# RSS Alignment, August 24-27, 2009

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As attached pictures show the motor bracket is not well aligned with the axis and the plane of the diffuser. The motor bracket has a slack and motor shaft angle with the vertical is not unambiguous. Also it appears that the motor bracket is too far from the vertical axis of the diffuser. The shadowbanding in this RSS uses the coordinate rotation software with a command “O 17587” for the non collinear operation (Earth axis and motor shaft are not parallel).

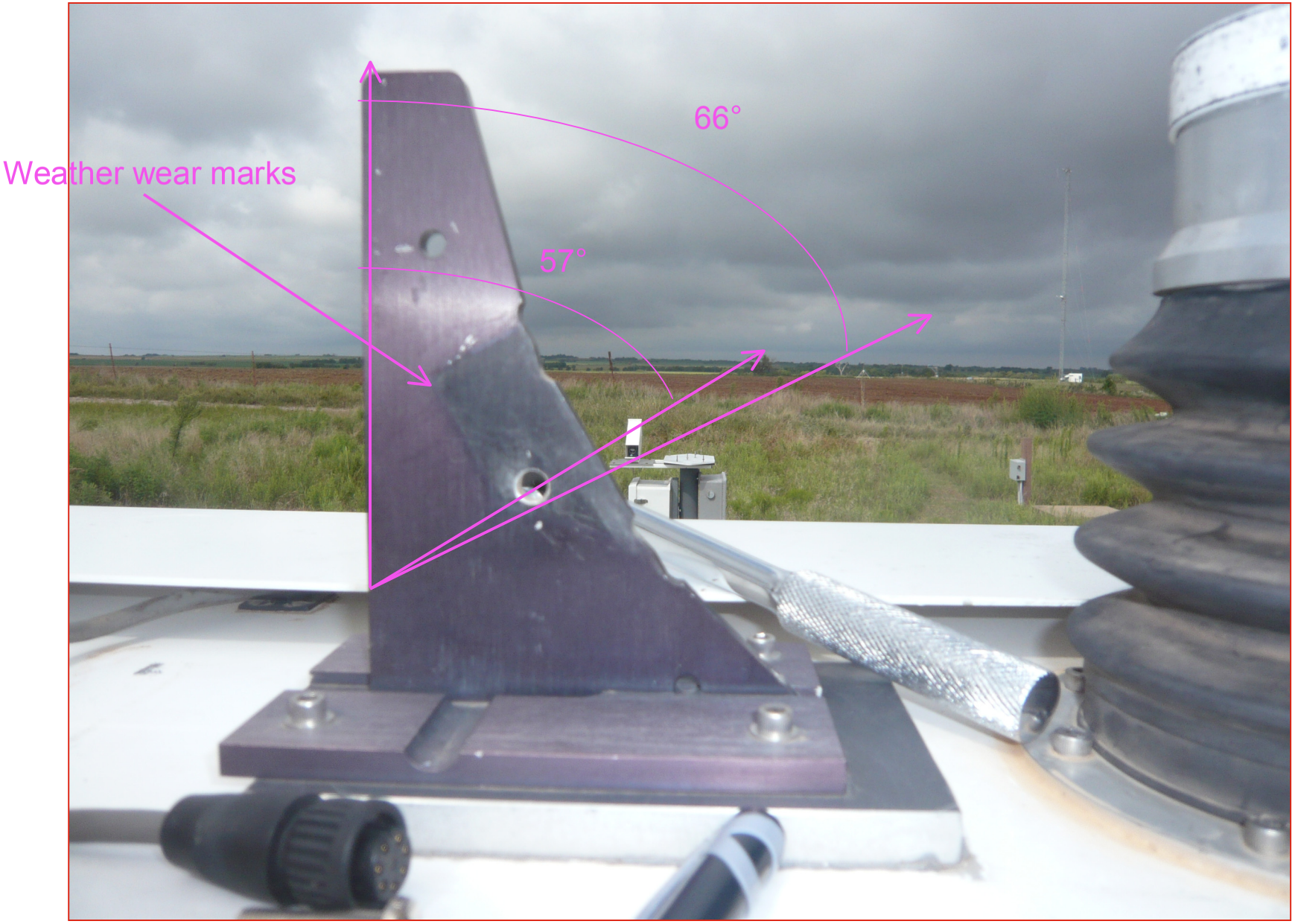
Nevertheless, RSS shadowbanded correctly during its first deployment during 2003-2008. So, we hope there is enough tolerance in the shadowband geometry that we obtain a correct shadowbanding this time.

If however, RSS shadownbanding will not be stable in short or long term despite of shadowband adjustments during daily checks a change of motor bracket and its position should be considered.

