



Naval Safety Center Annual Mishap Overview

FY14

An analysis of the Navy and Marine Corps mishap experience during FY14, focusing on areas of elevated risk that require increased or renewed prevention efforts.

Readiness depends on preventing mishaps

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Introduction

The chart at the top of page 4 offers a quick glance at the Navy and Marine Corps mishap experience during FY14. The true picture, however, is composed of myriad details that provide a clearer understanding of the year's trends. Class A mishaps get most of the attention, but many pieces of the mishap puzzle exist below that level.

This annual mishap overview contains a spectrum of measures of how the Navy and Marine Corps fared during FY14. Statistics focus on the major mishap-reduction targets, such as traffic and aviation. We compare FY14 with FY13 and with five-year averages. Charts of 10-year trends offer yet another perspective on longer-term progress.

The report lists recurrent discrepancies that our aviation and afloat safety-survey teams found during their hundreds of in-depth fleet visits around the globe. These nuts-and-bolts details of unit safety programs highlight shortfalls in fleet knowledge, training, experience and execution. Another section focuses on ashore topics, especially traffic safety (including pedestrians) and recreation/off-duty safety. Other information covers negligent discharges of firearms (on duty and off duty), oversight visits to Navy High-Risk Training activities, and surveys of Navy and Marine Corps paralofts.

The report concludes with a summary of the activities of the Naval Safety and Environmental Training Center and a status report about the important Fleet Safety Campaign Plan.

As you study the following pages, please look for areas where increased or adjusted mishap-prevention efforts are necessary: issues on which we can work together to identify and avoid costly preventable mishaps that remain all too common.

Statistical Snapshot

During FY14, 59 Sailors died in mishaps, primarily in Private Motor Vehicle mishaps (61%) and in Off-duty Shore/Recreation mishaps (19%). 53 Marines died in mishaps, primarily in Private Motor Vehicle mishaps (60%) and Off-duty Shore/Recreation (19%).

During FY14, the Marines had their best rate ever for Total Class A Operational Mishaps. The combined Navy-Marine rate for Total Military Operational Fatalities was also the best year ever. Total Navy Military Operational Fatalities and Afloat Class A Operational Mishaps (Excluding PT) were better than the previous five-year period, as was Marine Corps Aviation Class A Flight Mishaps.

Negative trends predominated for the Navy. Seven categories were worse than previous periods:

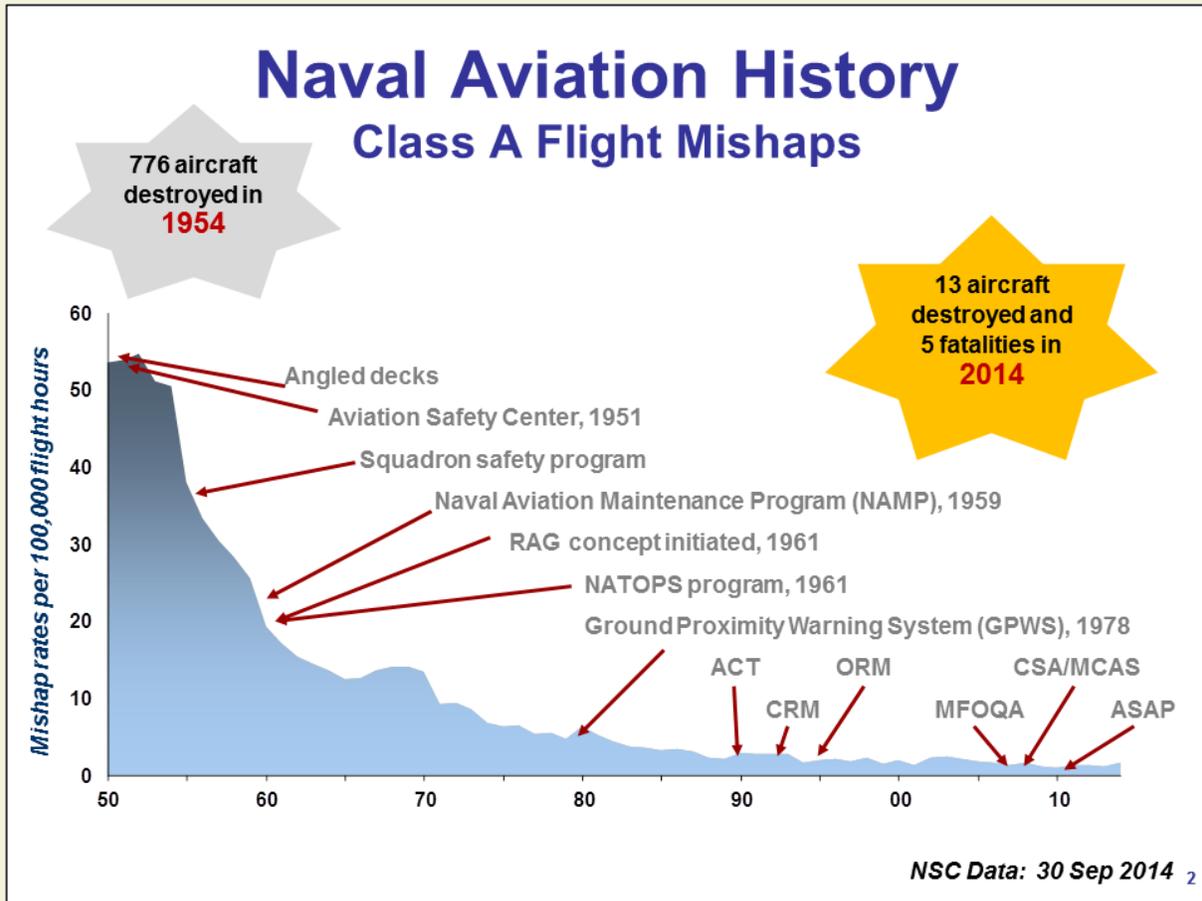
- Navy Total Class A Operational Mishaps (34, worse than each of the previous seven years)
- Navy Aviation Class A Flight Mishaps (14, worse than each of the previous ten years)
- Shore Class A Operational Mishaps, Excluding MV/PT (4, worse than the previous five-year period)
- PT Class A Operational Mishaps (5, worse than each of the previous seven years)
- Motor Vehicle Class A Operational Mishaps (4, worse than each of the previous eleven years)
- Off-duty Shore and Recreational Fatalities (11, worse than the previous five-year period)
- Private Motor Vehicle Fatalities (36, worse than the previous five-year period).

Positive trends predominated for the Marine Corps. Seven categories were better than previous periods:

- Ground Class A Operational Mishaps, Including PT/Excluding MV (6 mishaps, better than the previous five-year period)
- MV Class A Operational Mishaps (1, better than each of the previous 21 years)
- Total Marine Military Operational Fatalities (11, better than each of the previous five years)
- Private Motor Vehicle Fatalities (32, better than the previous five-year period)
- Off-duty Shore and Recreational Fatalities (10, better than the previous five-year period)

Only one Marine Corps category--PT Class A Operational Mishaps--was worse than each of the previous five years.

Summary of Data and Trends



When compared side-by-side to FY13's Class A flight mishap rate of 0.48/100K flight hours, FY14's Class A flight mishap rate of 1.69/100K flight hours appears to be indicative of a significant negative trend. While the marked difference in aviation Class A flight mishaps rates between FY13 and FY14 alone is an important data point, comparing FY14's rate to the previous 10-year average mishap rate of 1.10/100K flight hours provides better context. FY14 was the worst year in the past 5 years and it is above the 10-year average.

Combined, the Navy and Marine Corps aviation team suffered 19 Class A flight mishaps during FY14. Mishap characterizations fall in the following categories: Material, Maintenance Human Factors, Aircrew Human Factors and

Facilities Human Factors. Characterizations are derived from the causal factors in the Safety Investigation Report.

FY14 Class A Flight Mishaps	= 19
Aircrew mishaps	= 10 or 53%
Maint/Material mishaps	= 05 or 26%
Maint or Mat plus aircrew	= 04 or 21%

Total with some kind maintenance or material component = 09 or 47%

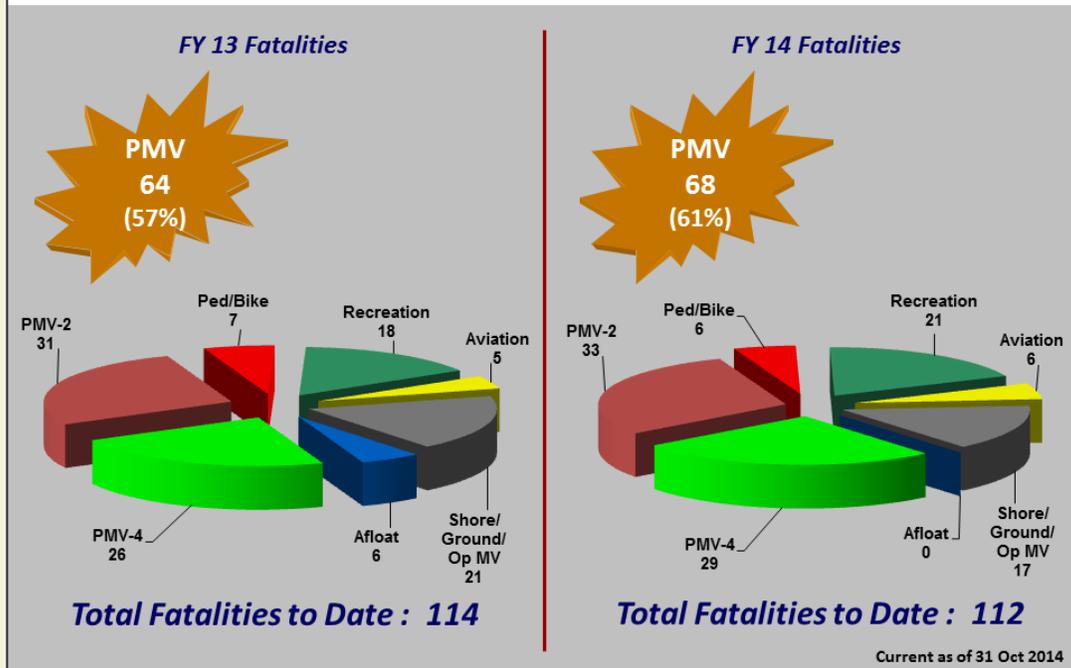
Total with some kind of an aircrew component = 14 or 74%

To have the number add up to 100% we use 26% that were exclusively maintenance or material casual factors. The 74% aircrew causal factors are those that are exclusively aircrew added to a maintenance or material that also include aircrew casual factors (e.g. NATOPS non-compliance or poor airmanship).

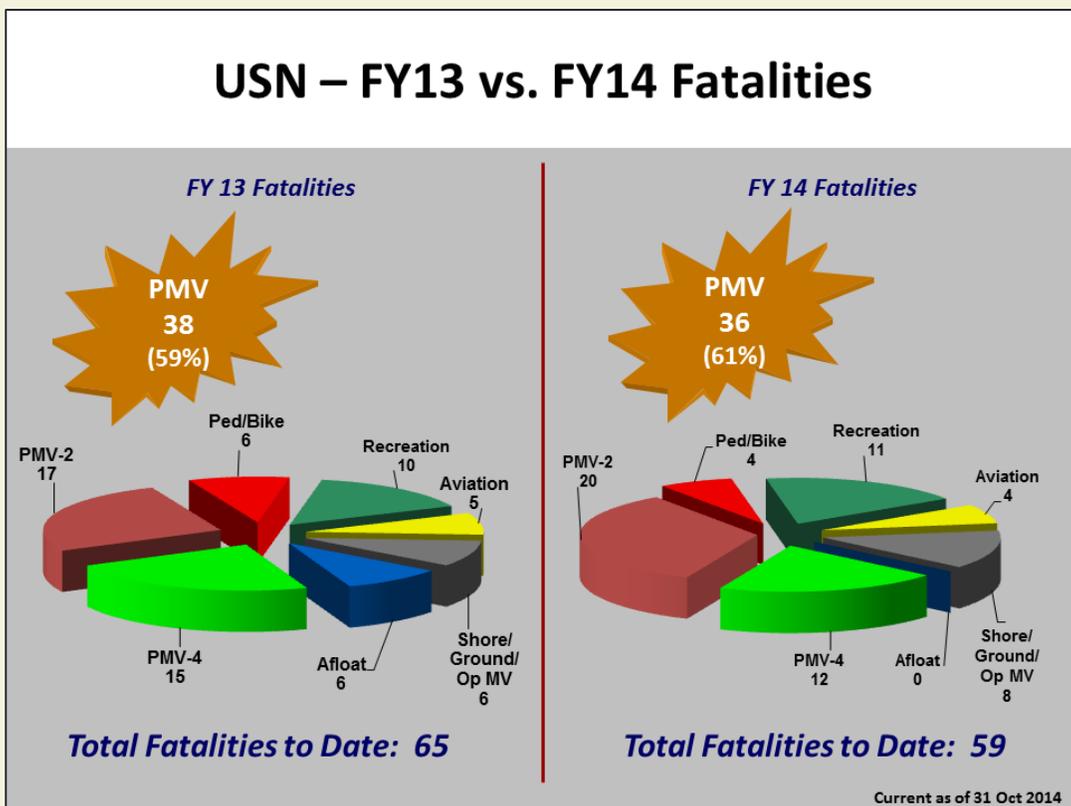
The FY13 aircrew percentage (75%) is nearly identical to FY14 at 74%. FY13 facilities human factors are 17% and the FY13 maintenance/material characterization is 8% (only 1 mishap).

There was an increase (FY13 to FY14) in some kind of maintenance/material causal factors in mishaps numerically from 1 to 9 or 8% to 47%.

