Survey of Fire/Explosion Scene Investigators Technical Working Group for Fire and Explosions

<u>Instructions</u>: The following survey contains questions related to your job responsibilities, education, training, investigative standards and protocols, and information resources. It should take about 20 minutes to complete. Most items can be answered by both fire and explosion investigators, although some items, where indicated, will be applicable to, and should only be answered by those involved in that kind of investigation. All information you provide will be treated with the utmost confidentiality. At the completion of the statistical analysis, this questionnaire will be destroyed. Thank you for your participation.

Demographic considerations

1.	Age:	
2.	Gender:	MaleFemale
3.	State in whi	ch you work:
4.	Are you a su	pervisor?YesNo
5.	Do you have	e arrest powers? Yes No
6.	Current Pos	ition (check <u>all</u> that apply):
		Fire Investigator Law Enforcement
		Fire Investigator Fire Department
	-	Fire Prevention
		Explosion Investigator
		Bomb Technician
	·	K-9 Handler (Accelerants)
		K-9 Handler (Explosives)
		Forensic Laboratory
		Fire Marshal
		Military
	-	Engineer
		Insurance Investigator/Adjuster
		Prosecutor's Investigator
		Private Sector

	Other (please specify)	
7. `		aid Employee
	Do you work as a fire/explosion investigator (please check <u>one</u>): Full time or Part time?	
9. 4	Agency type that you currently work for (check only one): A. PrivateB. LocalC. CountyD. StateE. Federal	
10.	Years of experience in your field (fill in <u>all</u> that apply): Fire Explosion Bomb Technician	
11.	How many fire/explosion investigators are in your department? How many are full-time? How many are part-time?	
12.	What is the average annual percentage of your workload that is devoted to ear following (please give percentage totaling to 100%):	ich of the
	Fire Scene Investigation (origin and cause) Post Incident Investigation (financial motive, suspects, etc.) Post Blast Investigation Explosives (render safe, bomb technician) Explosives (handle, transport, destroy known or suspected explositions Forensic Analysis Other-please describe type of work	ves)
13.	How many investigations do you perform, on average, per year? Fire Explosions	
14.	How many hours per year do you devote to training? a. As an Instructor Fire Explosion	

	b. As an Student
	Fire
	Explosion
15.]	Education (please check highest level completed and fill in corresponding field where
	cable):
-FF	GED
	High School
	2 year degree AA AS
	4 year degree BA BS Field
	Master's degree MA MS Field
	Ph.D. Field
	Other
	In your opinion, should your immediate supervisor have experience in the areas of fire or osion investigation to manage cases in these fields? YesNo
	In your opinion what are the minimum number of years of experience in fire or explosion stigation needed to hold a supervisory position? a. Noneb. Less than 2 years c. 2-5 years d. 6-10 years e. More than 10 years
18.	Does your immediate supervisor have experience in fire or explosion investigations? Yes No
19. `	Which professional organizations are you a member of (please check <u>all</u> that apply)? a International Association of Arson Investigators b State Chapter of the International Association of Arson Investigators
	c National Fire Protection Association
	d National Association of Fire Investigators
	e International Association of Bomb Technicians and Investigators
	f International Society of Explosives Engineers
	g World EOD Foundation
	h. Other(please specify)

20.	Are you certified in your field?
	Yes If yes, with whom?
	No
21.	What published guidelines do you apply to your:
	Fire Investigations?
	NFPA 921
	Department Guidelines
	Other (please specify)
	Explosion Investigations?
	ATF
	FBI
	Other (please specify)
22.	Does your department use Standard Operating Procedures/Standard Operating Guidelines?
	YesNo
23.	Does your department have any formal Memorandum of Understanding (MOU) or Mutual Aid Pact (MAP) with (check <u>all</u> that apply)?
	Municipal Agencies Yes No
	County Agencies Yes No State Agencies Yes No
	State Agencies Yes No
	Federal Agencies Yes No
24.	Are you a member of a formal task force? Yes No
	RE INVESTIGATORS ONLY – QUESTIONS 25-31: Explosion estigators Skip to 32
111	congutors built to 32
25. sce	As an investigator of fire scenes, have you had formal training in the investigation of fire es?
200	Yes If yes, check <u>all</u> that apply:
	localhours
	state hours