August 24, 2009

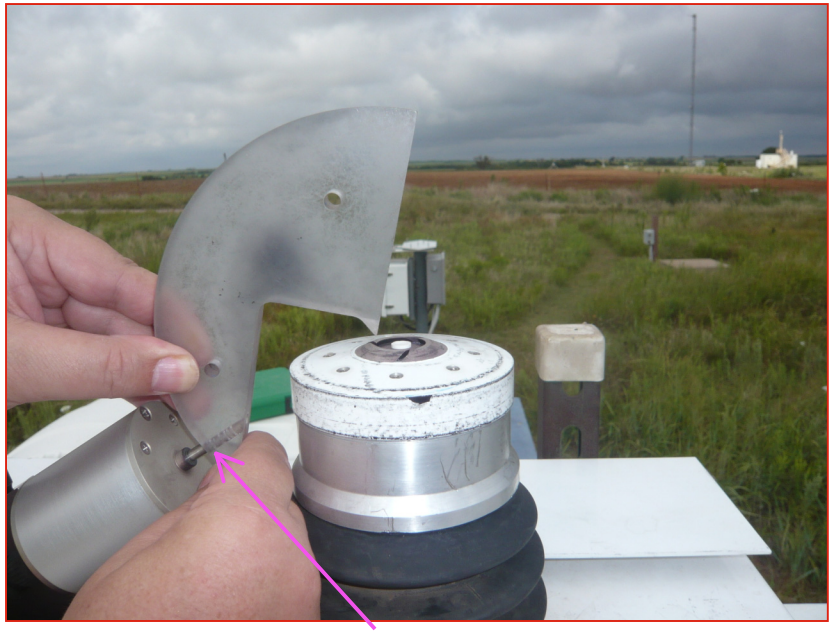
# Motor Bracket: 57°- 66° angle slack

Note: 57° angle was set (based on weather wear marks)

