April 2020 Quarterly Flight Safety Meeting

-- Briefing DOES NOT contain any privileged or limited-use safety information --

Introduction

- Given the incredibly diverse background of our crew members, the flight safety staff is often asked about incidents in other airframes
- This briefing will highlight some of the major events and trends that we've seen in other MDSs over the last year
- No privileged information is contained in these slides, so please see any member of your friendly flight safety staff if you'd like more details

Definitions

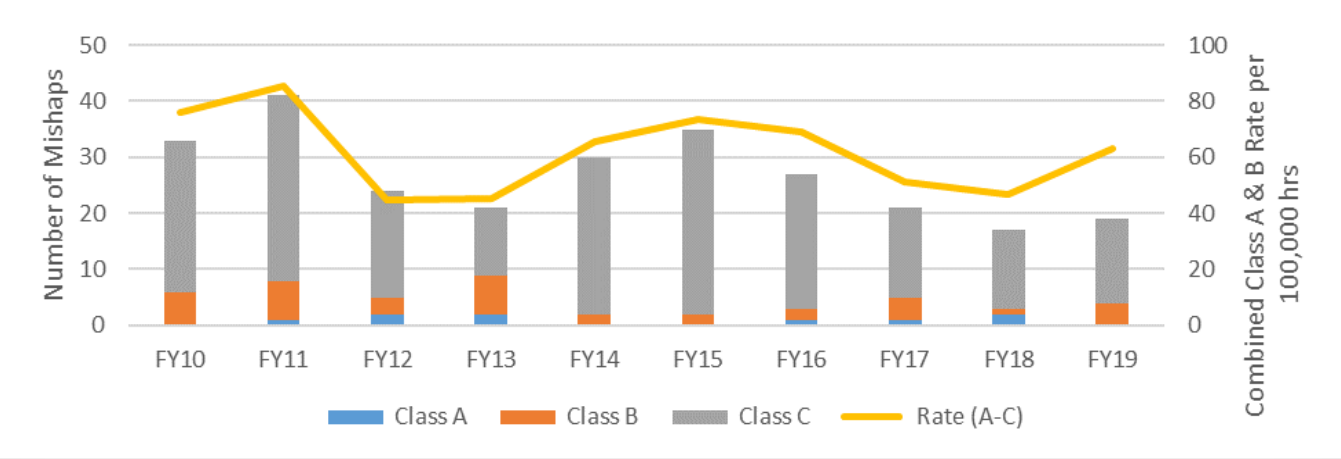
- Class A Mishap: at least one of the following occurred:
  - Greater than $2,000,000 in damage
  - A fatality or permanent total disability
  - Destruction of the aircraft

- Class B Mishap: at least one of the following occurred:
  - Greater than $500,000 in damage
  - A permanent partial disability
  - Hospitalization of 3 or more people

- Class C Mishap:
  - Greater than $50,000 in damage

Bombers

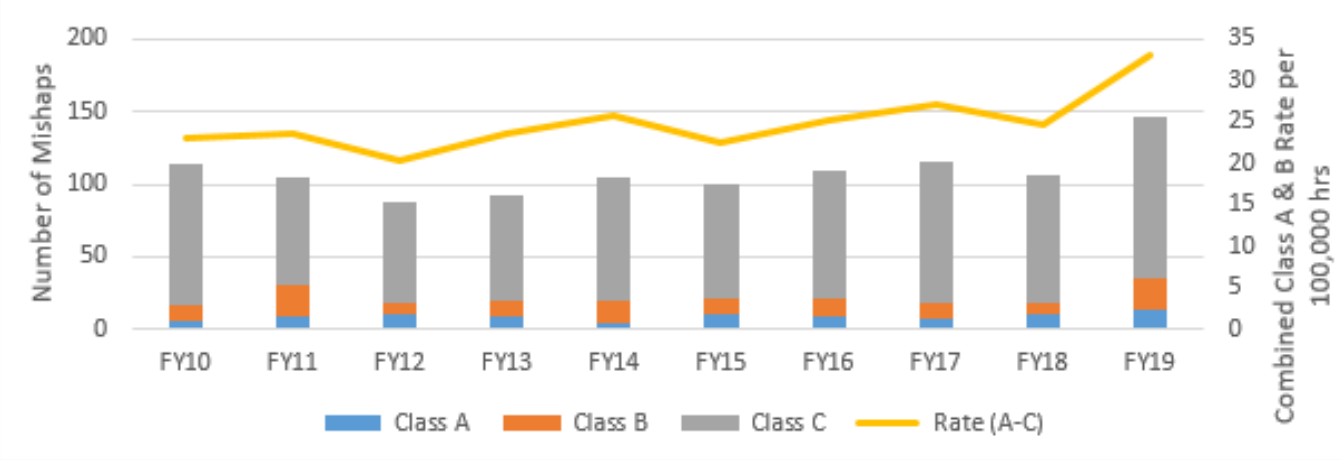
(B-1, B-2, B-52)



