Uncrewed Aerial Vehicles (UAV) are guided from Ground Control Stations (GCS), and together they are referred to as Remotely Piloted Aircraft Systems (RPAS). This talk is going to give a brief introduction to the history of uncrewed aviation, present different drone categories and focus on mission types that are currently performed with Medium-Altitude Long-Endurance systems. Understanding the missions, the operator needs and their specific tasks is crucial when designing a GCS that can be deployed anywhere in the world. Most of these missions are based on different sensors, which will be presented and explained with video footage. The chain architecture that separates safety-critical from mission equipment, a philosophy for automation and the respective NATO standard will be briefly described, in order to give a comprehensive insight into the world of uncrewed military aviation from an operator perspective.

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After studying aeronautical engineering at the Technische Universität München, Daniel joined EADS in Taufkirchen as a research engineer and received his PhD for his thesis Dynamic Contrast Threshold Simulation for Perception Studies in Aircraft Cockpits. He worked on several European FP7 projects focusing on Virtual Reality, Human Factors and Cockpit Design for civil and military applications. Later, Daniel moved to Airbus Defence and Space in Manching and worked there as a Human Factors Engineering Systems Engineer for various topics such as FCAS and Eurodrone. He’s currently acting as Chief Engineer Human Factors Architecture for the Eurodrone programme.