=628.1 km distance to satellite=1067.4 km

Altitude of Sun=-4.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

23h11m40s

Flare from fixed mounted left looking ASCAT **Magnitude= 1.2mag**



Metop C

Azimuth=343.3° NNW altitude= 6.4° in constellation Ursa Major

RA= 9h51.9m Dec=+50°20'

Flare angle=3.75°

In a clock-face concept, the satellite will seem to move toward 5:32 Angular Velocity=4.5'/s

**Flare center line, closest point →MapIt:** Longitude=2.017°W Latitude=+48.622° (WGS84) **Distance=644.2 km** Azimuth=339.4° NNW Peak Magnitude=-3.3mag

Satellite above: longitude=11.7°W latitude=+62.2° height above Earth=829.4 km distance to satellite=2732.7 km

Altitude of Sun=-27.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Thursday, 3 September 2020

6h58m57s

Flare from SAR-Panel **Magnitude=-1.7mag**



COSMO-SkyMed 3

Azimuth= 71.5° ENE altitude= 65.8° in constellation Auriga

RA= 6h10.7m Dec=+46°01'

Flare angle=2.78°

In a clock-face concept, the satellite will seem to move toward 8:55 Angular Velocity=38.5'/s

**Flare center line, closest point →MapIt:** Longitude=1.484°E Latitude=+43.321°

(WGS84) **Distance=35.3 km** Azimuth= 74.0° ENE Peak Magnitude=-2.6mag  
 Satellite above: longitude=4.1°E latitude=+43.9° height above Earth=628.4 km  
 distance to satellite=682.7 km  
 Altitude of Sun=-5.0°  
 This is an experimental flare prediction. Brightness estimate may be unreliable.  
 Please report a successful observation (Object/site coordinates/date/measured  
 time/accuracy/magnitude).

20h46m28s

Flare from unknown Mirror **Magnitude= 4.4mag**

**COSMO-SkyMed 2**

Azimuth=253.6° WSW altitude= 32.1° in constellation Bootes

RA=14h00.7m Dec=+10°57'

Flare angle=7.82°

In a clock-face concept, the satellite will seem to move toward 8:10 Angular Velocity=21.9'/s

**Flare center line, closest point →MapIt:** Longitude=1.230°W Latitude=+43.798°  
 (WGS84) **Distance=195.1 km** Azimuth=289.5° WNW Peak Magnitude=-1.5mag

Satellite above: longitude=8.1°W latitude=+41.5° height above Earth=628.1 km  
 distance to satellite=1070.5 km

Altitude of Sun=-4.3°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
 Please report a successful observation (Object/site coordinates/date/measured  
 time/accuracy/magnitude).

22h44m22s

Flare from left forward looking ASCAT **Magnitude= 0.3mag**

**Metop C**

Azimuth=117.1° ESE altitude= 70.4° in constellation Cygnus

RA=21h05.2m Dec=+32°15'

Flare angle=5.36°

In a clock-face concept, the satellite will seem to move toward 10:25 Angular Velocity=29.2'/s

**Flare center line, closest point →MapIt:** Longitude=0.038°E Latitude=+43.023°  
 (WGS84) **Distance=86.5 km** Azimuth=254.6° WSW Peak Magnitude=-5.0mag

Satellite above: longitude=3.9°E latitude=+42.1° height above Earth=825.4 km  
 distance to satellite=869.8 km

Altitude of Sun=-23.7°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
 Please report a successful observation (Object/site coordinates/date/measured  
 time/accuracy/magnitude).

Flare from fixed mounted left looking ASCAT **Magnitude= 0.9mag**

22h48m00s

**Metop C**

Azimuth=352.4° N altitude= 25.2° in constellation Ursa Major

RA= 9h11.5m Dec=+70°53'

Flare angle=4.67°

In a clock-face concept, the satellite will seem to move toward 6:26 Angular Velocity=9.8'/s

**Flare center line, closest point →MapIt:** Longitude=2.740°E Latitude=+43.277° (WGS84) Distance=135.7 km Azimuth= 87.4° E Peak Magnitude=-3.7mag

Satellite above: longitude=1.7°W latitude=+55.1° height above Earth=828.0 km distance to satellite=1601.6 km

Altitude of Sun=-24.3°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Friday, 4 September 2020

6h52m56s

Flare from SAR-Panel Magnitude= 1.0mag

**COSMO-SkyMed 1**

Azimuth= 71.6° ENE altitude= 56.3° in constellation Auriga

RA= 7h01.3m Dec=+44°13'

Flare angle=11.38°

In a clock-face concept, the satellite will seem to move toward 8:57 Angular Velocity=35.5'/s

**Flare center line, closest point →MapIt:** Longitude=2.944°E Latitude=+43.591° (WGS84) Distance=156.8 km Azimuth= 74.7° ENE Peak Magnitude=-2.6mag

Satellite above: longitude=5.5°E latitude=+44.2° height above Earth=628.3 km distance to satellite=740.4 km

Altitude of Sun=-6.3°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h53m46s

Flare from unknown Mirror Magnitude= 0.5mag

**COSMO-SkyMed 1**

Azimuth= 29.6° NNE altitude= 46.8° in constellation Ursa Major

RA= 8h32.4m Dec=+68°56'

Flare angle=3.08°

In a clock-face concept, the satellite will seem to move toward 7:46 Angular Velocity=28.5'/s



**Flare center line, closest point →MapIt:** Longitude=0.397°E Latitude=+43.093°  
(WGS84) Distance=56.2 km Azimuth=254.1° WSW Peak Magnitude=-1.6mag

Satellite above: longitude=4.4°E latitude=+47.4° height above Earth=629.0 km  
distance to satellite=830.3 km

Altitude of Sun=-6.1°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

**20h39m31s** Flare from SAR-Panel **Magnitude= 3.1mag**



 COSMO-  
SkyMed 3

Azimuth=281.3° WNW altitude= 44.4° in constellation Canes Venatici

RA=13h43.5m Dec=+35°33'

Flare angle=17.08°

In a clock-face concept, the satellite will seem to move toward 8:49 Angular  
Velocity=30.5'/s

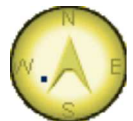
**Flare center line, closest point →MapIt:** Longitude=2.292°W Latitude=+43.972°  
(WGS84) Distance=282.2 km Azimuth=288.0° WNW Peak Magnitude=-2.5mag

Satellite above: longitude=5.7°W latitude=+44.2° height above Earth=628.6 km  
distance to satellite=859.4 km

Altitude of Sun=-3.4°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

**20h40m24s** Flare from unknown Mirror **Magnitude= 1.2mag**



 COSMO-  
SkyMed 3

Azimuth=250.2° WSW altitude= 37.1° in constellation Bootes

RA=14h20.9m Dec=+12°28'

Flare angle=3.61°

In a clock-face concept, the satellite will seem to move toward 8:03 Angular  
Velocity=24.2'/s

**Flare center line, closest point →MapIt:** Longitude=0.105°E Latitude=+43.455°  
(WGS84) Distance=81.3 km Azimuth=287.9° WNW Peak Magnitude=-1.5mag

Satellite above: longitude=6.7°W latitude=+41.1° height above Earth=628.0 km  
distance to satellite=970.8 km

Altitude of Sun=-3.6°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

**21h55m49s** Flare from left forward looking ASCAT **Magnitude=-2.8mag**



 **Metop A**

Azimuth=159.0° SSE altitude= 74.0° in constellation Cygnus

RA=19h23.4m Dec=+28°06'

Flare angle=2.27°

In a clock-face concept, the satellite will seem to move toward 11:47 Angular Velocity=29.5'/s

**Flare center line, closest point →MapIt:** Longitude=0.655°E Latitude=+43.168° (WGS84) **Distance=33.9 km** Azimuth=257.5° WSW Peak Magnitude=-5.1mag

Satellite above: longitude=2.0°E latitude=+41.5° height above Earth=825.2 km distance to satellite=854.2 km

Altitude of Sun=-16.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

**21h58m15s** Flare from fixed mounted left looking ASCAT **Magnitude= 1.7mag**



 **Metop A**

Azimuth=347.3° NNW altitude= 41.7° in constellation Camelopardalis

RA=12h40.4m Dec=+80°30'

Flare angle=6.12°

In a clock-face concept, the satellite will seem to move toward 6:04 Angular Velocity=16.7'/s

**Flare center line, closest point →MapIt:** Longitude=2.628°E Latitude=+43.367° (WGS84) **Distance=127.4 km** Azimuth= 82.8° E Peak Magnitude=-4.4mag

Satellite above: longitude=1.4°W latitude=+50.1° height above Earth=827.1 km distance to satellite=1164.0 km

Altitude of Sun=-16.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Saturday, 5 September 2020

**6h42m03s** Flare from unknown Mirror **Magnitude= 4.5mag**



 **COSMO-SkyMed 4**

Azimuth= 34.6° NE altitude= 34.9° in constellation Ursa Major

RA=10h07.3m Dec=+62°06'

Flare angle=8.16°

In a clock-face concept, the satellite will seem to move toward 8:07 Angular Velocity=23.2'/s

**Flare center line, closest point →MapIt:** Longitude=3.231°E Latitude=+43.746° (WGS84) **Distance=183.8 km** Azimuth= 71.2° ENE Peak Magnitude=-1.6mag

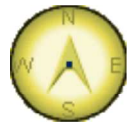
Satellite above: longitude=7.2°E latitude=+48.0° height above Earth=629.1 km distance to satellite=1012.5 km

Altitude of Sun=-8.4°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h10m54s

Flare from SAR-Panel **Magnitude= 2.4mag**



 COSMO-SkyMed 1

Azimuth= 65.0° ENE altitude= 88.3° in constellation Perseus

RA= 4h23.0m Dec=+43°57'

Flare angle=17.14°

In a clock-face concept, the satellite will seem to move toward 8:37 Angular Velocity=41.8'/s

**Flare center line, closest point →MapIt:** Longitude=1.272°W Latitude=+42.787° (WGS84) **Distance=196.2 km** Azimuth=256.1° WSW Peak Magnitude=-2.6mag

Satellite above: longitude=1.3°E latitude=+43.3° height above Earth=628.1 km distance to satellite=628.1 km

Altitude of Sun=-3.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h33m29s

Flare from SAR-Panel **Magnitude= 1.1mag**



 COSMO-SkyMed 1

Azimuth=279.2° W altitude= 51.6° in constellation Bootes

RA=14h16.5m Dec=+37°33'

Flare angle=11.22°

In a clock-face concept, the satellite will seem to move toward 8:46 Angular Velocity=33.6'/s

**Flare center line, closest point →MapIt:** Longitude=0.939°W Latitude=+43.659° (WGS84) **Distance=168.3 km** Azimuth=287.0° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=4.3°W latitude=+43.8° height above Earth=628.6 km distance to satellite=780.2 km

Altitude of Sun=-2.3°

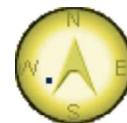
This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured



time/accuracy/magnitude).

