

SMOKE MONITOR INSTALLATION

The following pages will help you get your system set up and running properly. You should have received two cases. Please pay particular attention to the Packing Instructions when you take the system down. A basic tool kit is enclosed. Make your site selection so that the tower is level and the GOES antenna has a clear shot at approximately 200° magnetic and 40° inclination. Align the tower so that the North leg is pointing true North and stake it down (factor in magnetic declination). Check your systems Satellite Transmission and Operating Parameters by calling the RAWS HELP DESK @ 208-387-5475 (RAWSHELP@BLM.GOV)

Contact information - Dispatch: Mark Barbo 208-387-5726; FAX: 208-387-5397. General questions can be addressed to Herb Arnold, RSFWSU Manager, 208-387-5363 (harnold@blm.gov). Technical questions can be directed to Wes Throop, Project Engineer, Missoula Technology and Development Center, 406-329-3957 (wthroop@fs.fed.us).

Shipping address back to NIFC/RAWS:

National Interagency Fire Center

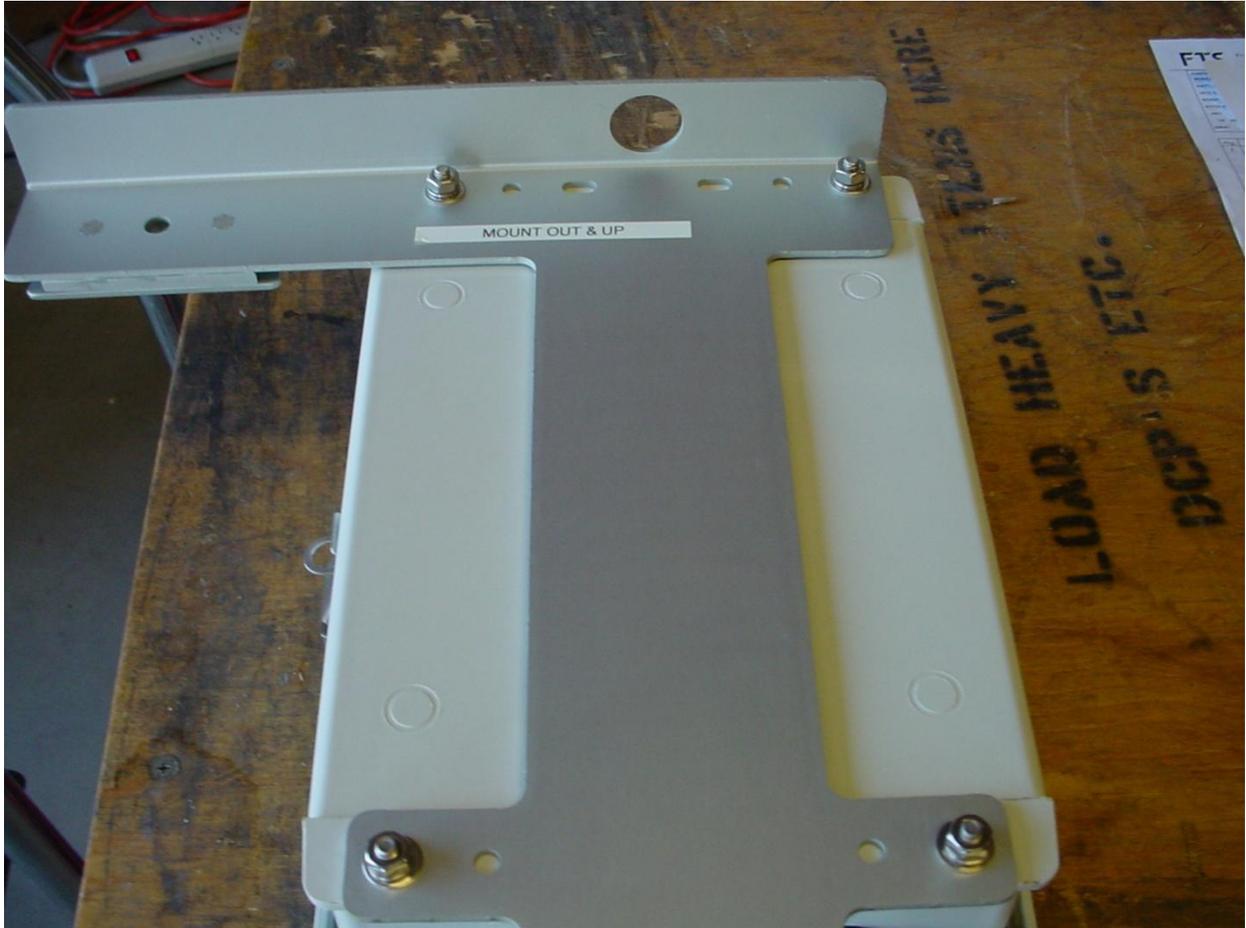
Remote Sensing Fire Weather Support Unit