NAVAL – FY13 vs. FY14 Fatalities

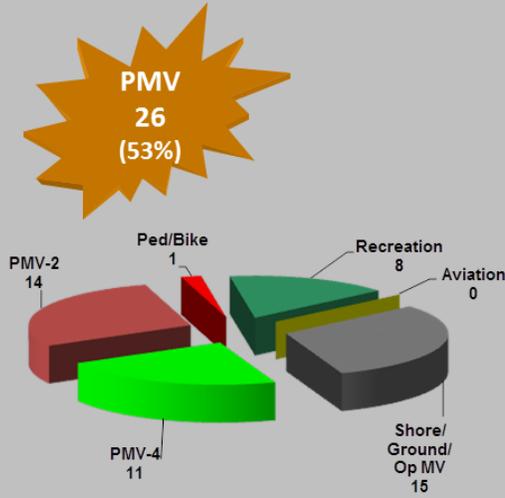


USN – FY13 vs. FY14 Fatalities



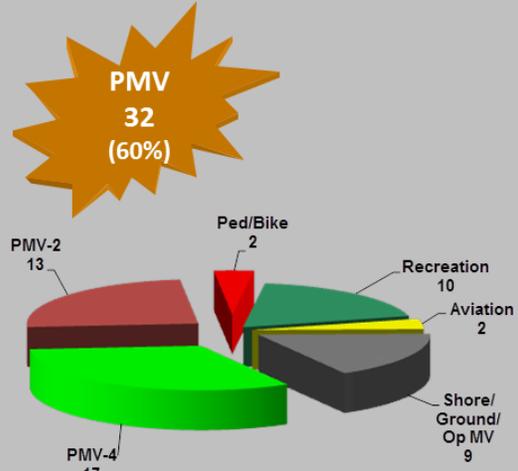
USMC – FY13 vs. FY14 Fatalities

FY 13 Fatalities



Total Fatalities to Date: 49

FY 14 Fatalities



Total Fatalities to Date: 53

Current as of 31 Oct 2014

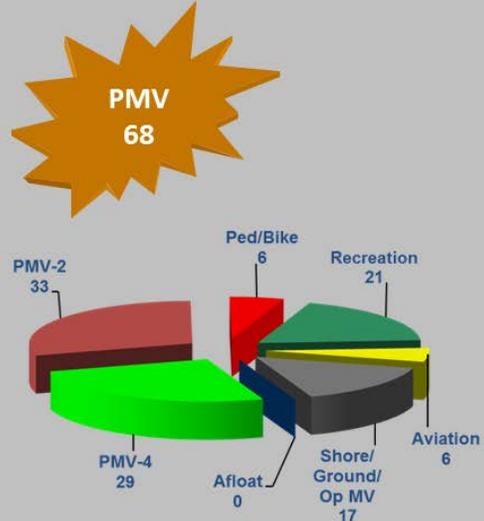
DoN – FY14

Cost



Total Cost: \$1.28B

Fatalities

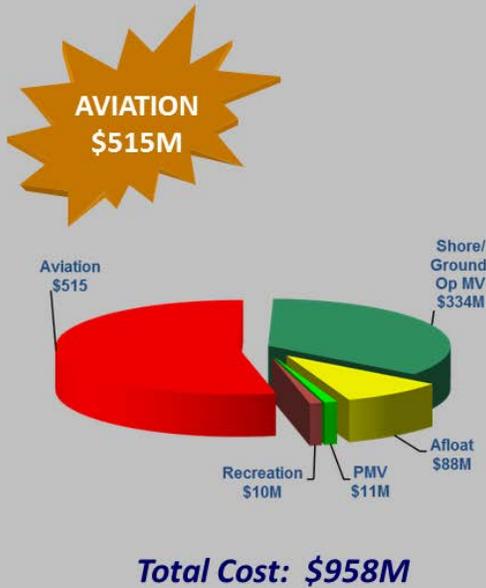


Total Fatalities: 112

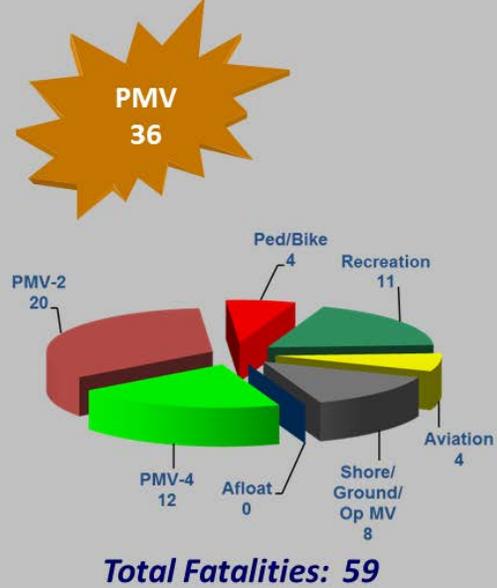
Current as of 30 Oct 2014

USN – FY14

Cost



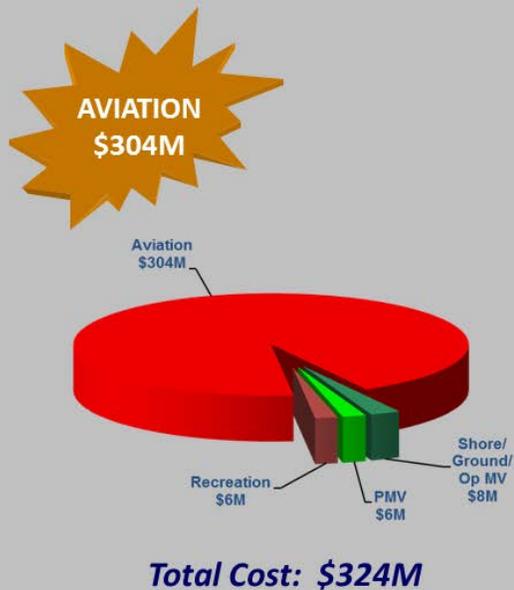
Fatalities



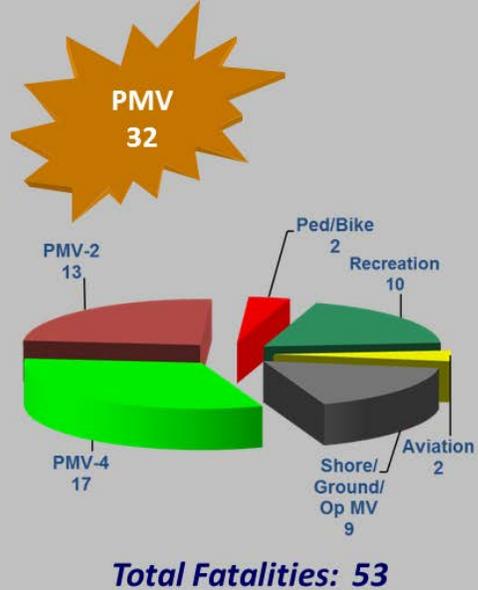
Current as of 30 Oct 2014

USMC – FY14

Cost



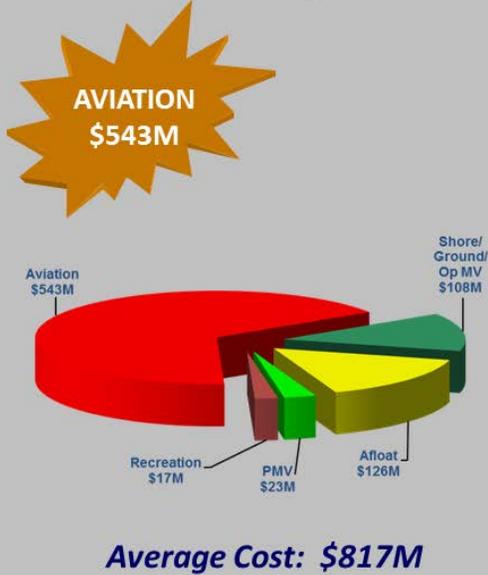
Fatalities



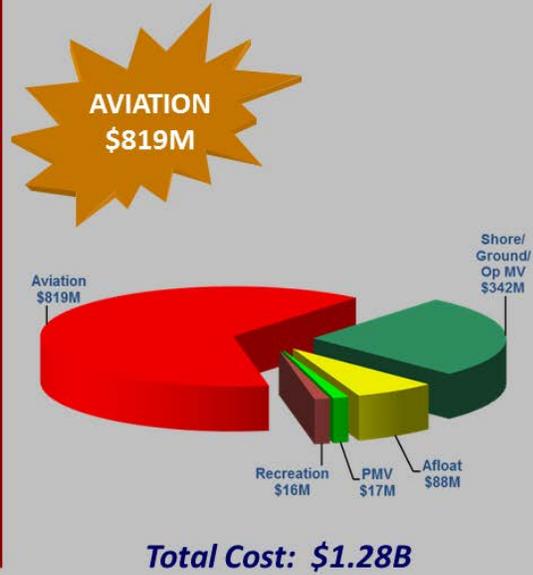
Current as of 30 Oct 2014

DoN Cost 5-Year Avg. vs FY14

5-Year Avg. Cost



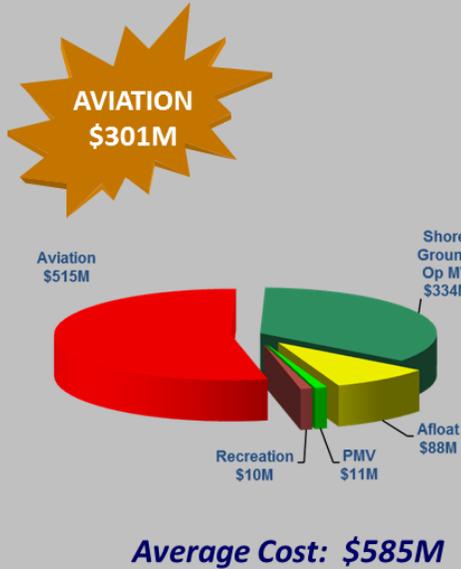
FY14 Cost



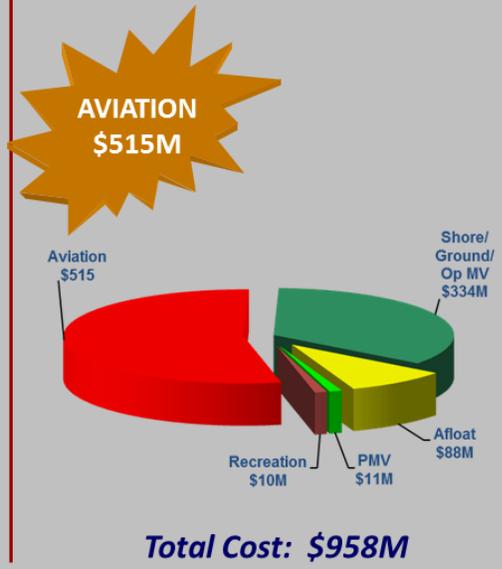
Current as of 31 Oct 2014

USN Cost 5-Year Avg. vs FY14

5-Year Avg. Cost



FY14 Cost

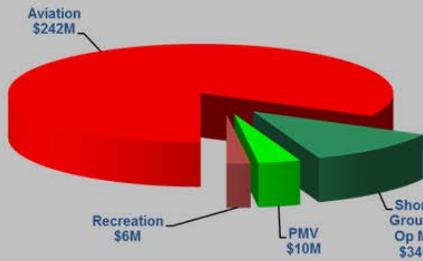


Current as of 31 Oct 2014

USMC Cost 5-Year Avg. vs FY14

5-Year Avg. Cost

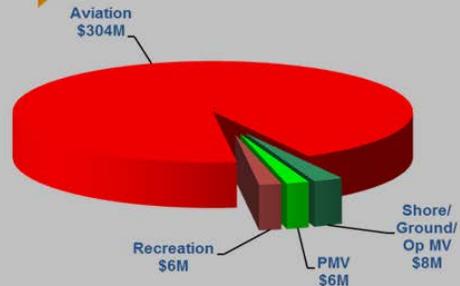
**AVIATION
\$242M**



Average Cost: \$292M

FY14 Cost

**AVIATION
\$304M**



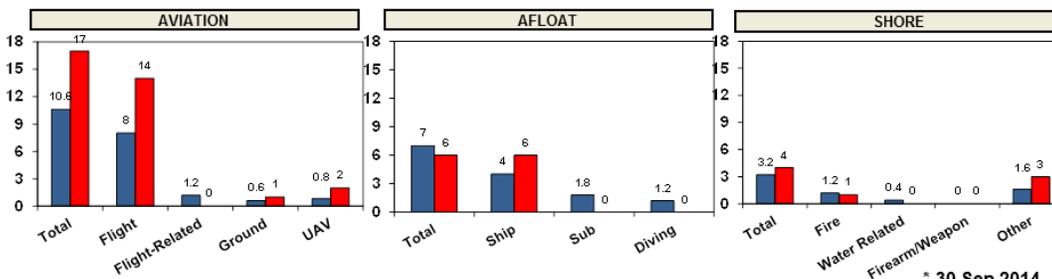
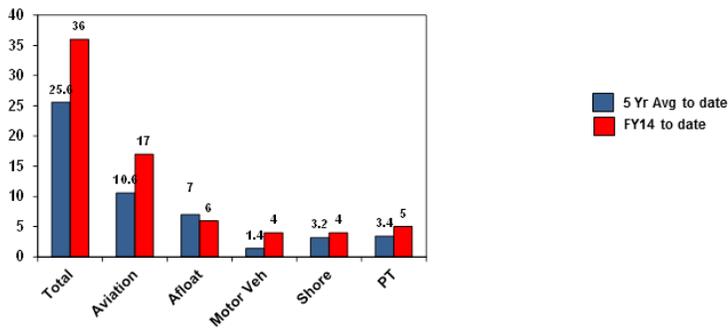
Total Cost: \$324M

Current as of 31 Oct 2014



NAVY MISHAP UPDATE

ON-DUTY CLASS A MISHAPS *

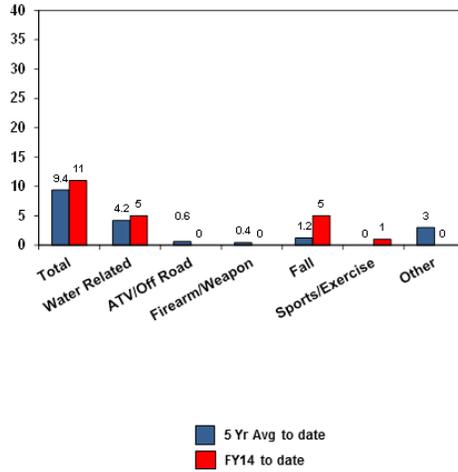


* 30 Sep 2014

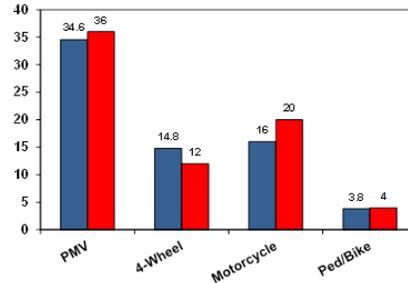


NAVY MISHAP UPDATE

OFF-DUTY REC FATALITIES *



PMV FATALITIES *



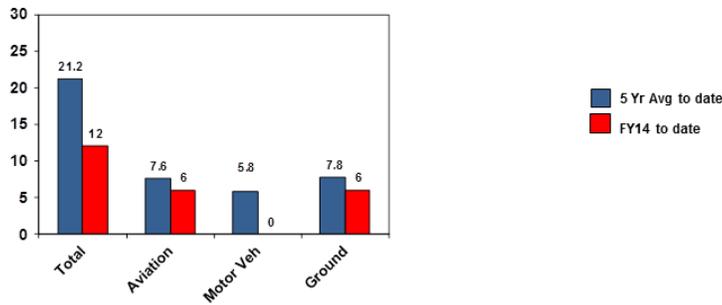
FY 13 PMV Rate to date	11.21
FY 14 PMV Rate to date	10.63
10 YR Avg. PMV Fatality Rate to date	14.12

* 30 Sep 2014

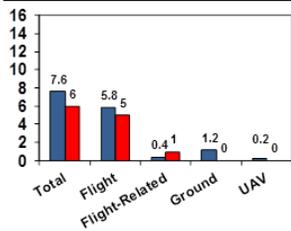


MARINE MISHAP UPDATE

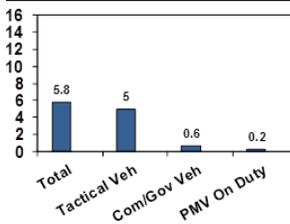
ON-DUTY CLASS A MISHAPS *



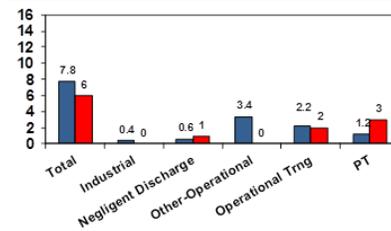
AVIATION



MV



GROUND

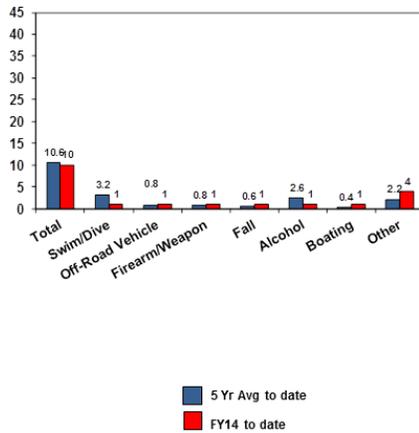


* 30 Sep 2014

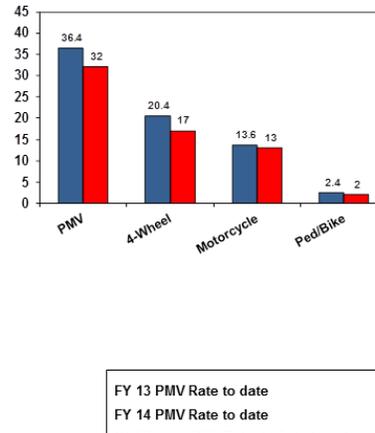


MARINE MISHAP UPDATE

OFF-DUTY REC FATALITIES *



PMV FATALITIES *



FY 13 PMV Rate to date 12.79
 FY 14 PMV Rate to date 16.03
 10 YR Avg. PMV Fatality Rate to date 22.10

