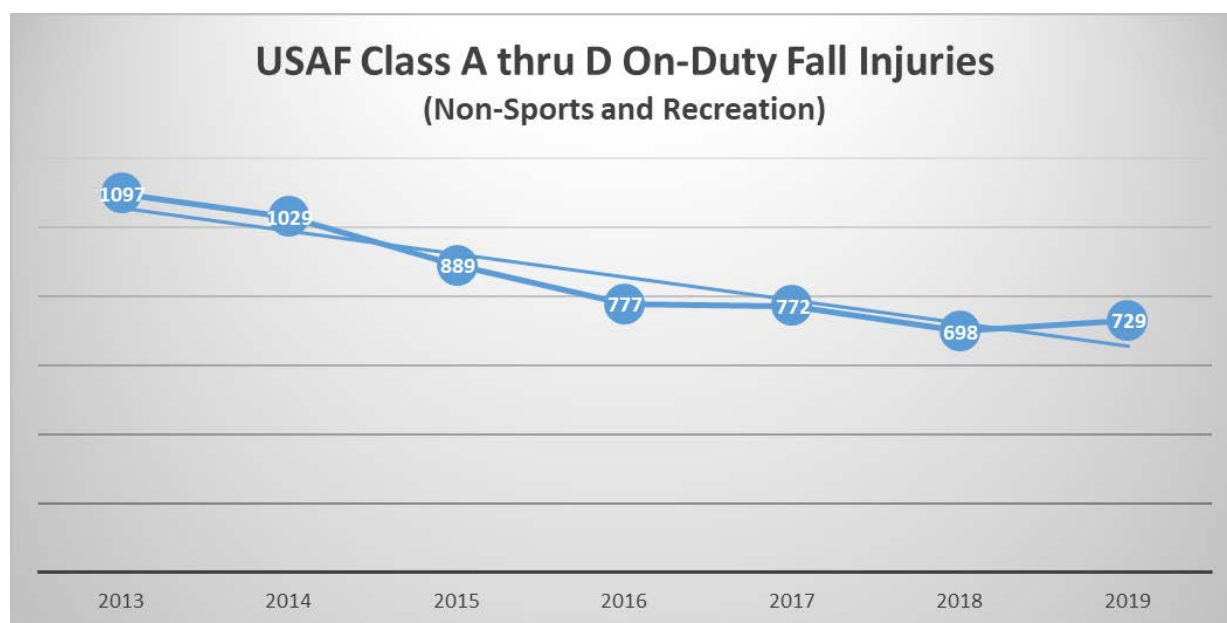


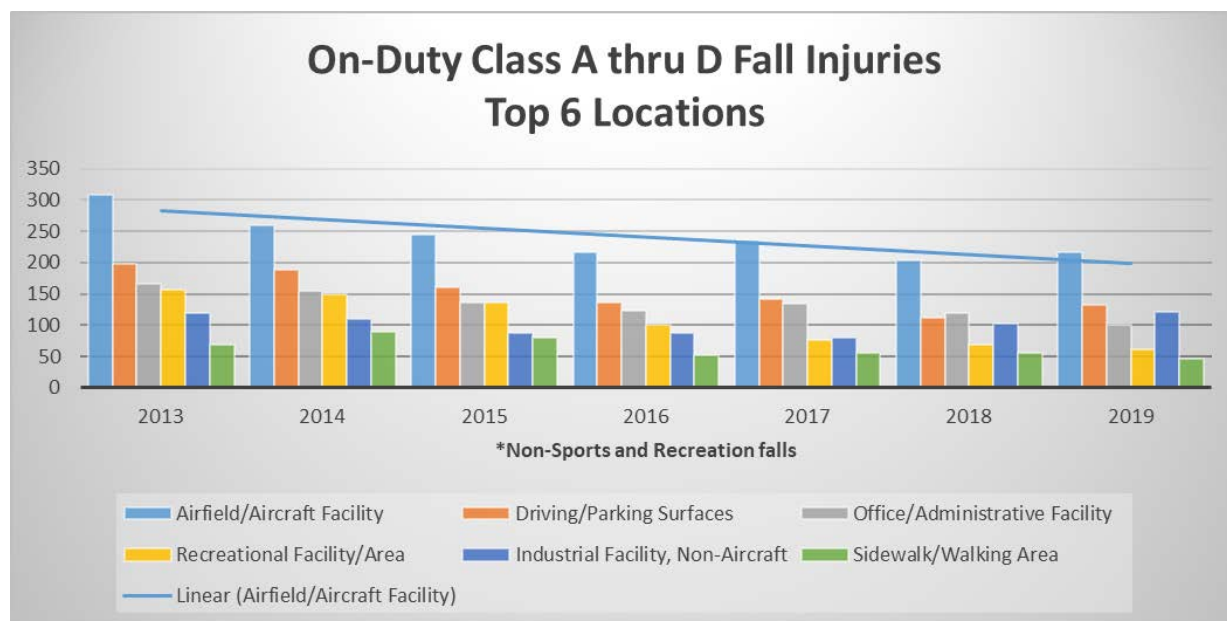
## AIR FORCE ON-DUTY FALL MISHAP ANALYSIS

For the seventh year in a row, Air Force Occupational Safety will sponsor Fall Prevention Focus Week 20-24 July 2020, highlighting ways to reduce falls and preventable fatalities/injuries. Fall prevention is not only for the obvious hazards associated with activities related to heights, but also includes many everyday routine tasks, walking on stairs or simply walking