20h34m17s

Flare from unknown Mirror **Magnitude=-0.3mag**



 COSMO-SkyMed 1

Azimuth=245.1° WSW altitude= 42.7° in constellation Bootes

RA=14h46.4m Dec=+13°49'

Flare angle=1.74°

In a clock-face concept, the satellite will seem to move toward 7:52 Angular Velocity=26.6'/s

**Flare center line, closest point →MapIt:** Longitude=1.477°E Latitude=+43.136° (WGS84) **Distance=35.2 km** Azimuth=107.8° ESE Peak Magnitude=-1.5mag

Satellite above: longitude=5.3°W latitude=+40.7° height above Earth=627.9 km distance to satellite=881.8 km

Altitude of Sun=-2.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h53m29s

Flare from fixed mounted left looking ASCAT **Magnitude=-3.0mag**



 Metop B

Azimuth=347.7° NNW altitude= 24.6° in constellation Ursa Major

RA=10h09.2m Dec=+68°49'

Flare angle=0.73°

In a clock-face concept, the satellite will seem to move toward 6:06 Angular Velocity=9.5'/s

**Flare center line, closest point →MapIt:** Longitude=0.795°E Latitude=+43.226° (WGS84) **Distance=21.7 km** Azimuth=267.5° W Peak Magnitude=-3.7mag

Satellite above: longitude=3.2°W latitude=+54.5° height above Earth=828.3 km distance to satellite=1623.1 km

Altitude of Sun=-25.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Sunday, 6 September 2020

6h58m56s

Flare from SAR-Panel **Magnitude=-1.6mag**



 COSMO-SkyMed 4

Azimuth= 74.0° ENE altitude= 65.8° in constellation Auriga

RA= 6h21.7m Dec=+44°59'

Flare angle=3.43°

In a clock-face concept, the satellite will seem to move toward 9:00 Angular Velocity=38.5'/s

**Flare center line, closest point** →MapIt: Longitude=1.580°E Latitude=+43.340° (WGS84) **Distance=43.4 km** Azimuth= 74.1° ENE Peak Magnitude=-2.6mag

Satellite above: longitude=4.1°E latitude=+43.8° height above Earth=628.1 km distance to satellite=682.3 km

Altitude of Sun=-5.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h21m31s

Flare from SAR-Panel **Magnitude=-1.1mag**



 COSMO-SkyMed 4

Azimuth=270.6° W altitude= 69.9° in constellation Bootes

RA=15h44.0m Dec=+40°15'

Flare angle=4.94°

In a clock-face concept, the satellite will seem to move toward 8:32 Angular Velocity=39.4'/s

**Flare center line, closest point** →MapIt: Longitude=1.816°E Latitude=+43.095° (WGS84) **Distance=62.9 km** Azimuth=103.9° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=1.5°W latitude=+43.2° height above Earth=628.6 km distance to satellite=665.1 km

Altitude of Sun=-0.3°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Monday, 7 September 2020

6h58m52s

Flare from SAR-Panel **Magnitude=-1.5mag**



 COSMO-SkyMed 2

Azimuth= 74.9° ENE altitude= 65.7° in constellation Auriga

RA= 6h25.8m Dec=+44°37'

Flare angle=3.73°

In a clock-face concept, the satellite will seem to move toward 9:01 Angular Velocity=38.5'/s

**Flare center line, closest point →MapIt:** Longitude=1.625°E Latitude=+43.349° (WGS84) **Distance=47.2 km** Azimuth= 74.2° ENE Peak Magnitude=-2.6mag

Satellite above: longitude=4.1°E latitude=+43.8° height above Earth=628.1 km distance to satellite=682.7 km

Altitude of Sun=-5.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h21m28s

Flare from SAR-Panel **Magnitude=-1.2mag**



 COSMO-SkyMed 2

Azimuth=269.9° W altitude= 70.0° in constellation Bootes

RA=15h48.5m Dec=+40°02'

Flare angle=4.70°

In a clock-face concept, the satellite will seem to move toward 8:31 Angular Velocity=39.4'/s

**Flare center line, closest point →MapIt:** Longitude=1.774°E Latitude=+43.096° (WGS84) **Distance=59.6 km** Azimuth=104.7° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=1.5°W latitude=+43.2° height above Earth=628.7 km distance to satellite=664.9 km

Altitude of Sun=-0.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h40m27s

Flare from unknown Mirror **Magnitude= 1.3mag**



 COSMO-SkyMed 4

Azimuth=248.8° WSW altitude= 36.4° in constellation Bootes

RA=14h34.4m Dec=+11°13'

Flare angle=3.73°

In a clock-face concept, the satellite will seem to move toward 8:01 Angular Velocity=23.6'/s

**Flare center line, closest point →MapIt:** Longitude=0.063°E Latitude=+43.471° (WGS84) **Distance=85.0 km** Azimuth=288.4° WNW Peak Magnitude=-1.4mag

Satellite above: longitude=6.8°W latitude=+40.9° height above Earth=628.2 km distance to satellite=982.6 km

Altitude of Sun=-4.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

23h08m19s Flare from fixed mounted left looking ASCAT Magnitude= 2.1mag



 Metop C

Azimuth=344.4° NNW altitude= 5.8° in constellation Ursa Major

RA=10h00.7m Dec=+50°05'

Flare angle=4.64°

In a clock-face concept, the satellite will seem to move toward 5:39 Angular Velocity=4.4'/s

**Flare center line, closest point →MapIt:** Longitude=2.186°W Latitude=+49.813° (WGS84) Distance=771.9 km Azimuth=342.4° NNW Peak Magnitude=-3.4mag

Satellite above: longitude=11.3°W latitude=+62.8° height above Earth=829.1 km distance to satellite=2788.4 km

Altitude of Sun=-28.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Tuesday, 8 September 2020

6h52m55s Flare from SAR-Panel Magnitude= 1.3mag



 COSMO-SkyMed 3

Azimuth= 74.3° ENE altitude= 56.4° in constellation Auriga

RA= 7h14.4m Dec=+42°49'

Flare angle=12.20°

In a clock-face concept, the satellite will seem to move toward 9:02 Angular Velocity=35.5'/s

**Flare center line, closest point →MapIt:** Longitude=3.046°E Latitude=+43.654° (WGS84) Distance=166.6 km Azimuth= 73.0° ENE Peak Magnitude=-2.6mag

Satellite above: longitude=5.5°E latitude=+44.1° height above Earth=628.3 km distance to satellite=739.8 km

Altitude of Sun=-7.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h53m47s Flare from unknown Mirror Magnitude=-0.5mag



 COSMO-SkyMed 3

Azimuth= 29.8° NNE altitude= 47.1° in constellation Ursa Major

RA= 8h45.8m Dec=+68°45'

Flare angle=1.62°

In a clock-face concept, the satellite will seem to move toward 7:47 Angular Velocity=28.6'/s

**Flare center line, closest point →MapIt:** Longitude=0.725°E Latitude=+43.154° (WGS84) **Distance=28.8 km** Azimuth=252.2° WSW Peak Magnitude=-1.6mag

Satellite above: longitude=4.4°E latitude=+47.3° height above Earth=629.0 km distance to satellite=827.9 km

Altitude of Sun=-6.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h40m26s

Flare from unknown Mirror **Magnitude= 1.3mag**



 COSMO-SkyMed 2

Azimuth=248.3° WSW altitude= 36.3° in constellation Bootes

RA=14h39.0m Dec=+10°49'

Flare angle=3.74°

In a clock-face concept, the satellite will seem to move toward 8:00 Angular Velocity=23.5'/s

**Flare center line, closest point →MapIt:** Longitude=0.059°E Latitude=+43.470° (WGS84) **Distance=85.3 km** Azimuth=288.2° WNW Peak Magnitude=-1.4mag

Satellite above: longitude=6.8°W latitude=+40.9° height above Earth=628.3 km distance to satellite=985.8 km

Altitude of Sun=-4.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h40m50s

Flare from left forward looking ASCAT **Magnitude=-2.9mag**



 Metop C

Azimuth=110.3° ESE altitude= 66.0° in constellation Cygnus

RA=21h45.0m Dec=+31°29'

Flare angle=2.10°

In a clock-face concept, the satellite will seem to move toward 10:11 Angular Velocity=28.3'/s

**Flare center line, closest point →MapIt:** Longitude=0.704°E Latitude=+43.168° (WGS84) **Distance=30.1 km** Azimuth=256.0° WSW Peak Magnitude=-5.0mag

Satellite above: longitude=4.8°E latitude=+42.0° height above Earth=824.9 km distance to satellite=893.0 km

Altitude of Sun=-24.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured

time/accuracy/magnitude).

22h44m26s

Flare from fixed mounted left looking ASCAT **Magnitude= 1.8mag**



 **Metop C**

Azimuth=355.0° N altitude= 25.6° in constellation Ursa Major

RA= 9h00.4m Dec=+71°54'

Flare angle=5.50°

In a clock-face concept, the satellite will seem to move toward 6:36 Angular Velocity=10.1'/s

**Flare center line, closest point →MapIt:** Longitude=2.925°E Latitude=+43.345° (WGS84) Distance=151.0 km Azimuth= 84.7° E Peak Magnitude=-3.8mag

Satellite above: longitude=0.6°W latitude=+54.5° height above Earth=827.4 km distance to satellite=1584.9 km

Altitude of Sun=-25.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Wednesday, 9 September 2020

6h47m49s

Flare from unknown Mirror **Magnitude= 2.0mag**



 **COSMO-SkyMed 1**

Azimuth= 33.5° NNE altitude= 40.6° in constellation Ursa Major

RA= 9h44.6m Dec=+65°08'

Flare angle=4.93°

In a clock-face concept, the satellite will seem to move toward 8:00 Angular Velocity=25.9'/s

**Flare center line, closest point →MapIt:** Longitude=2.202°E Latitude=+43.512° (WGS84) Distance=97.0 km Azimuth= 71.1° ENE Peak Magnitude=-1.6mag

Satellite above: longitude=5.8°E latitude=+47.6° height above Earth=629.0 km distance to satellite=913.0 km

Altitude of Sun=-8.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h10m55s

Flare from SAR-Panel **Magnitude= 2.2mag**



 **COSMO-SkyMed 3**

Azimuth=110.5° ESE altitude= 88.1° in constellation Perseus

RA= 4h39.9m Dec=+42°32'

Flare angle=16.39°

In a clock-face concept, the satellite will seem to move toward 10:08 Angular Velocity=41.8'/s

**Flare center line, closest point →MapIt:** Longitude=1.162°W Latitude=+42.814° (WGS84) Distance=186.7 km Azimuth=256.3° WSW Peak Magnitude=-2.6mag

Satellite above: longitude=1.3°E latitude=+43.2° height above Earth=628.1 km distance to satellite=628.1 km

Altitude of Sun=-4.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h33m34s

Flare from SAR-Panel Magnitude= 1.5mag



 COSMO-SkyMed 3

Azimuth=277.7° W altitude= 51.4° in constellation Bootes

RA=14h33.5m Dec=+36°36'

Flare angle=12.57°

In a clock-face concept, the satellite will seem to move toward 8:44 Angular Velocity=33.4'/s

**Flare center line, closest point →MapIt:** Longitude=1.161°W Latitude=+43.701° (WGS84) Distance=186.7 km Azimuth=286.9° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=4.4°W latitude=+43.7° height above Earth=628.8 km distance to satellite=782.3 km

Altitude of Sun=-4.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h34m24s

Flare from unknown Mirror Magnitude=-0.5mag



 COSMO-SkyMed 3

Azimuth=243.3° WSW altitude= 41.7° in constellation Bootes

RA=15h03.5m Dec=+12°09'

