

# **Fire Investigator Independent Study Continuing Education**

## **NFPA 921 UNIT #12**

**NFPA 921 Guide for Fire and Explosion Investigations 2004 Edition**

**Objective:** Given an examination the participant shall demonstrate a knowledge and understanding of documentation of the investigation.

**Reading/study assignment:** NFPA 921 Guide for Fire and Explosion Investigations, 2004 Edition, pp. 921-109 through 921-121 (Chapter 15)

### **Study/reference questions:**

When the investigator uses digital photography what should be done concerning original images?

What are common methods of documenting a fire or explosion scene?

How may tape recorders be used in the documentation of the fire scene?

What is the purpose of a report?

What does a fully automatic camera do for the photographer?

In what way may photography assist the investigator in identifying patterns and items?

What is the most fundamental aspect of photography a fire investigator should comprehend?

How may you become familiar with photo and/or video equipment?

What may impact the number of photographs you take at a fire scene?

Should video, motion pictures, or slides be used exclusively? Why?

What are some considerations in the presentation of photographs?

How many photographs should be taken of a fire scene?

What are reasons why time is important when taking photographs of a fire scene?

What is one of the most important aspects to remember about fire photography?

What does the fire investigator use to enhance the vision of his/her camera?

What is the investigator's goal in recording the scene?

In what ways do a camera and the human eye compare?

What type camera operation may be desired by the fire investigator?

What function can a manual camera perform for the fire investigator?

What are some of the advantages and disadvantages of the use of prints?

Common speeds of film range from what to what?

What is the preferred camera for the fire investigator?

What should a report include?

When should fire scene photographs be taken?

Should a back-up camera ever be used? If so, for what?

What does ASA refer to in reference to photographic film?

What is one of the most important aspects of presenting demonstrative evidence?

How do film numbers relate to needed light?

What is a drawback of “faster” film?

What is the ASA rating range of film used by most fire investigators?

What is the purpose of the camera lens?

Should the fire investigator practice and become familiar with all types and speeds of film?

What are some of the advantages and disadvantages of the use of slides?

What is the most usable light source?

What are the adjustment openings of the camera lens called?

What lens is most similar to the human eye?

What photographic composition and techniques should the fire investigator use?

What test must be met with digital photographs? Is this the same with non-digital photographs?

What is a telephoto lens?

How does f-stop effect the depth of field?

What filter should be used to protect the lens?

What filter(s), if any, should be used on a camera lens in the field of fire investigation?

As the f-stop numbers of the lens get larger, what happens to the opening size?

What substitute lighting may be used for fire investigation photography?

What is a zoom lens?

Should a flash unit be permanently attached to the camera? Why?

What does 921 say about pertinent facts and opinions and conclusions in a report?

What is photo painting?

Why would computer-based presentations be used and if used what are some considerations concerning its use?

What problems can artificial lighting cause with fire investigation photos?

What is bracketing? How is it used?

What appliances and equipment should be photographed? Why?

What are some considerations concerning video presentation?

What are sequential photographs and how are they used?

Should digital photography be the primary means of photography of a fire scene? Why or why not?

What are mosaics and how are they used?

What is a photo diagram and what are they used for?

If something is used to identify size of an item how should photos be taken?

What is the recommended documentation for photo diagram?

Does the time the photograph is taken have any affect on the photo? What?

What precautions should be taken if using a photographer other than a fire investigator?

What may the courts look at in reference to the fire investigation photographs?

How may video be used in fire investigation?

Should video be used exclusively? Why?

What precautions should be observed if using video?

Are fire ground activities photographs of any use to the fire investigator? What?

How would photographs during the fire, of the crowd, or suppression activities help?

How will exterior photographs assist in the fire investigation?

How will structural photographs assist in the fire investigation?

How may aerial photographs assist in the fire investigation?

What interior photographs should be included to assist in the fire investigation?

Should rooms with no damage be photographed?

What utility and appliance photographs should be included in the fire investigation? Why?

Where should evidence photos be taken? How?

By what means can a visual image of the scene be accomplished?

What photographs should be taken in reference to victims?

How may witness viewpoint photographs assist in the fire investigation?

When should interior photographs be taken?

What are some photography tips?

What should the investigator do in reference to photographing evidence?

How may note taking be used in conjunction with drawings and photography?

What can the investigator do if with a single roll of film the prints become out of sequence?

What is depth of field?

Study the information on drawings and table on pages 921-116 to 921-121. Be able to identify various types of drawings.

What are the following and how are they used in the documentation of an investigation?

Note taking

Diagrams and drawings

Architectural and engineering schedules

Specifications