This is the raw record that comes from the ROSRapproximately each 2 sec. The new format (3) has the following enhancements:

1. Header now includes serial number, format ID and software version number.
2. The "REF" field provides the KT15 internal reference temperature.
3. The miscellaneous temperatures, Tktcase, Twin, etc. are reported to 0.01C.

```
 WIssf,vv etime     drum     RAD   REF   bb11   bb12 KT15+ RF/2  bb21  bb22  pwr
$WI033,33,00.000119,325.02, 198747,24.40,2.729,2.732,0.180,2.467,1.847,1.842,1.995,

 win    TKT15+ VIN/4  vrain kts   vref   T11  T12   T21    T22   pit  rol  KT15+ Tktcase
2.709,0.710,  0.563,-0.001,2.674,4.933,19.71,19.74,38.24,38.28, 0.0,-0.7,-45.88,20.86,

Twin   Tpwr  Vin  Vrain Sec Chk
20.18,34.86, 2.8,-0.0,  0*24
```

WI	Weather Instrument
ss	Serial number, 03
f	Format identifier, 1-F, currently 3
vv	Software version number, 33
etime	Elapsed time since power, dd.hhmmss
drum	Drum angle, typically [265,325,45,135] measured from zenith.
RAD	KT15 digital output for RAD command
REF	KT15 digital output for REF command. This is the internal ref temperature.
bb11	volts at Blackbody 1, thermistor 1.
bb12	volts at Blackbody 1, thermistor 2.
KT15+	volts at 100 ohm resistor for KT15 0-100 ma current loop.
RF/2	+5 ref voltage in a 10K-10K resistor divider.
bb21	volts at Blackbody 2, thermistor 1.
bb22	volts at Blackbody 2, thermistor 2.
pwr	voltage at thermistor mounted on the Power regulator.
win	voltage at thermistor mounted in the body at the window.
TKT15+	not used. A 10K resistor is used.
VIN/4	Input voltage divided by 4.
vrain	Voltage of the rain detector divided by 4. 0 or 1.1 if raining.
kts	Voltage of thermistor mounted on KT15 case.
vref	2 * RF/2 voltage, ~5.0. Used in thermistor calculation.
T11	bb11 temperature with precision SHH coefficients.

T12	bb12 temperature with precision SHH coefficients.
T21	bb21 temperature with precision SHH coefficients.
T22	bb22 temperature with precision SHH coefficients.
pit	pitch angle, positive for bow up, deg.
rol	roll angle, positive for port up, deg.
KT15+	Computed target from KT15 analog out.
Tktcase	KT15 case temperature from external thermistor.
Twin	Window temperature from win thermistor
Tpwr	Temperature of the case of the power regulator.
Vin	Input voltage
Vrain	Rain sensor voltage
Sec	Seconds to wait after rain stops before flap opens.
Chk	NMEA checksum