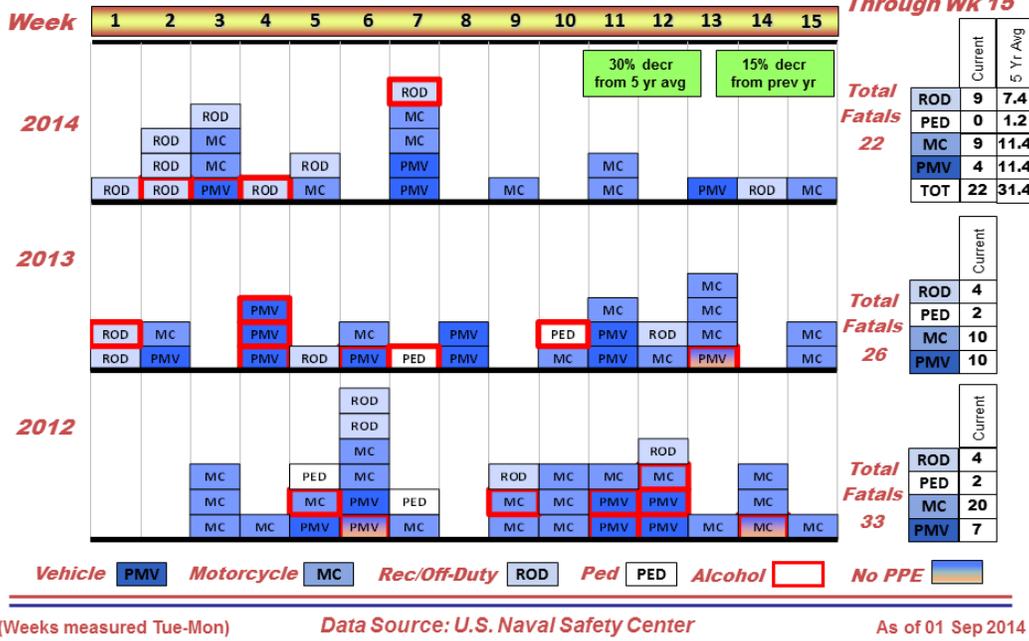
* 30 Sep 2014

Mishap Category	FY14 Rate	5-Yr Avg Rate	FY14 vs 5-Yr Avg
Navy			
Class A Flight Mishaps	1.69	0.88	92%
Class A Afloat Mishaps	1.94	2.268	-14%
Class A Shore On-Duty Mishaps	1.18	0.94	26%
PT Fatalities	1.48	1.004	47%
Class A On-Duty MV Mishaps	1.18	0.416	184%
Total Class A On-Duty Mishaps	10.63	7.556	41%
On-Duty Military Fatalities	3.25	3.834	-15%
PMV Fatalities	10.63	10.228	4%
PMV 4 Fatalities	3.54	4.368	-19%
PMV 2 Fatalities	5.91	4.734	25%
Off-Duty/Rec Fatalities	3.25	2.83	15%
Military Lost Time Cases (Thru 9 July 2014)	1.54	2.238	-31%
Marine Corps			
Class A Flight Mishaps	1.94	2.136	-9%
Class A Ground On-Duty Mishaps	3.01	3.556	-15%
PT Fatalities	1.5	0.48	213%
Class A On-Duty MV Mishaps	0	2.774	-100%
Total Class A On-Duty Mishaps	6.01	9.984	-40%
On-Duty Military Fatalities	5.51	8.734	-37%
PMV Fatalities	16.03	17.4	-8%
PMV 4 Fatalities	8.52	9.728	-12%
PMV 2 Fatalities	6.51	6.528	0%
Off-Duty/Rec Fatalities	5.01	5.062	-1%
Military Lost Time Cases (Thru 9 July 2014)	1.81	2.914	-38%



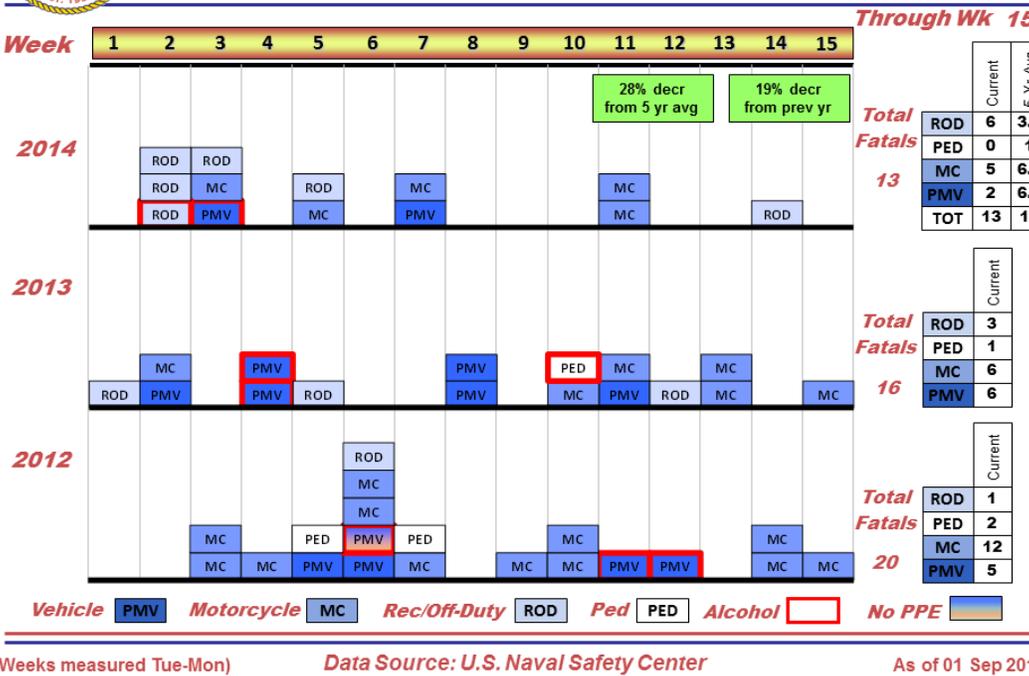
Naval Summer Off-Duty Fatalities

5/23/2014 - 9/1/2014



Navy Summer Off-Duty Fatalities

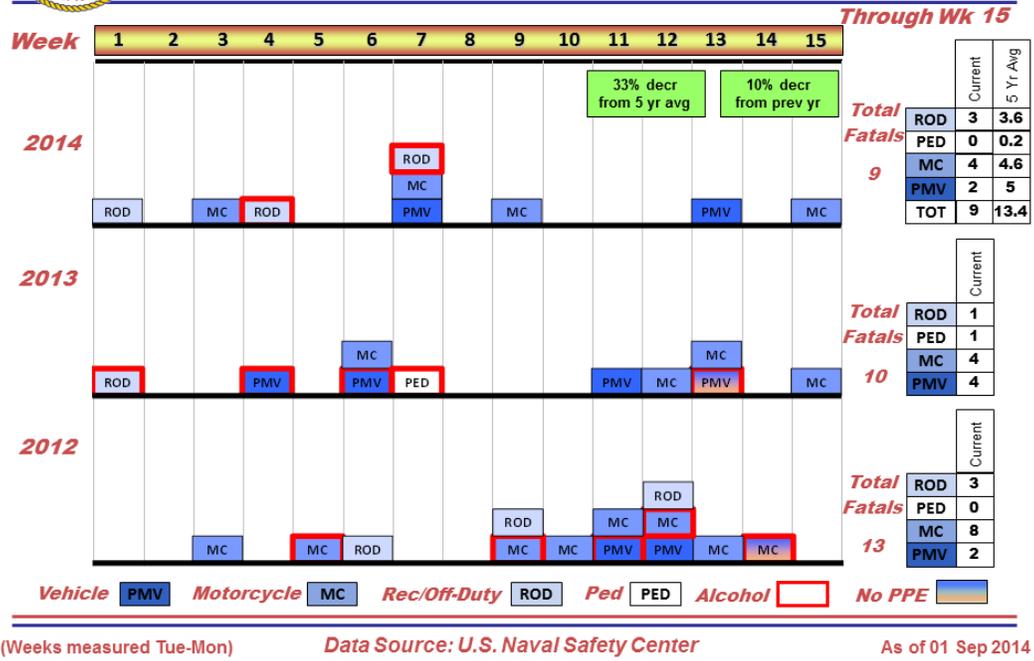
5/23/2014 - 9/1/2014





Marine Summer Off-Duty Fatalities

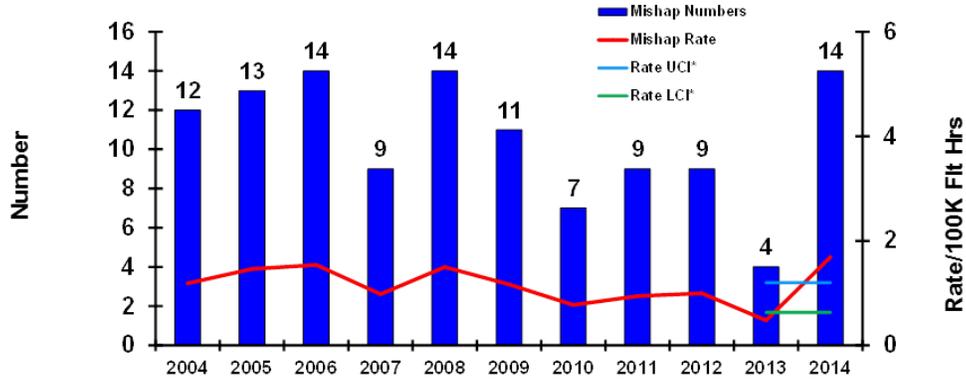
5/23/2014 - 9/1/2014





CLASS A FLIGHT MISHAPS

Manned Aircraft Only

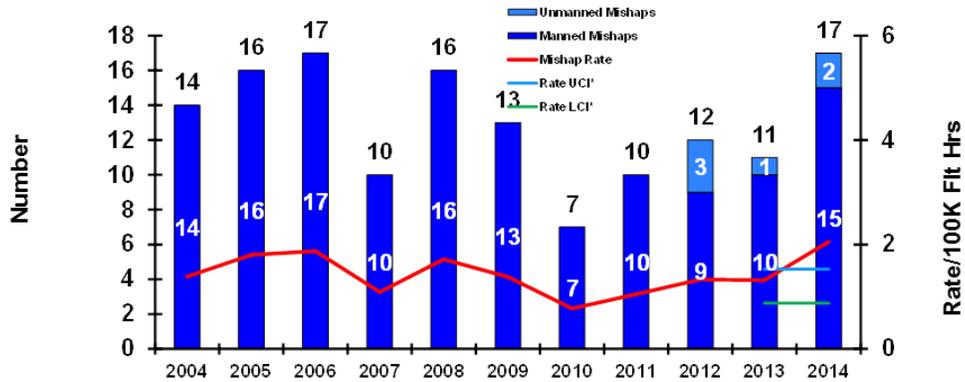


	30-Sep-14	30-Sep-13
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	14/1.69	4/0.48
FY13 MISHAPS/MISHAP RATE:	4/0.48	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	10.20/1.10	

*see last slide for definition of UCI/LCI



CLASS A AVIATION MISHAPS

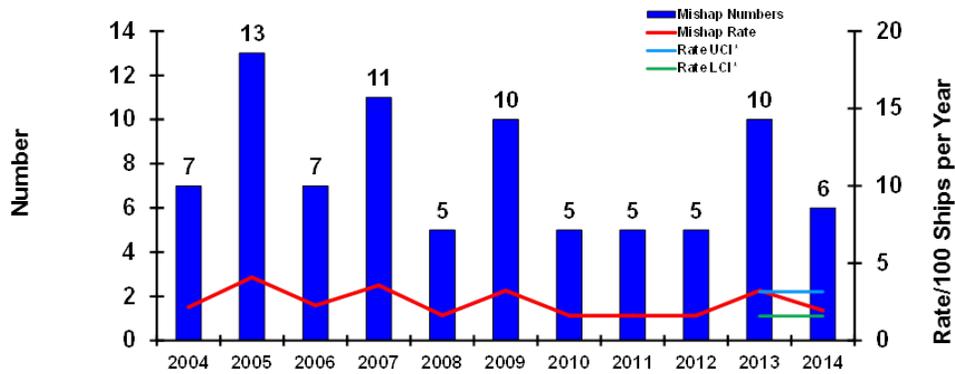


	30-Sep-14	30-Sep-13
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	17/2.05	11/1.32
FY13 MISHAPS/MISHAP RATE:	11/1.32	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	12.60/1.37	

*see last slide for definition of UCI/LCI



CLASS A AFLOAT MISHAPS

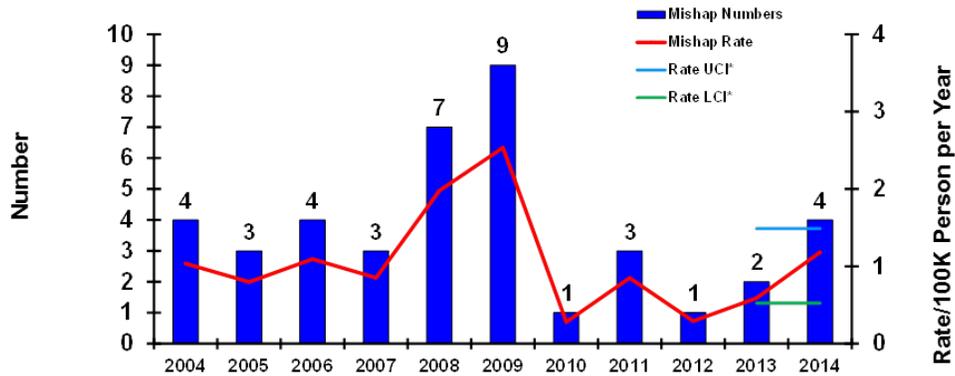


	<u>30-Sep-14</u>	<u>30-Sep-13</u>
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	6/1.94	10/3.24
FY13 MISHAPS/MISHAP RATE:	10/3.24	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	7.80/2.50	

*see last slide for definition of UCI/LCI



CLASS A SHORE ON-DUTY MISHAPS

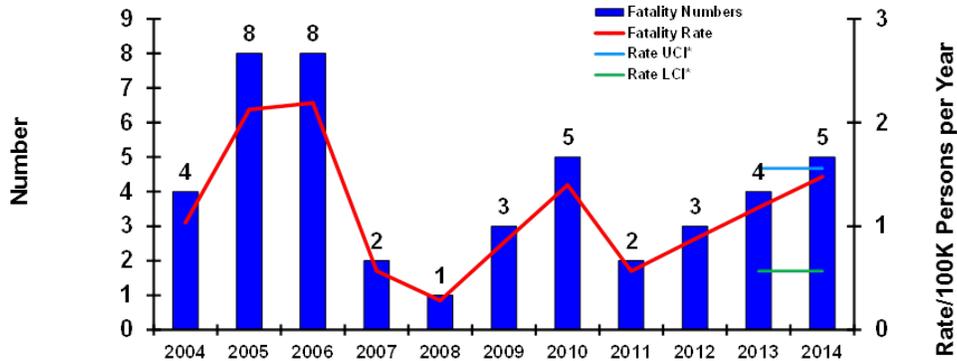


	<u>30-Sep-14</u>	<u>30-Sep-13</u>
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	4/1.18	2/0.59
FY13 MISHAPS/MISHAP RATE:	2/0.59	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	3.70/1.03	