3833 S. Development Ave.

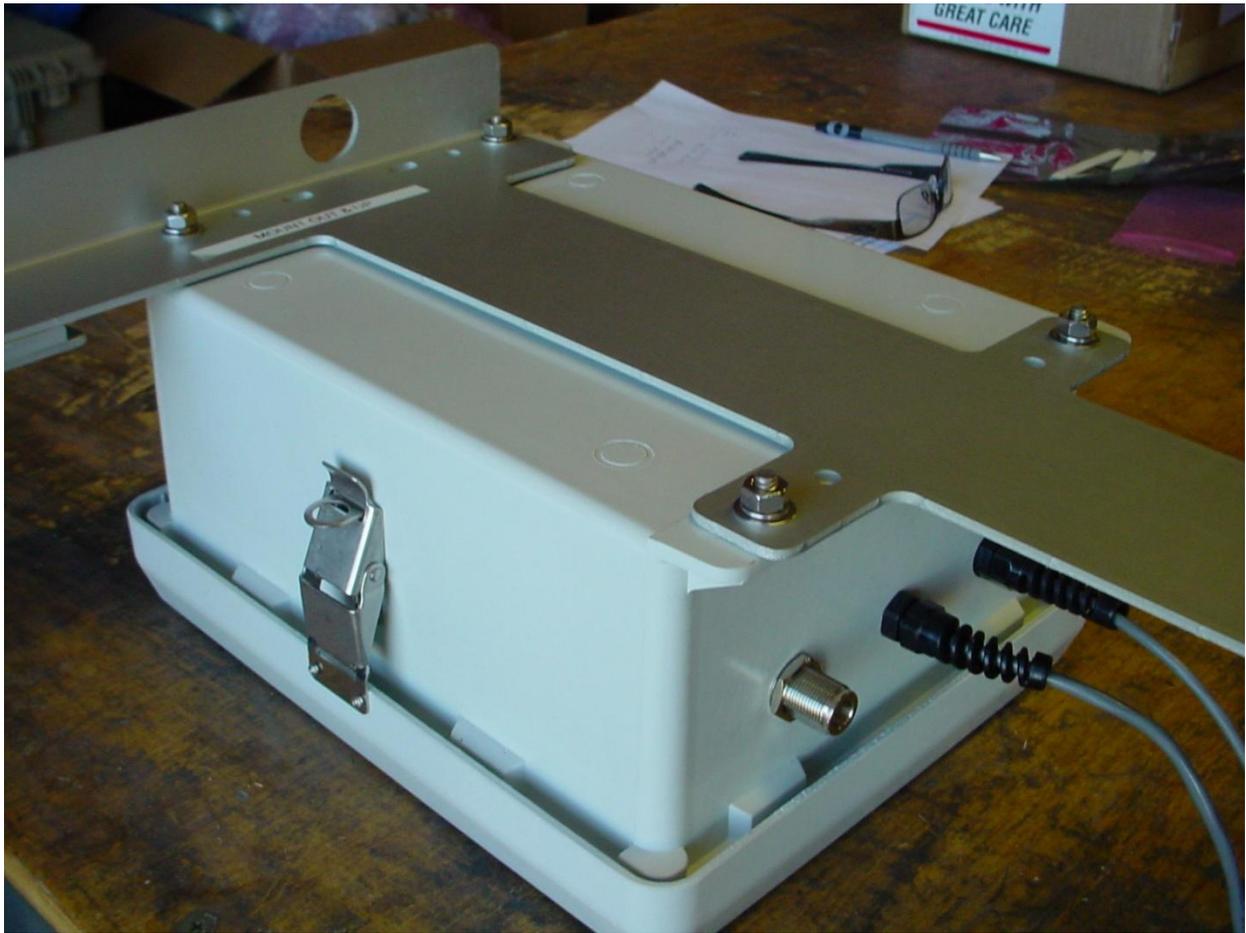
Boise, ID 83705-5354

Ordering: NFES 005840. "Kit, Smoke Particulate Monitoring"



