

EUROPEAN QUESTIONNAIRE ON IUE DATA, ARCHIVE AND OPERATIONS

Some 400 questionnaires relating to the International Ultraviolet Explorer satellite were sent out after 7 years of orbital observatory operations. The mailing list consisted of all principal investigators and co-investigators involved in proposals for the 8th year of IUE observing. The questionnaire (10 pages) contained some 20 questions relating to the end product of the IUE project (archive), present science support at IUE observatory, and future operations.

The questionnaire has been presented in a previous IUE 3-Agency meeting report (VILSPA May 1985, page F11-1). The return frequency of slightly over 30% can be considered to represent a strong interest of the community in the questions posed. The return implies that more than 60% of those astronomers who are P.I. on IUE proposals have responded. The approximately 60 institutes from 15 countries represented in the questionnaire returns, represent 38% of all institutes and 52% of all countries with co-investigators on last years IUE proposals (USA is not included in any of these statistics). This indicates that one obtains from these returns a quite representative view of the desires of the European Astronomical Community involved in the use of IUE data for astrophysical research.

We will here give a summary which highlights the most significant results. The full results of the questionnaire, can be requested from the author, for further analysis.

I. REQUIREMENTS AND USE OF EVENTUAL REDUCTION FACILITY AT IUE OBSERVATORY IN VILSPA, ALLOWING EASY ACCESS TO ARCHIVE AND INDIVIDUALISED PROCESSING (INTERACTIVE IMAGE PROCESSING AVAILABLE) .

85% of the respondents consider such a facility useful. From these individuals 81% would make a special visit to VILSPA for archival research. These visits are for 50% expected to be combined with observing visits and will include direct analysis of observing results. The availability of such facility will probably extend an average G.O. visit by 80-100% in duration.

The desire for such a facility is stronger for continental Europeans than for British, however the difference does not appear to be as large as would be expected on the basis of the availability of STARLINK over the past 5 years.

The preferred software in such a facility is clearly related to familiarity of the respondents with a specific software package (39% STARLINK related vs 48% ESO related).

II. FACILITIES AT HOME INSTITUTES

72% of respondents have satisfactory reduction facilities at home institute (compare with 85% considering observatory facility useful; see under I).

79% have access to VAX	
21% have access to HP	not exclusive
20% use STARLINK related S/W	
33% use ESO related S/W	not exclusive
53% use other related S/W	

Main problems for analysis of IUE data are the availability of:

Software:	86%	
IUE Expertize:	59%	not exclusive
Facilities:	45%	

III. ANTICIPATION OF NEED FOR OBSERVATORY REDUCTION FACILITY AND USE OF THE ARCHIVE

65% of the respondents, anticipating the use of an observatory reduction facility, would like to see such a facility extended beyond the operational life of the satellite, (86% of those prefer an extend beyond 2 years after the end of operations).

Similar trends are seen in the use of the IUE archive. The use foreseen for this archive does not indicate a specific preference for what one considers "archival research":

Normal research	36%
Statistical research	16%
Catalogues	9%
Related to future projects	22%
Variability studies	16%

Over all these fields the expected duration of use of the IUE archive is up to 5 years for 32%; 5-10 years for 22%. The time span from 3-10 years is foreseen as the range of use for 74% of the respondents, independent of the specific purpose.

IV. REPROCESSING OF DATA

Of those who will carry out new research projects on archival data (80% of respondents, compare with remarks under I) 69% will do such, independent of reprocessing of the data. On the other hand 79% favors a homogenisation of the IUE data through reprocessing.

No specific preference was indicated for various choices of partial sets of the present full package of IUE data processing products. A very strong desire was expressed for a Merged Log inquiry facility on-line, which could be addressed remotely (90%).

The IUE archive appears to be best located in a small number of centers (69%), most likely since expertise is expected to be maintained this way; 47% would like to have a possibility to address the IUE data archive through remote computer links. These two responses were not mutually exclusive.

V. ARCHIVE TAPE FORMATS

IUE format	67%
Fits format	48%

VI. FUTURE OPERATIONS

With the eye on future possible constraints on S/C operations, 57% of the respondents preferred to retain the format of shift allocation i.e. observing period assigned to a program with G.O. intreaction in the observations.

Of the 43% willing to give up the present observation mode, this is for 85% conditional on the coordination of scheduling between the two IUE observatories.