PICKLES: A WIDE-FIELD IMAGING TOOL

L.W. FREDRICK, G.F. BENEDICT, R. DUNCOMBE, O.G. FRANZ, P.D. HEMENWAY, W.H. JEFFREYS, B. McARTHUR, J. McCARTNEY, E. NELAN, P.J. SHELUS, D. STORY, A.L. WHIPPLE and W.F. van ALTENA

Leander McCormick Observatory
Box 3818
Charlottesville, VA 22903
USA

The program Pickles was developed as an aid for planning HST observations using the Space Telescope Science Institute's Guide Star Catalogue, which was generated from wide-field Schmidt plates. Pickles reads the catalogue from CD-ROM and then displays a one-degree square field. The HST focal plane apertures can then be displayed singly or in any combination which is at the choice of the observer (Fig. 1). The user can generate an aperture of a different type if need be. The stars can be displayed as open or filled circles with their relative sizes indicating their magnitude. Stars or other objects can be added and saved with the field.

Other catalogues can be used with Pickles as long as they can be edited into the required form. Radio and stellar positions, for example, can be combined and displayed in the same field. Any field can be displayed at magnifications ranging from a few seconds of arc per millimeter down to the scale of the Palomar Schmidt telescope for making overlays and finding charts.
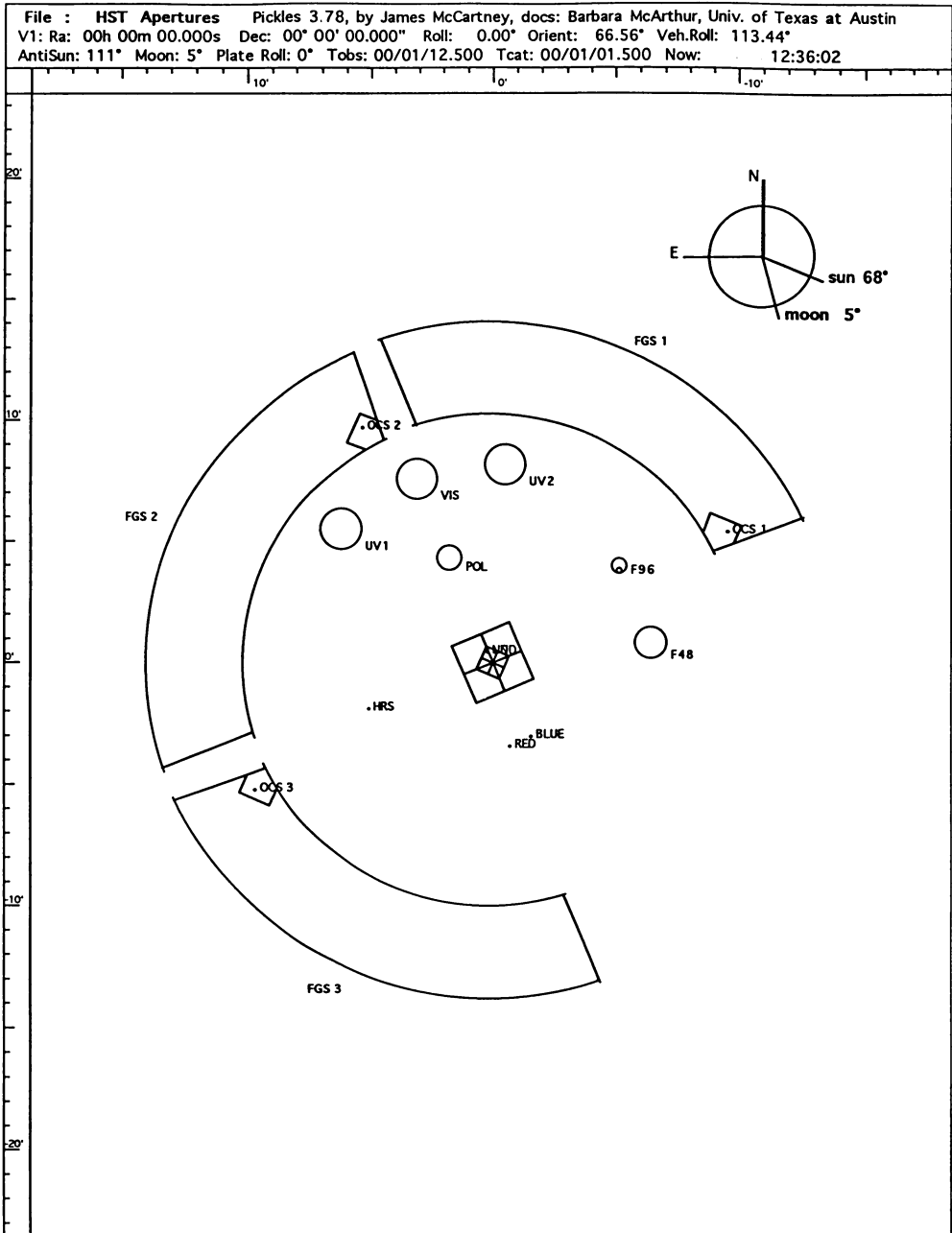
In the case of a failed guide star acquisition by HST, a finding chart was generated (Fig. 2) and FAXed to the McCormick Observatory where the observer confirmed that no object brighter than 14.5 (V) was present even though an 11.9 magnitude star was shown. Subsequent observations at the Siding Spring Observatory showed that the 'star' was actually a 15th magnitude galaxy which has been named 'Ryan's Starburst Galaxy' because of the problems it caused during the orbital verification phase of the Hubble Space Telescope.