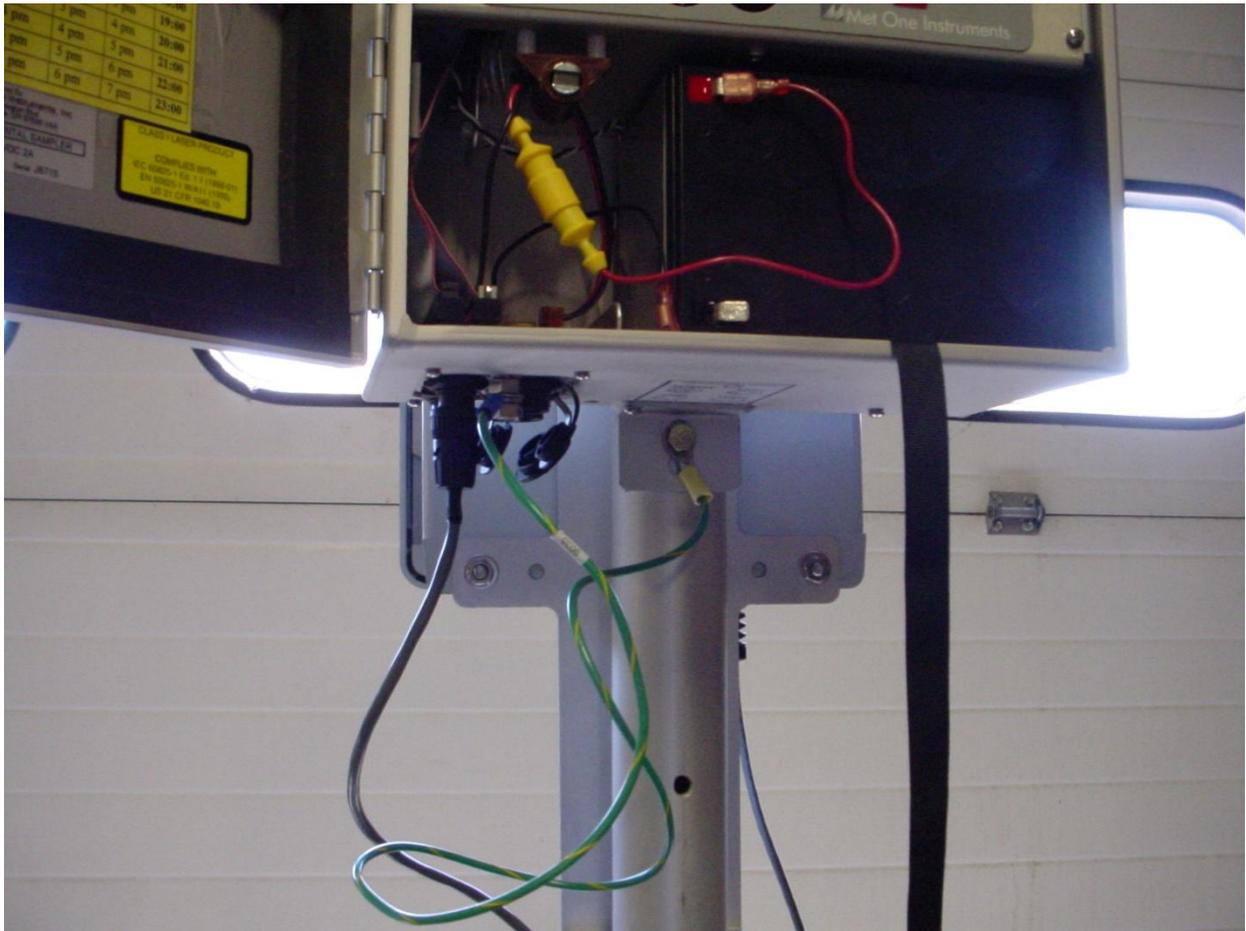


Remove the GOES transmitter and its mounting hardware. Assemble the mounting hardware to the transmitter case as shown in the following pictures with the four bolts supplied.