down a hallway. Almost any time you are walking there is a risk of tripping or slipping.

Over the past several years, the Air Force has reduced non-sports-related fall injuries by almost 34% from 2013 to 2019, for class A through D on-duty mishaps.

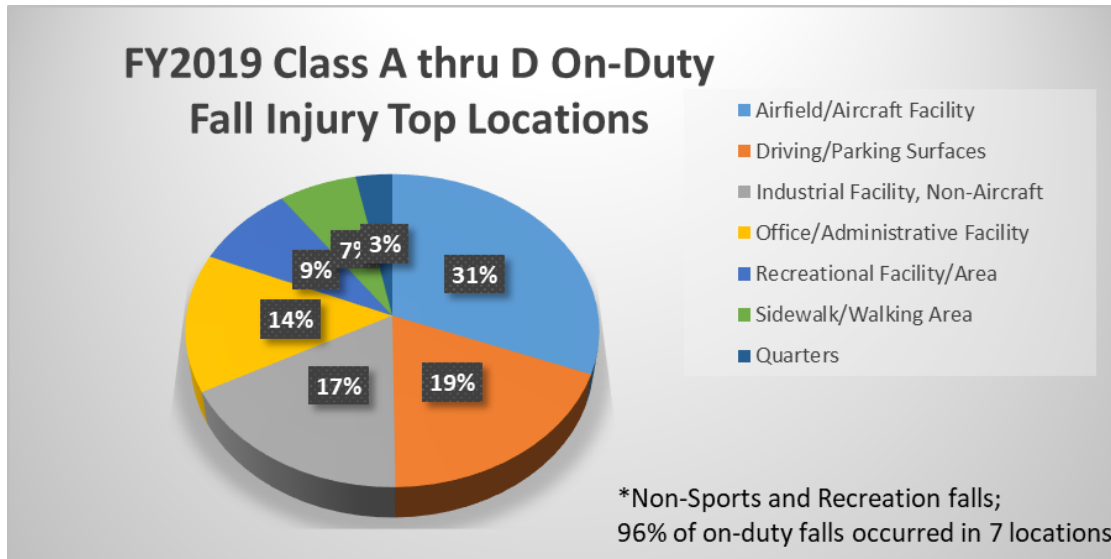


Since at least 2013 the leading location for non-sports and recreation fall injuries has been Airfield & Aircraft Facilities, averaging 60% higher than the second location of Driving/Parking surfaces.