*see last slide for definition of UCI/LCI



PHYSICAL TRAINING FATALITIES

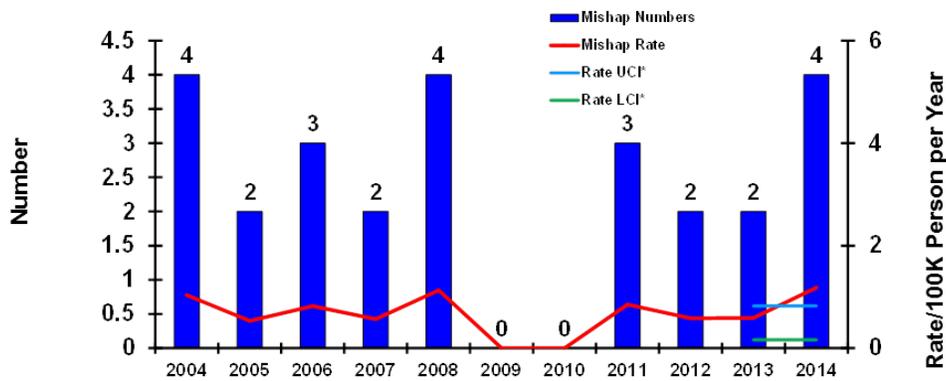


	30-Sep-14	30-Sep-13
FATALITIES/FATALITY RATE FY COMPARISON:	5/1.48	4/1.18
FY13 FATALITIES/FATALITY RATE:	4/1.18	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	4.00/1.11	

*see last slide for definition of UCI/LCI



CLASS A ON-DUTY MV MISHAPS

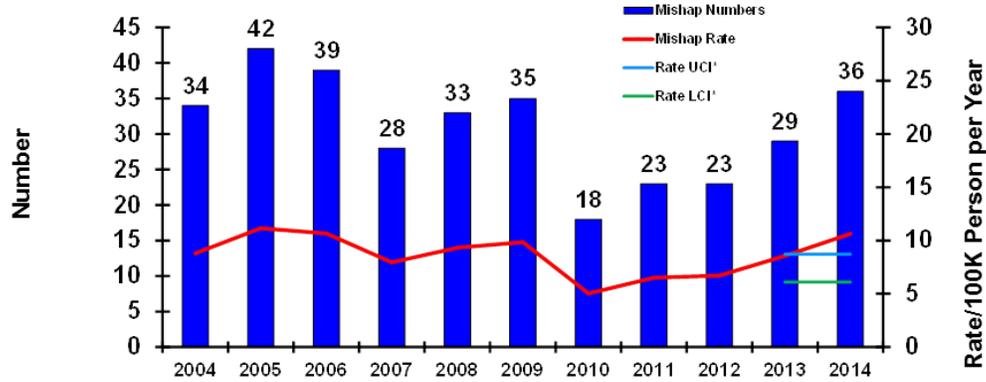


	30-Sep-14	30-Sep-13
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	4/1.18	2/0.59
FY13 MISHAPS/MISHAP RATE:	2/0.59	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	2.20/0.61	

*see last slide for definition of UCI/LCI



TOTAL CLASS A ON-DUTY MISHAPS

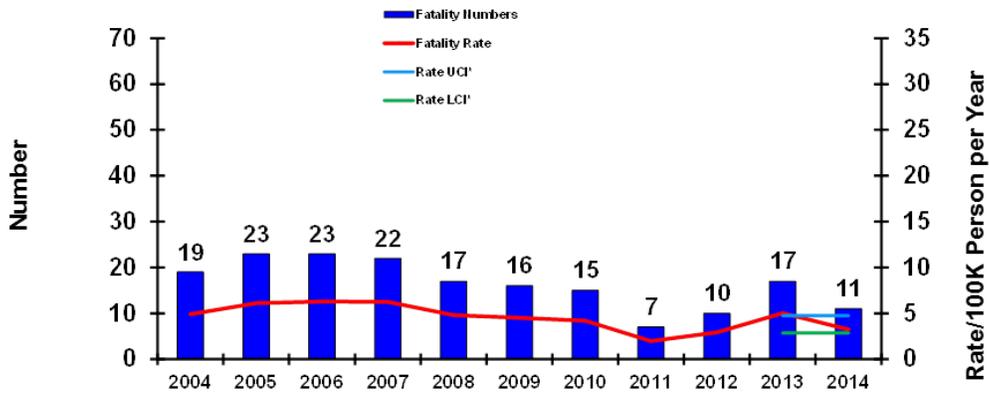


	30-Sep-14	30-Sep-13
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	36/10.63	29/8.56
FY13 MISHAPS/MISHAP RATE:	29/8.56	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	30.40/8.45	

*see last slide for definition of UCI/LCI



ON-DUTY FATALITIES

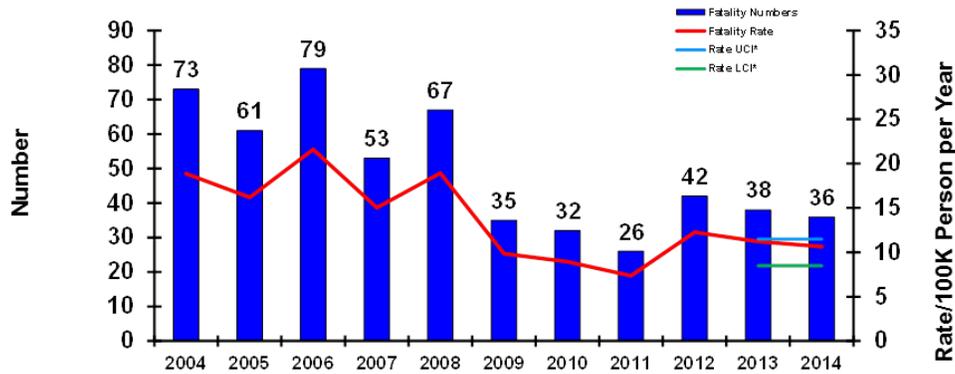


	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	11/3.25	17/5.02
FY13 FATALITIES/FATALITY RATE:	17/5.02	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	16.90/4.70	

*see last slide for definition of UCI/LCI



PMV FATALITIES

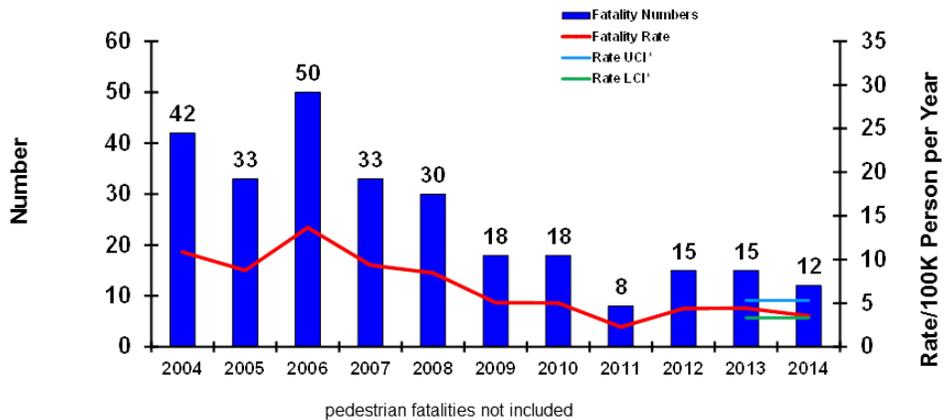


	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	36/10.63	38/11.21
FY13 FATALITIES/FATALITY RATE:	38/11.21	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	50.60/14.03	

*see last slide for definition of UCI/LCI



4-WHEEL PMV FATALITIES

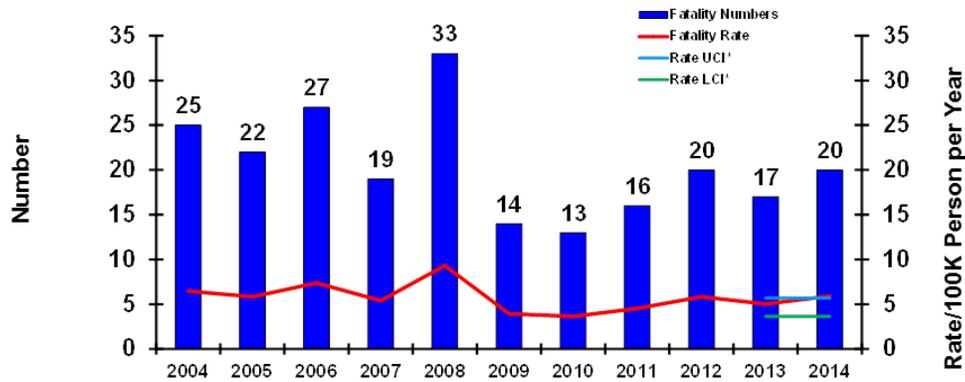


	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	12/3.54	15/4.43
FY13 FATALITIES/FATALITY RATE:	15/4.43	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	26.20/7.23	

*see last slide for definition of UCI/LCI



MOTORCYCLE PMV FATALITIES

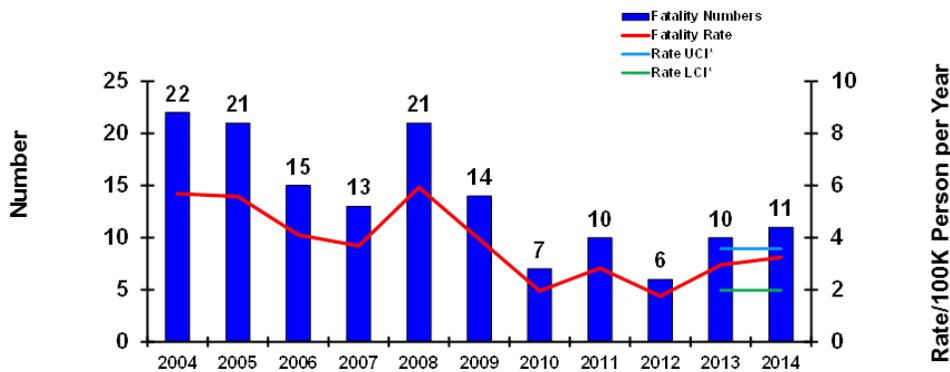


	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	20/5.91	17/5.02
FY13 FATALITIES/FATALITY RATE:	17/5.02	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	20.60/5.74	

*see last slide for definition of UCI/LCI



OFF-DUTY/REC FATALITIES



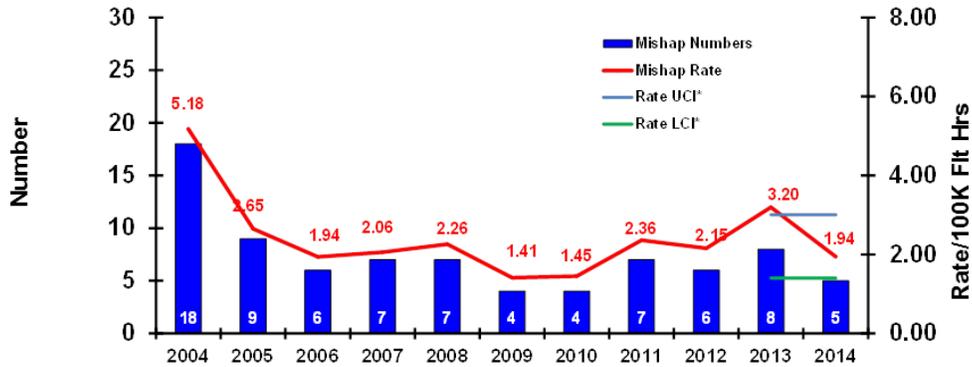
	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	11/3.25	10/2.95
FY13 FATALITIES/FATALITY RATE:	10/2.95	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	13.90/3.84	

*see last slide for definition of UCI/LCI



CLASS A FLIGHT MISHAPS

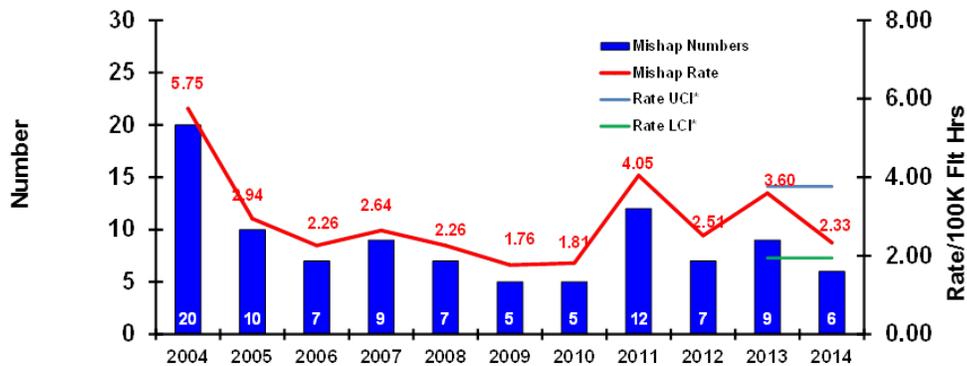
Manned Aircraft Only



	30-Sep-14	30-Sep-13
CLASS A FM/FM RATE FY COMPARISON:	5/1.94	8/3.20
FY13 MISHAPS/MISHAP RATE:	8/3.20	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	7.60/2.46	



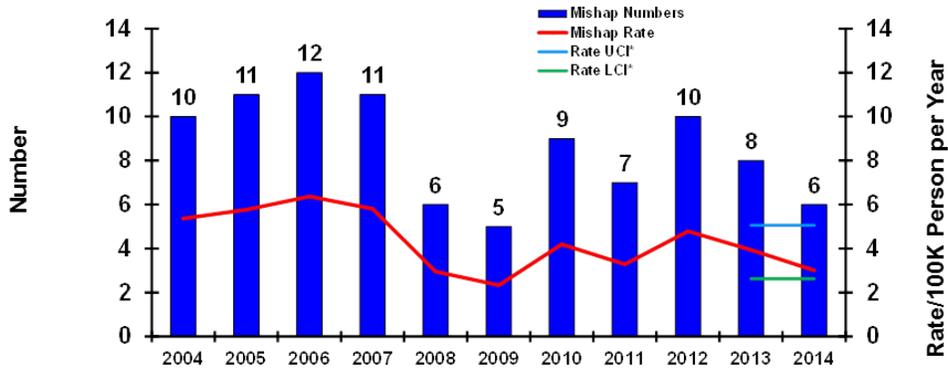
CLASS A AVIATION MISHAPS



	30-Sep-14	30-Sep-13
CLASS A FM/FM RATE FY COMPARISON:	6/2.33	9/3.60
FY13 MISHAPS/MISHAP RATE:	9/3.60	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	9.10/2.96	



CLASS A GROUND ON-DUTY MISHAPS

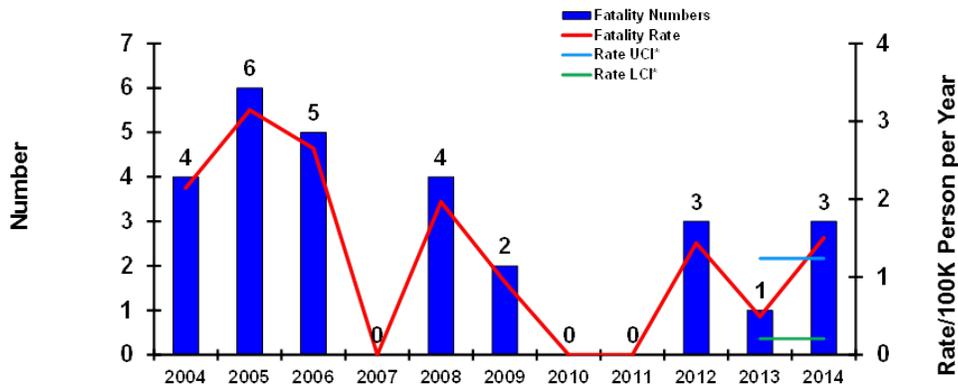


	30-Sep-14	30-Sep-13
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	6/3.01	8/3.94
FY13 MISHAPS/MISHAP RATE:	8/3.94	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	8.90/4.48	