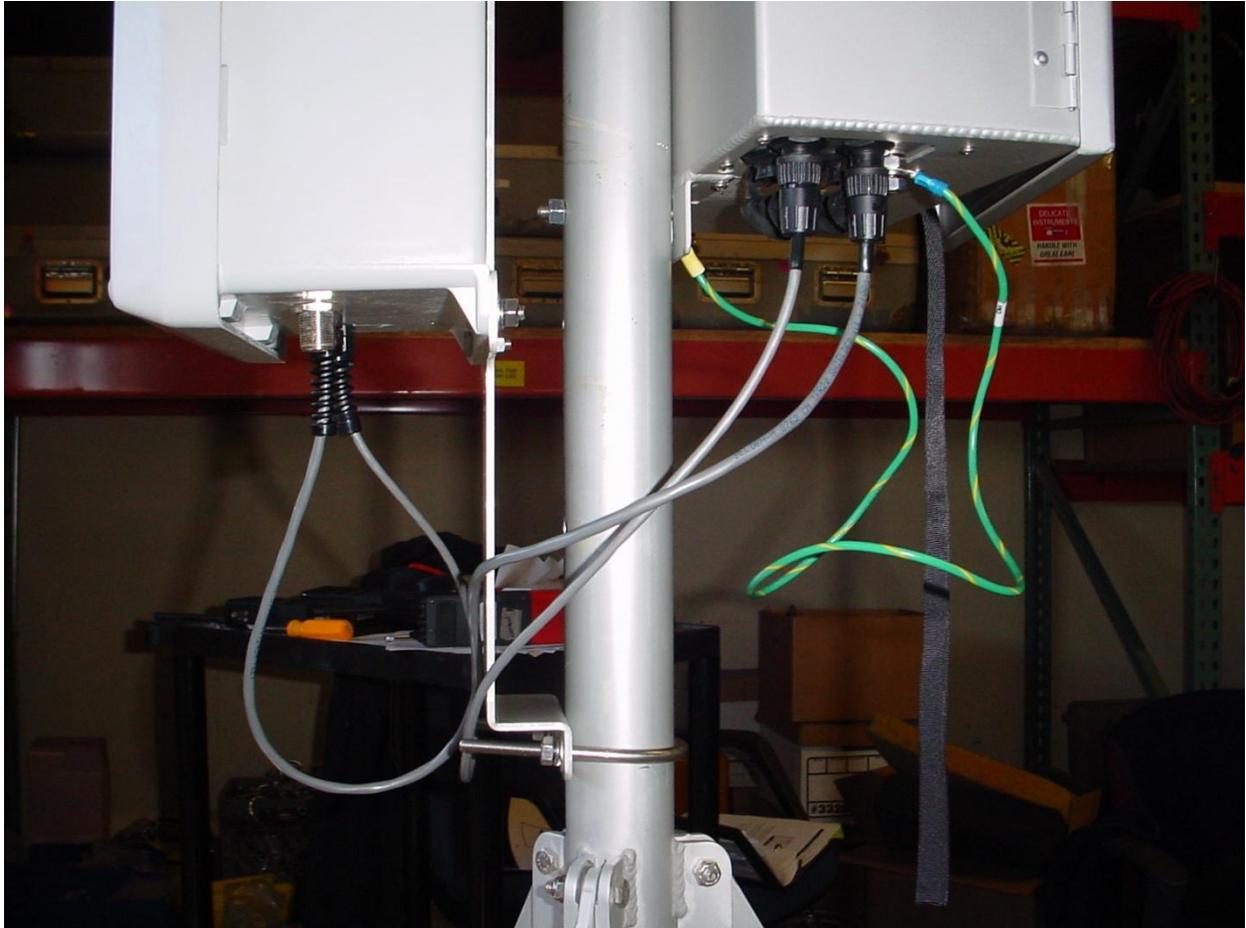




Mount the E-Sampler to the tower over the North leg by sliding it over the tab and bolt the base with the Ground wire as shown. Do not over tighten nuts.



Install the battery. Do not connect the battery leads until the system is fully assembled and power is ready to be supplied to the unit.



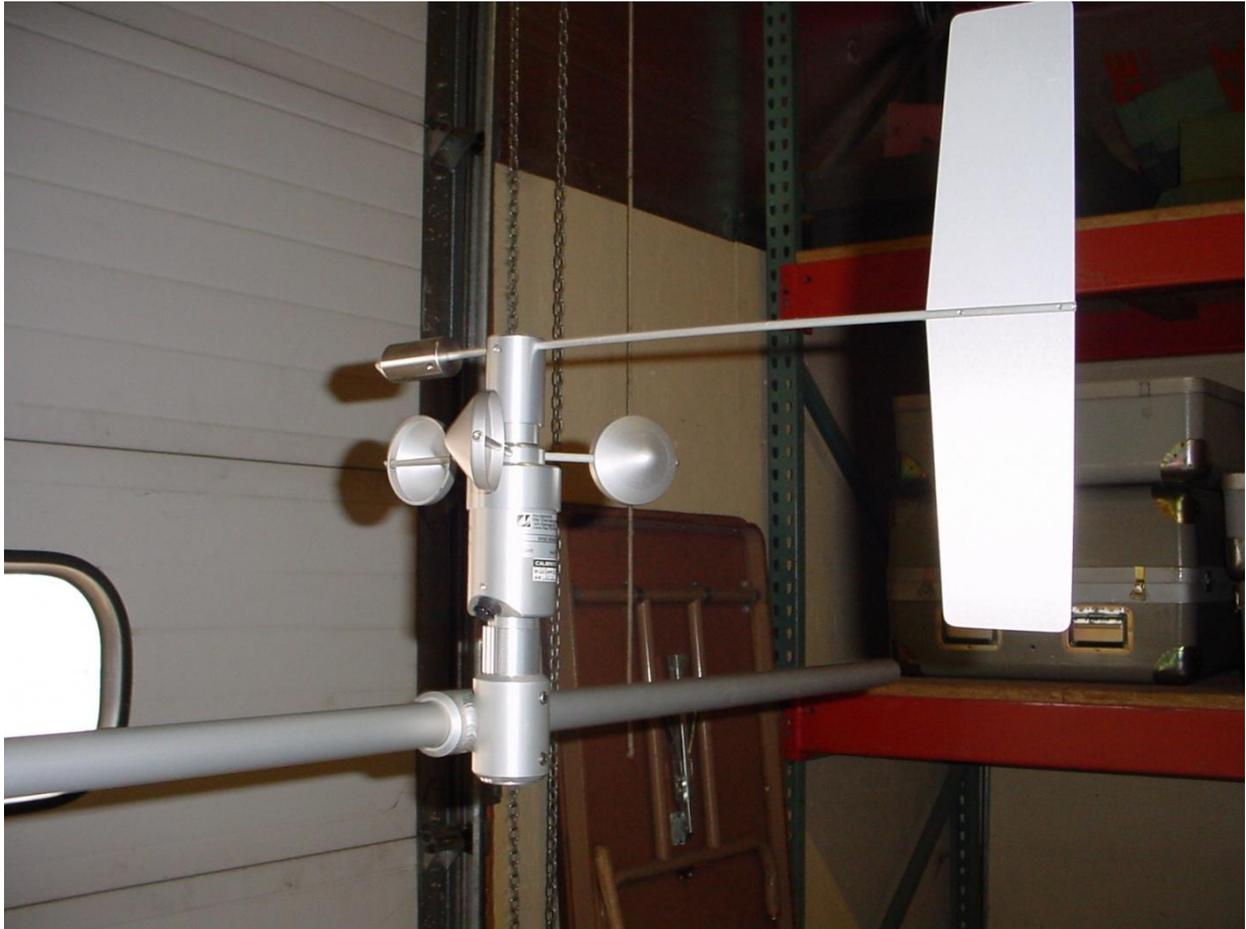
Mount the GOES Transmitter to the tower by sliding it over the South face and U-bolt the bottom.