Flare angle=1.42°

In a clock-face concept, the satellite will seem to move toward 7:49 Angular Velocity=25.8'/s

**Flare center line, closest point →MapIt:** Longitude=1.405°E Latitude=+43.148° (WGS84) Distance=29.2 km Azimuth=109.0° ESE Peak Magnitude=-1.4mag

Satellite above: longitude=5.4°W latitude=+40.5° height above Earth=628.1 km distance to satellite=896.6 km

Altitude of Sun=-4.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

21h52m18s

Flare from left forward looking ASCAT Magnitude=-3.8mag



Metop A

Azimuth=145.9° SE altitude= 70.6° in constellation Vulpecula

RA=20h01.9m Dec=+26°30'

Flare angle=1.27°

In a clock-face concept, the satellite will seem to move toward 11:21 Angular Velocity=28.7'/s



**Flare center line, closest point →MapIt:** Longitude=1.296°E Latitude=+43.274° (WGS84) Distance=19.3 km Azimuth= 76.6° ENE Peak Magnitude=-5.1mag

Satellite above: longitude=2.8°E latitude=+41.3° height above Earth=825.1 km distance to satellite=868.2 km

Altitude of Sun=-17.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

21h54m46s

Flare from fixed mounted left looking ASCAT Magnitude= 3.1mag



Metop A

Azimuth=351.4° N altitude= 42.7° in constellation Camelopardalis

RA=13h09.5m Dec=+83°40'

Flare angle=7.58°

In a clock-face concept, the satellite will seem to move toward 6:16 Angular Velocity=17.2'/s



**Flare center line, closest point →MapIt:** Longitude=2.932°E Latitude=+43.404° (WGS84) Distance=152.2 km Azimuth= 82.2° E Peak Magnitude=-4.4mag

Satellite above: longitude=0.5°W latitude=+49.8° height above Earth=827.0 km distance to satellite=1146.0 km

Altitude of Sun=-18.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Thursday, 10 September 2020

Flare from SAR-Panel Magnitude=-1.1mag





Azimuth= 81.1° E altitude= 76.4° in constellation Auriga

RA= 5h43.1m Dec=+43°49'

Flare angle=5.30°

In a clock-face concept, the satellite will seem to move toward 9:11 Angular Velocity=40.8'/s



**Flare center line, closest point →MapIt:** Longitude=0.314°E Latitude=+43.095° (WGS84) Distance=62.7 km Azimuth=255.9° WSW Peak Magnitude=-2.6mag

Satellite above: longitude=2.7°E latitude=+43.4° height above Earth=628.0 km distance to satellite=644.2 km

Altitude of Sun=-5.4°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h27m27s

Flare from SAR-Panel Magnitude=-0.9mag



Azimuth=274.3° W altitude= 60.0° in constellation Bootes

RA=15h15.0m Dec=+38°21'

Flare angle=5.23°

In a clock-face concept, the satellite will seem to move toward 8:38 Angular Velocity=36.6'/s



**Flare center line, closest point →MapIt:** Longitude=0.215°E Latitude=+43.399° (WGS84) Distance=71.0 km Azimuth=285.2° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=2.9°W latitude=+43.4° height above Earth=628.7 km distance to satellite=714.9 km

Altitude of Sun=-3.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h28m14s

Flare from unknown Mirror Magnitude= 3.9mag



Azimuth=235.2° SW altitude= 47.4° in constellation Serpens Caput

RA=15h34.5m Dec=+12°52'

Flare angle=7.95°

In a clock-face concept, the satellite will seem to move toward 7:31 Angular Velocity=28.0'/s



**Flare center line, closest point →MapIt:** Longitude=2.803°E Latitude=+42.838° (WGS84) Distance=148.0 km Azimuth=106.7° ESE Peak Magnitude=-1.4mag

Satellite above: longitude=4.0°W latitude=+40.1° height above Earth=628.1 km distance to satellite=822.9 km

Altitude of Sun=-3.3°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h49m43s

Flare from fixed mounted left looking ASCAT Magnitude=-3.7mag



 Metop B

Azimuth=350.5° N altitude= 27.1° in constellation Ursa Major

RA=10h10.1m Dec=+72°05'

Flare angle=0.11°

In a clock-face concept, the satellite will seem to move toward 6:17 Angular Velocity=10.4'/s

**Flare center line, closest point →MapIt:** Longitude=1.028°E Latitude=+43.232° (WGS84) Distance=2.9 km Azimuth=265.5° W Peak Magnitude=-3.8mag

Satellite above: longitude=2.0°W latitude=+54.0° height above Earth=828.0 km distance to satellite=1533.0 km

Altitude of Sun=-27.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Friday, 11 September 2020

6h52m52s

Flare from SAR-Panel Magnitude= 1.5mag



 COSMO-SkyMed 4

Azimuth= 76.3° ENE altitude= 56.3° in constellation Auriga

RA= 7h24.6m Dec=+41°43'

Flare angle=12.88°

In a clock-face concept, the satellite will seem to move toward 9:06 Angular Velocity=35.5'/s

**Flare center line, closest point →MapIt:** Longitude=3.153°E Latitude=+43.655° (WGS84) Distance=174.9 km Azimuth= 73.8° ENE Peak Magnitude=-2.6mag

Satellite above: longitude=5.6°E latitude=+43.9° height above Earth=628.1 km distance to satellite=740.0 km

Altitude of Sun=-7.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

**6h53m46s** Flare from unknown Mirror **Magnitude=-1.4mag**



 **COSMO-SkyMed 4**

Azimuth= 30.1° NNE altitude= 47.2° in constellation Ursa Major

RA= 8h56.4m Dec=+68°34'

Flare angle=0.45°

In a clock-face concept, the satellite will seem to move toward 7:47 Angular Velocity=28.7'/s

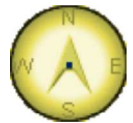
**Flare center line, closest point** →MapIt: Longitude=0.972°E Latitude=+43.212° (WGS84) **Distance=7.8 km** Azimuth=251.6° WSW Peak Magnitude=-1.7mag

Satellite above: longitude=4.4°E latitude=+47.2° height above Earth=628.8 km distance to satellite=826.4 km

Altitude of Sun=-7.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

**20h15m31s** Flare from SAR-Panel **Magnitude= 1.4mag**



 **COSMO-SkyMed 4**

Azimuth=246.9° WSW altitude= 79.8° in constellation Hercules

RA=16h56.5m Dec=+38°34'

Flare angle=13.52°

In a clock-face concept, the satellite will seem to move toward 7:46 Angular Velocity=41.0'/s

**Flare center line, closest point** →MapIt: Longitude=2.982°E Latitude=+42.871° (WGS84) **Distance=160.9 km** Azimuth=103.9° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=0.1°W latitude=+42.8° height above Earth=628.9 km distance to satellite=637.8 km

Altitude of Sun=-0.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Saturday, 12 September 2020

**6h52m50s** Flare from SAR-Panel **Magnitude= 1.6mag**



 **COSMO-SkyMed 2**

Azimuth= 77.0° ENE altitude= 56.2° in constellation Auriga

RA= 7h28.3m Dec=+41°20'

Flare angle=13.15°

In a clock-face concept, the satellite will seem to move toward 9:07 Angular Velocity=35.4'/s

**Flare center line, closest point →MapIt:** Longitude=3.197°E Latitude=+43.663° (WGS84) Distance=178.5 km Azimuth= 73.8° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=5.6°E latitude=+43.9° height above Earth=628.1 km distance to satellite=740.7 km

Altitude of Sun=-7.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h53m43s

Flare from unknown Mirror **Magnitude=-1.7mag**



 COSMO-SkyMed 2

Azimuth= 30.2° NNE altitude= 47.2° in constellation Ursa Major

RA= 9h00.4m Dec=+68°29'

Flare angle=0.01°

In a clock-face concept, the satellite will seem to move toward 7:47 Angular Velocity=28.8'/s

**Flare center line, closest point →MapIt:** Longitude=1.061°E Latitude=+43.234° (WGS84) Distance=0.2 km Azimuth=252.9° WSW Peak Magnitude=-1.7mag

Satellite above: longitude=4.5°E latitude=+47.2° height above Earth=628.8 km distance to satellite=826.5 km

Altitude of Sun=-7.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h10m52s

Flare from SAR-Panel **Magnitude= 2.0mag**



 COSMO-SkyMed 4

Azimuth=129.4° SE altitude= 87.3° in constellation Auriga

RA= 4h53.0m Dec=+41°28'

Flare angle=15.70°

In a clock-face concept, the satellite will seem to move toward 10:46 Angular Velocity=41.8'/s

**Flare center line, closest point →MapIt:** Longitude=1.065°W Latitude=+42.836° (WGS84) Distance=178.5 km Azimuth=256.4° WSW Peak Magnitude=-2.6mag

Satellite above: longitude=1.3°E latitude=+43.1° height above Earth=627.9 km distance to satellite=628.2 km

Altitude of Sun=-4.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured

time/accuracy/magnitude).

20h15m30s

Flare from SAR-Panel **Magnitude= 1.3mag**



 COSMO-SkyMed 2

Azimuth=245.6° WSW altitude= 79.7° in constellation Hercules

RA=17h00.7m Dec=+38°21'

Flare angle=13.26°

In a clock-face concept, the satellite will seem to move toward 7:43 Angular Velocity=41.0'/s

**Flare center line, closest point →MapIt:** Longitude=2.941°E Latitude=+42.880° (WGS84) **Distance=157.4 km** Azimuth=103.8° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=0.1°W latitude=+42.8° height above Earth=628.9 km distance to satellite=637.9 km

Altitude of Sun=-0.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h33m34s

Flare from SAR-Panel **Magnitude= 1.8mag**



 COSMO-SkyMed 4

Azimuth=276.5° W altitude= 51.3° in constellation Bootes

RA=14h46.7m Dec=+35°54'

Flare angle=13.52°

In a clock-face concept, the satellite will seem to move toward 8:42 Angular Velocity=33.3'/s

**Flare center line, closest point →MapIt:** Longitude=1.311°W Latitude=+43.729° (WGS84) **Distance=199.2 km** Azimuth=286.8° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=4.4°W latitude=+43.7° height above Earth=629.1 km distance to satellite=783.4 km

Altitude of Sun=-5.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h34m26s

Flare from unknown Mirror **Magnitude=-0.6mag**



 COSMO-SkyMed 4

Azimuth=241.9° WSW altitude= 40.9° in constellation Serpens Caput

RA=15h16.7m Dec=+10°54'

Flare angle=1.25°

In a clock-face concept, the satellite will seem to move toward 7:47 Angular Velocity=25.2'/s

**Flare center line, closest point →MapIt:** Longitude=1.370°E Latitude=+43.162°  
(WGS84) Distance=26.1 km Azimuth=107.7° ESE Peak Magnitude=-1.4mag  
Satellite above: longitude=5.5°W latitude=+40.3° height above Earth=628.4 km  
distance to satellite=907.8 km  
Altitude of Sun=-5.1°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

23h05m06s

Flare from fixed mounted left looking ASCAT Magnitude= 3.0mag



Azimuth=345.5° NNW altitude= 4.6° in constellation Ursa Major  
RA=10h08.8m Dec=+49°17'

Flare angle=5.46°

In a clock-face concept, the satellite will seem to move toward 5:46 Angular  
Velocity=4.1'/s

**Flare center line, closest point →MapIt:** Longitude=2.336°W Latitude=+51.271°  
(WGS84) Distance=928.8 km Azimuth=345.2° NNW Peak Magnitude=-3.5mag  
Satellite above: longitude=11.4°W latitude=+63.9° height above Earth=829.0 km  
distance to satellite=2898.2 km  
Altitude of Sun=-29.8°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

## Sunday, 13 September 2020

6h47m54s

Flare from unknown Mirror Magnitude= 3.0mag



Azimuth= 33.6° NNE altitude= 40.8° in constellation Ursa Major  
RA= 9h58.4m Dec=+65°05'

Flare angle=6.38°

In a clock-face concept, the satellite will seem to move toward 8:00 Angular  
Velocity=26.0'/s

**Flare center line, closest point →MapIt:** Longitude=2.506°E Latitude=+43.576°  
(WGS84) Distance=122.5 km Azimuth= 71.5° ENE Peak Magnitude=-1.7mag  
Satellite above: longitude=5.9°E latitude=+47.5° height above Earth=629.0 km  
distance to satellite=910.3 km  
Altitude of Sun=-9.0°

This is an experimental flare prediction. Brightness estimate may be unreliable.

Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h10m49s

Flare from SAR-Panel **Magnitude= 1.9mag**



 COSMO-SkyMed 2

Azimuth=132.2° SE altitude= 86.9° in constellation Auriga

RA= 4h57.8m Dec=+41°08'

Flare angle=15.41°

In a clock-face concept, the satellite will seem to move toward 10:52 Angular Velocity=41.8'/s

**Flare center line, closest point →MapIt:** Longitude=1.024°W Latitude=+42.845° (WGS84) **Distance=175.0 km** Azimuth=256.4° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=1.3°E latitude=+43.0° height above Earth=627.9 km distance to satellite=628.4 km

Altitude of Sun=-4.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h33m32s

Flare from SAR-Panel **Magnitude= 1.9mag**



 COSMO-SkyMed 2

Azimuth=276.1° W altitude= 51.4° in constellation Bootes

RA=14h51.2m Dec=+35°41'

Flare angle=13.80°

In a clock-face concept, the satellite will seem to move toward 8:41 Angular Velocity=33.3'/s

**Flare center line, closest point →MapIt:** Longitude=1.354°W Latitude=+43.736° (WGS84) **Distance=202.7 km** Azimuth=286.8° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=4.4°W latitude=+43.7° height above Earth=629.1 km distance to satellite=783.3 km

Altitude of Sun=-5.3°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h34m25s

Flare from unknown Mirror **Magnitude=-0.6mag**



 COSMO-SkyMed 2

Azimuth=241.4° WSW altitude= 40.7° in constellation Serpens Caput

RA=15h21.2m Dec=+10°29'

Flare angle=1.23°

In a clock-face concept, the satellite will seem to move toward 7:46 Angular Velocity=25.0'/s

**Flare center line, closest point →MapIt:** Longitude=1.365°E Latitude=+43.162°  
(WGS84) Distance=25.7 km Azimuth=108.0° ESE Peak Magnitude=-1.4mag

Satellite above: longitude=5.5°W latitude=+40.2° height above Earth=628.4 km  
distance to satellite=911.2 km

Altitude of Sun=-5.5°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

22h40m54s

Flare from fixed mounted left looking ASCAT Magnitude= 2.7mag



Metop C

Azimuth=357.6° N altitude= 25.6° in constellation Ursa Major

RA= 8h47.3m Dec=+72°15'

Flare angle=6.41°

In a clock-face concept, the satellite will seem to move toward 6:46 Angular  
Velocity=10.3'/s

**Flare center line, closest point →MapIt:** Longitude=3.174°E Latitude=+43.397°  
(WGS84) Distance=171.6 km Azimuth= 83.2° E Peak Magnitude=-3.8mag

Satellite above: longitude=0.6°E latitude=+54.0° height above Earth=827.0 km  
distance to satellite=1584.2 km

Altitude of Sun=-26.7°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

## Monday, 14 September 2020

7h04m53s

Flare from SAR-Panel Magnitude=-1.3mag



COSMO-  
SkyMed 3

Azimuth= 87.3° E altitude= 76.4° in constellation Auriga

RA= 5h58.0m Dec=+42°22'

Flare angle=4.63°

In a clock-face concept, the satellite will seem to move toward 9:24 Angular  
Velocity=40.7'/s

**Flare center line, closest point →MapIt:** Longitude=0.414°E Latitude=+43.108°  
(WGS84) Distance=54.5 km Azimuth=255.4° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=2.8°E latitude=+43.3° height above Earth=628.1 km  
distance to satellite=644.3 km



Altitude of Sun=-6.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h27m36s

Flare from SAR-Panel Magnitude=-0.4mag



 COSMO-SkyMed 3

Azimuth=272.5° W altitude= 59.7° in constellation Corona Borealis

RA=15h30.9m Dec=+37°23'

Flare angle=6.73°

In a clock-face concept, the satellite will seem to move toward 8:35 Angular Velocity=36.4'/s

**Flare center line, closest point →MapIt:** Longitude=0.017°W Latitude=+43.451° (WGS84) Distance=90.5 km Azimuth=285.8° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=3.0°W latitude=+43.3° height above Earth=629.0 km distance to satellite=717.6 km

Altitude of Sun=-4.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h28m25s

Flare from unknown Mirror Magnitude= 3.6mag



 COSMO-SkyMed 3

Azimuth=233.7° SW altitude= 46.1° in constellation Serpens Caput

RA=15h50.6m Dec=+11°12'

Flare angle=7.43°

In a clock-face concept, the satellite will seem to move toward 7:28 Angular Velocity=27.1'/s

**Flare center line, closest point →MapIt:** Longitude=2.743°E Latitude=+42.907° (WGS84) Distance=141.1 km Azimuth=104.4° ESE Peak Magnitude=-1.4mag

Satellite above: longitude=4.1°W latitude=+39.9° height above Earth=628.3 km distance to satellite=838.3 km

Altitude of Sun=-4.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

21h48m47s

Flare from left forward looking ASCAT Magnitude=-0.4mag



 Metop A

Azimuth=137.4° SE altitude= 66.5° in constellation Vulpecula

RA=20h39.1m Dec=+24°29'

Flare angle=4.63°

In a clock-face concept, the satellite will seem to move toward 11:04 Angular Velocity=27.7'/s

**Flare center line, closest point →MapIt:** Longitude=1.930°E Latitude=+43.387° (WGS84) **Distance=72.1 km** Azimuth= 76.1° ENE Peak Magnitude=-5.0mag

Satellite above: longitude=3.6°E latitude=+41.2° height above Earth=825.0 km distance to satellite=889.9 km

Altitude of Sun=-18.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Tuesday, 15 September 2020

6h58m41s

Flare from SAR-Panel **Magnitude=-0.9mag**



 COSMO-SkyMed 1

Azimuth= 81.9° E altitude= 65.3° in constellation Auriga

RA= 6h55.8m Dec=+41°43'

Flare angle=5.61°

In a clock-face concept, the satellite will seem to move toward 9:14 Angular Velocity=38.3'/s

**Flare center line, closest point →MapIt:** Longitude=1.902°E Latitude=+43.402° (WGS84) **Distance=70.3 km** Azimuth= 74.3° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=4.2°E latitude=+43.5° height above Earth=628.0 km distance to satellite=684.3 km

Altitude of Sun=-7.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h59m32s

Flare from unknown Mirror **Magnitude= 2.5mag**



 COSMO-SkyMed 1

Azimuth= 23.4° NNE altitude= 53.8° in constellation Camelopardalis

RA= 7h51.1m Dec=+71°24'

Flare angle=6.16°

In a clock-face concept, the satellite will seem to move toward 7:28 Angular Velocity=31.3'/s

**Flare center line, closest point →MapIt:** Longitude=0.075°W Latitude=+42.989° (WGS84) **Distance=96.3 km** Azimuth=254.0° WSW Peak Magnitude=-1.7mag

Satellite above: longitude=3.1°E latitude=+46.8° height above Earth=628.7 km  
distance to satellite=760.8 km

Altitude of Sun=-7.3°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

20h21m24s

Flare from SAR-Panel Magnitude=-2.0mag



 COSMO-SkyMed 1

Azimuth=264.8° W altitude= 69.6° in constellation Corona Borealis

RA=16h21.5m Dec=+38°15'

Flare angle=2.21°

In a clock-face concept, the satellite will seem to move toward 8:21 Angular  
Velocity=39.2'/s

**Flare center line, closest point →MapIt:** Longitude=1.392°E Latitude=+43.170°  
(WGS84) Distance=27.5 km Azimuth=104.8° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=1.5°W latitude=+43.0° height above Earth=628.9 km  
distance to satellite=666.6 km

Altitude of Sun=-3.8°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

22h46m01s

Flare from fixed mounted left looking ASCAT Magnitude=-3.1mag



 Metop B

Azimuth=353.6° N altitude= 28.9° in constellation Draco

RA= 9h58.6m Dec=+74°45'

Flare angle=0.80°

In a clock-face concept, the satellite will seem to move toward 6:29 Angular  
Velocity=11.3'/s

**Flare center line, closest point →MapIt:** Longitude=1.316°E Latitude=+43.254°  
(WGS84) Distance=20.5 km Azimuth= 83.7° E Peak Magnitude=-3.9mag

Satellite above: longitude=0.9°W latitude=+53.5° height above Earth=827.7 km  
distance to satellite=1473.3 km

Altitude of Sun=-28.2°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

## Wednesday, 16 September 2020

6h47m51s

Flare from unknown Mirror Magnitude= 3.9mag


 COSMO-SkyMed 4

Azimuth= 33.8° NE altitude= 40.8° in constellation Ursa Major

RA=10h09.7m Dec=+64°59'

Flare angle=7.60°

In a clock-face concept, the satellite will seem to move toward 8:00 Angular Velocity=26.0'/s

**Flare center line, closest point →MapIt:** Longitude=2.749°E Latitude=+43.634° (WGS84) Distance=143.0 km Azimuth= 71.3° ENE Peak Magnitude=-1.7mag

Satellite above: longitude=5.9°E latitude=+47.4° height above Earth=628.9 km distance to satellite=909.8 km

Altitude of Sun=-9.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h40m28s

Flare from unknown Mirror Magnitude= 1.6mag


 COSMO-SkyMed 1

Azimuth=244.4° WSW altitude= 34.5° in constellation Serpens Caput

RA=15h15.1m Dec= +7°23'

Flare angle=3.94°

In a clock-face concept, the satellite will seem to move toward 7:55 Angular Velocity=22.0'/s

**Flare center line, closest point →MapIt:** Longitude=0.034°W Latitude=+43.481° (WGS84) Distance=92.8 km Azimuth=287.5° WNW Peak Magnitude=-1.4mag

Satellite above: longitude=6.9°W latitude=+40.4° height above Earth=628.5 km distance to satellite=1020.3 km

Altitude of Sun=-7.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 1.1 seconds