*see last slide for definition of UCI/LCI



PHYSICAL TRAINING FATALITIES



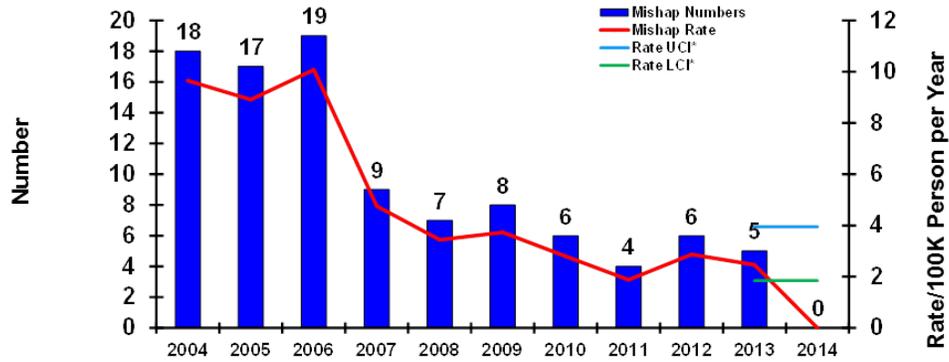
PT fatalities are also reflected in the Ground On-Duty Mishap slide

	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	3/1.50	1/0.49
FY13 FATALITIES/FATALITY RATE:	1/0.49	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	2.50/1.28	

*see last slide for definition of UCI/LCI



CLASS A ON-DUTY MV MISHAPS

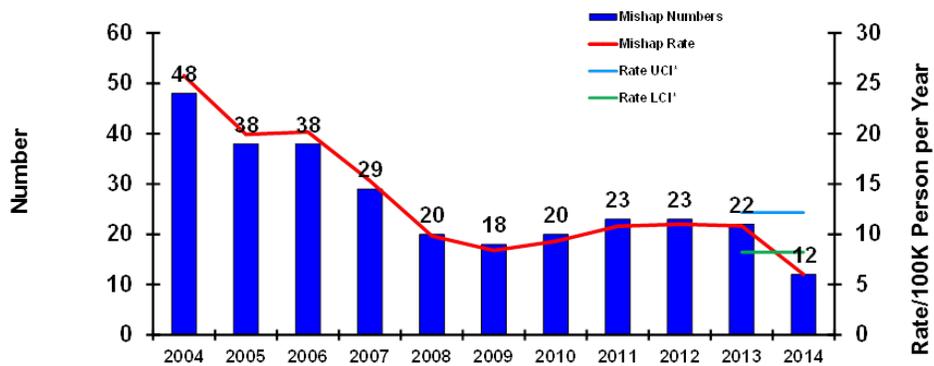


	30-Sep-14	30-Sep-13
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	0/0.00	5/2.46
FY13 MISHAPS/MISHAP RATE:	5/2.46	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	9.90/5.06	

*see last slide for definition of UCI/LCI



TOTAL CLASS A ON-DUTY MISHAPS

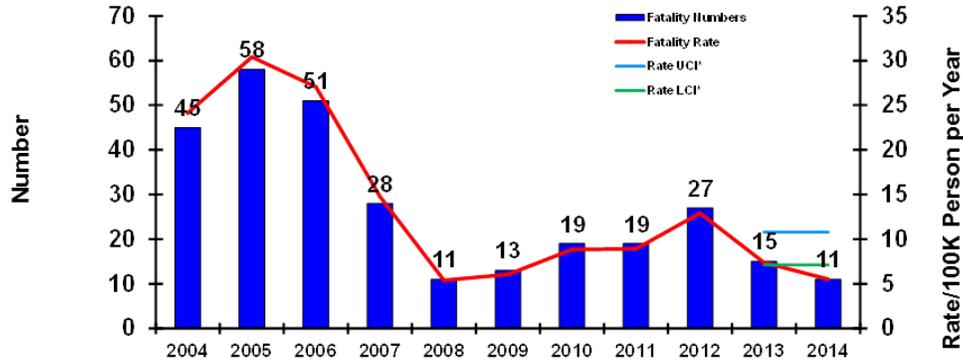


	30-Sep-14	30-Sep-13
CLASS A MISHAPS/MISHAP RATE FY COMPARISON:	12/6.01	22/10.82
FY13 MISHAPS/MISHAP RATE:	22/10.82	
10-YEAR AVERAGE (FY04-13) MISHAPS/MISHAP RATE:	27.90/14.13	

*see last slide for definition of UCI/LCI



ON-DUTY FATALITIES

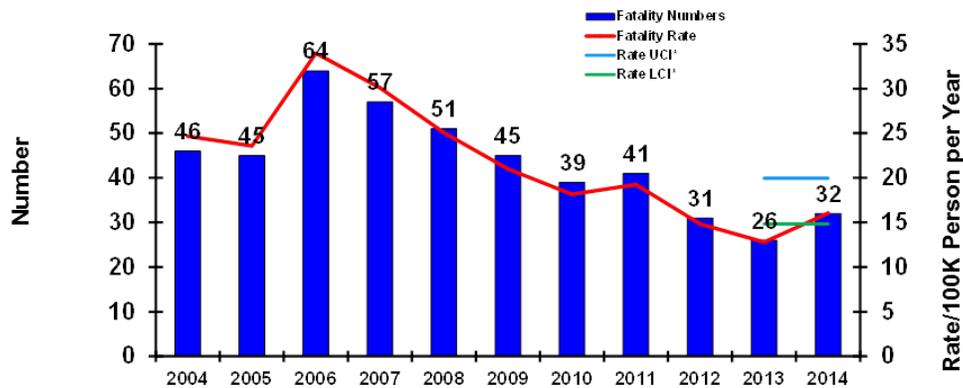


	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	11/5.51	15/7.38
FY13 FATALITIES/FATALITY RATE:	15/7.38	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	28.60/14.59	

*see last slide for definition of UCI/LCI



PMV FATALITIES

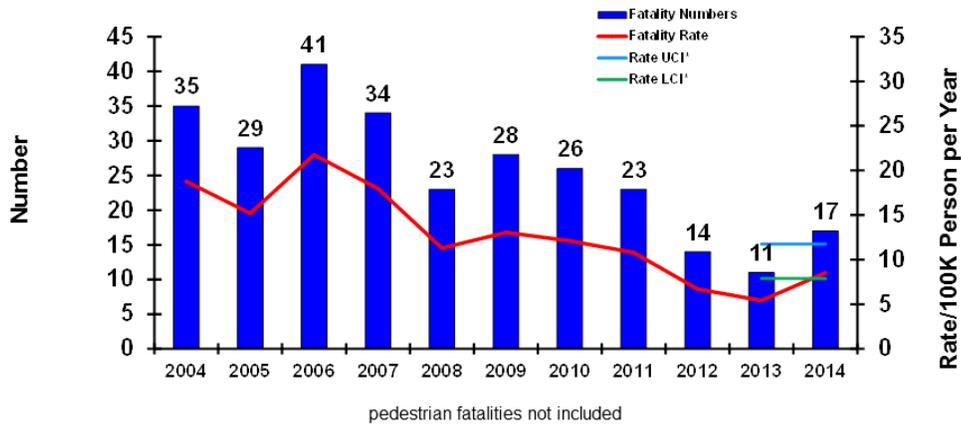


	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	32/16.03	26/12.79
FY13 FATALITIES/FATALITY RATE:	26/12.79	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	44.50/22.33	

*see last slide for definition of UCI/LCI



4-WHEEL PMV FATALITIES



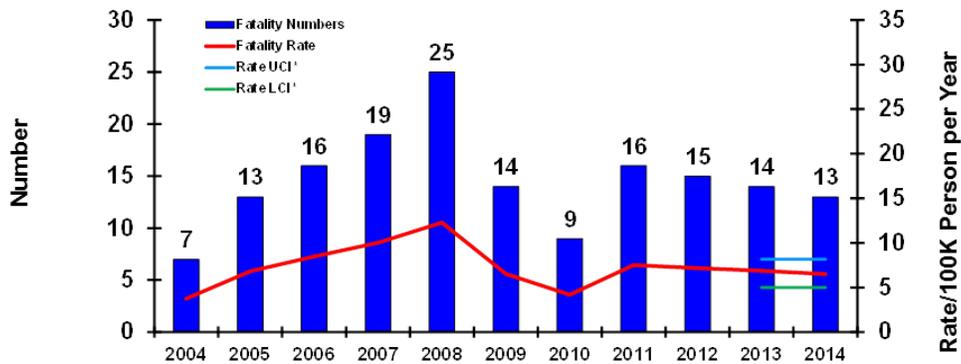
pedestrian fatalities not included

	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	17/8.52	11/5.41
FY13 FATALITIES/FATALITY RATE:	11/5.41	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	26.40/13.30	

*see last slide for definition of UCI/LCI



MOTORCYCLE PMV FATALITIES

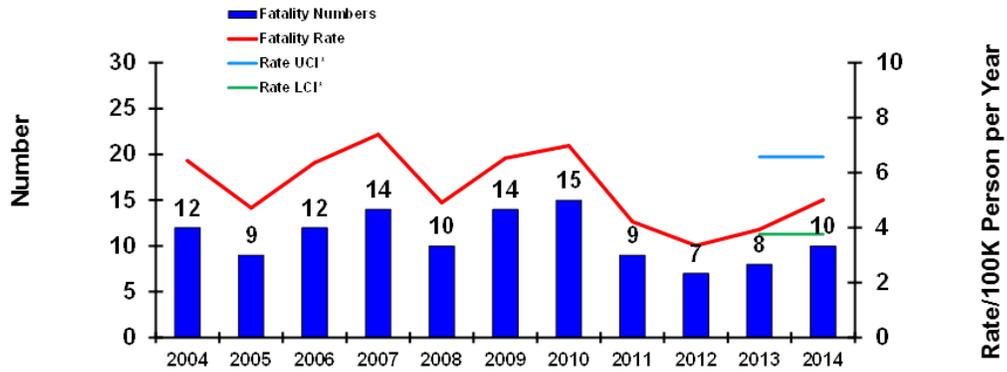


	30-Sep-14	30-Sep-13
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	13/6.51	14/6.89
FY13 FATALITIES/FATALITY RATE:	14/6.89	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	14.80/7.36	

*see last slide for definition of UCI/LCI



OFF-DUTY/REC FATALITIES



	<u>30-Sep-14</u>	<u>30-Sep-13</u>
CLASS A FATALITIES/FATALITY RATE FY COMPARISON:	10/5.01	8/3.94
FY13 FATALITIES/FATALITY RATE:	8/3.94	
10-YEAR AVERAGE (FY04-13) FATALITIES/FATALITY RATE:	11.00/5.48	

*see last slide for definition of UCI/LCI

Quick Look: On-Duty Fatalities by Geographic Region

Geographical Quick Look: On-Duty Fatalities

FY09-FY13 USN On-Duty Mishap Fatalities by Location (US State)																				
FY	Total Fatalities	At Sea/Outside 50 states	AZ	CA	DE	FL	GA	HI	IL	KY	LA	MD	MS	NC	RI	SC	TX	VA	WA	
FY09	17	12	1			1								1		1			1	
FY10	14	4		4	1	1					1						2	1		
FY11	7	1		4															2	
FY12	11	6							2				1	1					1	
FY13	18	4	1	3			1	1		1		2			1				1	3
Total Fatalities	67	27	2	11	1	2	1	1	2	1	1	2	1	2	1	1	2	5	4	
5 Yr Avg Fatal/Yr	13.4	5.4	0.4	2.2	0.2	0.4	0.2	0.2	0.4	0.2	0.2	0.4	0.2	0.4	0.2	0.2	0.4	1	0.8	

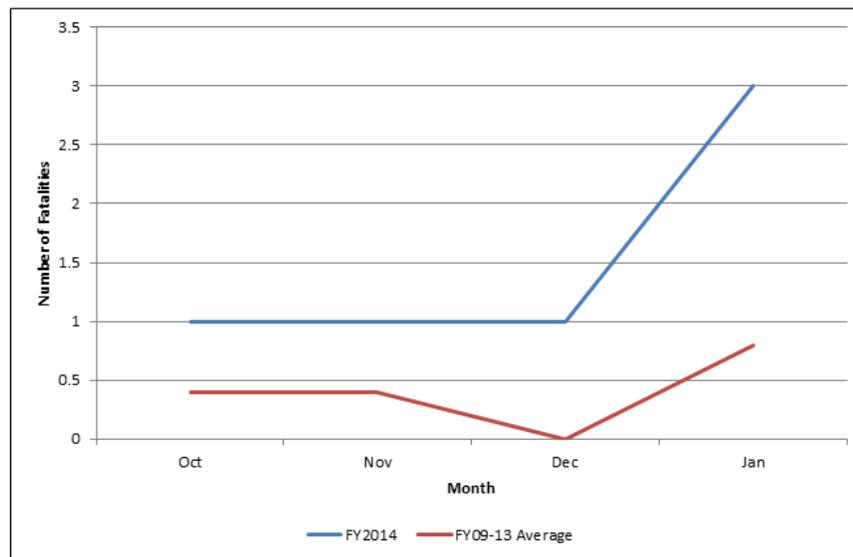
FY09-FY13 USMC On-Duty Mishap Fatalities by Location (US State)												
FY	Total Fatalities	At Sea/Outside 50 states	AZ	CA	FL	GA	HI	NV	NC	SC	TX	
FY09	12	3		5	1				2	1		
FY10	20	11		1	5		2		1			
FY11	19	10			6	1	1		1			
FY12	26	14			11				1			
FY13	14	2			3			7	1		1	
Total Fatalities	91	40	1	30	2	2	1	7	6	1	1	
5 Yr Avg Fatal/Yr	18.2	8	0.2	6	0.4	0.4	0.2	1.4	1.2	0.2	0.2	

The data in this chart was compiled in response to an elected representative inquiry of Naval Safety Center data with regard to service-member on-duty fatalities by state. As the Safety Center lacks data on service-member state of residence but holds data on unit and/or mishap location, the chart was made with this assumption in mind. It should not be surprising that the data highlight fatalities occurring in states with greater military concentration or training facilities. Note that, as expeditionary services, Navy and Marine Corps personnel incurred more than one-third of all on-duty fatalities for the period outside the 50 states.

Focus Area: Motorcycle Fatalities in California

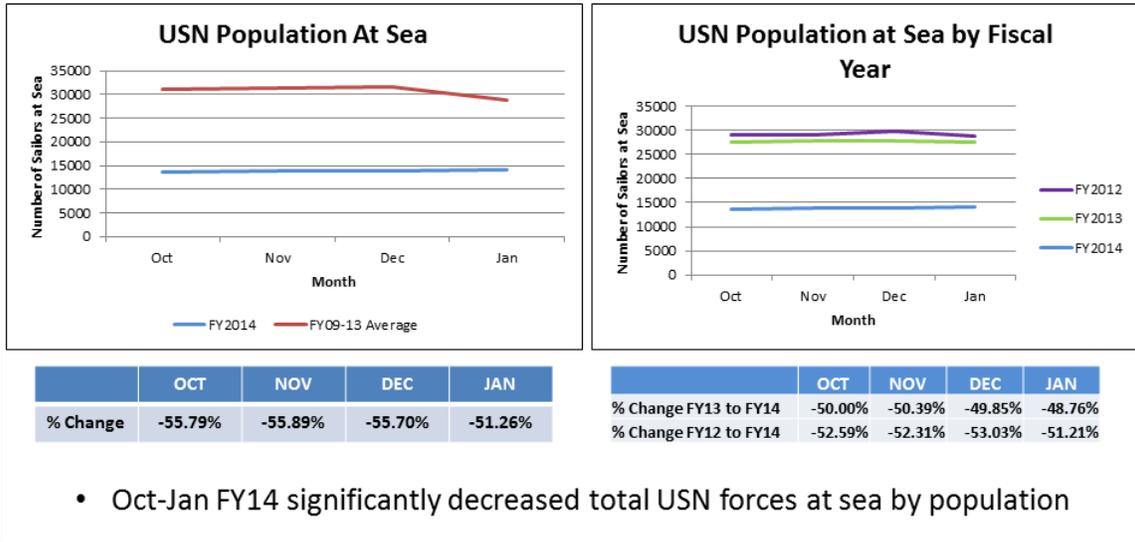
NAVSAFECEN conducted a data dive into USN motorcycle fatalities occurring in California in the winter of FY14. From October 2013 through January 2014, the fatality rate was consistently above the 5-year average (6 compared to less than 2), with January being triple. Aspects of this increase are examined on the next two pages.