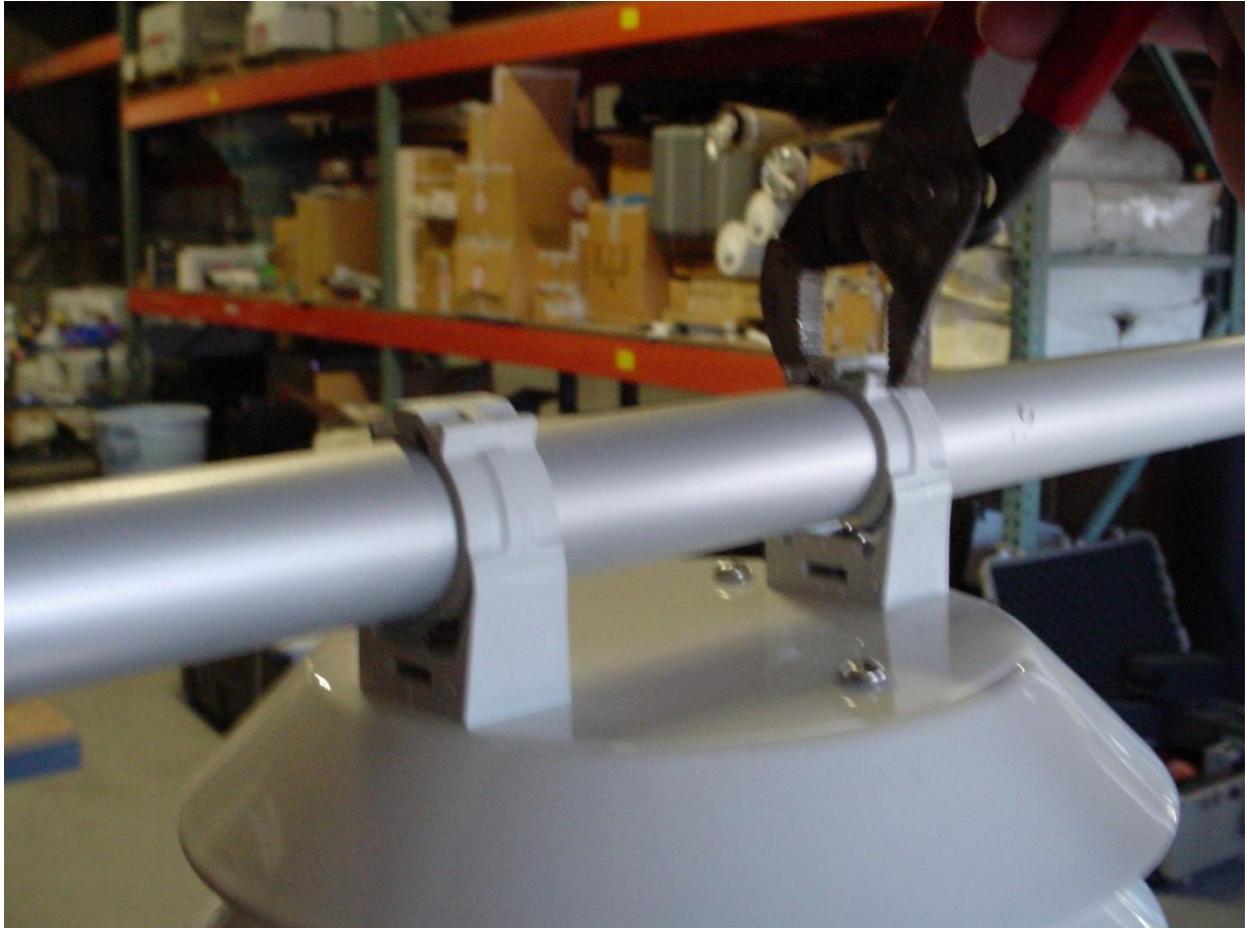
Mount the Crossarm and GOES antenna. Note that the horizontal arm is mounted through the Nu-rail to the North and away from the antenna and the Nu-rail holding the WS/WD sensor is East.



