MARLIN data, expect slightly better for MOS due to improved transmission) S/N=10 for an elliptical galaxy with R=21 and S/N=5 for I=21, in 1h with the V150 grism and a 1.5x13 arcsec slitlet.

SIS

1. Stabilized Imaging Spectrograph, F/10 output: image stabilization with an active mirror (similar to HRCAM) in a 3x3 arcmin^2 field. Both images and spectra can be obtained with improved image quality. From experience with HRCAM, we expect SIS to deliver a mean seeing of 0.55 arcsec, compared to 0.7 arcsec for unstabilized images.
2. Wavelength coverage: 3600Å to 1 μm.
3. Recommended CCD: LICK2 2048^2 15 μm pixels. Sampling on the sky = 0.09 arcsec/pix. Other CFHT CCDs are also useable but do not cover the full field.
4. Imaging capabilities: set of B, V, R, I filters, limited set of interference filters (check with staff).
5. Long slit spectroscopy: maximum length of slit = 3 arcmin, width at user's will (laser drilling with LAMA). See Table I for list of grisms and spectral resolutions.
6. Multi-slit spectroscopy: user designed multi-slit aperture masks drilled with the LAMA as for MOS. See Table I.
7. Fabry-Perot field spectroscopy: 3x3 arcmin^2 field, same etalons available as for PALILA. Same spectral resolutions as for MOS.
8. Limiting magnitude: Long slit/ Multi-slit same as for MOS for spectrum integrated along object profile when in readout noise limited regime (takes 10 times longer to reach this than for MOS for 0.09 arcsec/pix sampling). S/N improvement is expected on compact sources from improved image quality. For objects with "constant" surface brightness, expect a S/N per pixel 3 times lower if using 0.09 arcsec/pix sampling compared to the MOS sampling with same spectral resolution.

A draft version of the MOS-SIS user's manual is being prepared and will be made available upon request to lefevre@uhcfht.

O. Le Fèvre

Table I: Wavelength coverage and Spectral Resolutions with MOS-SIS

(cf also Fig. 7, CFHT Information Bulletin #23). Careful: the spectral coverage strongly depends on your slit location.

GRISM	V150	R150	O300	R300	B400	B600	O600	U900
Central λ	5900	7400	5850	6900	5100	4950	5900	3950
Peak Transmission %	79	82	74	74	65	69	58	63
λ coverage (50% peak)	3700–10000	4500–10000	4000–10000	4100–10000	3600–5100	3600–7000	3750–7000	3600–5100
MOS Spectral Resol. (slit 1")	21	21	10.5	10.5	7.9	5.2	5.2	3.5
λ/pix	6.5	6.5	3.2	3.2	2.4	1.6	1.6	1.1
SIS Spectral Resol. (slit 0.5")	10.5	10.5	5.2	5.2	4.0	2.6	2.6	1.8
λ/pix	1.85	1.85	0.93	0.93	0.68	0.46	0.46	0.31

Calibration of New UV Optics for the Herzberg Spectrograph

During the nights of December 7 and 8 1990, a number of spectrophotometric standard stars were observed with the Herzberg Spectrograph when it was configured with Grating # 2 (41 Å/mm; λ_{blaze} ~3000 Å) and the recently commissioned UV optics. The detector was PHX1, and the observations were made with the slit opened to a width of 14 arcsec, to minimize loss of light due to seeing effects. The weather was photometric, so it was possible to calibrate the absolute performance of the spectrograph in this configuration. The results are summarized in Table 2, which lists the number of electrons per second per Angstrom expected from a 0th magnitude star at one airmass using a detector with 100 % quantum efficiency. These values are integrated over the entire stellar PSF.

T.J. Davidge

Table 2

λ	n/10^6	λ	n/10^6
3000	0.9	3600	17.3
3100	6.2	3700	17.1
3200	9.9	3800	16.2
3300	12.1	3900	16.8
3400	15.6	4000	18.3
3500	18.3	4100	19.2
		4200	18.1

New DAGE Guiding Camera on Herzberg

In the process of the implementation of the UV configuration for the Herzberg Spectrograph, a new DAGE camera was purchased to replace the aging ISOCON as the slit viewing camera. Since the detector size of the DAGE is only about a third of the ISOCON, a new 75 mm C-mount lens substituted the original lens to give the same field of view.

The new camera was tested during the engineering night of July 19, 1991. A few spectra of standard stars were taken to establish the transparency of the sky. The sensitivity of the slit/field viewing camera was then tested against known magnitude stars in the M92 globular cluster. The stars M92-IX-26 and M92-IX-100 of magnitudes 16.4 and 17.0 respectively, were easily seen on the video monitor in direct mode (no integration). This indicates that the DAGE is definitely as sensitive as the ISOCON was. Slight vignetting was seen on the edges of the field but this does not affect the usefulness of this camera. The DAGE will, from now on, be the only camera used with the Herzberg.

S. Béland

Note added in proof: The MOS-SIS has been successfully tested on the sky in June, 1992.