Navy Motorcycle Fatalities in California



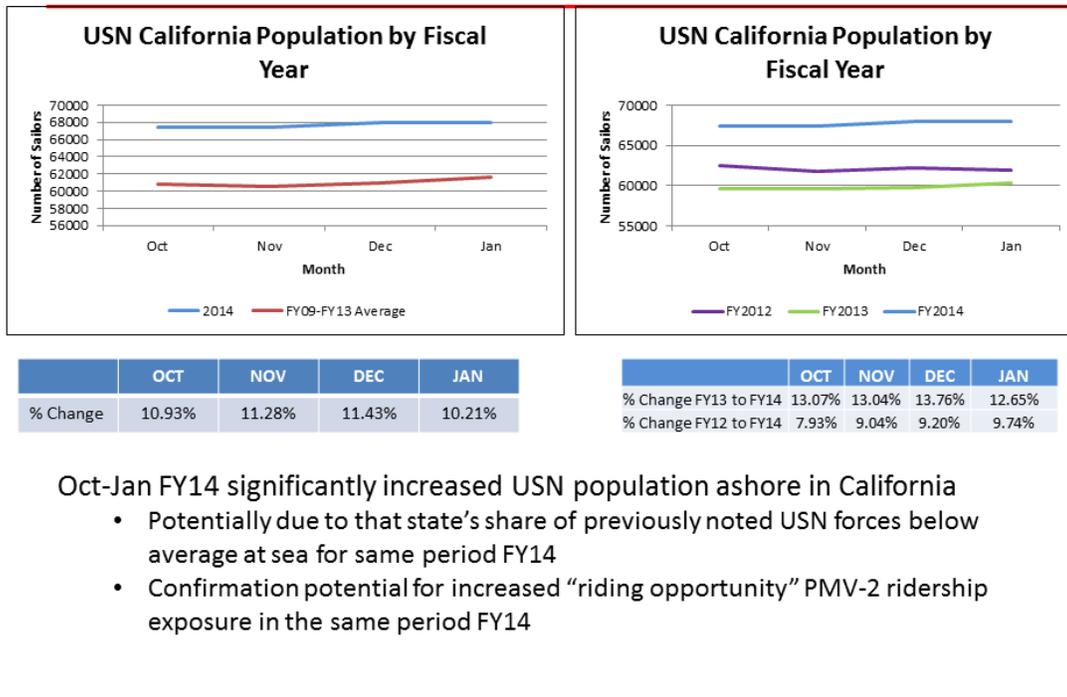
- Oct-Jan FY14 trend line similar shape to 5-year average
- Oct-Jan FY14 trend line of increased amplitude from 5-year average
- Similar shape but increased amplitude suggests increased exposure as catalyst

Navy Population at Sea



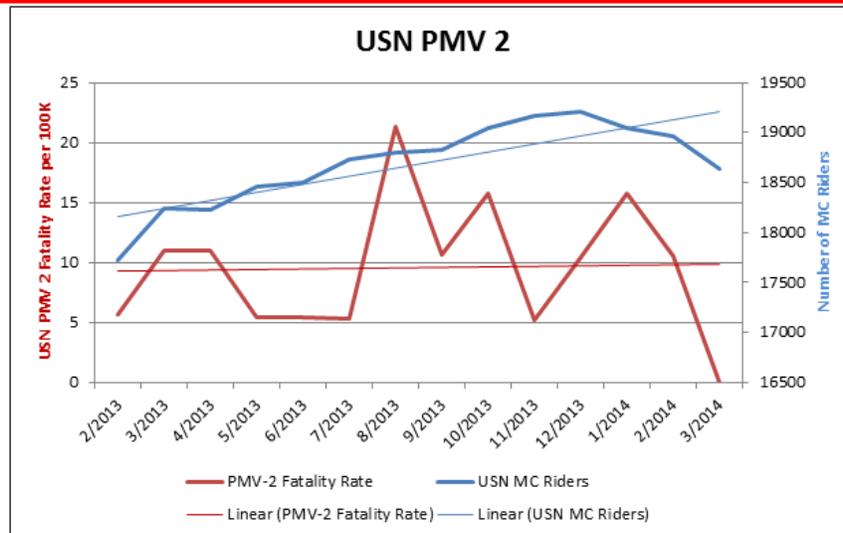
DMDC data showed that the Navy-wide start of FY14 had far fewer personnel at sea, which might support the hypothesis of increased exposure being a factor.

Navy Population Ashore in California



DMDC data showed the population of California at the start of FY14 above average, potentially due to the decrease of the number of Sailors Navy-wide at sea and again maybe supporting a higher exposure hypothesis.

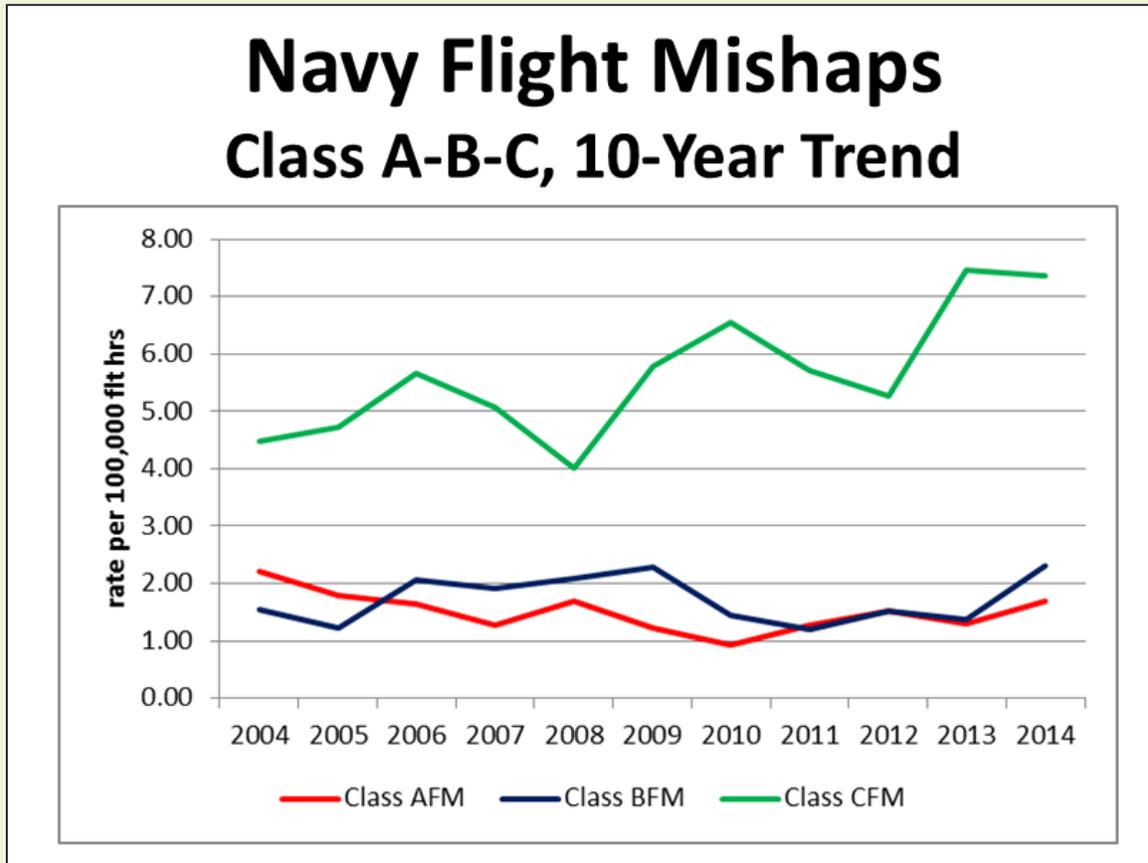
Quick Look: Navy Motorcycle Ridership



- Overall Navy PMV-2 ridership increased from Feb. 2013- Jan. 2014
- Fatality rate was stable, matched normal pattern (peaks in summer and April)
- Number of riders less a factor overall than actual riding opportunity exposure

The spike in motorcycle fatalities in San Diego appeared to be the result of a perfect storm of increased motorcycle ridership, increased motorcycle ridership opportunities, a below-average at-sea population and typically good riding weather. The trend appears to be driven by increased off-duty riding rather than increased commuting. Gas prices do not seem to correlate to injury/fatality rates, but may be a factor in increased motorcycle ridership. Increased motorcycle ridership especially a factor if you discount the evenly distributed ridership assumption and instead assume a distribution with ridership percentage increasing in areas with longer riding seasons

Quick Look: 10-Year Trends for Class A, B and C Navy Flight Mishaps

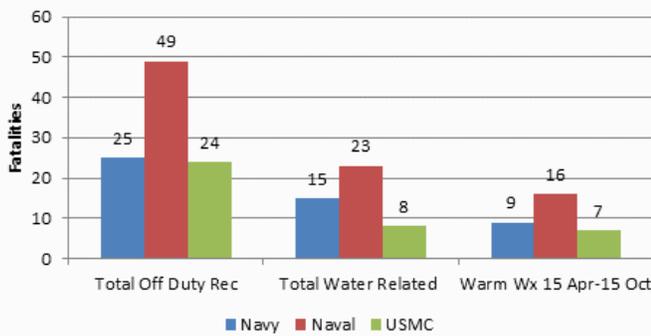


NAVSAFECEN reevaluated possible relationships between Class C and higher cost/more injurious mishaps. No relationship could be discerned, though an increasing rate of Class C reporting was noted, some of which may be explained by increasing ease of reporting first with the roll-out of WESS in 2005 and later with the debut of the WAMHRS module to WESS in 2011.

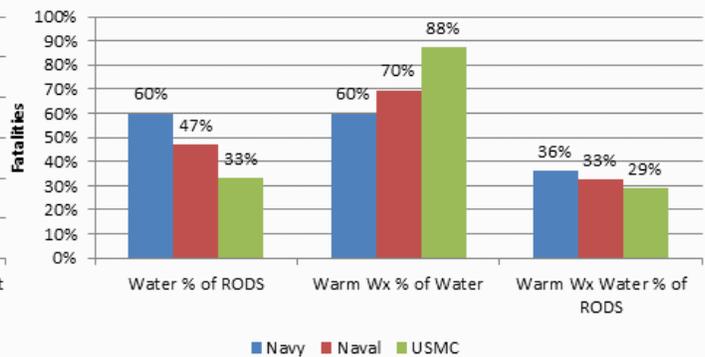
Quick Look: Off-Duty Drownings

Water-Related Mishap Quick Look: Off-Duty Recreation Fatalities

Overall and Seasonal Data



Role of Warm Water

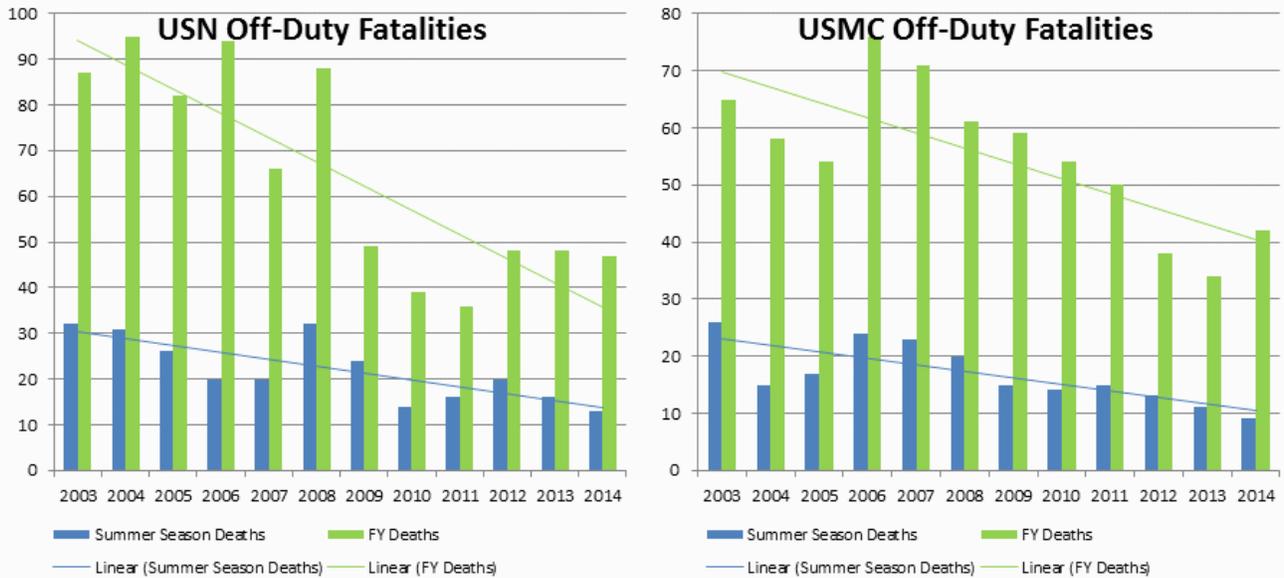


Data is for Off-Duty Recreation Fatalities, 08 Jan 2011 through 08 Jan 2014

This data highlights the need for commands to target water-safety refresher training prior to the start of warm weather months. For Naval forces, water-related fatal mishaps make up 60% of all RODS fatal mishaps. Sixty percent of these occur in the warm weather months; in other words, 36% of all of RODS fatalities were water-related during warm weather – a prime target for training.

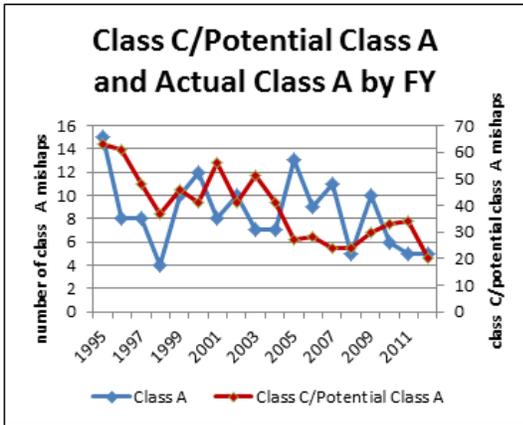
Quick Look: Off-Duty Summer Fatalities

Summer Off-Duty Fatality Trends

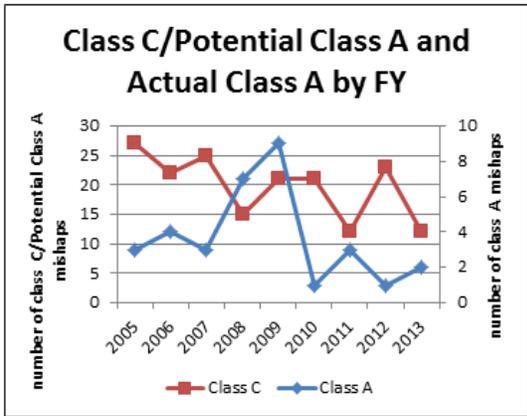
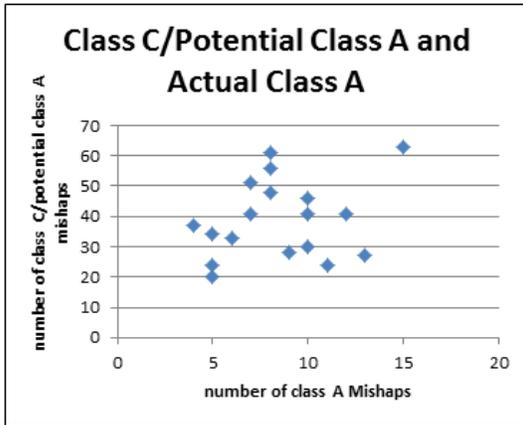


Although both USN and USMC RODS fatalities are decreasing, the rate of the overall decrease exceeds the rate of the summer decrease. Therefore, summer RODs fatalities (although decreasing) are becoming an increasing percentage of the overall yearly RODs fatalities and in need of continued – if not increased – focus.