Information about Pickles can be obtained from any of the authors. The program can be obtained from James McCartney who can be reached at

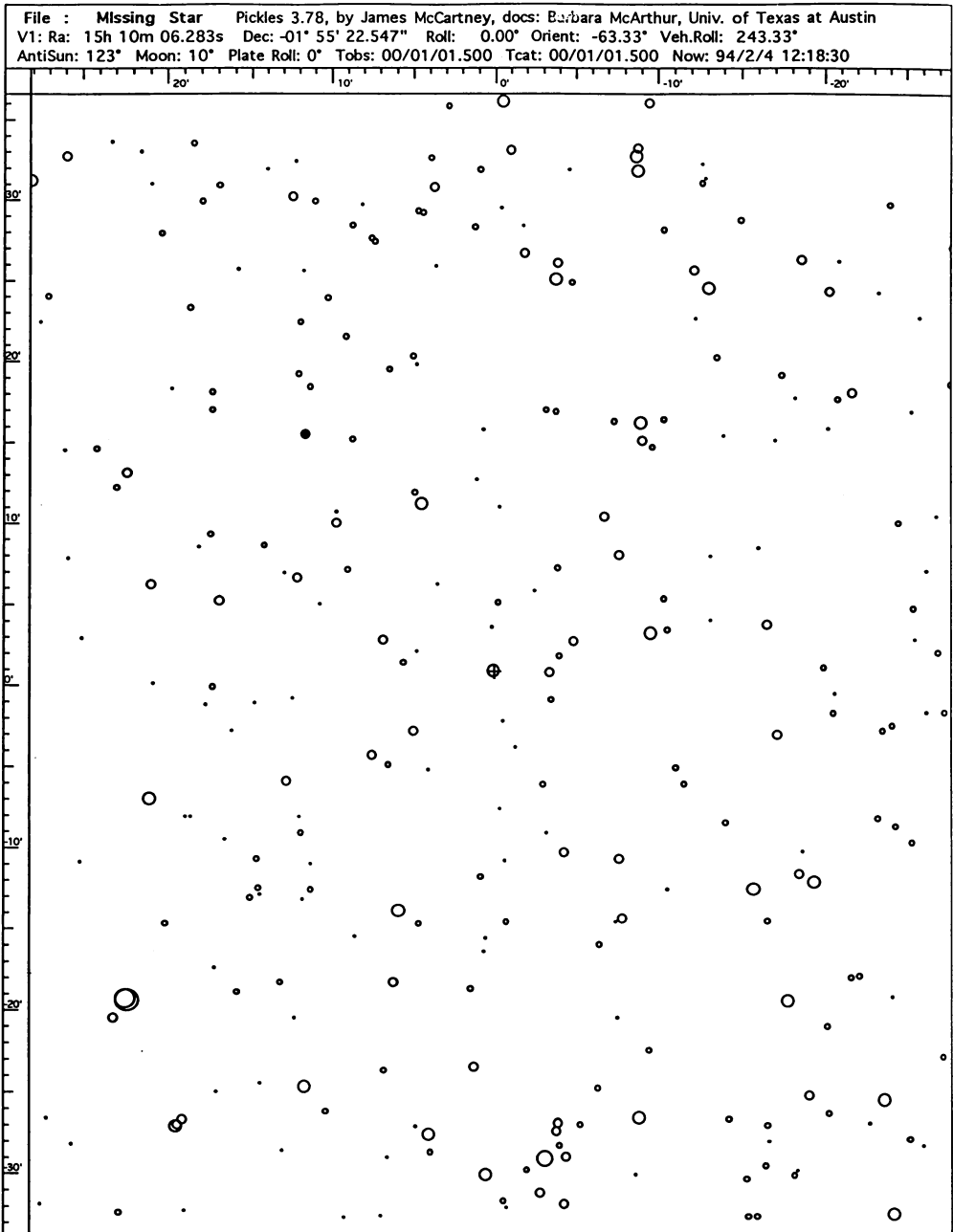**james@clyde.as. utexas.edu**

or by writing to   **James McCartney**
Department of Astronomy, University of Texas
Austin, Texas

There is a user's manual with a tutorial which comes as a 'read me' document with the program. Pickles was written for use on Apple Macintosh computers and runs on workstations supporting Macintosh emulators.

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File :   HST Apertures   Pickles 3.78, by James McCartney, docs: Barbara McArthur, Univ. of Texas at Austin
V1: Ra: 00h 00m 00.000s   Dec: 00° 00' 00.000" Roll: 0.00° Orient: 66.56° Veh.Roll: 113.44°
AntiSun: 111° Moon: 5° Plate Roll: 0° Tobs: 00/01/12.500 Tcat: 00/01/01.500 Now: 12:36:02

Figure 1. HST apertures which can be superposed upon star fields. Many options are available, including user defined apertures, various magnifications, etc.

File :   **Missing Star**   Pickles 3.78, by James McCartney, docs: Barbara McArthur, Univ. of Texas at Austin
V1: Ra: 15h 10m 06.283s   Dec: -01° 55' 22.547"   Roll: 0.00° Orient: -63.33° Veh.Roll: 243.33°
AntiSun: 123° Moon: 10° Plate Roll: 0° Tobs: 00/01/01.500 Tcat: 00/01/01.500 Now: 94/2/4 12:18:30

Figure 2. A Pickles-generated chart of the field for Ryan's Starburst Galaxy.