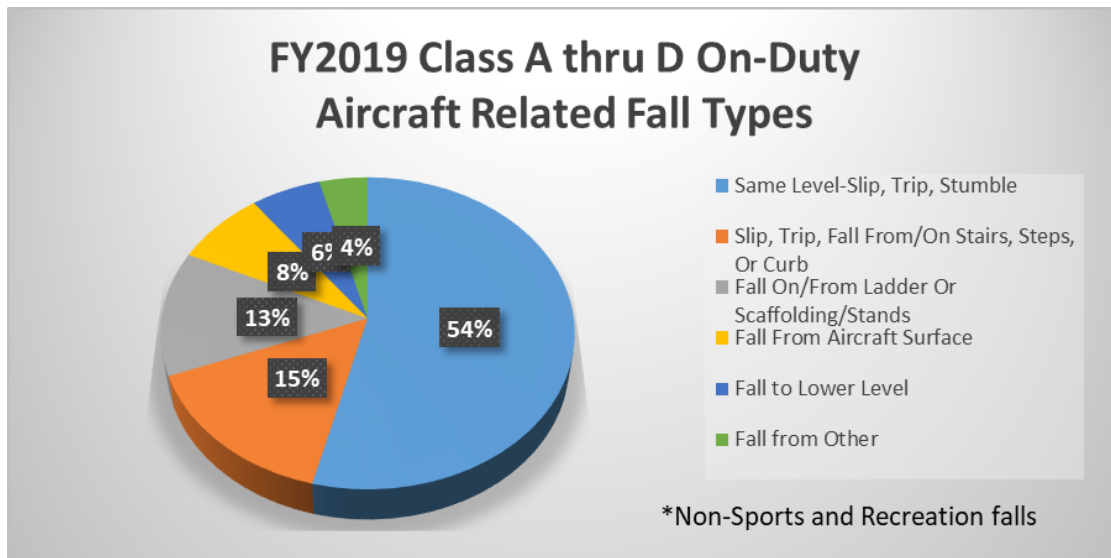


## AIR FORCE ON-DUTY FALL MISHAP ANALYSIS

Over 96% of FY2019 non-sports-related fall injuries occurred in seven locations, with the largest again being Airfield/Aircraft Facility, making up 31% of fall injuries.

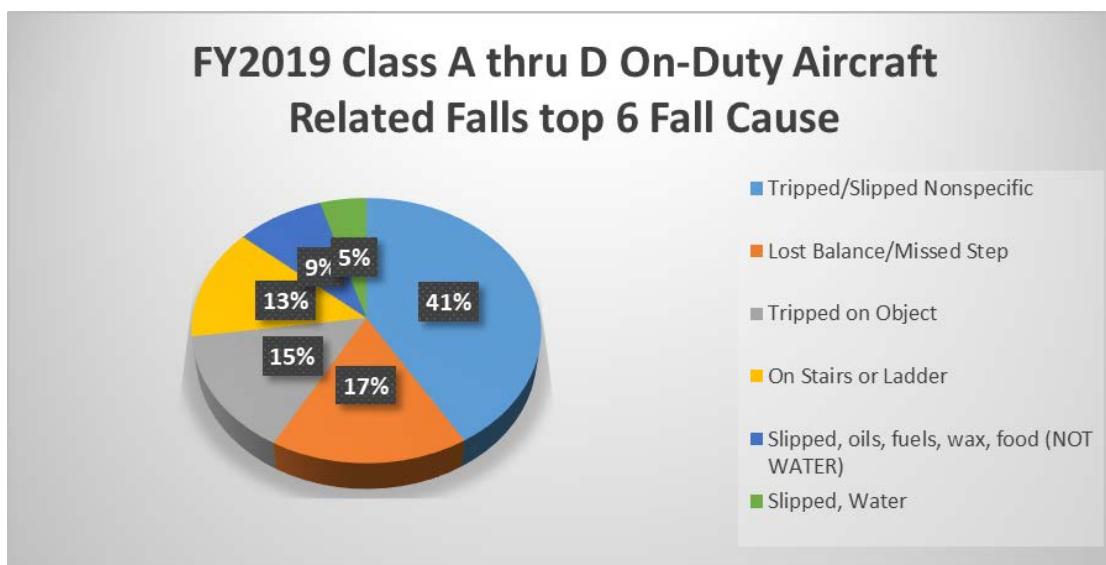


When we look at the type of falls related to Aircraft maintenance, the bulk of them occur on the same level followed by Stairs and Steps.



