

## **ESA's double station meteor program: development, deployment, initial results.**

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Over the past 18 months ESA's meteor research group has developed, installed and began operating 2 permanent double station meteor observatories in the Netherlands, and on the Canary Islands. Both systems use image intensified video cameras and baselines of approximately 93 and 140 km, respectively, to observe the same volume of atmosphere (near 100 km in altitude) for the luminous effects of meteor ablation. Events captured by both cameras in either system are analysed dynamically in order to determine atmospheric trajectories and subsequently pre-atmospheric orbits, as well as photometrically, to provide estimates of the initial masses of the ablating particles. Here, the particulars of the 2 double station systems will be presented, an overview of the analysis process will be given and the initial results from this analysis discussed.