## Annual Report, 2004 Working Group on Astronomical Software

## Robert J. Hanisch, Chair Space Telescope Science Institute April 26, 2004

The primary role of the AAS Working Group on Astronomical Software is to function as the body that formulates, reviews, and endorses modifications to the FITS data format standard. There has been substantial activity in this area in the past year. Dr. Arnold Rots (SAO/CXC) chairs the WGAS FITS Committee.

The WGAS FITS Committee had taken a vote on elevating Appendices B.1 (variable length arrays in binary tables) and B.2 (multi-dimensional arrays in binary tables) to full incorporation in the standard. This was approved on November 13, 2002 with 17 yes votes, 0 no votes, and 1 non-response. This proposal was forwarded to the European and Japanese FITS Committees for their consideration. However, these committees did not take action and further voting was suspended until the IAU FITS Working Group is finished with its review of voting rules, which has been in progress since the 25th IAU General Assembly in July 2003.

For the same reason, discussion concerning a check-sum proposal submitted by R. Seaman (NOAO), A. Rots (SAO), and W. Pence (NASA-GSFC) has been suspended.

S. Allen (UCO/Lick) is leading efforts to formally reserve FITS MIME (Multipurpose Internet Mail Extension) types with the Internet Engineering Task Force (IETF). MIME types, such as filename extensions .gif, .jpg, .doc, etc., are used so that computers know what programs to use to interpret files. The IETF is the standards body that reviews and approves all MIME type definitions. The WGAS FITS Committee endorsed Allen's efforts and much work has gone into preparation of the request document. It is expected that the final proposal will come up for a vote in 2004.

Substantial progress has been made in the public discussion of Paper III ("Representations of spectral coordinates in FITS," by E. Greisen, F. Valdes, M. Calabretta, and S. Allen), which describes spectral dispersion relations. This paper will likely move forward to formal review in the FITS committees in the coming few months when the voting rules have been finalized.