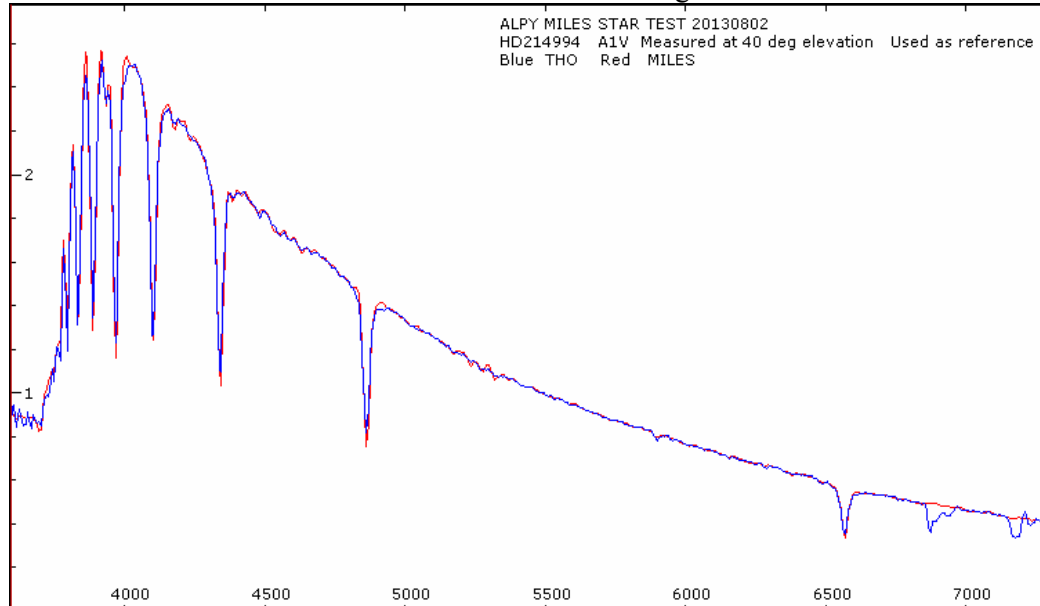


2013-08-02 Testing Alpy using stars from the Miles database

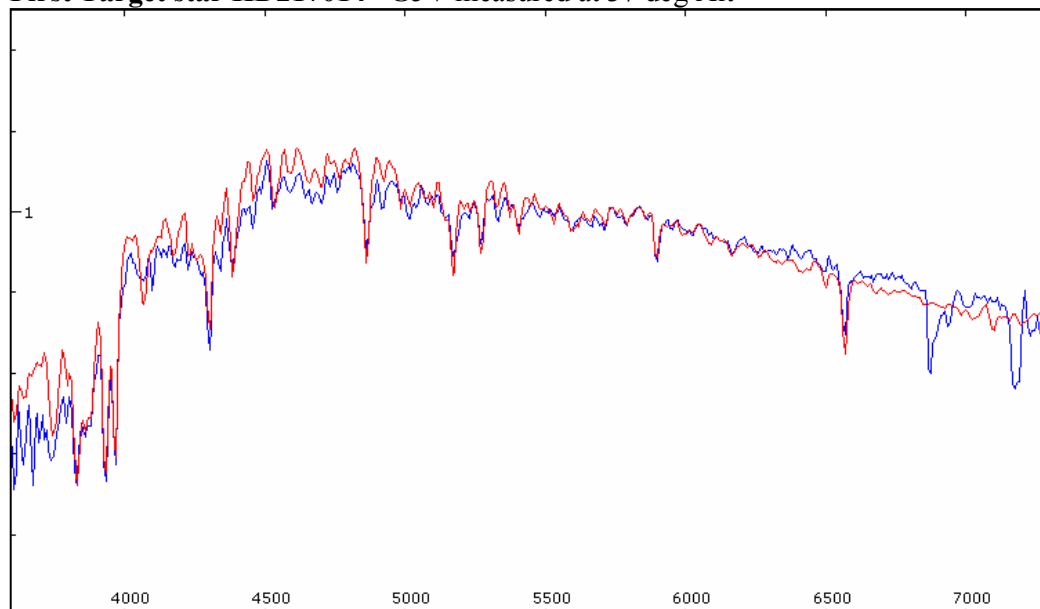
Conditions – Variable thin cloud

Reference star HD214994 A1V measured at 40 deg Alt



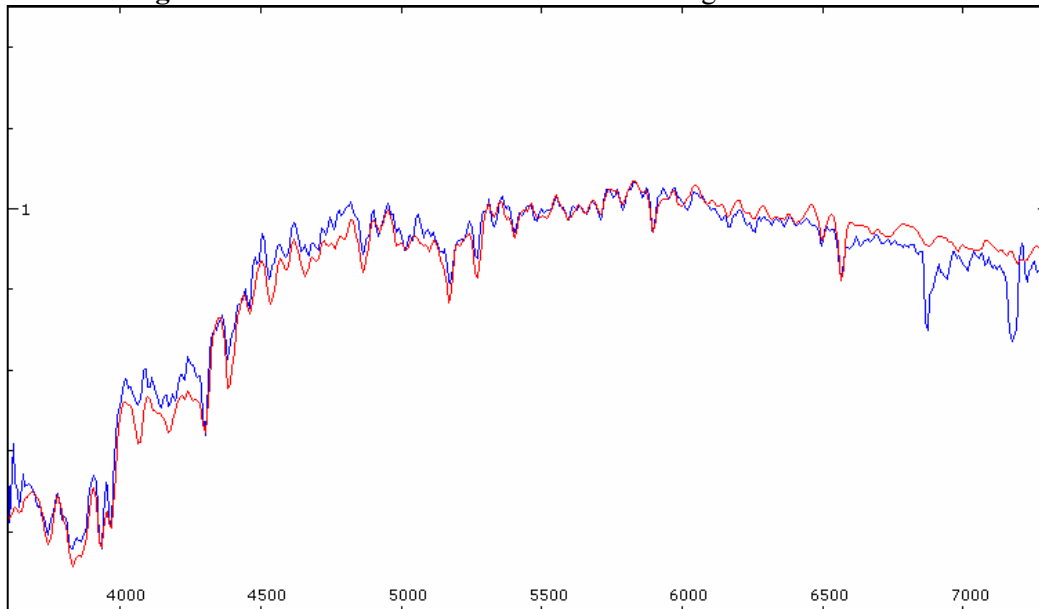
There is good agreement, as expected, between the corrected Alpy spectrum (Blue) and the spectrum from the Miles database, filtered to ~ match the Alpy resolution.

First Target star HD217014 G5V measured at 37 deg Alt



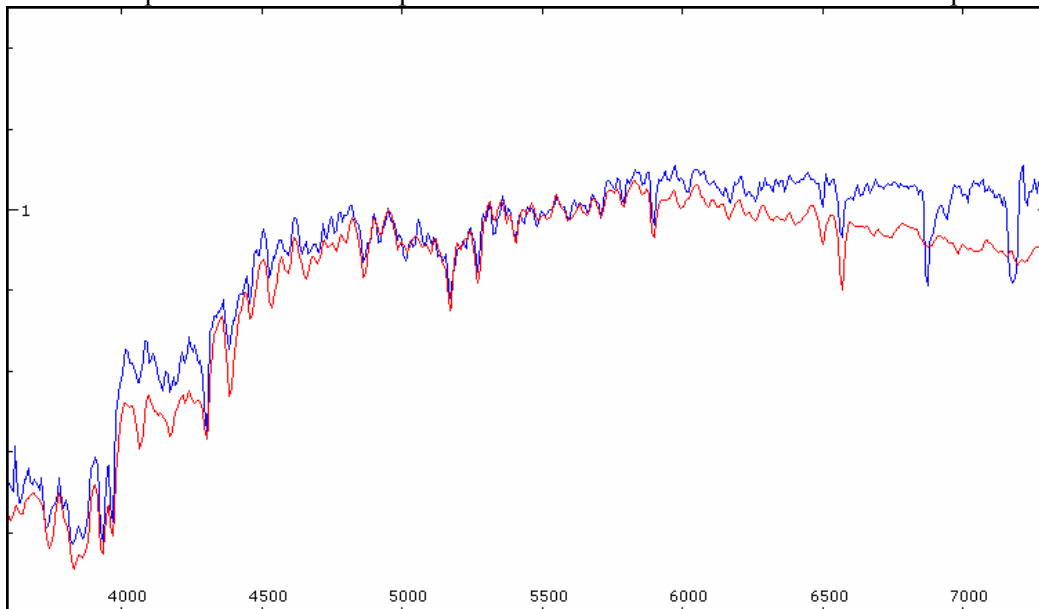
Corrected using the Instrument response calculated using the reference Star. Good agreement with the spectrum in the Miles database, deteriorating below ~3800A