- Zero fatalities and zero destroyed aircraft in FY19
- There were 3 B-52 Class B mishaps related to 2 engine fires and 1 ground handling mishap
- There was a single B-1B Class B due to an APU fire
- Most physiological events were smoke and fume related
- Wildlife strike rates trending upwards

Fighter/Attack

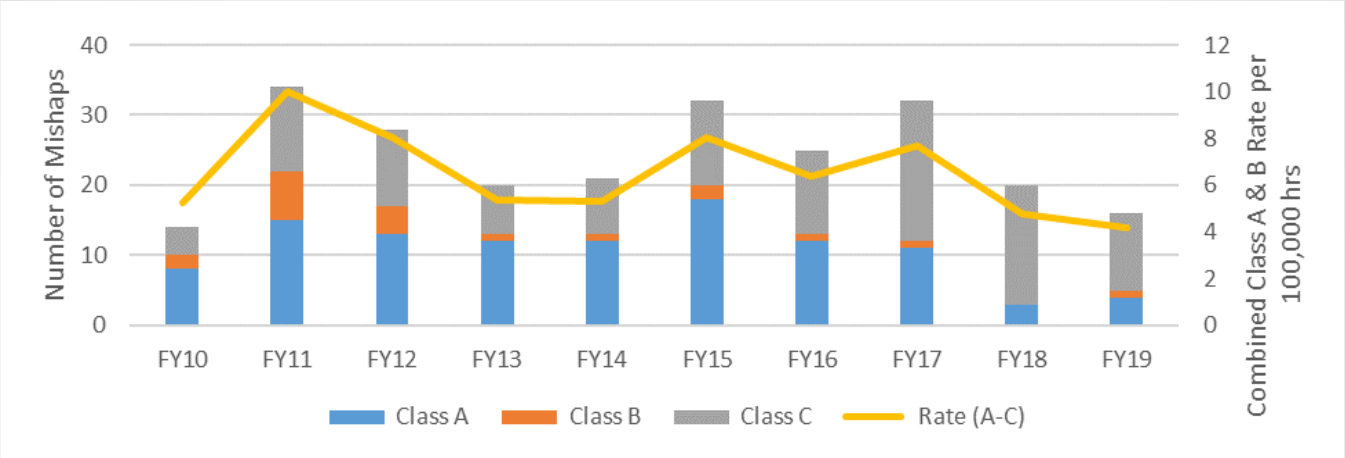
(A-10, F-15, F-16, F-22, F-35)



- 14 Class A Mishaps (which is nearly double the 5- and 10-year averages): 6 F-22s, 4 F-35s, 2 F-15Cs, and 2 F-16s
- Engine FOD accounted for 6 of these Class A's (and also to an additional 41 Class B and C events)
- G-induced loss of consciousness events remain an emphasis item with one jet being saved by the aircraft's ground collision avoidance system, and another being severely over-G'd during recovery

