

# Flying Squirrel #4 Telemetry schedule

Revised 4/18/2019

**Frequency** 10m 28.075 Mhz **Mode** FT8

Every					
Even Minute (mm:ss)	Message Type	Desc	FT8 Type	Example	Note
00:00	Type 1	Station ID	Free Text	KJ6FO FS4 HAB	
00:15	Type 2	Position	Telemetry (18 hex)	22F3DBD85FA26101EF	See below
00:30	Type 3	Payload Data	Telemetry (18 hex)	30001F161F00F000EE	See Below
00:45	Type 4	APRS ID	Free Text	KJ6FO-11 APRS	

Message Type 2 Data Format				
Name	Type	Bits	Units	Notes
MessageType	4 Bits	[68:71]	0010b = 2	
Reserved	1 Bit	[67]	Unused = 0	
Latitude	25 Bit uint	[42:66]	Latitude*1e5 + 90*1e5	(([-]dd.ddddd+90.0) * 100000
Logitude	26 Bit uint	[16:41]	Longitude * 1e5 + 180*1e5	(([-]dd.ddddd+180.0) * 100000
Altitude	16 Bituint	[0:15]	Meters	

Message Type 3 Data Format				
Name	Type	Bits	Units	Notes
MessageType	4 Bits	[68:71]	0011b = 3	
Reserved	1 Bit	[67]	Unused = 0	
Ground Speed	11 Bit uint	[56:66]	10th Of Miles per hour	Broke from Metric units for a better fit into less bits
vAcc	8 Bit uint	[48:55]	10ths of Meters	GPS estimate of vertical accuracy mm.m * 10
hAcc	8 Bit uint	[40:47]	10ths of Meters	GPS estimate of horizontal accuracy mm.m * 10
Volts	8 Bit uint	[32:39]	10th of volts	Volts vv.v * 10
Inside Temp C	16 Bit int	[16:31]	10ths of Deg C	Temp tt.t * 10
Outside Temp C	16 Bit int	[0:15]	10ths of Deg C	Temp tt * 10