## Thursday, 17 September 2020

Flare from unknown Mirror Magnitude= 4.2mag

 COSMO-SkyMed 2

Azimuth= 33.8° NE altitude= 40.8° in constellation Ursa Major

RA=10h13.5m Dec=+64°56'

Flare angle=8.02°

In a clock-face concept, the satellite will seem to move toward 8:00 Angular Velocity=26.0'/s



**Flare center line, closest point →MapIt:** Longitude=2.823°E Latitude=+43.675° (WGS84) Distance=150.1 km Azimuth= 70.4° ENE Peak Magnitude=-1.7mag

Satellite above: longitude=5.9°E latitude=+47.4° height above Earth=628.9 km distance to satellite=909.9 km

Altitude of Sun=-9.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h04m48s

Flare from SAR-Panel Magnitude=-1.5mag

 COSMO-SkyMed 4

Azimuth= 91.6° E altitude= 76.0° in constellation Auriga

RA= 6h10.3m Dec=+41°17'

Flare angle=3.90°

In a clock-face concept, the satellite will seem to move toward 9:32 Angular Velocity=40.6'/s



**Flare center line, closest point →MapIt:** Longitude=0.517°E Latitude=+43.130° (WGS84) Distance=45.8 km Azimuth=255.5° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=2.8°E latitude=+43.2° height above Earth=627.9 km distance to satellite=645.0 km

Altitude of Sun=-6.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h27m34s

Flare from SAR-Panel Magnitude=-0.2mag

 COSMO-SkyMed 4

Azimuth=271.0° W altitude= 59.6° in constellation Corona Borealis

RA=15h43.8m Dec=+36°41'

Flare angle=7.65°

In a clock-face concept, the satellite will seem to move toward 8:33 Angular Velocity=36.3'/s



**Flare center line, closest point →MapIt:** Longitude=0.158°W Latitude=+43.477° (WGS84) Distance=102.3 km Azimuth=285.7° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=3.0°W latitude=+43.3° height above Earth=629.3 km

distance to satellite=718.5 km

Altitude of Sun=-5.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h28m25s

Flare from unknown Mirror **Magnitude= 3.5mag**



 COSMO-SkyMed 4

Azimuth=232.3° SW altitude= 45.2° in constellation Serpens Caput

RA=16h03.4m Dec= +9°56'

Flare angle=7.22°

In a clock-face concept, the satellite will seem to move toward 7:26 Angular Velocity=26.4'/s

**Flare center line, closest point** →MapIt: Longitude=2.707°E Latitude=+42.890° (WGS84) **Distance=138.8 km** Azimuth=105.4° ESE Peak Magnitude=-1.4mag

Satellite above: longitude=4.1°W latitude=+39.7° height above Earth=628.6 km distance to satellite=849.3 km

Altitude of Sun=-5.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Friday, 18 September 2020

7h04m47s

Flare from SAR-Panel **Magnitude=-1.6mag**



 COSMO-SkyMed 2

Azimuth= 93.0° E altitude= 75.9° in constellation Auriga

RA= 6h14.6m Dec=+40°55'

Flare angle=3.64°

In a clock-face concept, the satellite will seem to move toward 9:35 Angular Velocity=40.6'/s

**Flare center line, closest point** →MapIt: Longitude=0.555°E Latitude=+43.134° (WGS84) **Distance=42.7 km** Azimuth=255.1° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=2.8°E latitude=+43.1° height above Earth=627.9 km distance to satellite=645.4 km

Altitude of Sun=-7.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h27m34s Flare from SAR-Panel Magnitude=-0.1mag



 COSMO-SkyMed 2

Azimuth=270.6° W altitude= 59.6° in constellation Corona Borealis  
RA=15h48.2m Dec=+36°27'

Flare angle=7.95°

In a clock-face concept, the satellite will seem to move toward 8:32 Angular Velocity=36.3'/s

**Flare center line, closest point →MapIt:** Longitude=0.203°W Latitude=+43.485° (WGS84) Distance=106.1 km Azimuth=285.7° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=3.0°W latitude=+43.3° height above Earth=629.3 km distance to satellite=718.7 km

Altitude of Sun=-5.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h28m25s Flare from unknown Mirror Magnitude= 3.4mag



 COSMO-SkyMed 2

Azimuth=231.9° SW altitude= 44.9° in constellation Serpens Caput  
RA=16h07.7m Dec= +9°31'

Flare angle=7.16°

In a clock-face concept, the satellite will seem to move toward 7:26 Angular Velocity=26.2'/s

**Flare center line, closest point →MapIt:** Longitude=2.698°E Latitude=+42.894° (WGS84) Distance=137.9 km Azimuth=105.3° ESE Peak Magnitude=-1.4mag

Satellite above: longitude=4.1°W latitude=+39.6° height above Earth=628.6 km distance to satellite=853.0 km

Altitude of Sun=-6.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h37m23s Flare from fixed mounted left looking ASCAT Magnitude= 3.6mag



 Metop C

Azimuth=359.9° N altitude= 25.2° in constellation Ursa Major  
RA= 8h35.6m Dec=+72°00'

Flare angle=7.34°

In a clock-face concept, the satellite will seem to move toward 6:55 Angular Velocity=10.4'/s

**Flare center line, closest point →MapIt:** Longitude=3.471°E Latitude=+43.470° (WGS84) Distance=196.2 km Azimuth= 81.5° E Peak Magnitude=-3.9mag

Satellite above: longitude=1.7°E latitude=+53.6° height above Earth=826.8 km  
distance to satellite=1597.4 km

Altitude of Sun=-28.0°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

## Saturday, 19 September 2020

6h58m51s

Flare from SAR-Panel Magnitude=-0.7mag



 COSMO-  
SkyMed 3

Azimuth= 85.6° E altitude= 65.5° in constellation Auriga

RA= 7h08.8m Dec=+40°16'

Flare angle=6.16°

In a clock-face concept, the satellite will seem to move toward 9:21 Angular  
Velocity=38.3'/s

**Flare center line, closest point →MapIt:** Longitude=1.978°E Latitude=+43.421°  
(WGS84) Distance=76.8 km Azimuth= 74.0° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=4.2°E latitude=+43.4° height above Earth=628.1 km  
distance to satellite=683.9 km

Altitude of Sun=-8.3°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

6h59m43s

Flare from unknown Mirror Magnitude= 1.6mag



 COSMO-  
SkyMed 3

Azimuth= 23.5° NNE altitude= 54.3° in constellation Camelopardalis

RA= 8h01.5m Dec=+71°05'

Flare angle=4.91°

In a clock-face concept, the satellite will seem to move toward 7:28 Angular  
Velocity=31.6'/s

**Flare center line, closest point →MapIt:** Longitude=0.196°E Latitude=+43.021°  
(WGS84) Distance=74.2 km Azimuth=251.7° WSW Peak Magnitude=-1.8mag

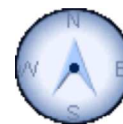
Satellite above: longitude=3.1°E latitude=+46.6° height above Earth=628.9 km  
distance to satellite=756.5 km

Altitude of Sun=-8.1°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).



20h21m38s Flare from SAR-Panel Magnitude=-2.5mag



 COSMO-SkyMed 3

Azimuth=262.8° W altitude= 68.9° in constellation Hercules

RA=16h35.8m Dec=+37°19'

Flare angle=0.51°

In a clock-face concept, the satellite will seem to move toward 8:17 Angular Velocity=38.9'/s

**Flare center line, closest point** →MapIt: Longitude=1.140°E Latitude=+43.219° (WGS84) Distance=6.4 km Azimuth=104.9° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=1.6°W latitude=+43.0° height above Earth=629.2 km distance to satellite=669.5 km

Altitude of Sun=-5.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

21h45m15s Flare from left forward looking ASCAT Magnitude= 2.8mag



 Metop A

Azimuth=132.0° SE altitude= 61.9° in constellation Vulpecula

RA=21h14.8m Dec=+22°01'

Flare angle=7.76°

In a clock-face concept, the satellite will seem to move toward 10:52 Angular Velocity=26.4'/s

**Flare center line, closest point** →MapIt: Longitude=2.560°E Latitude=+43.507° (WGS84) Distance=124.6 km Azimuth= 75.4° ENE Peak Magnitude=-5.0mag

Satellite above: longitude=4.4°E latitude=+41.0° height above Earth=825.0 km distance to satellite=920.0 km

Altitude of Sun=-19.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Sunday, 20 September 2020

6h52m33s Flare from SAR-Panel Magnitude= 2.2mag



 COSMO-SkyMed 1

Azimuth= 82.6° E altitude= 55.7° in constellation Lynx

RA= 7h56.5m Dec=+38°12'

Flare angle=15.10°

In a clock-face concept, the satellite will seem to move toward 9:16 Angular Velocity=35.1'/s

**Flare center line, closest point →MapIt:** Longitude=3.500°E Latitude=+43.704° (WGS84) Distance=203.3 km Azimuth= 74.3° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=5.7°E latitude=+43.6° height above Earth=628.0 km distance to satellite=745.0 km

Altitude of Sun=-9.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 1.6 seconds

6h53m31s

Flare from unknown Mirror **Magnitude= 0.7mag**



 COSMO-SkyMed 1

Azimuth= 31.1° NNE altitude= 47.3° in constellation Ursa Major

RA= 9h30.0m Dec=+67°54'

Flare angle=3.31°

In a clock-face concept, the satellite will seem to move toward 7:49 Angular Velocity=28.9'/s

**Flare center line, closest point →MapIt:** Longitude=1.715°E Latitude=+43.379° (WGS84) Distance=55.1 km Azimuth= 72.8° ENE Peak Magnitude=-1.8mag

Satellite above: longitude=4.6°E latitude=+47.0° height above Earth=628.8 km distance to satellite=824.8 km

Altitude of Sun=-9.4°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 1.6 seconds

20h15m21s

Flare from SAR-Panel **Magnitude= 0.6mag**



 COSMO-SkyMed 1

Azimuth=237.2° WSW altitude= 78.8° in constellation Hercules

RA=17h33.0m Dec=+36°31'

Flare angle=10.87°

In a clock-face concept, the satellite will seem to move toward 7:27 Angular Velocity=40.7'/s

**Flare center line, closest point →MapIt:** Longitude=2.583°E Latitude=+42.950° (WGS84) Distance=127.3 km Azimuth=103.8° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=0.1°W latitude=+42.6° height above Earth=629.1 km distance to satellite=640.0 km

Altitude of Sun=-4.3°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 1.7 seconds

20h40m47s

Flare from unknown Mirror Magnitude= 1.8mag



 COSMO-SkyMed 3

Azimuth=242.7° WSW altitude= 33.3° in constellation Serpens Caput

RA=15h32.4m Dec= +5°31'

Flare angle=4.21°

In a clock-face concept, the satellite will seem to move toward 7:52 Angular Velocity=21.0'/s

**Flare center line, closest point →MapIt:** Longitude=0.144°W Latitude=+43.500° (WGS84) Distance=101.9 km Azimuth=287.3° WNW Peak Magnitude=-1.3mag

Satellite above: longitude=7.1°W latitude=+40.1° height above Earth=628.6 km distance to satellite=1046.0 km

Altitude of Sun=-8.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h42m22s

Flare from fixed mounted left looking ASCAT Magnitude=-2.1mag



 Metop B

Azimuth=356.9° N altitude= 30.0° in constellation Draco

RA= 9h33.8m Dec=+76°31'