RPAs

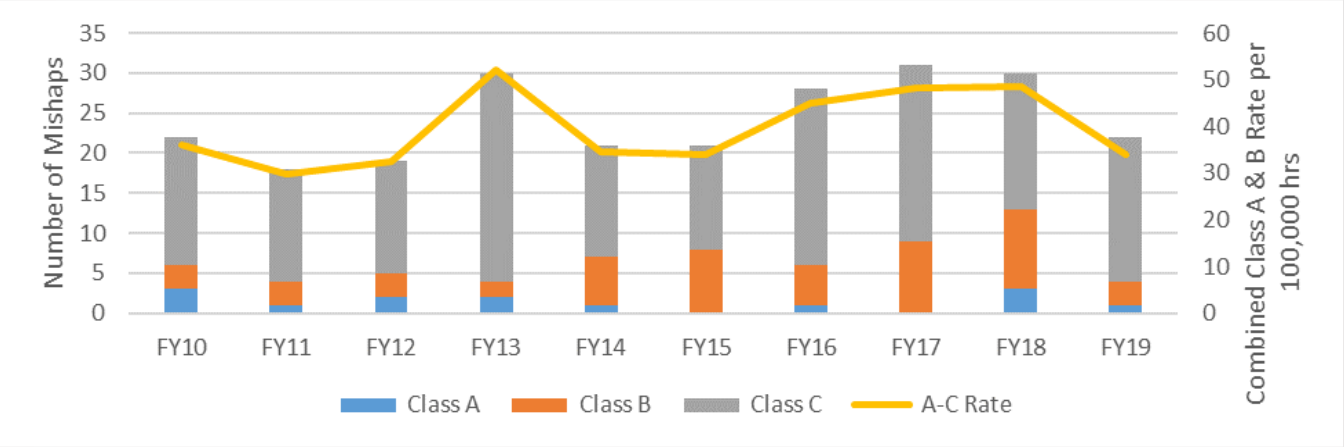
(MQ-1, MQ-9, RQ-4)



- Details about the 4 RPA Class A's have been previously briefed
- We continue to see issues during the landing phase, with the Air Force looking to begin auto-land implementation later this year
- There has also been a marked increase in engine component malfunctions as compared to FY18

Rotary Wing/Tiltrotor

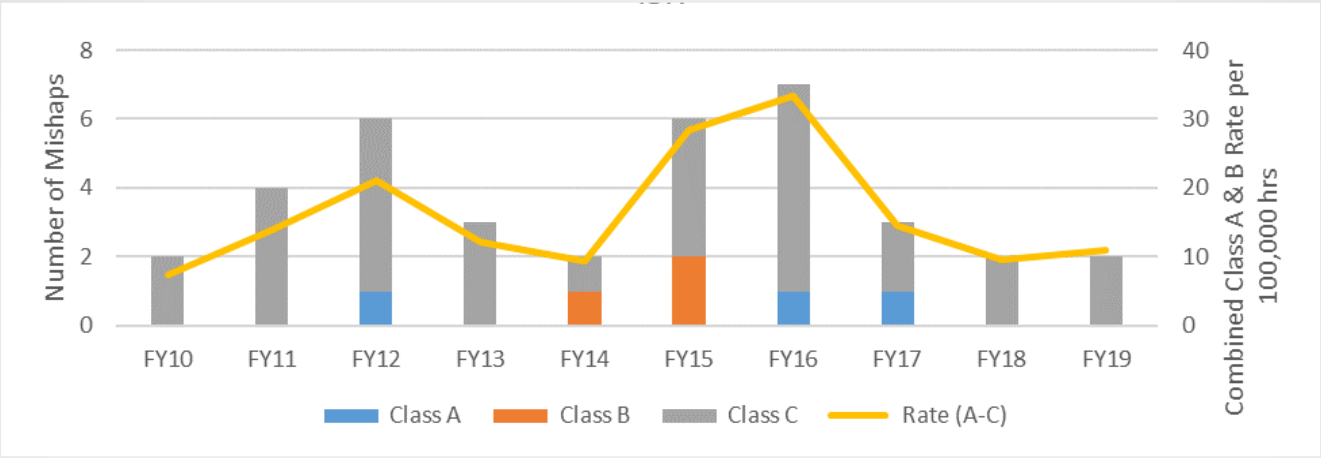
(UH-1, HH-60, CV-22)



- Zero Class A or B mishaps last year in either the UH-1 or HH-60
- The CV-22 had 1 Class A lightning strike incident and 3 Class B engine-related events (2 from FOD damage and 1 compressor stall)
- Unrecognized engine degradation due to FOD (either particulate buildup, larger objects, and/or ice FOD) remain the top hazard in the CV-22 community

