

# Update on Keck Spectroscopy of AEGIS from UC Santa Cruz

**DEEP3:** Accepted long term Keck DEIMOS program (PI: Faber): 25.5 nights granted for 90 masks at 1 hour exp.  
30 masks @ 1200l/mm for completion of DEEP2 in NE end  
60 masks @ 600l/mm for central ACS+skirt of EGS

Status: 15.5 nights used, 10 remaining

60 out of 90 masks completed so

DEEP2 is completed; 30/60 or 50% of main ACS+ done

Spring 2010: granted 5.5 nights,

Leaves last 4.5 for spring 2011 DEEP3 is on track!

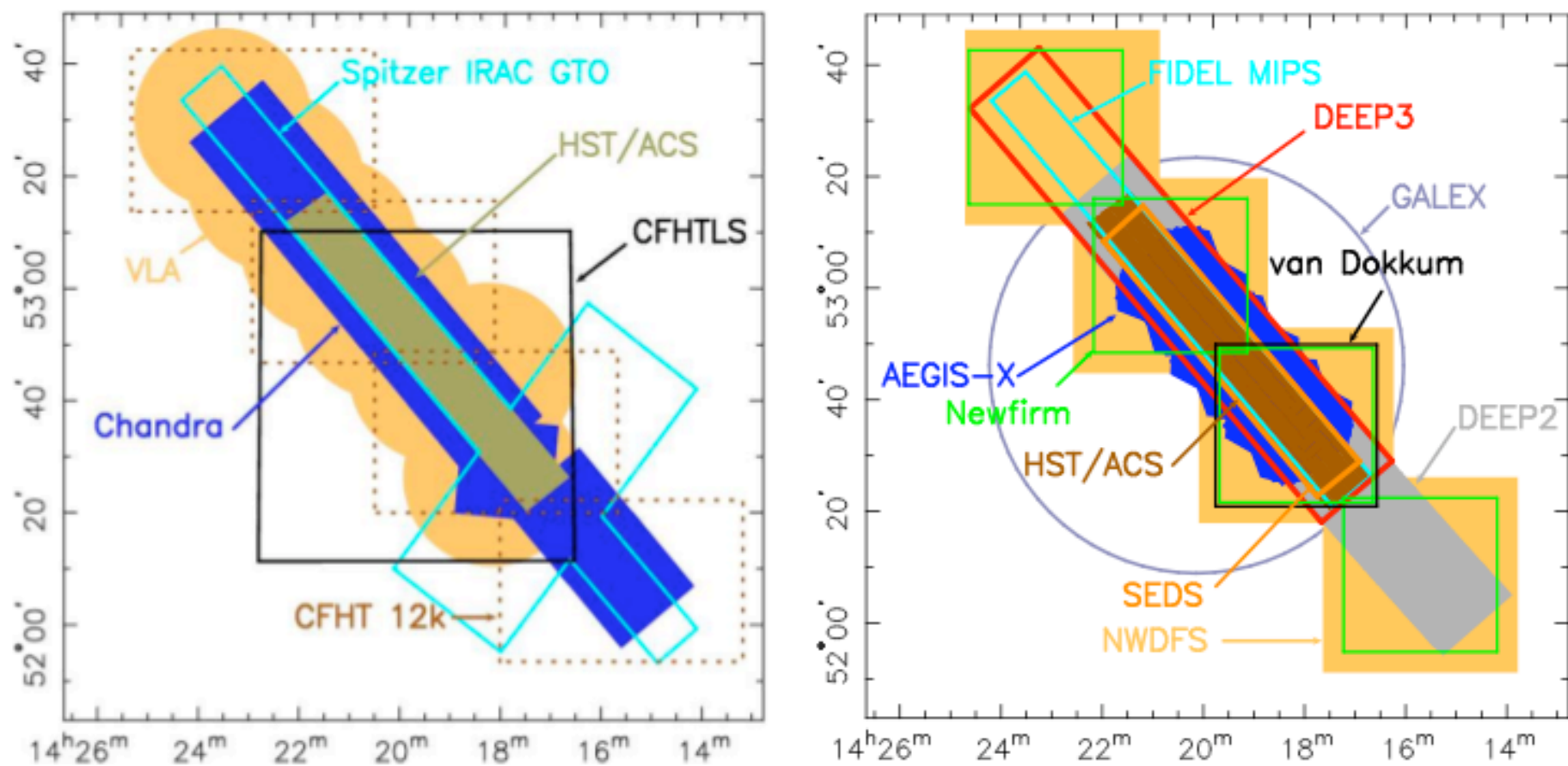


Fig. 6.— **Left panel:** Early coverage of the Extended Groth Strip by major instrument surveys. **Right panel:** Later data, including the “sweetspot” being observed by DEEP3 (red rectangle). DEEP3 is structured so as to complete the upper part of EGS in first-pass (1200-line) mode and re-cover the middle half of EGS in second pass (600-line mode). The upper one-third of the DEEP3 rectangle is first-pass, which is now finished, and the lower two-thirds is second-pass, which is half done. Recent additional supporting data are also shown, including the ultra-deep *Spitzer* FIDEL Legacy Survey (24  $\mu\text{m}$  and 70  $\mu\text{m}$ ), deep-wide surveys by *Spitzer*, *Chandra*, *VLA*, *HST/ACS*, *GALEX*, and the Warm *Spitzer* SEDs survey, which is spending 400 hours of IRAC observing time on EGS. Also notable is the van Dokkum NEWFIRM Medium Band Survey, which will return highly accurate photoz's down to  $K_{AB} = 23.5$ .

# Miscellaneous Follow-up Programs

## DATA COLLECTED:

**LRIS** (PI: A. Phillips - UCSC): **3 hour** exp. - access to UV absorption lines for study of gas flows and more emission lines for O/H of blue galaxies at  $z \sim 0.6$  to 1 (work of PhD student Kate Rubin). 5 Nights over 3 seasons: over 100 targets - still under reduction stage.

**DEIMOS** (PI: C. Martin - Caltech): **9 hour** exp -- using 1200 l/mm grating to study Green Valley galaxies in AEGIS (work of PhD student Thiago Goncalves). 5 Nights over 2 seasons. Still under reduction stage

## FUTURE PLANS:

**MOSFIRE** on track to be ready for science by late 2010. Mobasher & Koo are trying to develop a broad-based UC consortium to work cooperatively with GTC EMIR GOYA project to tackle Spitzer SEDS fields. Aim for 80-100 nights total. Specific science, target selection, balance of fields, etc. are all still to be worked out but roughly 1000+  $z \sim 2$  galaxies spread among all the SEDS fields.