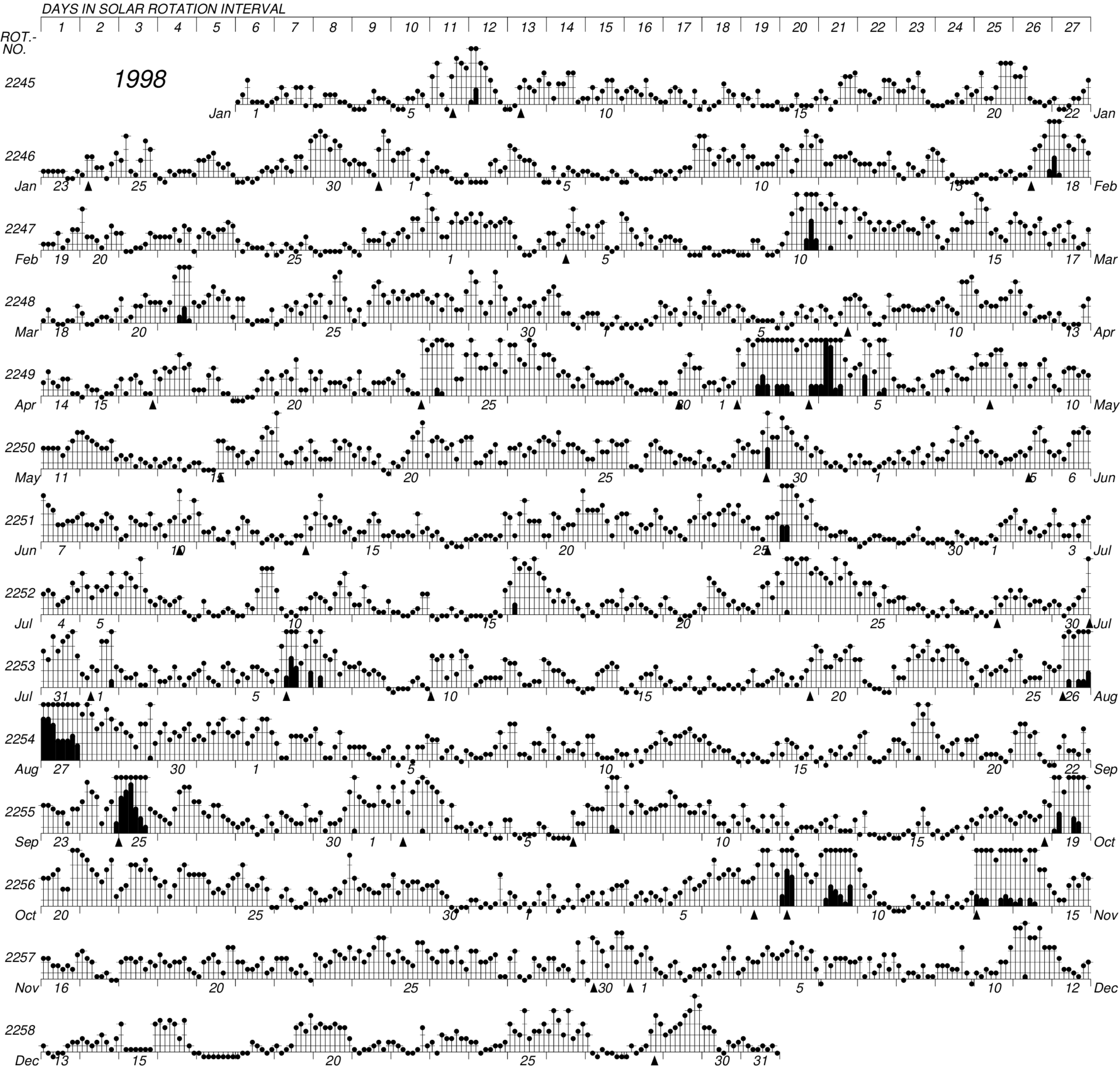
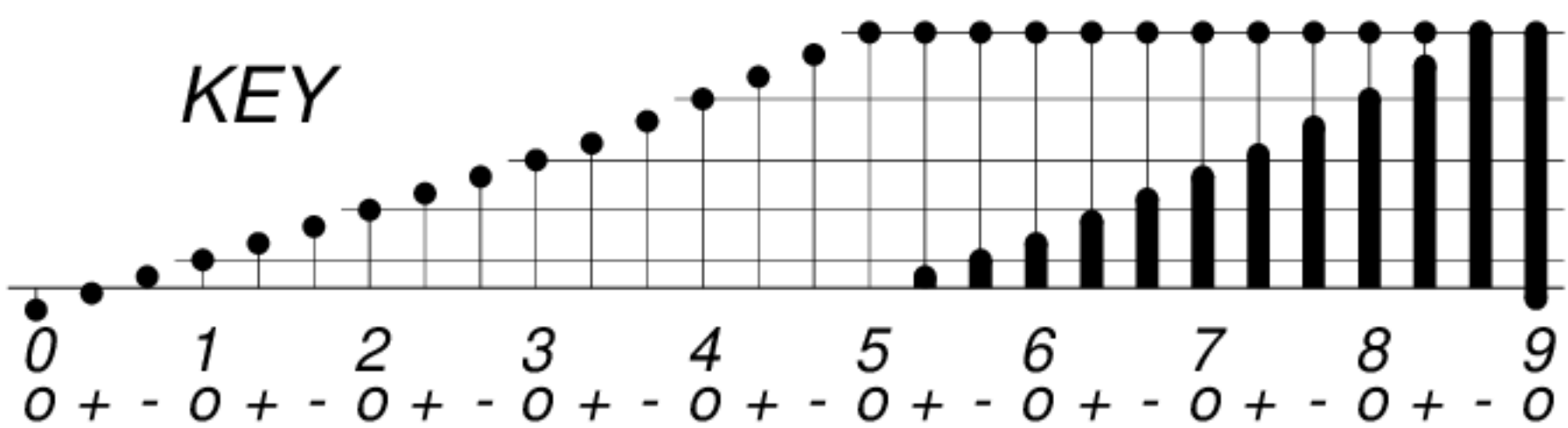




KEY



▲ = sudden  
commencement

GFZ Helmholtz Centre for Geosciences  
**PLANETARY MAGNETIC  
THREE-HOUR-RANGE INDICES**  
Kp 1998