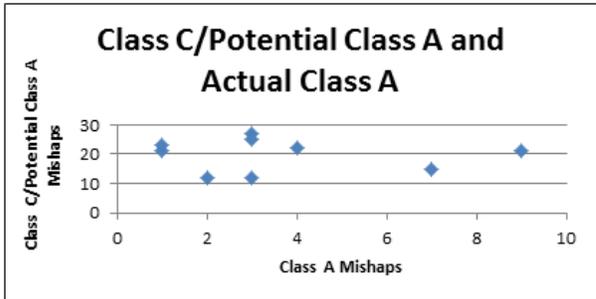
Focus Area: "Potential" Class A Mishaps



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In the afloat and ashore areas, NAVSAFECEN looked for correlations at a deeper level than in the previous aviation data. Where in the past no correlation was found in the overall numbers of class C and higher cost/injurious mishaps, in this look a labor-intensive effort was first employed to sort out Class C mishap types that had little or no chance of ever elevating to a more serious mishap level and then compared the remaining class C's to the Class A data. Again, no correlation could be found in either data set for the full period of study, and even for the small sub-periods where there was correlation, it was statistically insignificant.

Aviation

Aircraft Operations Division

Division personnel supported the Fleet during the investigation and endorsement process for multiple aviation Class A mishaps. Of note was support for two mishaps that crossed aviation and surface warfare community lines. One—involving a helicopter mishap aboard a destroyer—resulted in ground-breaking communication and cooperation between communities throughout the investigation and endorsing process. The second, involving an aerial target collision with a cruiser, resulted in the institution of a Crew Resource Management (CRM) training continuum for NAVAIR target/drone operations and maintenance personnel.

Division personnel supported 134 aviation unit surveys and conducted 21 aviation facilities surveys. The Facilities Survey Team instituted surveys for Fleet Area Control and Surveillance Facilities (FACSFAC) and surveyed four facilities this FY. The Aircraft Operations Division attended System Safety Working Groups (SSWG) and NATOPS reviews where type/model/series mishap and hazard trends were presented for consideration. Representatives attended SH-60, E-2/C-2 and F/A-18 SSWGs and multiple NATOPS review conferences. The division also maintained a robust squadron and airfield facilities safety survey schedule to assess the safety and material condition of both Navy and Marine Corps airfields and outlying air facilities.

Items of interest:

- AV-8B engine FOD events on L-class ships.
- An increase in the frequency in laser strikes on naval aircraft in the terminal environment and the possibility of laser eye protection (LEP) for aircrew during circumstances where LEP makes sense and does not impede operations.
- V-22 fleet integration issues. Specifically, damage to aircraft and equipment from the substantial downwash caused by proprotors.
- Increase in frequency of brake-fire incidents in the F/A-18 E-F community.
- Concerns over lack of instrument landing system (ILS) capability and precision approach radar (PAR) availability in the TACAIR community (*see comments below in facilities section*).
- Rotary-wing operations in a degraded visual environment (DVE).
- Increase in maintenance and material related Class A mishaps

FY14 Top Findings from Maintenance Safety Surveys

1. Improper stowage and disposal of hazardous material and lack of required documentation.
 - **Cause:** Lack of attention to detail, training, and oversight. Supply system process and/or lack of required materials results in “local stockpiling” of materials. Open procurement of materials when the system is unresponsive.
 - **Effect:** Improper stowage and disposal of hazardous material can lead to fire, explosion, or health hazards. Lack of required documentation could inhibit proper first aid treatment or proper response to hazmat incidents.

2. Improper management of aircraft and aircraft engine preservations, work requests and non-aeronautical workload reports.
 - **Cause:** Lack of understanding, training and attention to detail in Optimized Organizational Maintenance Activity (OOMA) software. Non-aeronautical reports are often mismanaged by the desk chief due to unfamiliarity with aviation life support equipment and support equipment requirements.
 - **Effect:** Increased possibility of flying downed aircraft, in-flight or ground mishaps and personnel casualties.
3. Flight gear improperly stowed, not free of Foreign Object Debris, personal items added.
 - **Cause:** Cultural attitude that tool control, Foreign Object Damage, etc. only applies to maintenance personnel.
 - **Effect:** Increased possibility Foreign Object Damage or failure of gear to work properly when needed.
4. Maintenance being performed without the presence of pubs, Maintenance Requirement Cards or Interactive Electronic Technical Manuals.
 - **Cause:** Lack of supervision, over-confidence, or pressure (perceived or real) to get the job done.
 - **Effect:** Publications change all the time. Not using the publications will lead to missed steps or failure to meet inspection requirements when performing maintenance. Those missed steps may ultimately lead to mishaps, personal injuries, and damage to equipment.
5. Supervisors not conducting beginning and end of shift tool inventories. Not being inventoried/ checked out in OOMA.
 - **Cause:** Tool inventory is viewed as a delegated task. Quality Assurance and leadership are not holding their personnel accountable. Lack of supervision.
 - **Effect:** Aircraft may be released for flight with no knowledge of a missing tool or piece of equipment.
6. Respirators not properly cleaned and stowed. Respirator filter cartridges expired.
 - **Cause:** Lack of attention to detail, lack of supervision and complacency.
 - **Effect:** Respirators being stowed dirty or wet conditions allows biological contamination to grow, creating health hazards. Cartridges may not perform to specification past their approved life limit, degrading their effectiveness.
7. Lack of Operational Risk Management (ORM) knowledge and practical application.
 - **Cause:** Maintenance leadership is not effectively using with ORM model to manage day-to-day risk. Junior personnel do not take it seriously and do not learn how to effectively leverage the power of the ORM tool because they are not being mentored to do so by mid-level leadership.
 - **Effect:** A squadron culture that does not embrace the use of ORM at all levels will be less effective and more likely to have mishaps.

8. Replacement intervals and inspection due dates are not properly documented in logbooks, or don't match OOMA.
 - **Cause:** Failure of Central Technical Publications Library to incorporate changes or Logs and Records clerks not keeping up to date with these changes.
 - **Effect:** This could cause the squadron to fly aircraft and its components past its required replacement, overhaul, repair, etc. In doing so, this could lead to an unexpected material or component failure.

9. Lack of effective fastener control procedures.
 - **Cause:** There is a "screw is missing, replace it" mindset with no further thought of or concern for where the screw went. Accessibility of replacement hardware tends to increase the lack of concern. Complacency, lack of engaged leadership, and lack of training are major contributors.
 - **Effect:** When these items are not controlled and documented, they seem to migrate from the work center to the hangar bay and ultimately the flight line, increasing the potential for engine FOD or aircraft/equipment damage.

10. The Fall Protection Program is not understood by the fleet. Some commands do not have a Fall Protection Program. Established programs vary widely.
 - **Cause:** OPNAVINST 5100.23 gives the basic requirements of the fall protection program. No one has taken ownership at the appropriate level to ensure that each Type/Model/Series gets the appropriate support equipment and personal protective equipment required for their airframe.
 - **Effect:** Most commands that try to be in compliance end up with equipment that is wrong for their airframe. They end up wasting money, and Sailors continue to get hurt.

Air Field and Facilities

These are items commonly found at each Naval/Marine Corps Air Facility. They are not prioritized but are listed because they represent significant findings which could have a serious impact on safe operations. Overall, the Naval Safety Center airfield assessment team is concerned that over the long-term, material condition of our airfields will become a more significant safety issue. The Naval Enterprise needs to focus more attention and allocate additional resources to ensure the upkeep and maintenance of the Navy and Marine Corps air field infrastructure is sustained.

Air Field Material Condition

- Corrosion on arresting gear engines and components. This could result in failure of components with obvious catastrophic results. This is recurrent throughout the fleet and was addressed during the Aviation Boatswains Mate Working Group Shore Arresting Gear Review.

- Precision Approach Radar (PAR) replacement. A tech refresh is slated for the near future (analog to digital). The team has encountered various levels of readiness across the fleet, mostly due to lack of funding and aging equipment.

- Numerous airfields are experiencing vegetation/weed growth throughout runways, taxiways, shoulders and ramps which is causing a decreased pavement service life expectancy. Vegetation is obscuring critical lighting and control components (ILS), runway/taxiway signage and lighting.
- Many stations do not have a perimeter fence and/or there are large holes in the perimeter fencing. Some of these areas are large enough to drive an ATV or a small car through. Other than security concerns there is a concern that larger animals could access the field and cause a Bird/Animal Strike Hazard (BASH) incident.

Air Field Fire Fighting, Crash and Salvage

- Improper fire extinguisher maintenance commonly found on extinguishers on the flight line, fuels facilities, hangars, and other base buildings.
- Not all personnel have the required current annual flight line fire extinguisher training.
- MV-22 nozzle extension wands are necessary to aid in fighting fires on the MV-22. Currently issued as IMRL to squadrons and AIMD departments on amphibious, air-capable ships, they are not issued to NAS/MCAS. This represents a significant gap in aircraft firefighting capability.

Air Field Management and General Safety

- Awareness, management and implementation of fall protection program requirements is lacking at many air stations. Personnel are required to routinely gain access to areas well above the OSHA/NAVOSH designated safe heights. Some locations do not have handrails installed at these areas nor have they scheduled a Fall Hazard Assessment for their facility. This aggravates the problems encountered by squadrons still struggling with the limited availability of fall protection gear required by this nascent program.
- Airfield Vehicle Operators Course (AVOC) licensing for assigned personnel. The team frequently encounters operators that are not properly licensed driving on active flight lines or the ramp. This crosses boundaries from ATC, fire, fuels, and other flight line operators.
- Inadequate aircraft salvage pre-mishap plans and training. Some air stations have implemented portions of the requirements in their Pre-Mishap Plan. Very few of the air stations surveyed have conducted the required quarterly reviews, salvage training or drills.
- Incomplete personal protective equipment in the fuels quality assurance lab and on the flight line.

Unmanned Aerial Systems

- **Integration:** Most air stations are just beginning to recognize the challenges that will come with UAS Integration. While there are some air stations such as Point Mugu and Patuxent River that have local UAS integration plans in place, UAS operational procedures will need to be integrated into existing ATC procedural publications in the future.
- **Small UAS Accountability:** Non-Program of Record operations of small Unmanned Aircraft Systems (UASs) expose Naval Aviation Enterprise (NAE) to risk. Non-aviation units operation of UASs is made possible by low acquisition costs. Acquisitions are being made outside the purview of OPNAV, CNAF, NAVAIR & PEO (U&W) UAS PMAs, categorized as “science and technology” or “technology demonstration.” This results in a lack of visibility within NAE, a lack of operational expertise (e.g., airworthiness, safety, 14 CFR, Part 91, due regard in international airspace), and no standardization requirements (e.g., training, NATOPS, airworthiness). Problem areas include failure to comply with airworthiness certification; failure to meet national airspace access requirements; inadequate training, standardization, operator certification; and inadequate command infrastructure. Risks include a lack of compliance with aviation policies, Navy UAS assets operating outside NAE purview, and unauthorized operations in the national airspace system.

Afloat – Top 10 Safety Survey Discrepancies

1. Surface Ships: Procedural compliance: 70 of 72 ships surveyed had missed or improperly scheduled PMS, non-authorized or improperly safety-tagged equipment, and improperly stowed HAZMAT. These problems are covered in procedures that are simply not adhered to if the procedures are even known at all. Severity 1.
2. Surface Ships: Deck plate expertise: Significant talent exists on the deck plates, but that talent is less experienced due to cutbacks in training, losses of shore billets where skills can be refined, and equipment being installed on ships with limited training and/or experience due to new technologies and rapidly promoted Sailors to the rank of chief petty officer with limited deckplate experience. Severity 1.
3. Surface Ships: Fall Protection: Man Aloft Programs are degraded due to a lack of PMS on safety harnesses, working/safety lanyards, and climber safety sleeves. Most topside lifelines are not being properly maintained or are missing. Severity 1.
4. Divers: Dive locker now following its training plan, and not keeping records of attendance and critiques for completed training. Severity 1.
5. Surface Ships: Alarms / Monitor Panels (Airflow, Parasense, H2S, ICSM) Alarms were not set IAW current directives or were OOC. S/F was unable to properly indicate normal air flow rate and maintain airflow alarm logs as required. Calibration gas was not onboard or expired. Funding and availability were reasons for delays which caused a gap for ships to maintain readiness in refrigerant monitoring after failures in the existing model that were no longer part supported. Severity 1.
6. Divers: Command hasn't designated in writing at least one officer and one senior enlisted person as ORM assistants. Assistants not formally trained. Graduation certificates unavailable.
Severity 2.
7. Divers: Command not maintaining a log of ORM program and evolution evaluations?.
Severity 2.
8. Submarines: Emergency Air Breathing face masks not clean and sanitized.
Severity 3.
9. Submarines: Electrical or electronic shock hazards in personal bunk lighting and wiring. Severity 3.
10. Submarines: AFFF extinguisher record tag not filled out IAW the MRC. Proper record tag not used..Severity 4.

Explanation of severity codes:

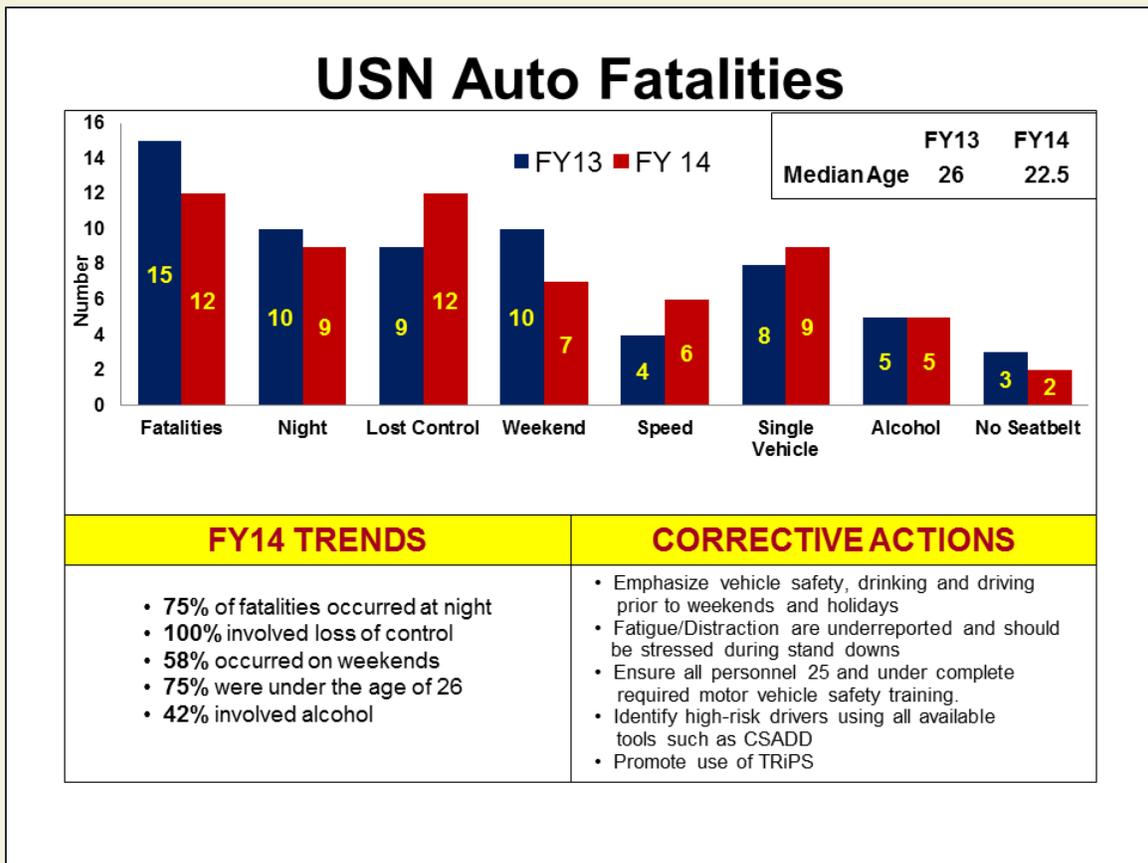
- 1: May cause death, loss of facility/asset.
- 2: May cause severe injury, illness, property damage.
- 3: May cause minor injury, illness, property damage.
- 4: Minimal threat.