			federal		hours	
			private		hours	
No						
26 How important i	a formal	trainina	in the inv	oction	tion of fire	sagnes (airele the number)?
20. How important is	s ioiiiai	uaning	III ule liive	zsuga	uon or me	scenes (circle the number)?
1	2	3	4	5	6	7
Not Important	_		•		Ü	Very Important
<u>r</u>						1
27. Rate the importa	nce of th	e follow	ing course	es as 1	part of the	educational training in fire
scene investigations	(use the	followin	g scale)?			
1	2	3	4	5	6	7
Not Important						Very Important
	151	c =:				
Chemistry an	•	s of Fire	e			
Fire Dynamic		1.7	C			
Building Con			-	ents		
Determining Accidental F		_	III			
Indicators of						
Indicators of Incendiary D			ne and Evi	nlosis	iec	
Automobile l		mpiosio.	iis and LA	piosiv	CS	
Fatal Fire Inv		on				
Fire Scene In	_					
Collection an	_		f Evidence	e		
Motivation o	f Firesett	ter				
Report Writing	ng					
Interviews an	d Interro	ogations				
Management	of fire s	scenes				
Use of Multi		icies				
Fire demonst	rations					
	nds-on so	cene pro	cessing (A	Actua	l processin	g from what is learned in the
classroom)						
Courtroom p	-	on and te	estimony			
Search and S		c. c				
Aircraft and						
Others (plea	se specif	rv)				

28. What maximum duration training course for fire scene investigation	ion would be supported by
your department?	
a. Less than one week	
b. One week	
c. Two weeks	
d. More than two weeks	
	of deads to see that Con-
29. In your opinion which criteria should be used for qualifying individual investigations (places should all that smalls)?	viduals to conduct fire scene
investigations (please check <u>all</u> that apply)?	
On the job training time	Number of Investigations
If selected, how much time?	If selected, how many?
a. Between one and six months	a. 1-10
b. Between seven months and one year	b. 11-25
c. One to two years	c. 26-50
d. More than two years	d. 51-100
	e. More than 100
	· · · · · · · · · · · · · · · · · · ·
30. Using the following scale, rate how often you use each of the following	owing:
	_
1 2 3 4 5 6 7	
Never Alw	ays
Setting and securing a perimeter	
Limiting access to only essential personnel	
Searching for secondary and/or additional devices	
Respiratory protection equipment	
Other forms of personal protective equipment	
Wearing non-contaminated clothing, footwear, gloves, etc.	
Photographing the scene prior to and during the entry and exit	
Sketching the scene	
Video recording the scene prior to and during the entry and ex	it
Conducting a perimeter scene search	
Locating point(s) of origin	
Collecting evidence and placing in appropriate container(s)	
Always being aware of cross-contamination and avoiding it	
Documenting each item of evidence and logging it	
Sending the evidence to appropriate lab(s) for analysis	

Cleaning scene equipment after each sample is collected
Submitting reference and comparison samples
Complying with search and seizure requirements
31. What types of containers do you use in submitting fire debris to a laboratory for accelerant examination (check <u>all</u> that apply):
a. Unlined Metal Cans b. Lined Metal Cans c. Glass Containers d. Plastic Containers e. Paper Bags f. Nylon Bags
g. Kapak-Type Bags h. Plastic (polyethylene) Bags i. Cardboard Boxes j. Other (please specify)
EXPLOSION INVESTIGATORS ONLY -QUESTIONS 32-38: Fire Investigators skip to question 39.
32. As an investigator of bombing incidents, have you had formal training in the investigation of bombing crime scenes?
Yes If yes, check all that apply: local hours state hours federal hours private hours No

