

The Use of Explosives In The Entertainment Industry

Explosives are used in the entertainment industry in a wide variety of applications. Live performances such as automobile races, air shows and the like have incorporated the use of explosives into their programs. Even art work has been created employing explosive materials and techniques. The primary entertainment use of explosives, however, remains in motion pictures, television, theater and related fields where it comes under the auspices of special effects. Much of it falls roughly into the category of demolition, though the object being demolished may range from a cigarette in a person's mouth or clothing worn by actors to large objects such as automobiles, aircraft, or boats. This paper will attempt to provide an overview of the materials and methods by which these special effects are created as well as highlight the unique problems encountered in this field and their often equally unique solutions.

While the fundamental nature of the materials and devices used in special effects is similar to those in conventional blasting, the conditions and techniques under which they are employed are fundamentally different. In conventional demolition blasting, effort is generally made to release the maximum amount of useful energy with a minimum of flying debris, etc. Special effects use dictates precisely the opposite: maximum visible effect with minimum energy release.

The special effects explosion's "bark" is always deliberately far worse than its "bite". In the vast majority of cases, special effects technicians have the advantage of being able to demolish items which have been built specifically for the production and hence hopefully with their eventual destruction in mind. The entertainment industry has since its inception been creating solid, relatively difficult to demolish items such as brick walls, stone pilings, etc. out of light-weight substitutes for its own convenience. As a result, the force necessary to destroy these items is even less. Frequently the problem becomes not how to destroy an item but how to do so without revealing that it is not what it seems to be.

One disadvantage which special effects work does have over ordinary blasting is that explosions are frequently in close proximity to sensitive urban areas as well as to people, who are of course de facto excluded from conventional blasting sites. This creates a myriad of concerns ranging from the greater likelihood of RF interference to the safety of talent (actors), stunt persons and animals who must appear to be in close proximity to explosions.

The key word in managing such risks successfully is the word "appear" for it is vital to remember that what is seen by the audience is an illusion and not reality. This implicitly involves a deliberate, voluntary suspension of disbelief and the special effects supervisor must capitalize on this. Not just the mechanics of how the actual explosion is created but how the action is staged, how it is photographed, edited, supplemented by sound effects and music, and integrated into the drama of the narrative determine its eventual