

allowed for since in most cases the stellar images are blurred to the same size due to seeing. Increasing the pixel size has the advantage that the detector's dynamic range is improved. Therefore the square image frame consists of  $100 \times 100$  or  $50 \times 50$  pixels and the image size corresponds to  $2.9 \times 2.9$  arcmin<sup>2</sup> at the 1 m telescope.

### The First Observations

Due to some technical difficulties with the system's electronics and bad weather conditions in October and November 1981, the instrument could undergo only short test phases at Hoher List Observatory before it was shipped to Chile. During our observing run of 7 nights in January 1982 at the 1 m telescope on La Silla the instrument worked perfectly: for 20 young (blue) and old (red) globular clusters of the LMC surface photometry with  $3.45 \times 3.45$  arcsec<sup>2</sup> pixel size could be carried out in the ranges U,B,V,G and R of the UBV and RGU colour systems. (An example of these observations is given in Fig. 3.) The typical integration time per image frame was 3.5 minutes. This shows clearly the enormous effectiveness of such modern panoramic detectors. During the morning hours, when the LMC was too low, we additionally obtained observations of galaxies and some galactic objects (open and globular clusters, H $\alpha$  regions, planetary nebulae). On  $100 \times 100$  pixel frames (pixel size  $1.7 \times 1.7$  arcsec<sup>2</sup>) of the globular cluster NGC 3201 stars fainter than  $17^m.1$  and  $16^m.3$  in B and V could be detected (Fig. 4). Up to now only preliminary reductions have been done.

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### The Need for Coordinated Ground-based Observations of Halley's Comet

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However, the enormous amount of data we have collected requires more detailed evaluation to derive brightness and colour profiles of these globular clusters. We hope that we can report about the results in the near future.

### Acknowledgement

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## Dust and Young Stars in Puppis

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### Introduction

Two decades ago the presence of a group of young stars in the constellation Puppis was noted and described by Westerlund (*Mon. Not. R. Astr. Soc.* **127**, 71, 1963). This group appears to form an association of hot and luminous O and B stars also containing the long-period cepheid RS Puppis. The association was named Puppis OB 3. In the region occupied by the association a number of small and peculiar bright nebulae were noted as well as several dark globules and dust lanes (Fig. 1). Also present in the

region is the H II region RCW 19 which obviously is excited by the most luminous of the association members. The age of the association was estimated from the most luminous member, the O7f star HD 69464, to be no more than  $4 \cdot 10^6$  years. Thus the stage seemed to be set for the scrutinizing of a relatively restricted region of recent star formation concerning the content of both stellar and interstellar material. The following is only intended to be a progress report of this project as some of the recent observational material is still being analysed.

### Observations

To get as much information as possible about the different constituents in a region of star formation a number of various techniques must be applied, covering a large part of the electromagnetic spectrum reaching from the ultraviolet to radio. Most of the observational material, in the optical and infrared (IR), for this project was collected at ESO, La Silla, partly together with Westerlund, during the period January 1980 to January 1982. Spectra of the 10 brightest OB stars were taken at high dispersion ( $12 \text{ \AA/mm}$  and  $20 \text{ \AA/mm}$ ) with the coudé camera of the 1.5 m telescope. These spectra yielded spectral types as well

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