Crash of USS Akron - The Deadliest Airship Crash in History

The Crash of the USS Akron
Off the coast of New Jersey
April 3, 1933

Many people have heard of the Hindenburg, but have you heard of the USS Akron? The Hindenburg crashed in 1937, killing 35 people. The USS Akron crash four years earlier killed 73, making it the deadliest airship crash in history.

1 Problem

What	Problem(s)	73 killed, airship crash
When	Date	04/03/33
	Differences	Airship was being flown, severe weather
Where	Physical Location	Off the coast of New Jersey
	Task being performed	Assisting in the calibration of radio direction finder stations

Impact to the Goals

Safety	73 killed

This incident ??

2 Analysis

- **Safety Goal Impacted**
  - 73 killed
    - Evidence: Reports from the investigation into the accident.
    - Force of impact/ drowning
      - AND
        - Onboard an airship
          - Airship was out on a routine mission
            - Airship operated by US Navy
              - Evidence: US Navy records.
            - AND
            - Assisting in the calibration of radio direction
          - AND
          - Airship had a crew of 76
        - AND
        - Airship stuck ocean surface
          - Evidence: Eye witness reports from 3 survivors.
          - Airship operating over ocean
            - Airship was out on routine mission
              - Evidence: US Navy records.
            - AND
            - Severe weather wasn't predicted for area
            - AND
            - Severe cold front moved into area
          - AND
          - The airship lost altitude
            - Airship encountered a strong storm
        - AND
        - Crew had little time to prepare for
          - Evidence: Eye witness reports from 3 survivors.
          - Crew had little warning impact was
            - Low visibility
              - Accident occurred at night
              - AND
              - Clouds from the storm
            - AND
            - Instrument reading was higher than
              - The barometric altimeter was affected by
              - AND
              - The pressure dropped quickly in the storm
        - AND
        - Insufficient flotation devices
          - Evidence: Findings from investigation into the incident.
          - No life jackets onboard and only one rubber raft
            - Safety gear had been moved to another airship
            - AND
            - Safety gear had not been replaced
              - ?

3 Solutions

The final step in building a Cause Map is to determine solutions to help prevent the problem from reoccurring. In this case, airships lost popularity as airplanes came on the scene. But another solution worth considering is keeping sufficient flotation devices onboard. Lack of safety gear is a reoccurring theme in many historical disasters. For example, the sinking of the Titanic would be a very different story if there had been sufficient lifeboats onboard. This example might be very different if the crew had been wearing life jackets. The airship would still have been lost, but there would likely have been fewer casualties.

Cause Map
High Level

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Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

CAUSE MAPPING
Problem Solving • Incident Investigation • Root Cause

Step 1	Problem	What's the
Step 2	Analysis	Why did it
Step 3	Solutions	What will