33. How impnumber)?	33. How important is formal training in the investigation of bombing crime scenes (circle the number)?										
	1	2	3	4	5	6	7				
Not Impo		2	3	7	3	U	Very Important				
1 tot Impo	rum						very important				
	-			_	es as pai	rt of ed	lucational training in bombing				
scene investig	gations (u	se the fol	llowing s	cale)?							
	1	2	3	1	5	6	7				
Not Impo		2	3	7	3	U	Very Important				
1 (ot impo	1 (411)						, ory important				
Knowle	edge of fo	orensic la	aboratory	capabil	ities						
	ion theor		-	•							
Comme	ercial and	military	explosive	es identi	fication						
Explosi	ive device	e constru	ction met	hods an	d fusing	g syster	ms				
Identifi	cation fea	atures of	bomb co	mponen	nts follo	wing a	n explosion				
	ce collect	-		bombir	ng scene	es					
_	ement of	_									
·	threat ma	_	-	ures							
Weapo		ss destru	ction								
Report	_	ntama cat	iona								
	ews and I			oonog (I	World T	rodo C	Center, Oklahoma City)				
	cation fea	U	•	,		raue C	center, Okianoma City)				
·	ives demo		•	ланансс							
				ing (Act	tual pro	cessing	g from what is learned in the				
classroom)	,		1	<i>U</i> \	1						
Search	and seizu	re, inclu	ding com	puter sy	stems						
Courtro	Courtroom preparation and presentation										
Contan	nination is	ssues									
Docum	entation (of the sce	ene								
·	g Constr			-							
· · · · · · · · · · · · · · · · · · ·	e Constru		_		t and w	atercra	aft)				
Chemis	Chemistry of explosives and explosions										

Fragmentation a Other	nalysis						
35. What maximum of supported by your dep		_	g course	for expl	osion sco	ene investigati	on would be
a. Less to b. One c. Two d. More	week weeks		ks				
36. In your opinion we explosion scene is						-	
On the j If select a. Betw b. Betw c. More d. More	ed, hove een one een seve than o	If so	Number of Investigations elected, how many? a. 1-10 _ b. 11-25 _ c. 26-50 _ d. 51-100 _ e. More than 100				
37. Using the following	ng scale	, rate ho	ow often 4	you use	e each of	7	:
Setting and secu Searching for se Calling in a bom Respiratory prot Other forms of p Wearing non-co Photographing to Video recording Locating the far	condary betam ection e persona ntamina ne scene the sce	y and/or and/or equipment I protect ated close prior to the prior	r addition bomb teent tive equations, for and direct to and	echnician ipment otwear, uring the	gloves,	etc. nd exit	

Locating the center of the blast
Collecting evidence and place in appropriate container(s)
Always being aware of cross-contamination and avoiding it
Documenting each item of evidence and logging it
Sending the evidence to appropriate lab(s) for analysis
Taking crater measurements
Documenting sign bending
Documenting glass breakage
Documenting structural failure
38. What types of containers do you use in submitting explosion debris to a laboratory for
examination (please check <u>all</u> that apply):
a. Unlined Metal Cans
b. Lined Metal Cans
c. Glass Containers
d. Plastic Containers
e. Paper Bags
f. Nylon Bags
g. Kapak-Type Bags
h. Plastic (polyethylene) Bags
i. Cardboard Boxes
j. Anti-static Bags
k. Other (please specify)
GENERAL INFORMATION (for both fire and explosion investigators)
39. What extent of funding does your agency provide for continuing education and training in the
field of fire/explosion investigation?
a. Full funding
b. Partial funding
c. No funding
40. To what extent does your agency encourage continuing college level course work for each

