



Federal Aviation
Administration

Avoid the Dirty Dozen

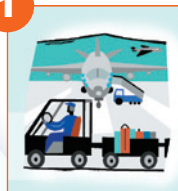
12 Common Causes
of Human Factors Errors

About **80** Percent of
Maintenance Mistakes
Involve **Human Factors**

... and if Not Detected...
Would Lead to Accidents.

Put Safety First and Minimize the 12 Common Causes of Mistakes in the Aviation Workplace

1



Lack of Communication

Failure to transmit, receive, or provide enough information to complete a task. Never assume anything.

Only 30% of verbal communication is received and understood by either side in a conversation. Others usually remember the first and last part of what you say.

Improve your communication—

- Say the most important things in the beginning and repeat them at the end.
- Use checklists.

2



Complacency

Overconfidence from repeated experience performing a task.

Avoid the tendency to see what you expect to see—

- Expect to find errors.
- Don't sign it if you didn't do it.
- Use checklists.
- Learn from the mistakes of others.

3



Lack of Knowledge

Shortage of the training, information, and/or ability to successfully perform.

Don't guess, know—

- Use current manuals.
- Ask when you don't know.
- Participate in training.



Avoid These Common Causes of Mistakes in the Aviation Workplace

4



Distractions

Anything that draws your attention away from the task at hand.

Distractions are the #1 cause of forgetting things, including what has or has not been done in a maintenance task.

Get back in the groove after a distraction—

- Use checklists.
- Go back 3 steps when restarting the work.

5



Lack of Teamwork

Failure to work together to complete a shared goal.

Build solid teamwork—

- Discuss how a task should be done.
- Make sure everyone understands and agrees.
- Trust your teammates.

6



Fatigue

Physical or mental exhaustion threatening work performance.

Eliminate fatigue-related performance issues—

- Watch for symptoms of fatigue in yourself and others.
- Have others check your work.

7



Lack of Resources

Not having enough people, equipment, documentation, time, parts, etc., to complete a task.

Improve supply and support—

- Order parts before they are required.
- Have a plan for pooling or loaning parts.

8



Pressure

Real or perceived forces demanding high-level job performance.

Reduce the burden of physical or mental distress—

- Communicate concerns.
- Ask for extra help.
- Put safety first.

9



Lack of Assertiveness

Failure to speak up or document concerns about instructions, orders, or the actions of others.

Express your feelings, opinions, beliefs, and needs in a positive, productive manner—

- Express concerns but offer positive solutions.
- Resolve one issue before addressing another.

10



Stress

A physical, chemical, or emotional factor that causes physical or mental tension.

Manage stress before it affects your work—

- Take a rational approach to problem solving.
- Take a short break when needed.
- Discuss the problem with someone who can help.

11



Lack of Awareness

Failure to recognize a situation, understand what it is, and predict the possible results.

See the whole picture—

- Make sure there are no conflicts with an existing repair or modifications.
- Fully understand the procedures needed to complete a task.

12



Norms

Expected, yet unwritten, rules of behavior.

Help maintain a positive environment with your good attitude and work habits—

- Existing norms don't make procedures right.
- Follow good safety procedures.
- Identify and eliminate negative norms.

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