## AIR FORCE ON-DUTY FALL MISHAP ANALYSIS

The top six (6) causes account for over 88% of these mishaps.



Below are some preventive actions that would have prevented some actual mishaps.

| Mishap:   | Recommended action:  |
|---|--|
| A worker began performing a preflight on the aircraft and required access to the top of the aircraft. The worker utilized the retractable crew boarding steps to access the top of the left intake ramp. As the member reached over to place one leg onto the left intake lip to move onto the aircraft, the member lost footing from the ladder falling approximately 15 feet onto the ground, fracturing the member's left wrist  | Based on the operation, the worker should have used a maintenance stand to access the top of the aircraft. Even with the canopy open, that edge is not designed to provide a safe step to access the top of the aircraft. Using an appropriate stand prevents the need to climb up to elevated positions using awkward techniques.   |
| A worker needed to remove panels from an aircraft where a maintenance stand was already in place next to the aircraft (almost 2 ft. away) from a previous task. The worker ascended the stand and removed the rail facing the aircraft. As the member opened the upper panel and was attempting to open the lower panel when there're left foot slipped off the stand edge falling approximately 11 feet. Member laid on the floor for approximately 5 to 10 minutes before being found by a contractor reporting for duty. | The stand was in the wrong position creating a fall hazard with the rail removed. The stand should have been closer to the aircraft to eliminate an unsafe working surface. In the event the stand could not be positioned to eliminate the fall hazard, fall protection is required. Workers must be trained to understand the requirements to prevent this type of mishap. |
| Worker was descending a C-1 maintenance stand he slipped and fell to the ground, herniating a disc in his/her back. The investigation revealed the non-slip bumps were worn causing an unsafe walking surface.  | Equipment is required to be inspected periodically to ensure it is in usable condition. The mishap stand was unsafe and should have been placed out of service or repaired before usage.   |
| Worker disconnected airline from wall coupler and stepped backward onto a creeper on the floor. The creeper rolled causing the worker to fall.  | Housekeeping is a factor in this mishap as the creeper was not put away after its use and left out creating an unsafe condition.   |

## AIR FORCE ON-DUTY FALL MISHAP ANALYSIS

|   |  |
|---|--|
| Worker was walking through the aircraft hangar when they slipped on hydraulic fluid and fell to the floor, injuring their right knee. | Good housekeeping could have prevented this mishap. Investigation indicated the fluid was drying indicating it had been present for some time. |
|---|--|

### SUMMARY:

When you look at many of these mishaps and read the investigation report frequently the investigator or supervisor mistakenly blame “Inattention” for the mishap. This is an easy way out without identifying the true cause of the mishap, it’s easy to blame the worker. When you dig a little deeper you can surmise the underlying cause is to accomplish the mission in the quickest fashion.

However, is taking unnecessary risks, shortcuts or hurrying up to get the job done worth injury or death?

Every location and job task has unique hazards associated with it. There is no way anyone can give you an all-encompassing list to prevent all fall mishaps. Supervisors and workers need to ensure tasks are performed using the proper procedures, do a Job Hazard Analysis to identify potential hazards and address them accordingly.

A few general recommendations:

- Use proper Risk Management, accept no unnecessary risk.
- Supervisors and workers need to ensure tasks are performed using the proper procedures. Always do a Job Hazard Analysis to identify potential hazards and address them accordingly.
- Eliminate or reduce the hazard where possible:
  - Evaluate the task to see if there is a safer way to perform it
    - Lift platform instead of a ladder
    - Inspection by mobile camera or drone
  - Use the proper tool/equipment for the task
  - Maintain good housekeeping: Keep your tools, equipment, parts and any other debris clear or in a safe place from your work area.
  - Add non-slip surface coatings or covers
- Use extreme caution when carrying items, get help to carry large, heavy bulky items or get a cart.
- Don’t carry items in your hands while ascending or descending a ladder/stairs. Have someone hand the items to you or use a lift system or rope to bring them up. Always maintain 3 points of contact when climbing a ladder and use the handrail on stairs.

Identify, rectify and report hazards. By taking care of the little things, mishaps will happen less frequently.

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