INTRODUCTION
This Bulletin has been developed to provide guidance for safety concerns caused by long and/or successive takes. The objective is to increase awareness to enable the producer, director, cast, and crew to communicate about and address these concerns before they become problems.

Among other factors, advances in technology have enabled filmmakers to extend the length of individual takes (including continual resets) and the number of successive takes. In these circumstances, cast and crew members may be required to support a weighted load (e.g., handheld sound boom, handheld camera, props, lights, dollys, etc.) or maintain an awkward or still position for longer durations. Therefore, a proactive production management approach is recommended that takes into consideration the length of a take, the number of successive takes, the equipment involved, and personnel.

POTENTIAL HEALTH EFFECTS AND SAFETY CONCERNS
Maintaining an awkward position or supporting a weighted load for extended lengths of time with inadequate recovery can lead to:
- Permanent nerve and musculoskeletal disorders
- Microtrauma injuries
- Repetitive strain and overuse injuries
- Pain, numbness, tingling, burning and swelling

Resulting from safety concerns, such as dropping equipment, and trips and falls may also occur, potentially causing injury to the individual and to others.

PRE-PLANNING
Production must consider the technical and creative requirement of the setups and to the extent possible fit the physical capabilities of the cast and crew members to the given tasks. Each production is unique and requires different technical and creative set-ups and each person’s physical capabilities are different. These factors call for specific planning and communication, including being mindful that injury can occur even if a person doesn’t experience unusual pain or discomfort. During pre-production, a plan should be discussed with production staff, department heads, and cast and crew to address concerns and limit the impact of long or successive takes. The employer, at the earliest stage of production, should:
- Conduct discussions with all affected department heads to evaluate these concerns (and reasseess throughout the production) and consider all options to address these concerns.
- Consult with cast and crew to create a specific plan where equipment and/or personnel options must be provided to be able to perform their job safely.
- Regularly check in on affected cast and crew.
Cast and crew should be made aware of this Safety Bulletin as early as practicable to ensure proper planning (e.g., include in start paperwork, attach to call sheet, post at the worksite).

CONTROL MEASURES
In order to avoid muscle fatigue or injury consider the following control measures:

EQUIPMENT
A wide variety of equipment options are available for consideration during pre-production and can include, but are not limited to:
- Dolly-mounted microphone boom
- Wireless microphone
- Camera dolly
- Tripod/Monopod
- Stand
- Handheld support systems/rigs
- Powered assist device
- Intelligent Exoskeleton Systems
- Using media that record fewer data (to incorporate natural breaks for reloads)
- Ergonomically designed cameras and lenses for hand holding
- Bungee rigs
- Lighter equipment
- Remote operated cameras

ADMINISTRATIVE CONTROLS
- Rotation of crew members
- Adequate rest intervals
- Shorter takes
- Spotters assigned to operators
- Warm-up and stretching

NOTE: Prior to filming, production management and affected personnel should be encouraged to discuss appropriate rest intervals for those required to maintain an awkward position and/or support a heavy load for an extended duration.

Personnel, when performing continuous handheld work, should be rotated or provided with an appropriate break to reduce strain and fatigue. This requirement should be among the subjects covered at the safety meeting prior to shooting.

SUMMARY
Long or successive takes may cause workers to experience musculoskeletal discomfort. Production management is encouraged to consider all options to reduce strain, including the above-outlined equipment and personnel options to prevent injuries. Employees who are experiencing muscle fatigue or discomfort should be encouraged to communicate their situation to appropriate safety personnel and/or production management in a timely manner so that concerns can be addressed.