21st NDAC Report from Lund Observatory

WP6000: Step 2/3 (Lindegren)
The new program for simulating input to Step 2/3 is now complete and a first half year of observations (411 sets or about 30 Mb) has been generated in the format described by Petersen (18 March 1987), using the full Input Catalogue (IC1). An input module has also been written and is now being integrated with the first Step 2/3 program, SORT23, which produces a disc and/or tape file with observations sorted according to star numbers.

WP8000: Double Stars (Söderhjelm)
The investigation of the problematic equal-magnitude, half-slit-period systems has been concluded (097). A new interface specification is proposed (099, 099.1) which includes the second harmonic phase for every frame of a FOV crossing.
The grid-search algorithm has been improved (e.g. using a denser, hexagonal mesh and fewer iterations per mesh point turns out to be more efficient) and further studies are made of particularly troublesome systems.
Cleaning-up and streamlining of the software progresses in parallel with these improvements.

Miscellaneous
Studies were made of the weighting and biases for IDT Preprocessing (096) and of the effects of micrometeoroid impacts on attitude smoothing (098).

Working papers:
C  = NDAC/LO/096 (Lindegren, 1987 July 27):
IDT Preprocessing: Count-dependent weighting and photometric biases

C  = NDAC/LO/097 (Söderhjelm, 1987 July 30):
HIPPARCOS reductions for multiple stars, Vb

C  = NDAC/LO/098 (Johannesson and Lindegren, 1987 Aug 10):
The HIPPARCOS satellite in simulated micrometeoroid environment

C  = NDAC/LO/099 (Lindegren, 1987 Aug 11):
Specification of input from RGO to the Lund Double Star analysis

C  = NDAC/LO/099.1 (Lindegren, 1987 Aug 20):
Specification of input from RGO to the Lund Double Star analysis (Rev. 1)