The Performance of COSY, U. BECHSTEDT, J. DIETRICH, K. HENN, A. LEHRACH, R. MAIER, S. MARTIN, <u>D. PRASUHN</u>, A. SCHNASE, R. STASSEN, H. STOCKHORST, R. TOELLE, Forschungszentrum Juelich - The cooler synchrotron COSY has been operated in 1997 for more than 7000 hours with a reliability of 94%. 1/3 of the beamtime was scheduled for machine development, whereas 2/3 of the operating time were used for the different internal and external experiments. Milestones of the machine development and special features of COSY to fulfill the different experimental requirements will be presented.