ISR

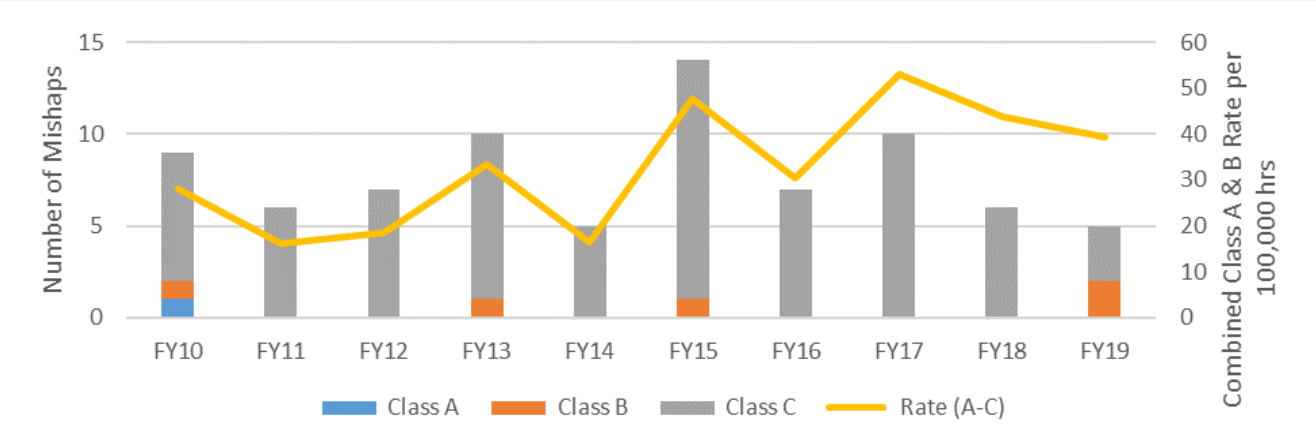
(U-2, RC-26, U-28, E-9, RC-135)



- Second year in a row with zero Class A or B mishaps in all ISR aircraft
- Despite this great record, there was a large uptick in abrupt maneuver incidents over the last year
- Outstanding issues include improving the flight data recorders and evaluating the ejection seat service life in the U-2, and improving the EICAS system in the RC-135

Command & Control

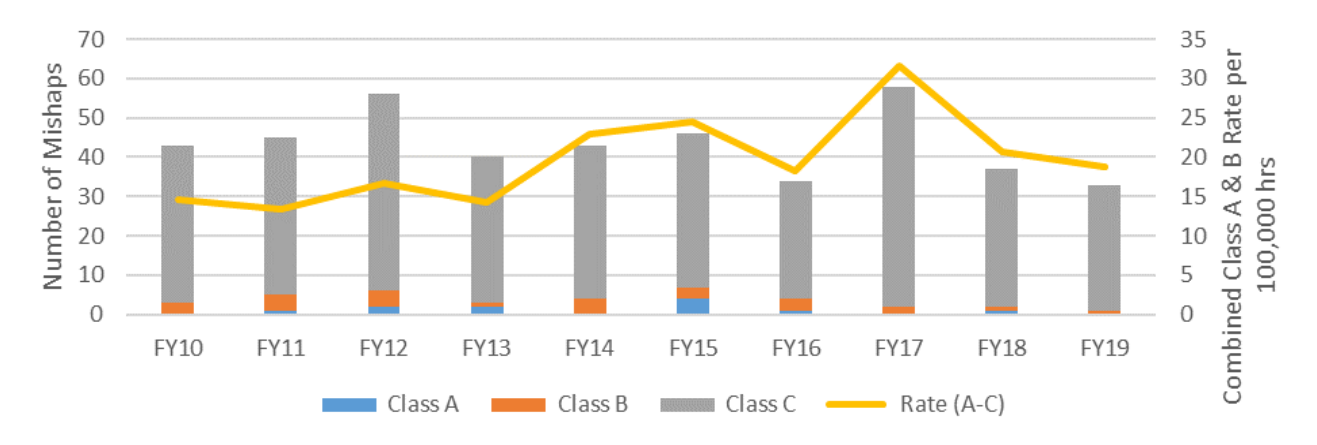
(E-3, E-4, E-8, E-11)



- Zero Class A and only 2 Class B mishaps last year
- No significant trends
- Outstanding issues include improvements to the APU, fuel, and bleed air systems