Attach the WS/WD sleeve (alignment hub) to the bottom of the sensor and install the tail feather. Use the Allen wrench supplied to snugly tighten as shown.



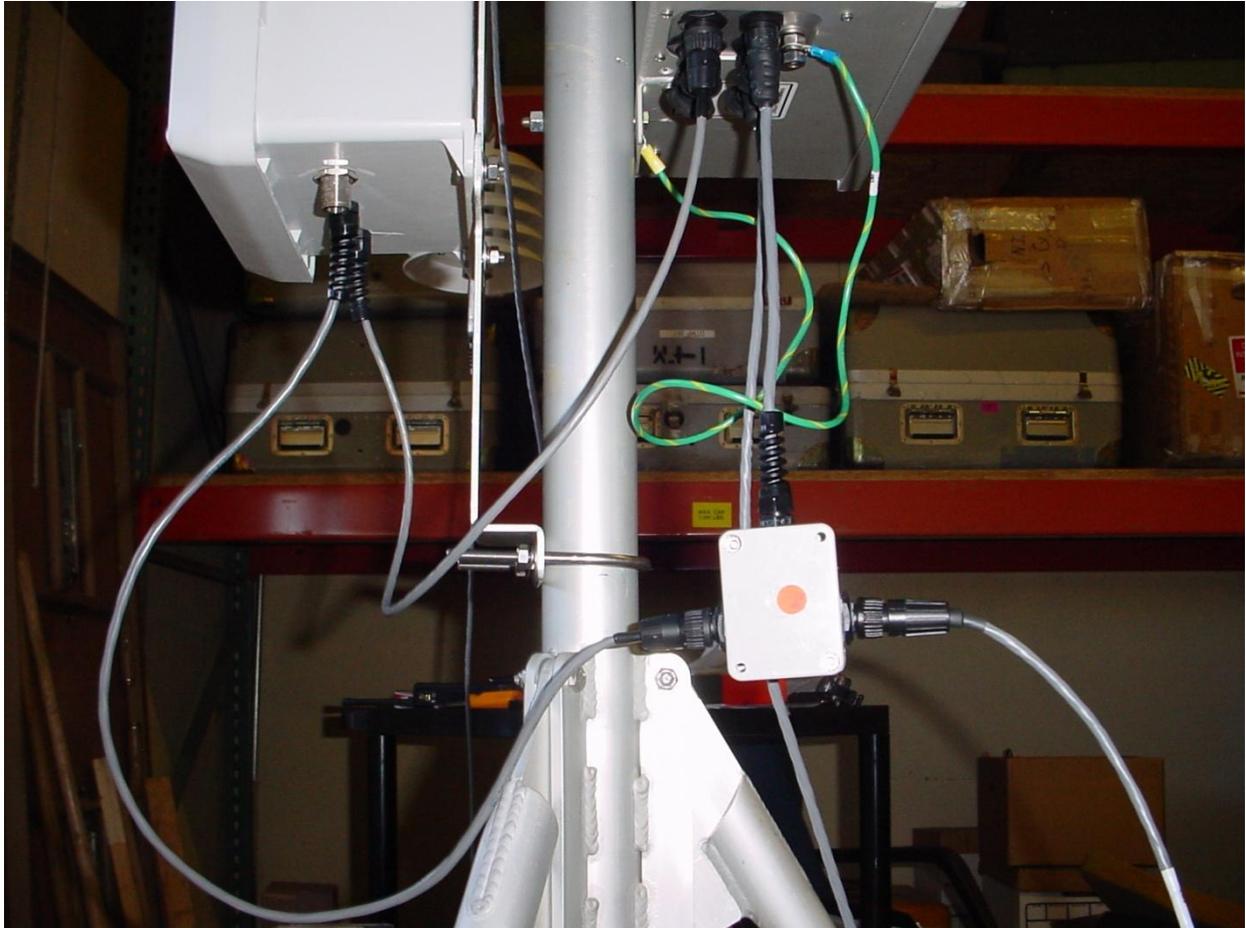
Install the WS/WD sensor to the crossarm with the weight pointing true South. If using a compass, remember to subtract the magnetic declination of your location from your compass reading of 180 degrees (West of the Mississippi).