Flare angle=1.90°

In a clock-face concept, the satellite will seem to move toward 6:40 Angular Velocity=11.9'/s

**Flare center line, closest point →MapIt:** Longitude=1.647°E Latitude=+43.292° (WGS84) Distance=47.7 km Azimuth= 82.0° E Peak Magnitude=-4.0mag

Satellite above: longitude=0.2°E latitude=+53.1° height above Earth=827.5 km distance to satellite=1439.1 km

Altitude of Sun=-29.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Monday, 21 September 2020

3h29m52s

Flare from SAR antenna Magnitude= 4.0mag



USA  
182/Lacrosse  
5

Azimuth= 60.8° ENE altitude= 10.0° in constellation Cancer

RA= 8h28.7m Dec=+27°56'

Flare angle=16.69°

In a clock-face concept, the satellite will seem to move toward 7:26 Angular Velocity=6.5'/s

(Flare center not on earth)

Satellite above: longitude=28°E latitude=+51° height above Earth=726.2 km distance to satellite=2219.7 km

Altitude of Sun=-40.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h10m32s

Flare from SAR-Panel Magnitude= 1.3mag



COSMO-SkyMed  
1

Azimuth=145.1° SE altitude= 84.1° in constellation Auriga

RA= 5h34.1m Dec=+38°20'

Flare angle=13.27°

In a clock-face concept, the satellite will seem to move toward 11:18 Angular Velocity=41.5'/s

**Flare center line, closest point →MapIt:** Longitude=0.733°W Latitude=+42.908° (WGS84) Distance=150.3 km Azimuth=256.7° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=1.5°E latitude=+42.8° height above Earth=627.8 km distance to satellite=630.5 km

Altitude of Sun=-6.6°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 1.8 seconds

20h33m23s

Flare from SAR-Panel Magnitude= 2.6mag



COSMO-SkyMed  
1

Azimuth=272.6° W altitude= 51.2° in constellation Bootes

RA=15h27.0m Dec=+33°43'

Flare angle=16.19°

In a clock-face concept, the satellite will seem to move toward 8:36 Angular Velocity=33.1'/s

**Flare center line, closest point →MapIt:** Longitude=1.716°W Latitude=+43.799° (WGS84) Distance=232.6 km Azimuth=286.6° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=4.4°W latitude=+43.5° height above Earth=629.4 km distance to satellite=784.7 km

Altitude of Sun=-7.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 1.9 seconds

20h34m20s

Flare from unknown Mirror Magnitude=-0.7mag



 COSMO-SkyMed  
1

Azimuth=237.6° WSW altitude= 38.7° in constellation Serpens Caput  
RA=15h56.6m Dec= +7°05'

Flare angle=0.96°

In a clock-face concept, the satellite will seem to move toward 7:40 Angular Velocity=23.4'/s

**Flare center line, closest point →MapIt:** Longitude=1.310°E Latitude=+43.182° (WGS84) Distance=20.8 km Azimuth=106.1° ESE Peak Magnitude=-1.3mag

Satellite above: longitude=5.6°W latitude=+39.7° height above Earth=628.6 km distance to satellite=943.2 km

Altitude of Sun=-8.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 1.9 seconds

## Tuesday, 22 September 2020

6h58m44s

Flare from SAR-Panel Magnitude=-0.5mag



 COSMO-SkyMed  
4

Azimuth= 88.2° E altitude= 65.1° in constellation Auriga  
RA= 7h20.5m Dec=+39°07'

Flare angle=6.93°

In a clock-face concept, the satellite will seem to move toward 9:26 Angular Velocity=38.1'/s

**Flare center line, closest point →MapIt:** Longitude=2.087°E Latitude=+43.458° (WGS84) Distance=86.3 km Azimuth= 72.9° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=4.3°E latitude=+43.3° height above Earth=628.1 km  
distance to satellite=685.6 km

Altitude of Sun=-8.9°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

6h59m37s

Flare from unknown Mirror **Magnitude= 0.7mag**



 COSMO-  
SkyMed 4

Azimuth= 24.0° NNE altitude= 54.5° in constellation Ursa Major

RA= 8h13.3m Dec=+70°44'

Flare angle=3.64°

In a clock-face concept, the satellite will seem to move toward 7:29 Angular  
Velocity=31.7'/s

**Flare center line, closest point →MapIt:** Longitude=0.417°E Latitude=+43.104°  
(WGS84) **Distance=54.3 km** Azimuth=254.8° WSW Peak Magnitude=-1.8mag

Satellite above: longitude=3.1°E latitude=+46.6° height above Earth=628.8 km  
distance to satellite=755.2 km

Altitude of Sun=-8.8°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

20h21m34s

Flare from SAR-Panel **Magnitude=-2.5mag**



 COSMO-  
SkyMed 4

Azimuth=260.8° W altitude= 68.8° in constellation Hercules

RA=16h48.5m Dec=+36°37'

Flare angle=0.36°

In a clock-face concept, the satellite will seem to move toward 8:13 Angular  
Velocity=38.8'/s

**Flare center line, closest point →MapIt:** Longitude=1.011°E Latitude=+43.244°  
(WGS84) **Distance=4.4 km** Azimuth=284.7° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=1.6°W latitude=+42.9° height above Earth=629.5 km  
distance to satellite=670.4 km

Altitude of Sun=-6.1°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

## Wednesday, 23 September 2020

6h58m44s

Flare from SAR-Panel **Magnitude=-0.4mag**
 COSMO-SkyMed 2

Azimuth= 89.1° E altitude= 65.0° in constellation Auriga

RA= 7h24.2m Dec=+38°44'

Flare angle=7.14°

In a clock-face concept, the satellite will seem to move toward 9:28 Angular Velocity=38.1'/s

**Flare center line, closest point** →MapIt: Longitude=2.114°E Latitude=+43.471° (WGS84) **Distance=88.9 km** Azimuth= 72.4° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=4.3°E latitude=+43.3° height above Earth=628.1 km distance to satellite=686.1 km

Altitude of Sun=-9.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h59m37s

Flare from unknown Mirror **Magnitude= 0.4mag**
 COSMO-SkyMed 2

Azimuth= 24.2° NNE altitude= 54.6° in constellation Ursa Major

RA= 8h16.7m Dec=+70°38'

Flare angle=3.25°

In a clock-face concept, the satellite will seem to move toward 7:29 Angular Velocity=31.8'/s

**Flare center line, closest point** →MapIt: Longitude=0.490°E Latitude=+43.114° (WGS84) **Distance=48.4 km** Azimuth=254.1° WSW Peak Magnitude=-1.8mag

Satellite above: longitude=3.2°E latitude=+46.6° height above Earth=628.9 km distance to satellite=754.6 km

Altitude of Sun=-9.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h21m35s

Flare from SAR-Panel **Magnitude=-2.4mag**
 COSMO-SkyMed 2

Azimuth=260.2° W altitude= 68.7° in constellation Hercules

RA=16h52.5m Dec=+36°23'

Flare angle=0.70°

In a clock-face concept, the satellite will seem to move toward 8:12 Angular Velocity=38.8'/s

**Flare center line, closest point →MapIt:** Longitude=0.960°E Latitude=+43.253°  
(WGS84) Distance=8.7 km Azimuth=283.9° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=1.6°W latitude=+42.9° height above Earth=629.5 km  
distance to satellite=670.8 km

Altitude of Sun=-6.5°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

20h40m45s

**Flare from unknown Mirror Magnitude= 1.8mag**



 **COSMO-SkyMed 4**

Azimuth=241.2° WSW altitude= 32.6° in constellation Serpens Caput

RA=15h46.1m Dec= +4°12'

Flare angle=4.19°

In a clock-face concept, the satellite will seem to move toward 7:50 Angular  
Velocity=20.4'/s

**Flare center line, closest point →MapIt:** Longitude=0.159°W Latitude=+43.499°  
(WGS84) Distance=103.1 km Azimuth=287.0° WNW Peak Magnitude=-1.3mag

Satellite above: longitude=7.1°W latitude=+39.9° height above Earth=628.9 km  
distance to satellite=1061.9 km

Altitude of Sun=-9.9°

This is an experimental flare prediction. Brightness estimate may be unreliable.  
Please report a successful observation (Object/site coordinates/date/measured  
time/accuracy/magnitude).

## Thursday, 24 September 2020

6h52m48s

**Flare from SAR-Panel Magnitude= 2.3mag**



 **COSMO-SkyMed 3**

Azimuth= 85.6° E altitude= 55.8° in constellation Lynx

RA= 8h08.2m Dec=+36°43'

Flare angle=15.54°

In a clock-face concept, the satellite will seem to move toward 9:22 Angular  
Velocity=35.1'/s

**Flare center line, closest point →MapIt:** Longitude=3.555°E Latitude=+43.704°  
(WGS84) Distance=207.6 km Azimuth= 74.6° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=5.7°E latitude=+43.5° height above Earth=628.2 km  
distance to satellite=743.8 km



Altitude of Sun=-10.4°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h53m48s

Flare from unknown Mirror Magnitude= 1.5mag



 COSMO-SkyMed 3

Azimuth= 31.2° NNE altitude= 47.9° in constellation Ursa Major

RA= 9h40.3m Dec=+67°49'

Flare angle=4.52°

In a clock-face concept, the satellite will seem to move toward 7:49 Angular Velocity=29.2'/s

**Flare center line, closest point →MapIt:** Longitude=1.931°E Latitude=+43.425° (WGS84) Distance=73.2 km Azimuth= 72.9° ENE Peak Magnitude=-1.8mag

Satellite above: longitude=4.5°E latitude=+46.9° height above Earth=629.0 km distance to satellite=819.0 km

Altitude of Sun=-10.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h15m41s

Flare from SAR-Panel Magnitude=-0.0mag



 COSMO-SkyMed 3

Azimuth=236.5° WSW altitude= 77.7° in constellation Hercules

RA=17h45.5m Dec=+35°42'

Flare angle=8.92°

In a clock-face concept, the satellite will seem to move toward 7:25 Angular Velocity=40.5'/s

**Flare center line, closest point →MapIt:** Longitude=2.312°E Latitude=+43.012° (WGS84) Distance=104.2 km Azimuth=103.3° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=0.2°W latitude=+42.6° height above Earth=629.3 km distance to satellite=642.5 km

Altitude of Sun=-5.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h40m48s

Flare from unknown Mirror Magnitude= 1.8mag



 COSMO-SkyMed 2

Azimuth=240.8° WSW altitude= 32.3° in constellation Serpens Caput

RA=15h50.5m Dec= +3°44'

Flare angle=4.21°

In a clock-face concept, the satellite will seem to move toward 7:50 Angular Velocity=20.2'/s

**Flare center line, closest point →MapIt:** Longitude=0.175°W Latitude=+43.501° (WGS84) Distance=104.4 km Azimuth=286.9° WNW Peak Magnitude=-1.3mag

Satellite above: longitude=7.1°W latitude=+39.8° height above Earth=629.0 km distance to satellite=1068.2 km

Altitude of Sun=-10.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Friday, 25 September 2020

7h10m50s

Flare from SAR-Panel Magnitude= 1.2mag



 COSMO-SkyMed 3

Azimuth=154.7° SSE altitude= 82.9° in constellation Auriga

RA= 5h48.2m Dec=+36°45'