investigator (ci	rcle the	number))?									
Not Er	1 ncouragi	2 ing	3	4			7 Encouraging					
41. How interest following scales		ould you l	be in tak	ing colle	ege level	course	s (fill in each blank using the					
Not In	1 terested	2	3	4			7 Interested					
	a. On campusb. Distance learning (correspondence)c. Distributed learning via the Web											
42. How impo investigator (fil					_		o you as an fire or explosion					
Not In	1 nportant	2	3	4			7 Important					
Listing of people working in the field-private and government Creation of a secure Internet link for email and information exchange between professionals in the field Establishment of scene guidelines to be followed for explosion/fire scenes Creation of a glossary of analytical, explosives, and fire investigative technology Creation of a national database for tracking bombing matters Creation of a national database for tracking arson matters Establishment of national resource database (for investigative expertise) Establishment of a national explosives formulation database Creation of a bulletin board for communication between explosion investigators Creation of a bulletin board for communication between fire investigators Database of explosion investigative training manuals and materials Information center for inter-agency training exercises Access to laboratory experts at the scene Access to prosecutors at the scene												
43. Can you a	ccess In	ternet re	sources	from yo	ur agenc	ey?						

	Yes No								
web	If any or all of the site on the Intern rmation (circle the	et or a	group of						•
	1 Not Likely	2	3	4	5	6 Very	7 Likely		
45. /	Are you familiar v Yes No	with the	Techni	cal Worl	king Gro	oup for Fi	ire and Explo	osions (TWG	FEX)?
	How important is vities (fill in each l	-					oup engage in	n the following	g
	1 Not at all	2	3	4	5	6 Very	7 Important		
wor]	Publishing guide Validating guide Assisting fire ar Maintaining Int Promoting/offer Tracking and di Promoting inter king group Establishment of	elines for nd explorement library ring con isseminational	or explosion involved	sion and restigator database education ults of co pation in	fire inverse in gair s of exp n course ourt case an explo	stigations ning certifulosion and s in exploses involvitions and	fication d fire investion osion and fire ng explosion fire investig	e investigation and fire inve ators technica	n estigation
	Please rate how us rmation from TW	•					g methods fo	or disseminati	ng
	1 Not at all use	2 ful	3	4	5 Very	6 useful	7		

	Mailed informa	ion			
	Phone calls				
	Electronic mail				
	Internet web sites or databases				
	Trade journals				
	Conference pre				
	Special seminar				
	Association nev				
	Ooes your agency ence?	provide fire/explosion investigative literature and pub	ications for you to		
	Yes	No			
	lave you ever giv of law?	en an opinion concerning the origin and cause of a fir	and/or explosion in a		
Court		No			
	If h	any times in (sheely the appropriate lines).			
	Civil Court	any times in (check the appropriate lines):			
		6-10 11 or above			
	Criminal Cou	rt			
		6-10 11 or above			
50 1	· T		C 11 1		
	nas your expertisions?	e been challenged under the Daubert or Kumho Tire	7. Carmicnaei		
decis	Yes	No			
51. A	•	ZMAT certified?			
	Yes	If yes, to what level are you certified	·		
	No				

52. Are you aware of the following agencies standard apply)?	ls and guidelines on safety (check <u>all</u> that
NFPAYesNo	
EPA Yes No	
OSHA Yes No	
Do you follow any or all of these standards and guide	lines as they relate to fire investigations (Fire
Only)? Yes No	
Do you follow any or all of these standards and guide	elines as they relate to explosion investigations
(Explosion Only)? Yes No	
53. At what level does your agency provide the follow	ving medical screening:
None	
Baseline Screening	
	How often?
Periodic Cardiac Stress Testing	How often?
Respiratory Testing	How often?
54. Does your agency provide a physical fitness prog Yes No	ram?
165 110	
55. Does your agency have a physical fitness required	ment?
Yes No	
56. Identify three areas of research in fire and explosi explored:	on investigation that you would like to see
a	_
b	_

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY!

Please feel free to make any additional comments:

8/99