

NIGERIAN SAFETY INVESTIGATION BUREAU



SAFETY HOUSE, NNAMDI AZIKIWE INTERNATIONAL AIRPORT P.M.B. 7009 GARKI FCT- ABUJA; NIGERIA

INVESTIGATION EVENT MANAGEMENT CHECKLIST – EVENT 27: FIRE AND EXPLOSION

INVESTIGATION NUMBER	AIRCRAFT TYPE / REGISTRATION MARKS/ OPERATOR
DATE	COMPLETED BY

S/N	Fire and Explosion (Event 13 Refers)	Time	Action started	Action completed
1	Photograph all evidence having a direct bearing on the fire before the wreckage is removed;			
2	Review maintenance and parts manuals to gain information on the aircraft structure and systems;			
3	Review the following information:			
A	– Survivor statements;			
B	– Eyewitness statements;			
C	– Type of cargo carried;			
D	– Quantity and type of fuel on board;			
E	– Air traffic services recorded data;			
F	– Flight recorders information; and			
G	– Pathological information for evidence of smoke or soot in the respiratory system, carbon monoxide or other toxic chemicals, and indications of in-flight explosion such as ruptured eardrums or penetration by small fragments.			
4	Determine the requirements for expert technical assistance;			
5	Prior to removal of fire extinguishing agent, consider all options in order to reduce destroying evidence;			
6	Complete a wreckage diagram including burned areas;			
7	Determine if the fire was in-flight or post-impact by reviewing the following:			
A	– Survivor and eyewitness evidence;			
B	– Cockpit configuration;			
C	– Mishap circumstances;			
D	– In-flight fire effects;			
E	– Ground fire effects;			
F	– Crash dynamics, such as location of burned parts with respect to burn areas; and			
G	– Impact effects.			
8	Determine if there was an in-flight explosion by the presence of:			
A	– Omnidirectional fire pattern;			
B	– “Opening up” effect;			
C	– Unusual damage to heavy structures;			
D	– Fragmentation of structures; and			
E	– High-speed penetration by fragments.			
9	Reconstruct the area where the in-flight fire or explosion is suspected; and			
10	Determine the point or area of origin, fuel type and ignition source.			