Multirole/Transport

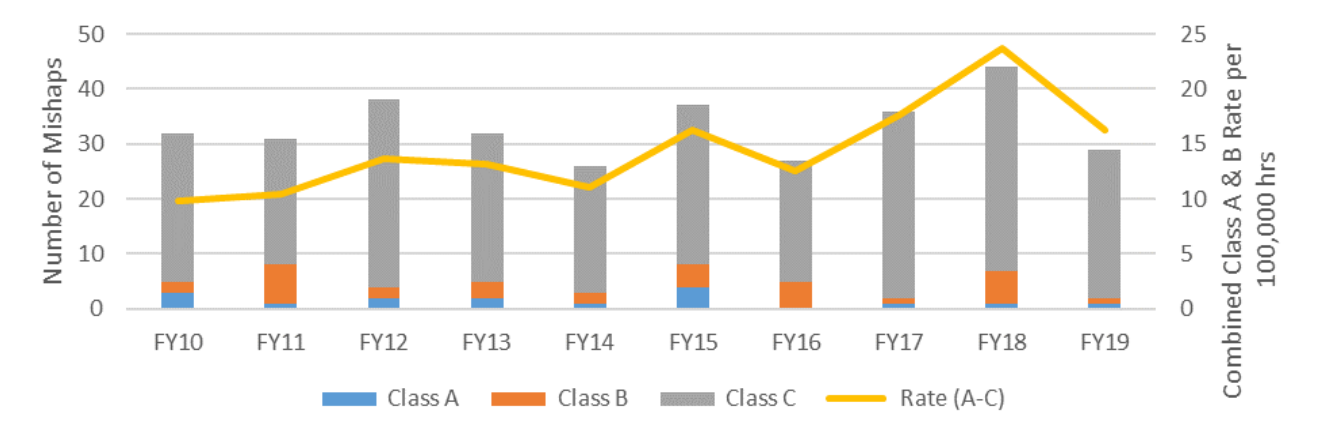
(C-12, C-130, C-145, C-146)



- Zero Class A's in FY19
- 2 Class B's (a main landing gear fire on the ground, and an injury while stowing a C-130 loading ramp)
- Overall great year; main hazard is brake overheats during C-130 assault landings

Airlift/DV Transport

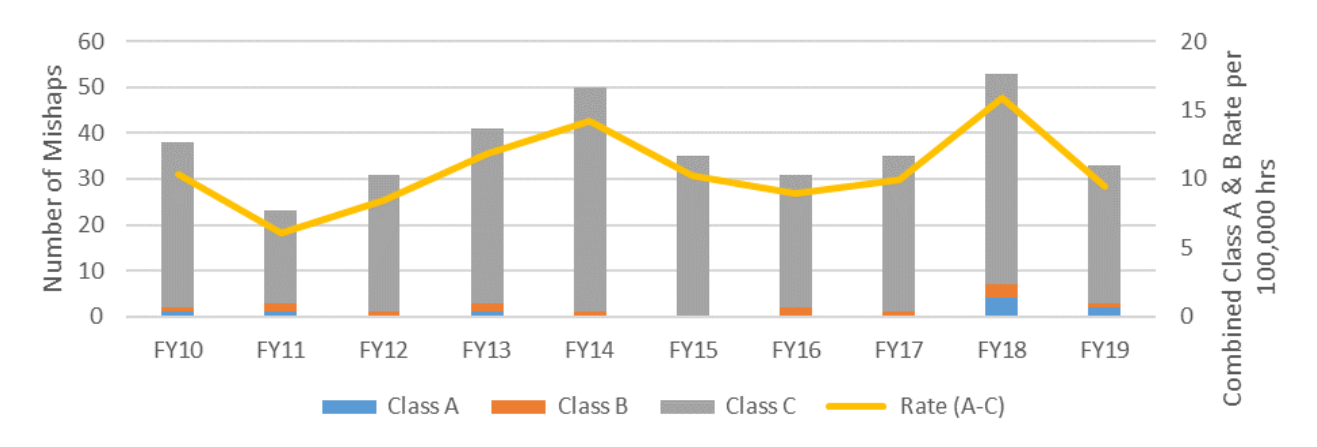
(C-5, C-17, C-32, C-37, C-40, VC-25, C-21)



- 2 Class A and 2 Class B Mishaps
- No significant trends with either aircraft operations or systems
- Wildlife strikes remain the greatest hazard by far

Trainers

(T-1, T-6, T-38)



- T-38 compressor stalls remain the top concern in that fleet with one such event leading to a fatal Class A (the instructor was unable to eject in time during a touch and go)
- (Note that the most recent T-38 crash during a formation landing is not reflected in the data above as it occurred during FY20)
- The T-6 also had a Class A last year (due to loss of control) and a very high rate of physiological events, with its oxygen generating system being designated a safety critical area