Flare angle=12.98°

In a clock-face concept, the satellite will seem to move toward 11:37 Angular Velocity=41.3'/s

**Flare center line, closest point →MapIt:** Longitude=0.693°W Latitude=+42.920° (WGS84) Distance=146.8 km Azimuth=256.8° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=1.4°E latitude=+42.7° height above Earth=628.0 km distance to satellite=632.2 km

Altitude of Sun=-7.4°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h34m46s

Flare from unknown Mirror Magnitude=-1.0mag



 COSMO-SkyMed 3

Azimuth=236.1° SW altitude= 37.2° in constellation Hercules

RA=16h12.7m Dec= +5°13'

Flare angle=0.45°

In a clock-face concept, the satellite will seem to move toward 7:38 Angular Velocity=22.3'/s

**Flare center line, closest point →MapIt:** Longitude=1.184°E Latitude=+43.209° (WGS84) Distance=10.2 km Azimuth=105.9° ESE Peak Magnitude=-1.3mag

Satellite above: longitude=5.8°W latitude=+39.4° height above Earth=628.7 km

distance to satellite=969.1 km

Altitude of Sun=-9.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h38m46s

Flare from fixed mounted left looking ASCAT **Magnitude=-0.9mag**



Metop B

Azimuth= 0.2° N altitude= 30.4° in constellation Camelopardalis

RA= 9h00.7m Dec=+77°13'

Flare angle=3.12°

In a clock-face concept, the satellite will seem to move toward 6:51 Angular Velocity=12.4'/s

**Flare center line, closest point** →MapIt: Longitude=2.016°E Latitude=+43.344° (WGS84) **Distance=78.0 km** Azimuth= 80.7° E Peak Magnitude=-4.0mag

Satellite above: longitude=1.3°E latitude=+52.7° height above Earth=827.4 km distance to satellite=1425.0 km

Altitude of Sun=-30.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Saturday, 26 September 2020

7h04m23s

Flare from SAR-Panel **Magnitude=-2.3mag**



COSMO-SkyMed 1

Azimuth=102.7° ESE altitude= 74.2° in constellation Auriga

RA= 6h49.1m Dec=+38°00'

Flare angle=1.35°

In a clock-face concept, the satellite will seem to move toward 9:54 Angular Velocity=40.2'/s

**Flare center line, closest point** →MapIt: Longitude=0.873°E Latitude=+43.200° (WGS84) **Distance=15.9 km** Azimuth=256.2° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=3.0°E latitude=+42.9° height above Earth=628.0 km distance to satellite=649.9 km

Altitude of Sun=-8.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 2.8 seconds

20h27m17s

Flare from SAR-Panel **Magnitude= 0.6mag**



 COSMO-SkyMed 1

Azimuth=266.4° W altitude= 59.5° in constellation Corona Borealis

RA=16h23.7m Dec=+34°32'

Flare angle=10.16°

In a clock-face concept, the satellite will seem to move toward 8:24 Angular Velocity=36.1'/s

**Flare center line, closest point →MapIt:** Longitude=0.529°W Latitude=+43.542° (WGS84) **Distance=133.1 km** Azimuth=285.5° WNW Peak Magnitude=-2.6mag

Satellite above: longitude=3.0°W latitude=+43.1° height above Earth=629.5 km distance to satellite=719.4 km

Altitude of Sun=-8.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 2.9 seconds

20h28m13s

Flare from unknown Mirror **Magnitude= 3.3mag**



 COSMO-SkyMed 1

Azimuth=228.2° SW altitude= 42.6° in constellation Hercules

RA=16h42.5m Dec= +6°07'

Flare angle=6.83°

In a clock-face concept, the satellite will seem to move toward 7:19 Angular Velocity=24.4'/s

**Flare center line, closest point →MapIt:** Longitude=2.683°E Latitude=+42.906° (WGS84) **Distance=136.5 km** Azimuth=105.0° ESE Peak Magnitude=-1.3mag

Satellite above: longitude=4.2°W latitude=+39.1° height above Earth=628.7 km distance to satellite=883.9 km

Altitude of Sun=-8.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 2.9 seconds

## Sunday, 27 September 2020

Flare from SAR-Panel **Magnitude= 2.6mag**



Azimuth= 87.7° E altitude= 55.4° in constellation Lynx

RA= 8h19.2m Dec=+35°28'

Flare angle=16.32°

In a clock-face concept, the satellite will seem to move toward 9:25 Angular Velocity=34.9'/s



**Flare center line, closest point →MapIt:** Longitude=3.677°E Latitude=+43.735° (WGS84) Distance=217.9 km Azimuth= 74.3° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=5.8°E latitude=+43.4° height above Earth=628.3 km distance to satellite=747.2 km

Altitude of Sun=-11.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h53m40s

Flare from unknown Mirror Magnitude= 2.4mag



Azimuth= 31.6° NNE altitude= 47.8° in constellation Ursa Major

RA= 9h52.1m Dec=+67°34'

Flare angle=5.84°

In a clock-face concept, the satellite will seem to move toward 7:49 Angular Velocity=29.2'/s



**Flare center line, closest point →MapIt:** Longitude=2.162°E Latitude=+43.495° (WGS84) Distance=93.4 km Azimuth= 71.5° ENE Peak Magnitude=-1.8mag

Satellite above: longitude=4.6°E latitude=+46.8° height above Earth=629.1 km distance to satellite=819.2 km

Altitude of Sun=-10.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h15m34s

Flare from SAR-Panel Magnitude=-0.3mag



Azimuth=233.5° SW altitude= 77.3° in constellation Hercules

RA=17h58.1m Dec=+34°59'

Flare angle=8.13°

In a clock-face concept, the satellite will seem to move toward 7:19 Angular Velocity=40.3'/s



**Flare center line, closest point →MapIt:** Longitude=2.200°E Latitude=+43.037° (WGS84) Distance=94.7 km Azimuth=103.0° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=0.2°W latitude=+42.5° height above Earth=629.6 km

distance to satellite=643.6 km

Altitude of Sun=-6.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Monday, 28 September 2020

6h52m40s

Flare from SAR-Panel Magnitude= 2.6mag



 COSMO-SkyMed  
2

Azimuth= 88.5° E altitude= 55.4° in constellation Lynx

RA= 8h22.4m Dec=+35°04'

Flare angle=16.48°

In a clock-face concept, the satellite will seem to move toward 9:27 Angular Velocity=34.8'/s

**Flare center line, closest point →MapIt:** Longitude=3.698°E Latitude=+43.744° (WGS84) Distance=219.8 km Azimuth= 74.2° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=5.8°E latitude=+43.4° height above Earth=628.3 km distance to satellite=747.6 km

Altitude of Sun=-11.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h53m42s

Flare from unknown Mirror Magnitude= 2.7mag



 COSMO-SkyMed  
2

Azimuth= 31.6° NNE altitude= 47.9° in constellation Ursa Major

RA= 9h55.1m Dec=+67°32'

Flare angle=6.19°

In a clock-face concept, the satellite will seem to move toward 7:50 Angular Velocity=29.3'/s

**Flare center line, closest point →MapIt:** Longitude=2.223°E Latitude=+43.505° (WGS84) Distance=98.4 km Azimuth= 71.8° ENE Peak Magnitude=-1.8mag

Satellite above: longitude=4.6°E latitude=+46.8° height above Earth=629.1 km distance to satellite=818.3 km

Altitude of Sun=-11.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h10m40s

Flare from SAR-Panel Magnitude= 0.9mag


 COSMO-SkyMed  
4

Azimuth=154.3° SSE altitude= 81.8° in constellation Auriga

RA= 6h02.2m Dec=+35°44'

Flare angle=12.06°

In a clock-face concept, the satellite will seem to move toward 11:36 Angular Velocity=41.1'/s

**Flare center line, closest point →MapIt:** Longitude=0.570°W Latitude=+42.945° (WGS84) Distance=136.4 km Azimuth=256.9° WSW Peak Magnitude=-2.7mag


Satellite above: longitude=1.5°E latitude=+42.6° height above Earth=628.1 km distance to satellite=633.7 km

Altitude of Sun=-8.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h37m40s

Flare from SAR antenna Magnitude= 3.5mag


 USA  
182/Lacrosse  
5

Azimuth= 87.1° E altitude= 9.5° in constellation Virgo

RA=11h51.9m Dec= +8°37'

Flare angle=12.87°

In a clock-face concept, the satellite will seem to move toward 4:13 Angular Velocity=7.3'/s

(Flare center not on earth)

Satellite above: longitude=27°E latitude=+40° height above Earth=722.4 km distance to satellite=2248.6 km

Altitude of Sun=-2.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h15m37s

Flare from SAR-Panel Magnitude=-0.4mag


 COSMO-SkyMed  
2

Azimuth=233.1° SW altitude= 77.1° in constellation Hercules

RA=18h01.6m Dec=+34°46'

Flare angle=7.72°

In a clock-face concept, the satellite will seem to move toward 7:19 Angular Velocity=40.3'/s

**Flare center line, closest point →MapIt:** Longitude=2.140°E Latitude=+43.040° (WGS84) Distance=89.9 km Azimuth=103.5° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=0.2°W latitude=+42.5° height above Earth=629.7

km distance to satellite=644.1 km

Altitude of Sun=-7.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h34m41s

Flare from unknown Mirror **Magnitude=-1.0mag**



COSMO-SkyMed

Azimuth=234.7° SW altitude= 36.4° in constellation Hercules

RA=16h26.2m Dec= +3°56'

Flare angle=0.47°

In a clock-face concept, the satellite will seem to move toward 7:36 Angular Velocity=21.7'/s

**Flare center line, closest point** →MapIt: Longitude=1.189°E

Latitude=+43.206° (WGS84) **Distance=10.6 km** Azimuth=107.2° ESE Peak Magnitude=-1.3mag

Satellite above: longitude=5.8°W latitude=+39.2° height above Earth=629.0 km distance to satellite=983.5 km

Altitude of Sun=-10.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h01m33s

Flare from fixed mounted left looking ASCAT **Magnitude= 3.1mag**



Metop A

Azimuth=338.8° NNW altitude= 46.7° in constellation Ursa Minor

RA=15h58.9m Dec=+74°39'

Flare angle=7.66°

In a clock-face concept, the satellite will seem to move toward 5:40 Angular Velocity=19.1'/s

**Flare center line, closest point** →MapIt: Longitude=0.673°W Latitude=+43.028° (WGS84) Distance=142.7 km Azimuth=261.3° W Peak Magnitude=-4.6mag

Satellite above: longitude=2.1°W latitude=+48.5° height above Earth=827.1 km distance to satellite=1084.2 km

Altitude of Sun=-25.8°

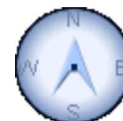
This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).



