The cinematographer's responsibilities as outlined below is an attempt to describe the duties a cinematographer is likely to encounter during their career. No two jobs are the same and the duties will contract or expand depending on the scale and complexity of the job. As can be seen, there is a vast amount that a cinematographer is required to know and do and this can only be learnt over a number of years of filming.

Our thanks to John Hora ASC, who first compiled this list and to the 'American Cinematographer' magazine, in which it was first published, for kindly allowing us to reproduce it here in a version adapted for the UK and in the light of technological developments in the industry.

A. PREPRODUCTION

1. Conceptual Research and Design

- □ Analyse the script, story structure, characters and visual descriptions to come up with a look and a visual approach to the film
- Discuss all aspects of script and the director's approach in preliminary talks with director
- □ Research the period, events, general subject and appropriate design elements of the script
- □ Continue talks with the director on new ideas based on research and come to an agreement on the overall look.
- □ Discuss and come to agreement with production designer on the visual approach to locations, set design, studio space etc.
- Discuss and come to agreement with the costume, make-up and production designers about appropriate colours and materials and how they might photograph
- Discuss and research with any technical advisors

2. Practical Research and Design

- Ascertain any budget requirements
- □ Scout/Recce and approve locations
- Plot sun position for locations
- □ Check what local weather conditions are likely to be on location
- Check tide tables when near the ocean
- □ Review, discuss and approve set plans
- □ Review and approve props, action vehicles, aeroplanes, boats, horse-drawn vehicles, mockups, miniatures and costumes.

3. Technical Research and Design

- ➡ Visit the laboratory (if shooting on film) or post house facility to calibrate, customise and evaluate an exposure system for any combination of electronic or chemical image capture, and test a full workflow from image capture to release print / DCP etc.
- Visit rental houses
- □ Explore new equipment
- □ Learn how new equipment works
- Invent (or cause to be invented) special equipment or techniques for show
- Standardise and create effects bible for show
- □ Help create and approve any story boards
- Design (or cause to be designed) and approve any built-in or practical lighting fixture
- Design lighting-plot plan and rigging for stages and locations with gaffer and key grip

4. Quality Control

- Choose and approve crew, film stock / digital camera lab / post-house, equipment, colourist, digital imaging technician, second-unit and visual-effects crews
- Supervise manufacture and testing of new or modified equipment
- Visit sets under construction
- □ Approve wild walls, ceiling pieces and any moving set pieces
- Check lighting-fixture crew
- □ Walk locations and stages with all departments to discuss requirements
- Approve set colours and textures
- □ Approve costume colours and textures
- □ Approve makeup and hair
- Generate (or cause to be generated) and approve equipment lists for camera, electric and grip
- □ Check how rushes will be viewed and ensure a colour and quality control system is in place to represent your work in the best possible way.
- □ Liaise with D.I.T. and editorial to establish workflow, codecs, back-up protocol, look-up tables / on-set grading, on-set monitoring, graded transcodes for editorial and rushes.

5. Implementation

- □ Help select and approve stand-ins
- □ Train crew to use any new equipment
- □ Walk locations and stages with director and devise shooting plan
- ☐ Make list of special and/or additional equipment for the production manager and indicate the number of days required
- Work with the assistant director on shooting schedule (order of and days required for each scene) particularly in relation to sun paths, weather or tidal flows and pre-lighting requirements where appropriate.
- □ Estimate and order recording devices, storage and workflow or film stock (type, size and quantity)
- Generate (or cause to be generated) and approve rigging and shooting manpower and mandays
- Assist other departments in getting required equipment, manpower and tests
- Maintain regular contact with other department heads.
- Mediate any problems between departments
- Check loading of production trucks or cargo containers for location or international shipping
- Visit cast run-throughs and rehearsals
- □ Advise and back-up director on any problems
- □ Help producer or studio solve any production problems

6. Testing

- □ Shoot tests for camera(s) and lenses including "lens mapping" for visual effects
- Shoot tests for style
- Shoot tests for workflow
- Shoot tests for lighting of principal actors
- Shoot tests for wardrobe and makeup
- □ Shoot tests for any special effects processes, unusual rigs, props or methods