Second Target star HD218031 K0III measured at 55 deg Alt



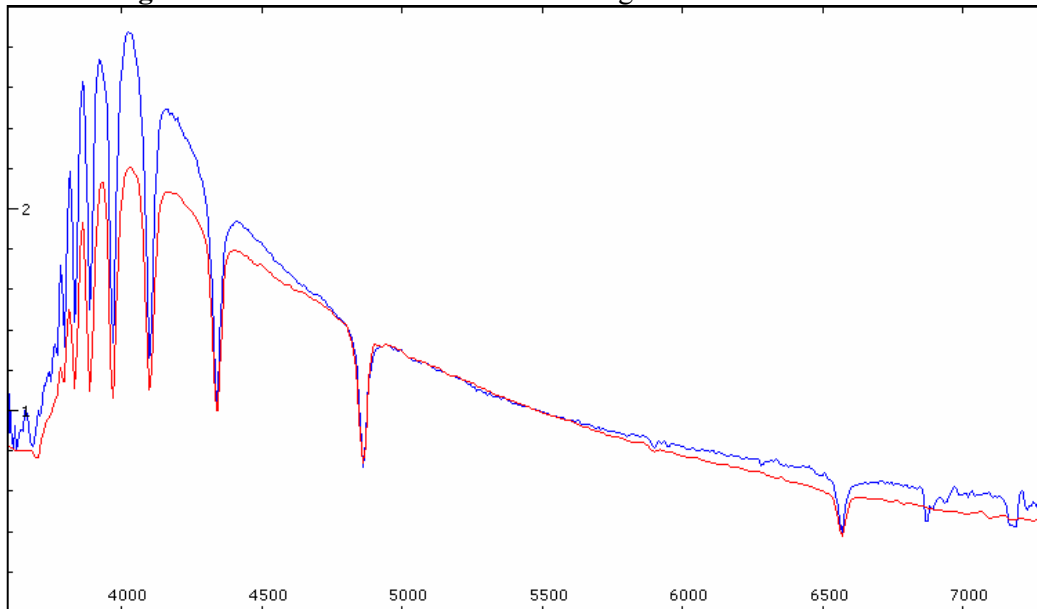
Similarly, good agreement

The telescope focus was then improved and the measurement of HD218031 repeated



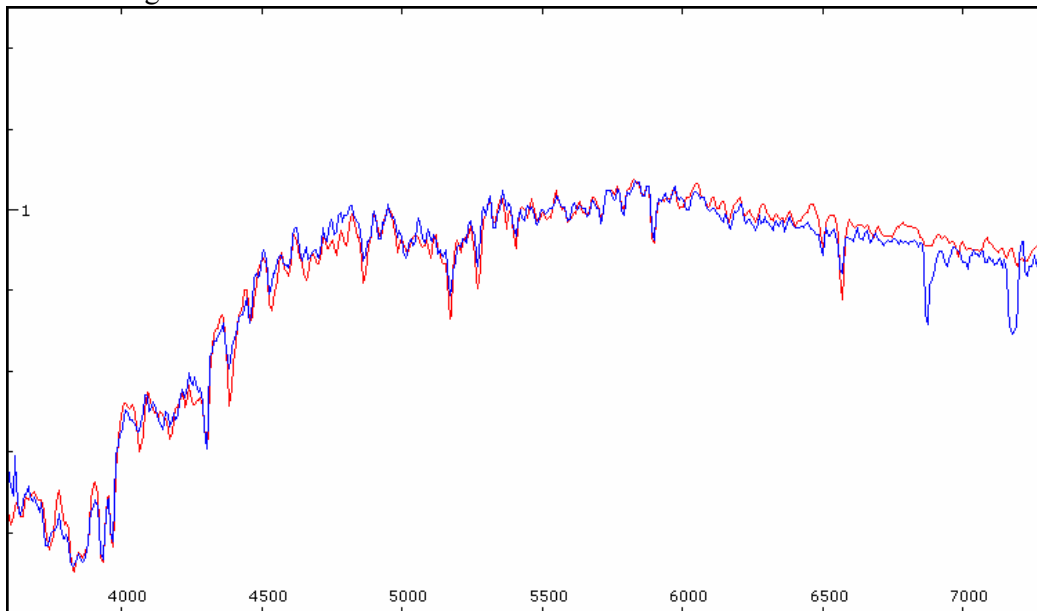
This significantly affected the shape of the spectrum. (To minimise this affect it is clearly important to keep the focus the same for both reference and target.)