Mount the RH/AT sensor on the West end of the crossarm using the slip joint pliers to lock the clamps.



Attach the Power Supply to the East leg with the U-bolts supplied.



Connect the cables from the Power Supply, GOES transmitter and Junction "T" to the E-Sampler as labeled.



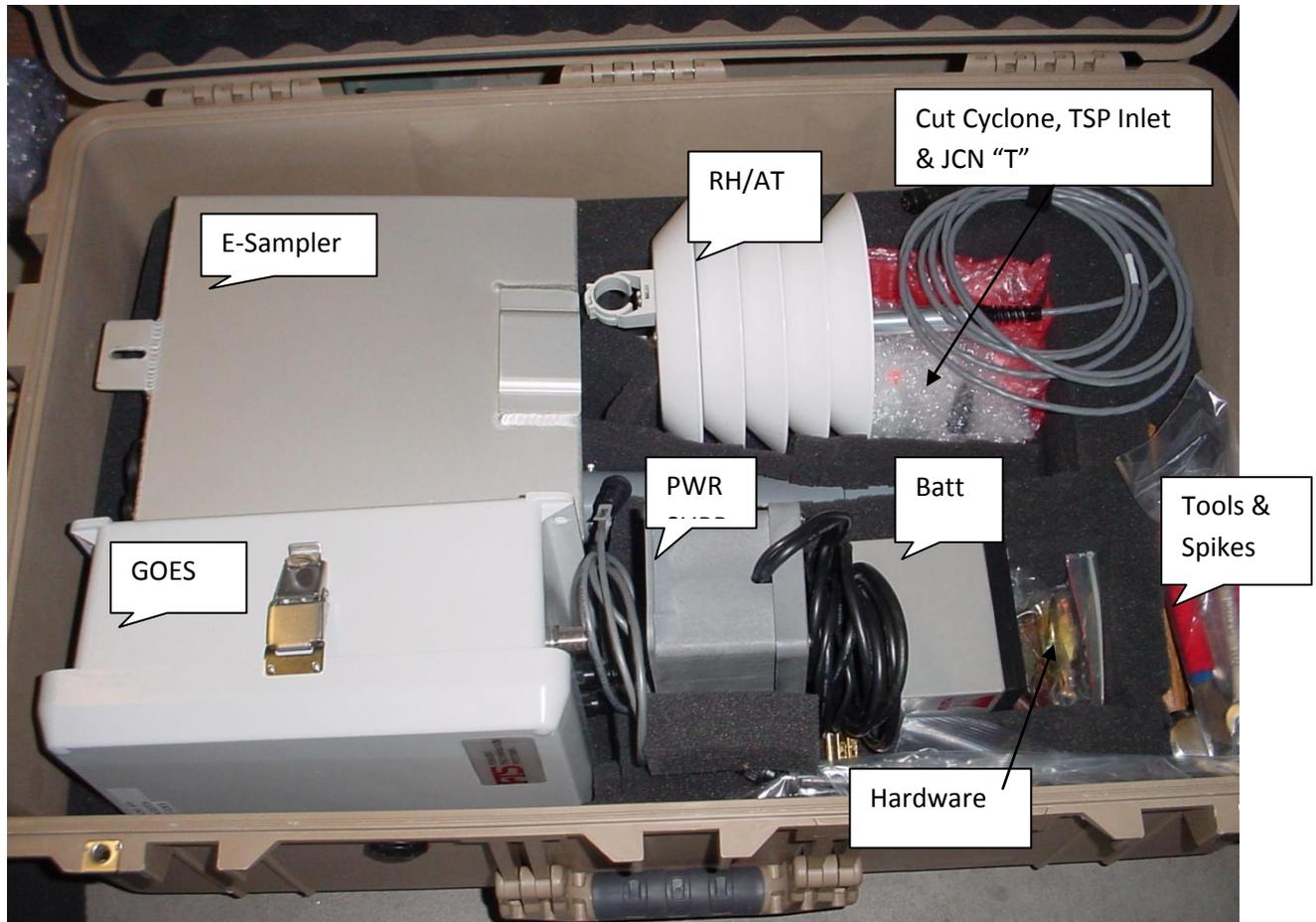
Install the Cut Cyclone and TSP Inlet on the top of the E-Sampler as shown (hand press on).



Use cable ties to dress out the cables so they are not flapping in the wind. Note drip loops below sensors. Connect the battery leads, apply AC power and turn on the E-Sampler. It will sound rather loud at start up while it goes thru some check loops. The NESDIS ID, transmit time and channel can be found on the orange card inside of the GOES transmitter box. Make sure that the E-Sampler is set up according to the Quick Sheet (double check).

