



CO-OPS Engineering Bulletin 23-005

Engineering Change: CO-OPS GOES Flags and DPAS Codes Assignments Update

Systems Affected: All systems

Originating Team: Measurement Systems Manager

Approval Date: 26 May 2023

Background: CO-OPS collects data from its network of environmental monitoring stations by either scheduled transmissions or automated polling. For data that is transmitted, CO-OPS utilizes the Geostationary Operational Environmental Satellite (GOES) system and Iridium Short Burst Data (SBD) transmissions. In order to fit the data into the transmission windows allocated for GOES and SBD transmissions, the data collection platforms compress the data using a pseudo-binary encoding methodology. This is accomplished using character flags known as GOES Flags to identify the data sets within the message. When polling data CO-OPS utilizes telephone lines and cellular gateways. The data for polling is compiled into a format known as a PORTS Tag. The data sets within the PORTS Tag are identified by character flags known as DPAS Codes. Reassignments and new assignments since the initial implementation have resulted in a need update to the CO-OPS GOES Flags and DPAS Codes assignments to prevent the possibility of mislabeled data from deployed systems.

Action Required: CIL/SIL shall verify that any new or returned dataloggers are implementing the GOES Flags and DPAS Codes on the following page:

Description	GOES Flag	DPAS Code
Time Tag	0	
Aquatrak Water Level	1	A
Redundant Water Level	>	
Backup Water Level	2	B
Redundant Backup Level	"	
Wind Data (SPD, DIR, GST)	3	C
Air Temperature	4	D
Water Temperature	5	E
Barometric Pressure	6	F
Future 2-Byte Flag	+	
Shaft Angle Encoder	!	V
Redundant Shaft Angle Encoder	.	
Conductivity ¹	-7	G
MWWL	8	Y
Redundant MWWL	#	
Relative Humidity	9	R
Rainfall	:	J
Solar Radiation	;	
DCP Battery Voltage	<	L
Ancillary Battery Voltage ²	=	M
Paroscientific Digiquartz #1	%	N
Redundant Paroscientific Digiquartz #1	'	
Paroscientific Digiquartz #2	&	T
Redundant Paroscientific Digiquartz #2	*	
Bridge Clearance/Air Gap (Miros/WaterLOG/ULS)	(Q
Redundant Bridge Clearance/Air Gap)	
1 Minute Water Level		U
Visibility	-O	O

¹The GOES Flag was reassigned

²The GOES Flag and DPAS Code were reassigned from Analog #2

Estimated Time To Complete: 10 Minutes per datalogger

References:

CO-OPS 4.3.1.2 (B1) Sutron Xpert2 Operations and Maintenance Manual