## Tuesday, 29 September 2020

7h10m42s

Flare from SAR-Panel Magnitude= 0.9mag



**COSMO-SkyMed 2**

Azimuth=155.4° SSE altitude= 81.4° in constellation Auriga

RA= 6h06.1m Dec=+35°21'

Flare angle=11.91°

In a clock-face concept, the satellite will seem to move toward 11:38 Angular Velocity=41.0'/s

**Flare center line, closest point →MapIt:** Longitude=0.550°W Latitude=+42.949° (WGS84) Distance=134.7 km Azimuth=257.0° WSW Peak Magnitude=-2.7mag

Satellite above: longitude=1.5°E latitude=+42.5° height above Earth=628.2 km distance to satellite=634.3 km

Altitude of Sun=-8.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h34m46s

Flare from unknown Mirror Magnitude=-1.0mag



**COSMO-SkyMed 2**

Azimuth=234.4° SW altitude= 36.1° in constellation Ophiuchus

RA=16h30.4m Dec= +3°28'

Flare angle=0.39°

In a clock-face concept, the satellite will seem to move toward 7:35 Angular Velocity=21.4'/s

**Flare center line, closest point →MapIt:** Longitude=1.169°E Latitude=+43.213° (WGS84) Distance=8.9 km Azimuth=105.1° ESE Peak Magnitude=-1.3mag

Satellite above: longitude=5.8°W latitude=+39.1° height above Earth=629.0 km distance to satellite=990.0 km

Altitude of Sun=-10.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Wednesday, 30 September 2020

Flare from SAR-Panel Magnitude=-2.3mag

7h04m48s



Azimuth=109.1° ESE altitude= 74.3° in constellation Auriga  
RA= 7h01.0m Dec=+36°29'  
Flare angle=1.29°



In a clock-face concept, the satellite will seem to move toward 10:06 Angular Velocity=40.0'/s

**Flare center line, closest point →MapIt:** Longitude=0.884°E  
Latitude=+43.202° (WGS84) **Distance=15.0 km** Azimuth=256.4° WSW Peak  
Magnitude=-2.7mag

Satellite above: longitude=2.9°E latitude=+42.7° height above Earth=628.2 km distance to satellite=650.0 km

Altitude of Sun=-9.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

7h33m26s

Flare from SAR antenna **Magnitude= 2.2mag**

Azimuth= 98.1° E altitude= 15.6° in constellation Leo  
RA=11h07.8m Dec= +4°53'  
Flare angle=7.35°



In a clock-face concept, the satellite will seem to move toward 4:29 Angular Velocity=8.5'/s

(Flare center not on earth)

Satellite above: longitude=21°E latitude=+38° height above Earth=722.0 km distance to satellite=1847.5 km

Altitude of Sun=-4.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h27m48s

Flare from SAR-Panel **Magnitude= 1.2mag**

Azimuth=264.9° W altitude= 58.4° in constellation Hercules  
RA=16h37.3m Dec=+33°20'  
Flare angle=12.13°



In a clock-face concept, the satellite will seem to move toward 8:22 Angular Velocity=35.6'/s

**Flare center line, closest point →MapIt:** Longitude=0.839°W  
Latitude=+43.600° (WGS84) **Distance=158.9 km** Azimuth=285.5° WNW Peak  
Magnitude=-2.6mag

Satellite above: longitude=3.1°W latitude=+43.0° height above Earth=629.7 km distance to satellite=726.7 km

Altitude of Sun=-9.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h28m47s

Flare from unknown Mirror Magnitude= 2.8mag



 COSMO-SkyMed  
3

Azimuth=227.4° SW altitude= 40.9° in constellation Ophiuchus

RA=16h57.0m Dec= +4°19'

Flare angle=6.00°

In a clock-face concept, the satellite will seem to move toward 7:19 Angular Velocity=23.3'/s

**Flare center line, closest point →MapIt:** Longitude=2.530°E Latitude=+42.921° (WGS84) Distance=124.0 km Azimuth=105.8° ESE Peak Magnitude=-1.2mag

Satellite above: longitude=4.4°W latitude=+38.8° height above Earth=628.8 km distance to satellite=909.4 km

Altitude of Sun=-10.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

22h35m12s

Flare from fixed mounted left looking ASCAT Magnitude= 0.4mag



 Metop B

Azimuth= 3.3° N altitude= 30.4° in constellation Camelopardalis

RA= 8h29.1m Dec=+76°54'

Flare angle=4.40°

In a clock-face concept, the satellite will seem to move toward 7:01 Angular Velocity=12.7'/s

**Flare center line, closest point →MapIt:** Longitude=2.422°E Latitude=+43.404° (WGS84) Distance=111.5 km Azimuth= 79.8° E Peak Magnitude=-4.1mag

Satellite above: longitude=2.3°E latitude=+52.4° height above Earth=827.4 km distance to satellite=1426.4 km

Altitude of Sun=-31.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

## Thursday, 1 October 2020

6h41m38s

Flare from SAR antenna Magnitude= 1.9mag



 **USA**  
182/Lacrosse  
5

Azimuth= 92.0° E altitude= 5.2° in constellation Leo

RA=11h06.8m Dec= +2°10'

Flare angle=0.19°

In a clock-face concept, the satellite will seem to move toward 4:20 Angular Velocity=5.7'/s

**Flare center line, closest point →MapIt:** Longitude=1.631°E Latitude=+42.920° (WGS84) Distance=57.8 km Azimuth=127.0° SE Peak Magnitude= 1.8mag

Satellite above: longitude=29.4°E latitude=+38.6° height above Earth=722.2 km distance to satellite=2606.7 km

Altitude of Sun=-13.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

6h58m12s

Flare from SAR-Panel Magnitude= 0.3mag



 **COSMO-SkyMed**  
1

Azimuth= 95.4° E altitude= 63.4° in constellation Lynx

RA= 7h56.9m Dec=+35°34'

Flare angle=9.51°

In a clock-face concept, the satellite will seem to move toward 9:39 Angular Velocity=37.4'/s

**Flare center line, closest point →MapIt:** Longitude=2.487°E Latitude=+43.487° (WGS84) Distance=118.3 km Azimuth= 75.8° ENE Peak Magnitude=-2.7mag

Satellite above: longitude=4.5°E latitude=+43.0° height above Earth=628.2 km distance to satellite=694.6 km

Altitude of Sun=-10.9°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 4.0 seconds

6h59m09s

Flare from unknown Mirror Magnitude=-1.6mag



 **COSMO-SkyMed**  
1

Azimuth= 25.9° NNE altitude= 54.7° in constellation Ursa Major

RA= 8h51.7m Dec=+69°40'

Flare angle=0.44°

In a clock-face concept, the satellite will seem to move toward 7:32 Angular Velocity=32.0'/s

**Flare center line, closest point →MapIt:** Longitude=1.138°E  
Latitude=+43.250° (WGS84) **Distance=6.3 km** Azimuth= 74.2° ENE Peak  
Magnitude=-1.9mag

Satellite above: longitude=3.3°E latitude=+46.4° height above Earth=629.0  
km distance to satellite=753.9 km

Altitude of Sun=-10.7°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 4.0 seconds

19h35m28s

Flare from SAR-Panel, left-looking **Magnitude=-0.6mag**



 TanDEM-X

Azimuth=281.0° W altitude= 73.8° in constellation Hercules

RA=16h53.6m Dec=+44°10'

Flare angle=8.45°

In a clock-face concept, the satellite will seem to move toward 3:44 Angular Velocity=49.3'/s

**Flare center line, closest point →MapIt:** Longitude=2.098°E Latitude=+43.391°  
(WGS84) **Distance=85.4 km** Azimuth= 77.9° ENE Peak Magnitude=-3.0mag

Satellite above: longitude=0.6°W latitude=+43.5° height above Earth=514.6  
km distance to satellite=533.9 km

Altitude of Sun=-0.1°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

19h36m06s

Flare from SAR-Panel, left-looking **Magnitude=-0.9mag**



 Terra SAR X

Azimuth=279.4° W altitude= 72.5° in constellation Hercules

RA=16h47.2m Dec=+43°33'

Flare angle=7.14°

In a clock-face concept, the satellite will seem to move toward 3:41 Angular Velocity=49.0'/s

**Flare center line, closest point →MapIt:** Longitude=1.948°E Latitude=+43.358°  
(WGS84) **Distance=72.9 km** Azimuth= 78.8° E Peak Magnitude=-3.0mag

Satellite above: longitude=0.8°W latitude=+43.5° height above Earth=514.7  
km distance to satellite=537.4 km

Altitude of Sun=-0.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h21m10s

Flare from SAR-Panel **Magnitude=-1.8mag**
 COSMO-SkyMed  
1

Azimuth=254.4° WSW altitude= 68.6° in constellation Hercules

RA=17h28.1m Dec=+34°29'

Flare angle=2.64°

In a clock-face concept, the satellite will seem to move toward 8:01 Angular Velocity=38.5'/s

**Flare center line, closest point →MapIt:** Longitude=0.680°E  
Latitude=+43.305° (WGS84) **Distance=32.0 km** Azimuth=284.3° WNW Peak  
Magnitude=-2.6mag

Satellite above: longitude=1.6°W latitude=+42.7° height above Earth=629.6 km distance to satellite=671.5 km


Altitude of Sun=-9.0°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 4.2 seconds

## Friday, 2 October 2020

7h28m35s

Flare from SAR antenna **Magnitude= 1.7mag**
 USA  
182/Lacrosse  
5

Azimuth=112.0° ESE altitude= 29.3° in constellation Sextans

RA= 9h55.9m Dec= +5°36'

Flare angle=8.90°

In a clock-face concept, the satellite will seem to move toward 5:03 Angular Velocity=12.9'/s

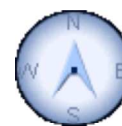
**Flare center line, closest point →MapIt:** Longitude=3.920°W Latitude=+41.942° (WGS84) **Distance=432.2 km** Azimuth=252.3° WSW Peak Magnitude= 1.0mag

Satellite above: longitude=13.5°E latitude=+38.0° height above Earth=722.1 km distance to satellite=1293.1 km

Altitude of Sun=-5.5°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h09m34s

Flare from SAR-Panel **Magnitude= 2.5mag**

 COSMO-SkyMed  
4

Azimuth=174.5° S altitude= 78.1° in constellation Lyra

RA=19h06.8m Dec=+31°21'

Flare angle=17.19°

In a clock-face concept, the satellite will seem to move toward 5:22

Angular Velocity=40.3'/s

**Flare center line, closest point** →MapIt: Longitude=3.404°E Latitude=+42.836° (WGS84) **Distance=195.2 km** Azimuth=102.3° ESE Peak Magnitude=-2.6mag

Satellite above: longitude=1.2°E latitude=+42.2° height above Earth=629.7 km distance to satellite=642.0 km

Altitude of Sun=-7.2°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

20h40m29s

Flare from unknown Mirror **Magnitude= 1.7mag**

 COSMO-SkyMed  
1

Azimuth=237.0° WSW altitude= 30.4° in constellation Ophiuchus

RA=16h27.3m Dec= +0°15'

Flare angle=3.90°

In a clock-face concept, the satellite will seem to move toward 7:44

Angular Velocity=18.6'/s

**Flare center line, closest point** →MapIt: Longitude=0.143°W Latitude=+43.482° (WGS84) **Distance=101.3 km** Azimuth=286.2° WNW Peak Magnitude=-1.2mag

Satellite above: longitude=7.2°W latitude=+39.2° height above Earth=628.9 km distance to satellite=1111.7 km

Altitude of Sun=-12.8°

This is an experimental flare prediction. Brightness estimate may be unreliable. Please report a successful observation (Object/site coordinates/date/measured time/accuracy/magnitude).

Time uncertainty of about 4.4 seconds

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