FOC INSTRUMENT SCIENCE REPORT
FOC-020

TITLE: Testing RSDP: I
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DATE: 4 November 1986

1 Introduction

A number of calibration files of the type required by RSDP for correction of FOC images were created using real FOC data. These were transferred to the SOGS cluster and the files were used as input to the correction process with the interactive part of RSDP. This note is a summary of this the first such trial of RSDP.

2 Procedure

1. GEO, RES, MOD, UNI reference files were created using real data, following the format specified in document ST-ICD-47 (Rev A, 30 May 1986).

2. Data files were transferred to SOGS cluster as VAX backup files on tape

3. Uniform DE, Geometric corrections and reseau location were performed

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RSB: P. Stockman
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Note that at the time of the test (12 Sept 1986) the newest geometric correction algorithm had not been installed in SOGS, so CDBS/SDAS task was run with appropriate options to match the existing SOGS task.

4. The data was transferred back to SDAS on VAX backup tape. The file formats had to be converted to be readable by CDBS/SDAS using the VMS CONVERT utility.

3 Problems encountered

1. The header file had to be editing to change the order of 3 keywords:
   SDAS produces keywords in the order PSIZE, GCOUNT, PCOUNT
   RSDP required those keywords in the order GCOUNT, PCOUNT, PSIZE.

2. The trailer file of the image to be corrected is renamed instead of being copied. The system failed if the trailer file was missing so to rerun a correction step meant that the trailer file had to be renamed back to its original name each time.

3. There was no easy way to examine numbers from the images within PODPS. Such a tool would have been useful in checking, for example, the reseau positions, and performing spot checks on the results.

4. Some tools in PODPS failed; for example images required by RSDP have PCOUNT equals zero, but these cannot be read by several tools.

4 Results

1. Comparison of output of geometric correction task between SOGS and CDBS/SDAS: images agreed generally to about 0.2 percent, with slightly greater (2 percent) differences where there were steep gradients in the image (around reseau marks).

2. Comparison of output of uniform DE correction task between SOGS and CDBS/SDAS: images agreed almost exactly.

3. Comparison of reseau positions found:
   All but one reseau was found within about 0.05 of a pixel - within the errors expected. Note however that the starting approximate locations given to the program were
accurate to begin with and further tests simulating image drift should be carried out.

5 Conclusions

The RSDP programs tested performed well under these tests. However further testing is required.