

SATLINK AND APRIL 2019 GPS ROLLOVER

What is the rollover issue?

There is an upcoming issue on April 7, 2019 that may potentially cause older Satlink 1 and 2 transmitters to stop transmitting. The GPS satellites use a 10 bit counter for the GPS time/date allowing a range of 1024 weeks before the counter rolls over. The GPS week zero started Jan 6 1980 and then rolled over on Aug 21, 1999 with the next rollover set to occur on April 6, 2019. Different manufacturer modules handle this differently.

How Does this impact Sutron Satlink Transmitters?

Please see the 2 next slides.

- The first slide shows what will work and what will not work if firmware is not upgraded.
- The second slide shows what will be compliant after the SL2 firmware upgrade.

SATLINK AND GPS DATE ROLLOVER- STATUS NOW

GPS Rollover Fail - NO Firmware Upgrade Available

GOES DCS CS2 Transmitter Migration Deadline: 31-MAY-2026!!!			GPS Modules used in the Sutron Satlink Family																		
	NESDIS Cert Number	Cert Date	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Satlink1	Satlink-G312-1	0701-005	[Timeline bars for Satlink1]																		CS 1.0B
		Ser No 031308 Jul-01 Jul-03																			
Satlink2	SL2-G312-1	0104-009	[Timeline bars for Satlink2]																		CS 1.0B
	SL2-B40W-1	0305-017																			
	SL2-G312-1B	1008-0018																			
	SL2-G312-V2	1008-0019																			
Satlink3	SL3-1	2015-0001	[Timeline bars for Satlink3]																		CS 2.0
	SL3-XMTR-1	2015-0002																			
	SL3-SDI-1	2015-0003																			

GPS Rollover Fail - Firmware Patch to Correct

GPS Apr 2019 Rollover Safe

SATLINK AND GPS STATUS AFTER SOFTWARE UPGRADE ON SL2

GPS Rollover *Fail* - NO FIRMWARE SUPPORT

GOES DCS CS2 Transmitter Migration Deadline: 31-MAY-2026!!!			GPS Modules used in the Sutron Satlink Family																		
	NESDIS Cert Number	Cert Date	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Satlink1	Satlink-G312-1	0701-005	Jul-01	[Green bar]																	
	Satlink-G312-1A	Ser No 031308 and up	Jul-03	[Green bar]																	
				[Red box]																	
Satlink2	SL2-G312-1	0104-009	Jan-04	[Green bar]																	
	SL2-B40W-1	0305-017	Sep-05	[Green bar]																	
	SL2-G312-1B	1008-0018	Jan-09	[Green bar]																	
	SL2-G312-V2	1008-0019	Oct-10	[Green bar]																	
Satlink3	SL3-1	2015-0001	Oct-15	[Green bar]																	
	SL3-XMTR-1	2015-0002	Oct-15	[Green bar]																	
	SL3-SDI-1	2015-0003	Oct-15	[Green bar]																	

CS 1.0B

CS 2.0

GPS Apr 2019 Rollover Safe

SUMMARY

CS1.0b Certified Platforms (May not be used after 21 May 2026)

- Satlink1's (Satlink-G312-1) manufactured from July 2001 to July 2003 (Serial Number 031307 and lower) are 'April 2019 Rollover' Safe
- Satlink1's (Satlink-G312-1A) manufactured from July 2003 (Serial Number 031308 and higher) are **NOT** 'April 2019 Rollover' Safe. No firmware update is available for these units and a platform replacement is recommended.
- Satlink2's (SL2-G312-1 and SL2-B40W-1) manufactured from Jan 2004 to Dec 2008 are **NOT** 'April 2019 Rollover' Safe. Please Upgrade the firmware to be compliant with 2019 rollover and proper operation up to May 2026 or the date that any CS1.0b unit should be removed from service.
- Satlink2's (SL2-G312-1B) manufactured from Jan 2009 to Dec 2010 are 'April 2019 Rollover' Safe and have no issues up to Nov 2038.

CS2.0 Certified Platforms

- Satlink2's (SL2-G312-V2) manufactured from Oct 2010 to Dec 2015 are 'April 2019 Rollover' Safe
- Satlink3's (SL3-1, SL3-XMTR-1, SL3-SDI-1) manufactured from Oct 2015 to Current are 'April 2019 Rollover' Safe
- Testing on Satlink 3 has indicated a rollover issue in the year 2032. A firmware release will be made available to resolve the issue allowing operation up to 2038.

All Units

- All Satlinks will continue to log data in the event the GPS rollover occurs and the unit stops transmitting.