

SFTY 330 – Aircraft Accident Investigation

Aircraft Accident Project

“ ..The devil is in the details”

Assignment:

This assignment tests your ability to apply the lessons and information learned in this course to develop a “partial” accident investigation report based upon the accident information provided on the ‘Zonk Air Accident’ scenario.

The length of the paper is open, but your instructor reserves the right to determine if the length of a paper correlates to a complete document. Obviously, a brief paper (2-3 pages) indicates a lack of attention on details and research. You have some writing latitude given the mandates of the assignment but keep it uniform and well organized. In other words, do not write a “story like narrative” or simply cut and paste from the accident scenario. Put forth some energy, creative skills, accurate writing and deduction and have some fun.

Rubric:

The grading rubric is based upon APA writing style, critical thought, a detailed analysis of information and development of a logical and justifiable probable cause, contributing factors and realistic recommendations.

Instructions:

This is a blend of technical but readable report writing all encompassed by proper language, syntax, grammar and avoidance of emotional and subjective writing. The report may follow, to some extent, the manner in which the NTSB writes accident reports.

You should, as much as possible, corroborate their data by explaining where the information was gained. This is spelled out in the report instructions below. In other words, there should be no leaps to conclusions without proof or data. A good report should include a probable cause and a list of contributing factors all developed and based from the information in the accident report.

Post any questions in the ‘Investigator’s Workshop’ forum so all can see the responses.

Follow the format, conventions, and examples below:

Format

Title Page: “Aircraft Accident Report Project” SFTY 330, Name plus required APA/ERAU information.

Abstract: What this paper is about. For instance, “this paper will examine the processes of accident investigation ” All writing is third person.

Sections:

You are to gather and distil information from the accident narrative then place the information into the appropriate sections listed below. You may add sections, if needed. Drawing from those sections, you then distil, develop, prove, and corroborate accident causations within in section 1.9, “Final Analysis.” From Section 1.9, “Final Analysis”, create a succinct conclusion stating probable and contributing causes which is placed in Section 2.0, “Conclusions.” Section 2.1, “Recommendations” should be realistic suggestions to prevent similar mishaps and not some over-the-top, non-obtainable, illusionary offerings. Examine the various NTSB reports in the course to gain additional exposure on substance and format. However, your report **is not** required to have the extensive detail of an NTSB report. Use what information you have plus appropriate sources and create the report.

- 1.0 Brief history of flight (Mission)
- 1.1 On-Scene actions (Scene Management Procedures)
- 1.2 On-Scene observations (What did you note and observe?)
- 1.3 Airport information and weather (Basic description and source)
- 1.4 Flight information and mission (Who, what, where and why)
- 1.5 Aircraft information (Type, history, performance, maintenance, etc.)
- 1.6 Pilot information (certificates, hours, training, etc.)
- 1.7 Company information and operations (Who, what where why)
- 1.8 Miscellaneous information (Option for additional information)
- 1.9 Final analysis (Your analysis for causes - prove and bring it all together here)
- 2.0 Conclusion (The probable and contributing causes)
- 2.1 Recommendations (Realistic, doable suggestions)

Conventions and Examples:

On-Scene: You must describe what on-scene procedures and specific techniques were utilized to document, control, contain, and manage the crash site. Again, these are lessons learned from the course material. For instance, do not draw a diagram, but articulate what is the best diagram for the accident scenario based on course readings, etc.

Conventions: When you see words like “**it was determined**” or other general terms of assumption, then you must include in your report where the NTSB would normally obtain such information. You do not need to find the actual conditions, records, etc. Simply state the source where the information could be found.

You do not need an aircraft manual or software for complex calculations. You must, however, demonstrate that you, as in accident investigator, know where to find and cite resources applicable to affirming what might be given in the narrative of the scenario.

Use the witness statements to corroborate the scenario where applicable. Also, state what type of interview you used, e.g. one-to one, at the venue, telephonic, etc. The interviewing technique is your option; however, use the best method as indicated in the course.

Examples:

It was determined the weather was cloudy. If the weather conditions were given, then where would the NTSB secure that official and valid information? You may research the types of valid weather sources are available for that information. There are a host of sources. NOAA, FAA Weather Briefing, AWOS, etc. Then simply use that source as your validation. Local TV weather or stating “according to the Weather Channel” is NOT an official weather source.

It was determined the pilot had several flight violations and certificate actions. In your report you would simply identify a valid source where such information was derived from. For instance, you would simply state, “according the FAA pilot records . . .”

It was determined the crash site had an area dimension based on a 20-foot by 20-foot perimeter. Note to student: This deduction requires some basic math calculations.

Final Analysis: Corroborate your Final Analysis, Section 1.9, through deduction, reported technical facts, specific witness statements, manuals and other data as long as you qualify your information;

For instance, you might state, “The pilot was wearing a blue cap on the accident flight.” How is this true? Well, in your on-scene section you mentioned locating a blue cap in the cockpit. In your witness interviews and according to Witness X, the ramp agent, the pilot was seen entering the cockpit wearing a blue cap. So, from this you could state, “The pilot was probably wearing a blue cap on the accident flight”.

OK, piece it together in an organized, objective, clean, logical document. Remember, you are being graded on critical thought and effective writing-not just guessing the cause.