Third Target HD183324 A0V measured at 37 deg Alt



This measurement showed the same significant error in the continuum shape caused by the focus adjustment.

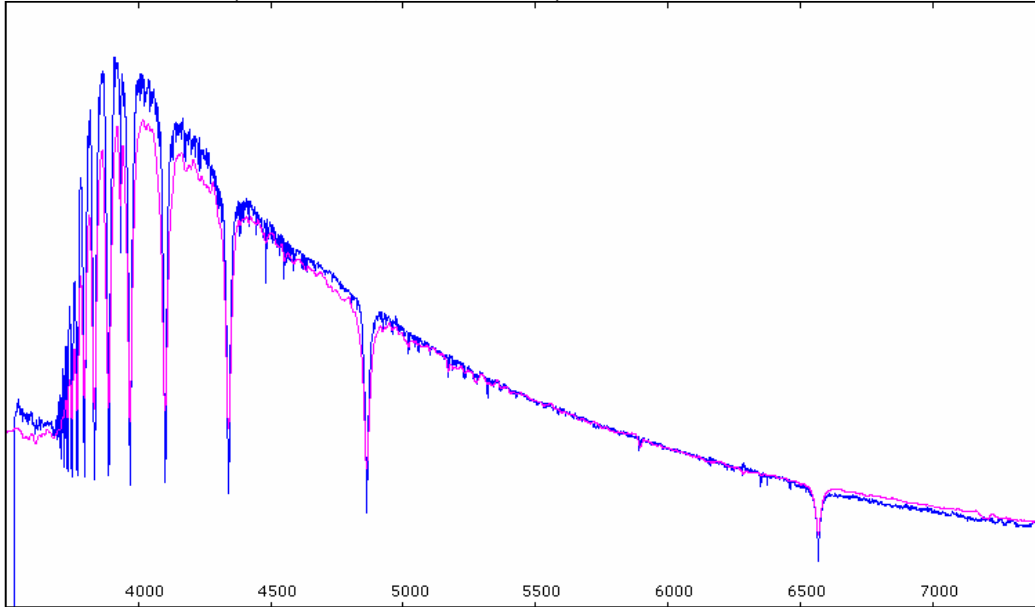
This star is an ideal reference star. If we use it to recalculate the instrument response for the new focus setting we can use this to recalculate the refocused spectrum of the Second Target star HD218031



