



NRAG GUIDANCE - TEMPORARY AERIAL FIBRE & WIRE ROPE CAMERA SYSTEMS

The following companies or associations endorse this NRAG Guidance



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Planning & Management

Insufficient planning can put people at great risk of injury, as well as incurring great costs when things go wrong. It is therefore important for Commissioning Clients (such as Producers, Directors etc) to ensure that Aerial Camera Systems are properly resourced, planned and organised so they can be carried out in a safe manner. Each of these elements requires a person (or people) with sufficient competence to be involved at each step. These people should have sufficient theoretical and practical knowledge of the specialist work and equipment, as well as the requirements of the law, to be able to do this properly.

The Client should provide a clear brief detailing the requirements of the System and organisational context within which it will be used, including who is responsible for what. Expertise may be required to develop the brief.

A Motion Plan should be drawn up by a Person with the significant and specific competencies (adequate training, knowledge, skills and expertise) relevant to the brief. It must address the foreseeable risks and clearly identify the responsibilities of all those involved. It should include details of the System Design & parameters such as the environmental conditions in which it will be used, payload, flight paths, rated speed, loads and forces (both within the System and imposed on supports), control system and operational protocols, emergency procedures, additional resources required to ensure effective risk mitigation, and other relevant information.

Systems may require a broad range of skills and all those involved with the specification, set-up, commissioning, operation, maintenance, repair etc., and removal of the System, must also be competent to do their work safely. For complex and high-risk operations, the planning and organisation should be extensive and meticulous.

Suitability, Strength and Stability

• Equipment

All equipment in the System must be suitable for the intended purpose and conditions, of adequate strength and stability to be capable of sustaining the loads and forces that may occur throughout the entire load path during installation, use / operation, emergency stop, failure and fault conditions. Safety Factors and the need for redundancy may vary dependent on the mode of use, and should be clearly identified in the Motion Plan¹.

• Anchor points

Anchor points and supports must be suitable for the intended purpose and certified, validated by calculation, or verified as suitable by the designer / manufacturer of the structure or equipment. Positioning should address the risk of anyone being struck by the camera or other equipment, including under emergency stop, failure and fault conditions, as well as other proximity hazards such as overhead lines, other services or production equipment etc.

• Environmental factors

Where relevant, factors that could affect the safety any part of the System such as wind loading, ground / floor conditions and bearing capacity, temperature etc. should be identified in the Motion Plan, along with the arrangements required to monitor conditions and actions to be taken to mitigate risks from adverse conditions².

Set-up and Use

Set-up and operation should be adequately supervised, and carried out in accordance with manufacturers' / suppliers' instructions, risk assessments & method statements, the Motion Plan and other relevant information. Checks must be made by a competent person during set-up, commissioning and before each use of the System, to ensure it is safe to operate. Further periodic checks may also be appropriate. The checks required, and when, should be determined by a competent person and should include checks on equipment, systems and functions¹. The System must only be used within the limits set out in the Motion Plan. No changes should be made to any part of the System Design without authorisation of the System Designer.

1. BS EN 17206 provides relevant guidance on safety requirements and inspections.

2. Temporary Demountable Structures: Guidance on procurement, design and use from the Institution of Structural Engineers provides relevant guidance.