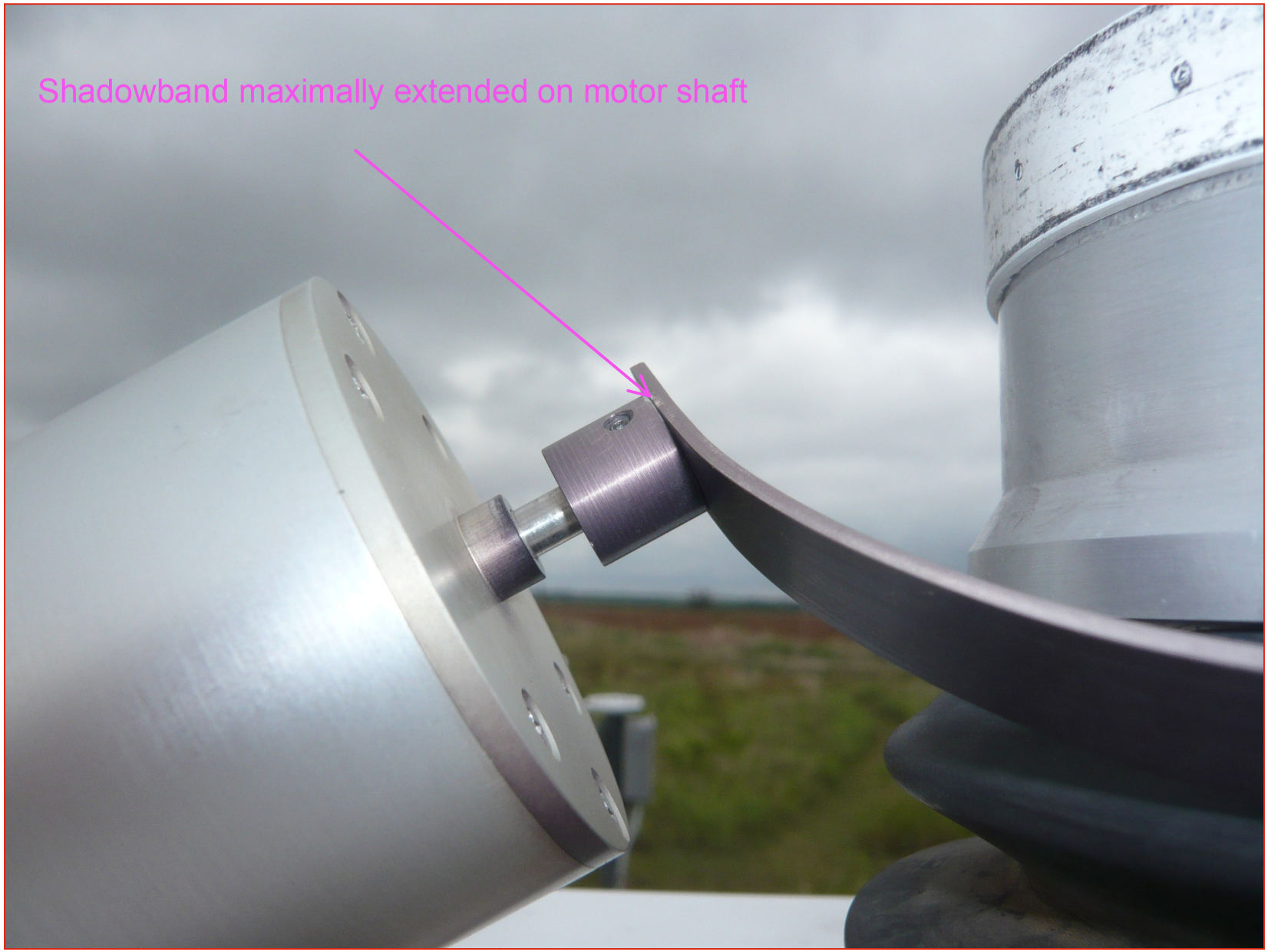


# Testing alignment for several motor angles

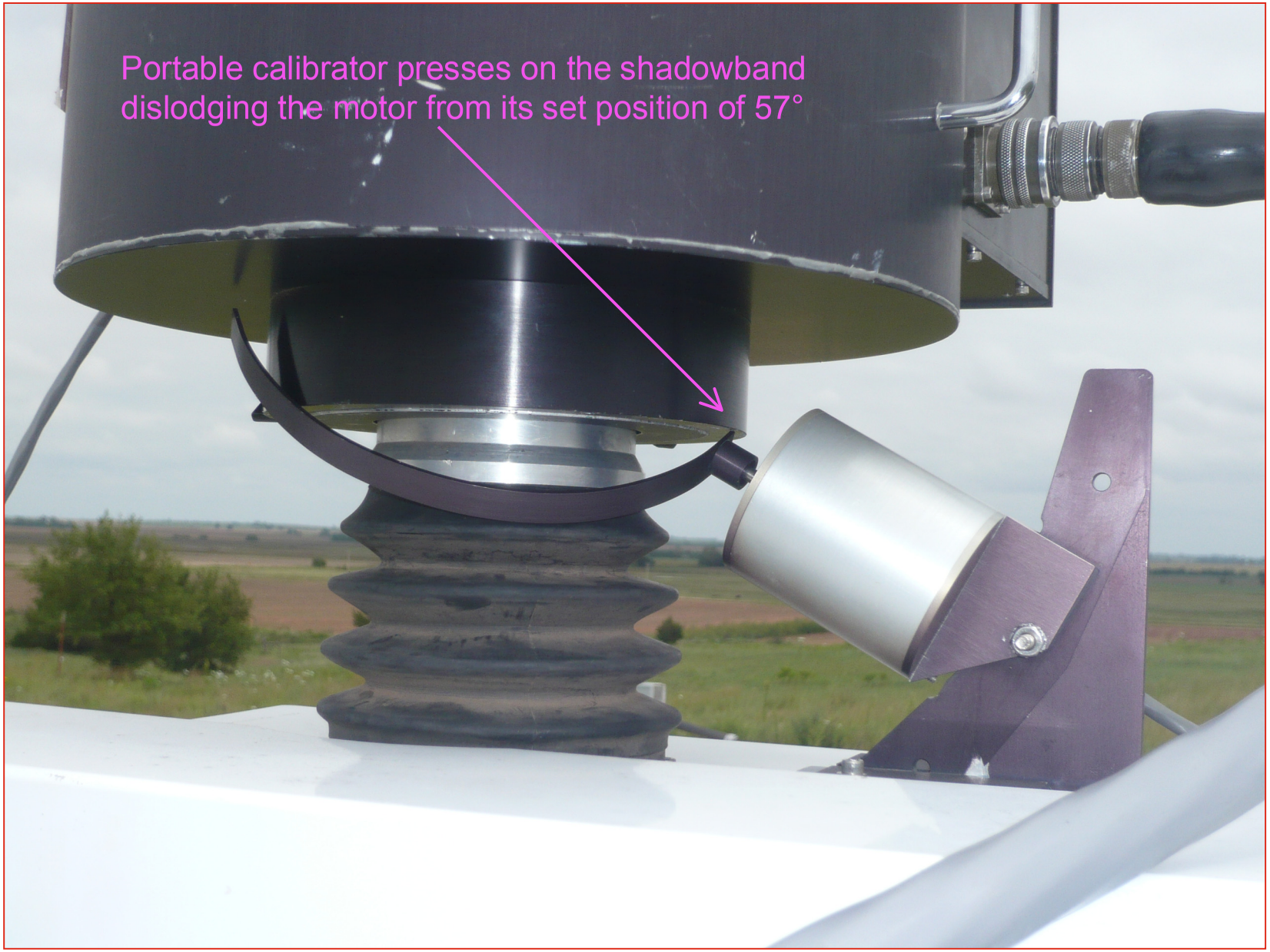
Note:  Distance between motor bracket and diffuser is too long