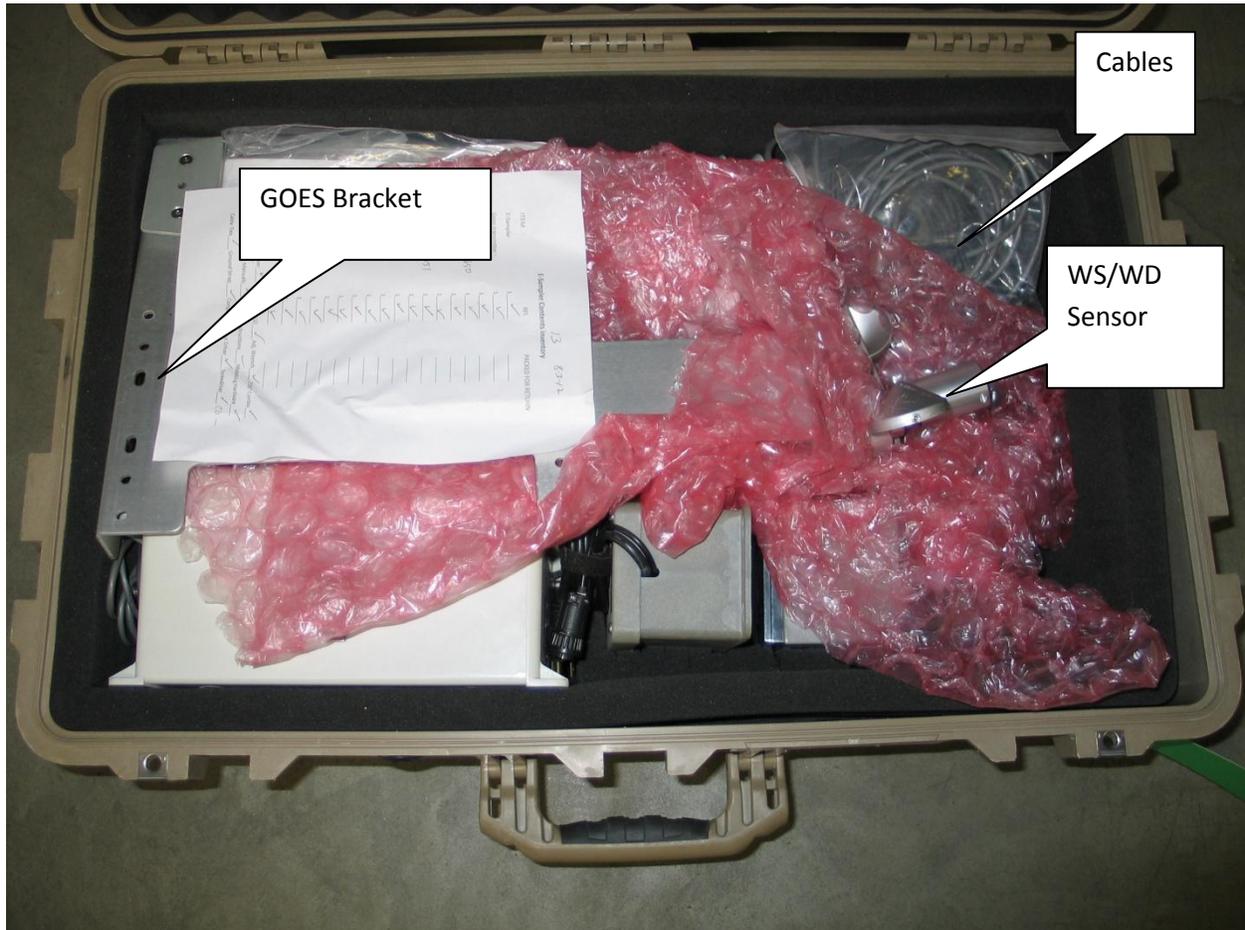
PACKING UP THE SYSTEM

Bottom Layer:



Remember to place cardboard between the E-Sampler & GOES boxes. Pack equipment tight with foam protection between items. The Wind Direction Tail Feather is stored in a cardboard protector behind the lid foam. Put the plastic battery terminal protectors back on the battery. **IMPORTANT!** – Remove the WS/WD alignment hub (bottom).

Next Layer:



The Tower, Crossarm & GOES Antenna should be properly bubble wrapped and packed into the long black case. Place manuals and instructions on top of the E-sampler.

Pack the WS/WD sensor laying flat with one cup up.



DO'S & DO NOT'S

- DO - Read the packing instructions.
 - DO - Replace the Wind Direction lock pin.
 - DO - Put the hardware back together (nut's & washers).
 - DO - Replace the rubber cap on the top of the E-sampler.
 - DO - Remove battery from sampler prior to shipping.
 - DO - Disconnect & pack ground cable inside the battery compartment.
 - DO - Remember to connect the battery at installation.
-

- Don't - Take the top off of the WS/WD sensor.
- Don't - Loosen the tower leg bolts.
- Don't - Remove the Nu-Rails from the crossarm.
- Don't - Forget to replace ALL of the tools & stakes!
- Don't - Lose the manuals or software.