B. SHOOTING

1. Planning

□ Check and approve all call sheets and shooting order of the day's work

2. Blocking

- □ Watch rehearsal of scene to be shot
- Devise shot list with director (coverage)
- □ Choose lens and composition; show to director for approval
- Make sure composition and movement fulfil the requirements of the scene
- □ Work out mechanical problems with camera operator, assistant camera, dolly and crane grips
- Set any camera-movement cues
- Place stand-ins and rehearse, fine-tune
- □ Ensure proper coverage of scene for editor
- □ Work with assistant director on background action

3. Lighting

- Design lighting to show set/location to best advantage relative to story, style and dramatic content
- □ Light each actor to reinforce and reveal character
- □ Make sure the mood and tone of lighting helps to tell the story
- Design lighting for minimum reset time between set-ups
- □ Utilise standby painter for control of highlights, shadows, ageing, dusting-down of sets and props
- □ Set any lighting cues (dimmers, spot lights, colour changes and any pre-programming)

4. Preparation

- □ Work out any sound problems related to the lighting or camera position
- □ Work out any problems with other departments
- Check, set and approve all stunts from a camera point of view with stunt co-ordinator
- Set any additional cameras required for stunts
- Double-check safety with all concerned
- Show shot to director to make any final changes
- Get actors in for final mechanical rehearsal; solve any outstanding problems

5. Photography

- Photograph scene
- Approve or correct take
- Check parameters and reset for next take
- Shoot any plates
- □ Note shots to be done by 2nd Unit,
- □ Note camera height, angle, lens, focus distance, aperture, filters for visual effects department if required
- Move to next set-up

6. Administrative

- □ Define first set-up in the morning and after lunch
- Make sure that stills are taken of scene for lighting continuity where appropriate
- □ See that "making of" and/or EPK crews get required footage
- □ Make sure the script supervisor has any special camera or lighting notes
- Check inventory of film stock or data storage and cards or recording devices
- Check that camera logbook is being kept up to date
- □ Complete day's work
- Discuss first set-up for the next day
- □ Ensure that camera, electrical, and grip crews get all copies of equipment rental or purchase invoices and approve before accountants pay vendors
- □ Take care of any future or ongoing production issues
- Answer any questions about future problems
- Visit production manager and producer at end of day
- Check for return of all unused equipment

7. Quality Control

- Get lab report or clearance of previous days work from the laboratory, DIT and/or editing department
- □ View previous day's work either as projected rushes with director, producer, etc., or with agreed method suitable to the production.
- Discuss and approve rushes
- Consult with makeup, wardrobe, production designer and assistant director about rushes
- □ View, discuss, correct or approve second-unit or effects rushes
- Order reprints, rescans or new transcodes if necessary

8. Training

- □ Teach beginning actors movie technique (hitting marks, size of frame, lenses, etc.)
- □ Train camera crew for next job up the ladder

9. Contingency

If director is disabled, finish day's shooting for them

C. POST PRODUCTION

A. Additional Photography

- Discuss and be aware of delivery dates for all post-production
- □ Photograph or approve any additional scenes, inserts, special effects or second-unit footage.

B. Grading

(Colour and Density)

- Grade and approve trailer for theatres and TV
- Approve all optical and digital effects composites
- Grade the picture
- □ Re-grade until correct.
- ☐ Grade & supervise alternative TV deliverables e.g. HDR (High Dynamic Range.)

C. Quality Control if finishing on film

- Approve final answer print and release prints
- Show to director and producer for approval
- □ Approve interpositive (IP)
- □ Approve release prints if any
- □ Approve show prints from original negative if any
- □ Approve all blow-ups, reductions or opticals

D. Telecine/Colour Correction with digital intermediate

- □ Supervise and approve film or digital original transfer to electronic or film media in all formats
- □ Supervise and approve all transfers to and from digital intermediates
- □ Supervise and approve all letterbox, pan and scan or reformatting of film
- □ Show electronic transfers to director for OK
- □ Approve DCP when available

E. Publicity

□ Do any publicity (newspaper, magazine, Internet, radio, TV, DVD commentary, etc.)

F. Restoration/Archival

□ Be available for any future reissue, archival reprint or electronic transfer of film