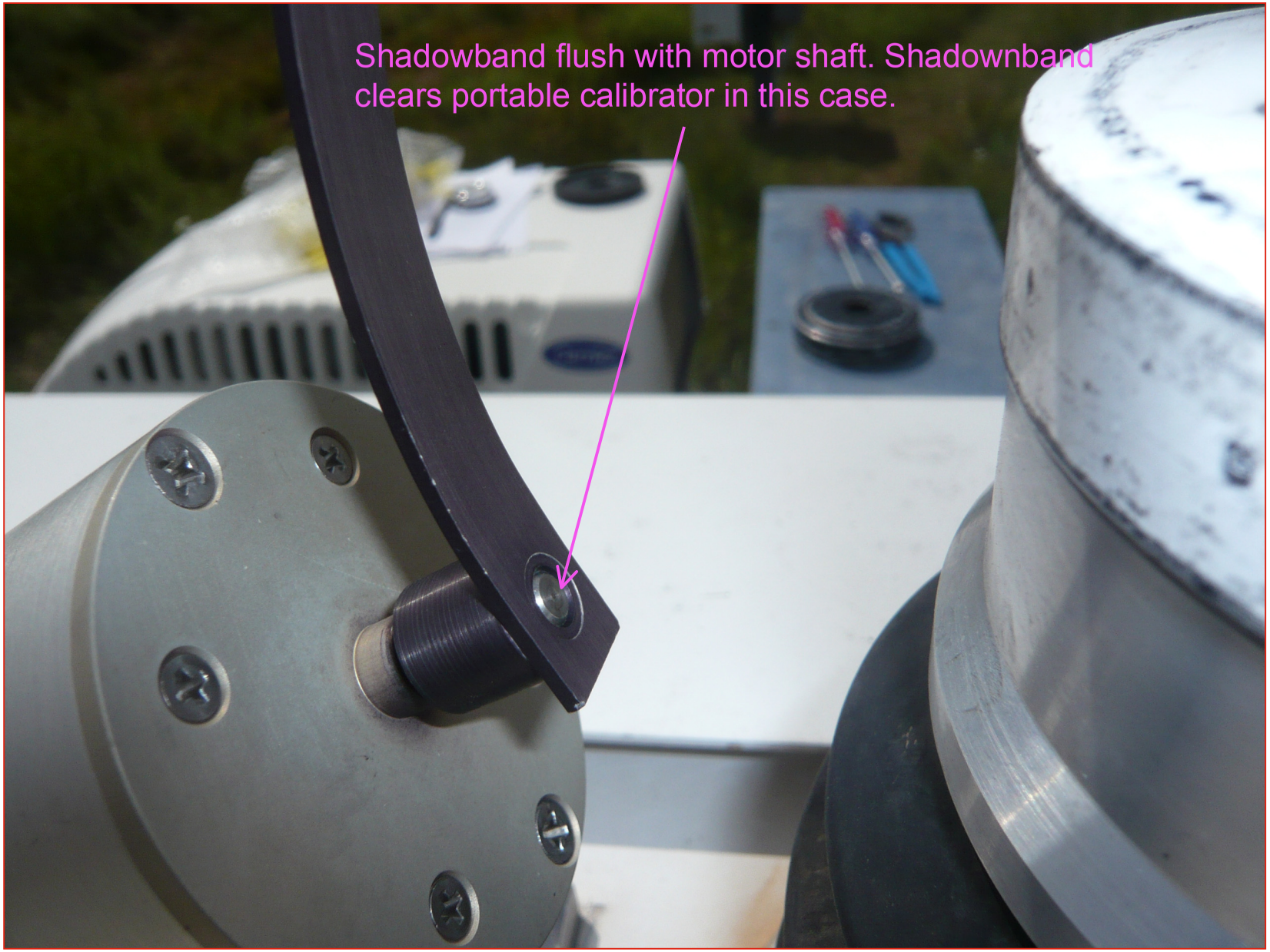
Shadowband maximally extended on motor shaft


Shadowband maximally extended on motor shaft

Shadowband cannot be maximally extended on motor shaft!



Final shadowband mounting on the on motor shaft



Artificial horizon level after leveling  RSS frame using  shims

Note:The level may slightly change after laying RSS down for Licor calibration