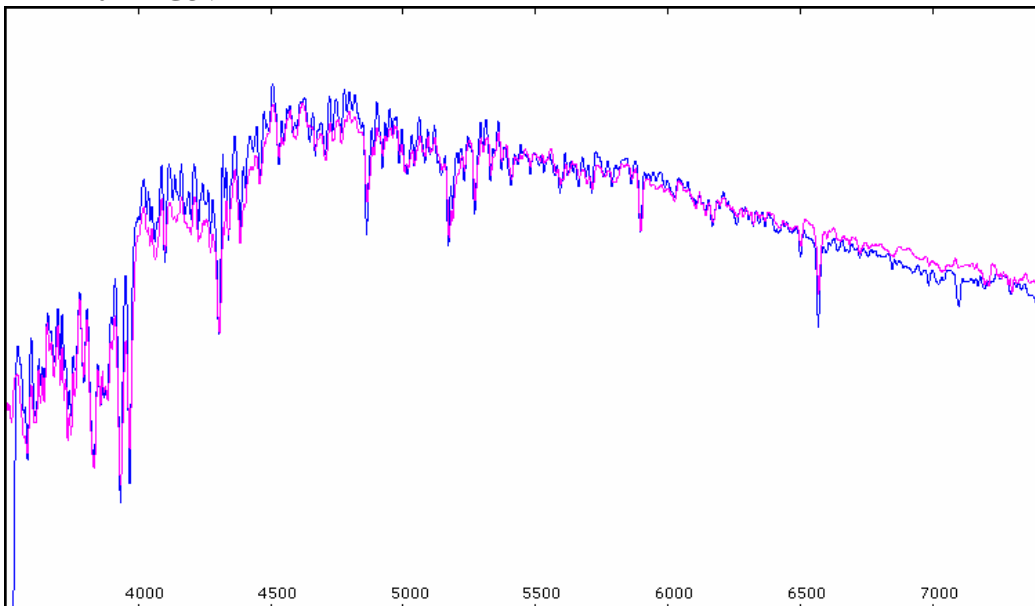
The agreement between the measured and the database spectrum is now excellent

A comparison between the spectra in the Miles database and generic spectra of the same spectral class from the Pickles database.
The spectra are similar but not identical

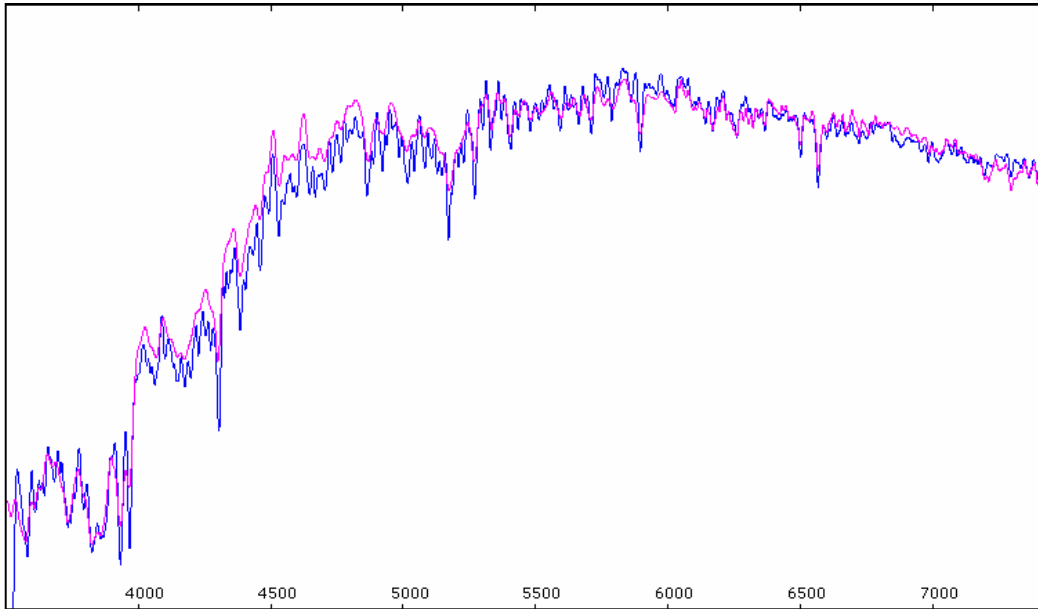
HD214994 A1V (Blue Miles, Pink Pickles)



HD217014 G5V



HD218031 K0III



HD183324 A0V