Ashore/Ground

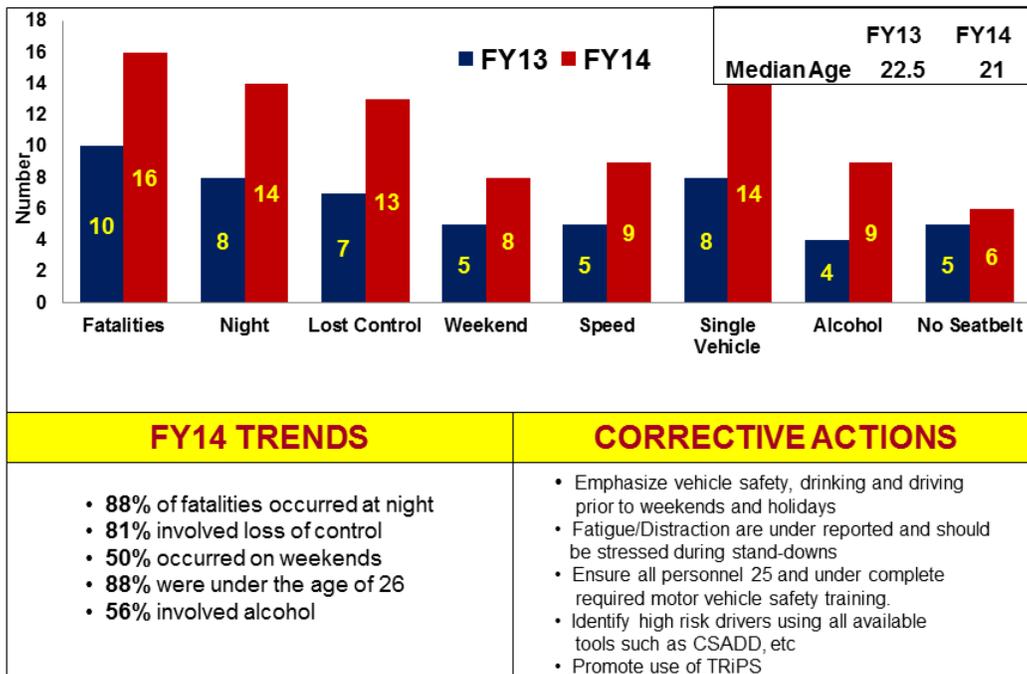
Private Motor Vehicle (Auto and Motorcycle)

These fatalities are year-to-year consistently the largest percentage source of Navy mishap fatalities. FY14 had positive trends from FY13 in two of its subsets: auto and pedestrian/bicycle.

Of the three components of PMV, motorcycle is of most statistical concern. Contrary to most other safety data which have 20-year decreasing fatality trends, motorcycle is showing an upward trend in this area, as well as over the last five years (22 in FY10, 32 in FY11, 35 in FY12, 31 in FY13 and 33 in FY14). Training compliance showed a positive trend to less than 35% of fatalities who had not completed all required motorcycle training. Critical factors analysis of these motorcycle fatalities shows a significant trend for human factors errors involving speed, fatigue and loss of control. At least 55% of the riders had less than 3 years' experience.



USMC Auto Fatalities



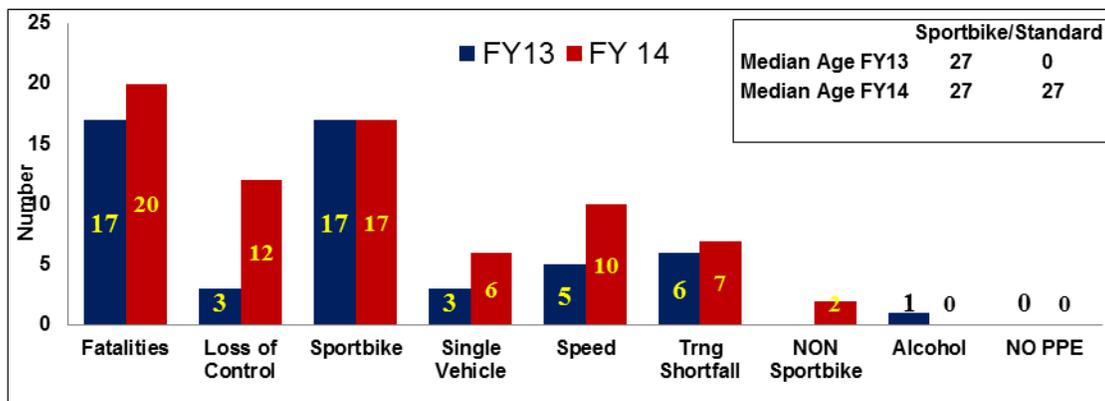
Commanders, commanding officers and officers-in-charge should be aware of and implement the following policies to further reduce our auto mishap fatalities:

1. Ensure all Sailors and Marines under age 26 complete required PMV training. This issue has been identified in Naval Audit Service audits of our traffic-safety programs and during unit safety surveys. The training should be completed within the first year of service during attendance at any Service school, MOS school or at the Sailor or Marine's first permanent duty assignment.
2. Fatigue and distraction are grossly under-reported in traffic-mishap reports due to the inability of police/investigating officers to definitively determine that fatigue or distraction was causal to the mishap. 75% of USN and 88% of USMC traffic fatalities are at night. National studies have equated the hazards of fatigued and distracted driving with that of drunk driving. We need to raise awareness of these hazards by using a variety of means including briefs during safety stand downs, which are required prior to all long weekends, major holidays, extended liberty periods, change of station or when mishap trends warrant.
3. Identify high-risk drivers using all available tools. High-risk drivers may have multiple traffic violations, alcohol or drug abuse problems or other behavioral or personal issues that result in increased stress and can impair judgment. In order to be proactive and provide effective intervention strategies prior to the Sailor or Marine being involved in a destructive event (such as a traffic mishap), use available tools such as the human-factors review boards, disciplinary review boards (DRBs), semiannual performance counseling, mentorship programs, the Coalition of Sailors Against Destructive Decisions

(CSADD), and engaged leadership to identify high-risk personnel. Once identified, high-risk drivers and motorcycle riders should receive training, counseling or other assistance.

4. Promote the use of the Travel Risk Planning System (TRiPS) as a mechanism to support engaged leadership and face-to-face discussions with subordinates. This readily available risk-management tool helps Sailors and Marines identify the hazards associated with their travel plans. It is particularly effective in illuminating the hazards of fatigued driving. While not mandatory, commanders, commanding officers and officers-in-charge should encourage all their Sailors and Marines to complete a TRiPS assessment prior to travel on any long weekend, holiday or leave period. The effectiveness of TRiPS is unquestionable and TRiPS was recently revamped to enhance ease of use and increase functionality. The new TRiPS requires re-registration as the old program is now in legacy and not available. It is very important that members use the correct military email address when registering to ensure that no time is lost while waiting for help desk assistance. For those members who do not have a current military email address or are unable to access TRiPS, there is an off-line hard copy version that can be filled out and either sent to their supervisor via email or printed out for review. This form can be downloaded from the Naval Safety Center's website on the TRiPS page. The new URL for accessing TRiPS is <https://trips.safety.army.mil/>.

USN Motorcycle Fatalities



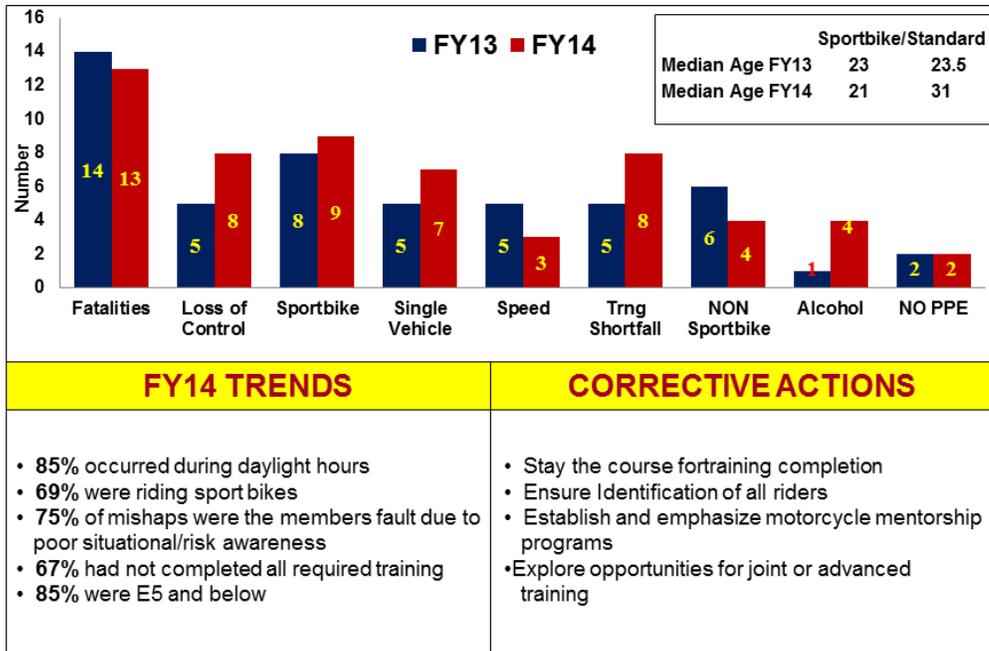
FY14 TRENDS

- 70% occurred during daylight hours
- 85% were riding sport bikes
- 80% of mishaps were the members fault due to poor situational/risk awareness
- 35% had not completed all required training
- 70% were E5 and below
- 55% (11 of 20) riders had less than 3 years experience.

CORRECTIVE ACTIONS

- Stay the course : Close the Training Gap
- Establish and emphasize motorcycle mentorship programs
- Ensure new riders have a mentor.
- Ensure 100% of units have an MSR assigned
- Stress Risk Management
- Explore opportunities for joint or advanced training

USMC Motorcycle Fatalities



The action items on the slides above were developed from feedback from Fleet commanders, riders and safety professionals. To further reduce our motorcycle mishaps, we recommend commanders, commanding officers and officers-in-charge take the following actions:

1. Stay the course and keep working to close the “training gap.” We’ve made tremendous strides in ensuring all of our personnel complete training and are given the skills, knowledge and risk awareness to be successful on our nation’s highways. However, we still have individuals who slip under the radar and are killed prior to completing any or all training. To eliminate this challenge, leaders at all levels must ensure all Sailors and Marines who are motorcycle riders complete training.
2. Identify all riders. Sailors and Marines who ride but don't identify themselves as riders to their chain of command are very likely to be involved in a mishap. It is incumbent on all Sailors and Marines, leadership and peers, to ensure all riders are properly identified, mentored and trained. Failure to act will lead to needless death and injury. Motorcycle Safety Representatives (MSRs) and mentors are linchpins to properly identifying and documenting riders and their training status.
3. Establish motorcycle mentorship programs. OPNAVINST 5100.12J and MCO 1500.19F both require each command to establish a motorcycle mentorship program. Commands that are too small or do not have enough riders to establish an effective

program can team with other units to do so or may request a waiver from the first flag officer in their chain of command. Mentorship programs are an effective way to ensure all riders in a command are identified, healthy attitudes concerning riding are fostered and continuous training is conducted. This is especially important as it affects our inexperienced riders.

4. Navy commanders should ensure 100% of their subordinate units have a MSR assigned. All Navy commands are required to designate an MSR, who is charged with assisting the commander in maintaining an effective motorcycle safety program. Compliance was problematic prior to July 2012, but since this issue was brought to the attention of the Navy's leadership, it has been eliminated. To be effective, commanders must ensure MSRs are given the support, training and recognition to be effective.

5. Emphasize risk management. Motorcycle riding exposes riders to risks that other vehicle operators are not exposed to. The lack of seatbelts, airbags, stability augmentation systems, antilock brakes and a steel frame and body around them compounds the hazards associated with such things as roadway hazards and other drivers not paying attention. Rider hazard awareness must remain high at all times. To keep awareness high, commanders should employ all tools available, such as effective mentorship programs, rider training provided by base commanders and other learning opportunities.

6. Explore opportunities for joint or advanced training. The training provided by the bases and installations at all major Fleet concentration areas has proven to be extremely effective in reducing the number of Sailors and Marines killed or injured in motorcycle mishaps. However, we have experienced some difficulty in ensuring that Sailors and Marines stationed at remote locations are able to readily obtain training. Regional and reserve unit commanders have made and continue to make great progress in working with the other military services that have bases nearby to allow Sailors and Marines to obtain training provided by the other service. Since the hazards associated with riding are the same regardless of what uniform the individual is wearing, these opportunities for joint training must be pursued aggressively.

7. Use all tools available to modify behavior. High-risk riders are most likely known by their peers or other Sailors in the command. Once identified, high-risk motorcycle riders should receive training, counseling or other appropriate assistance.

USN Auto & Motorcycle Fatalities by Region (Not Including Pedestrians and Bicycles)

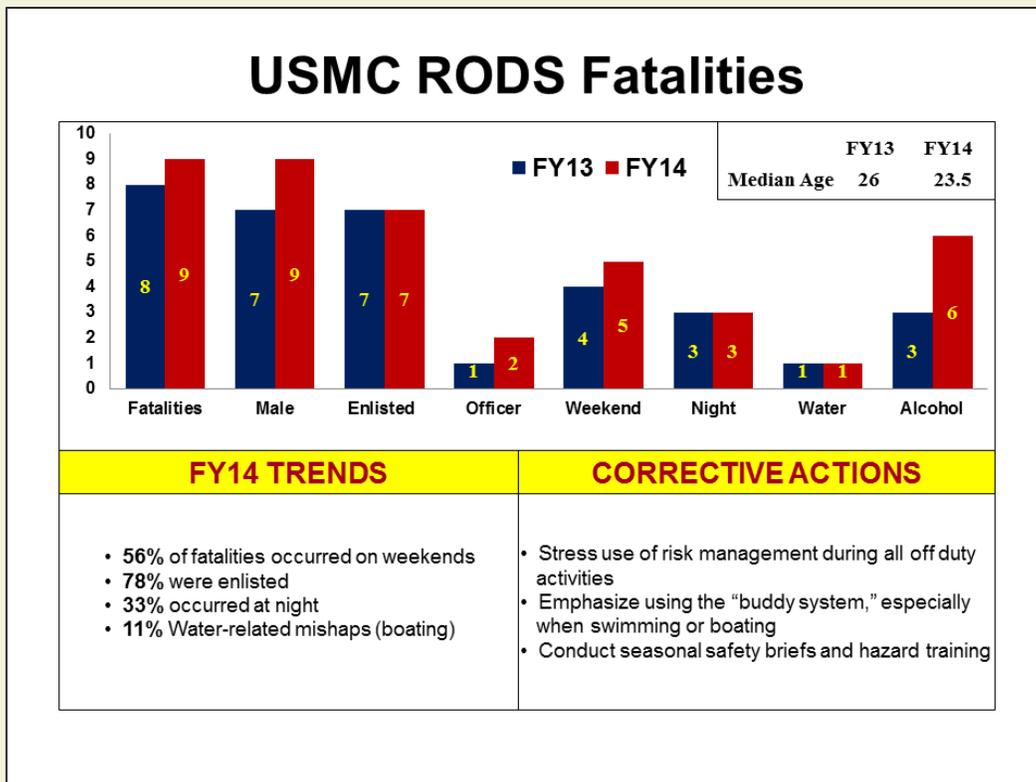
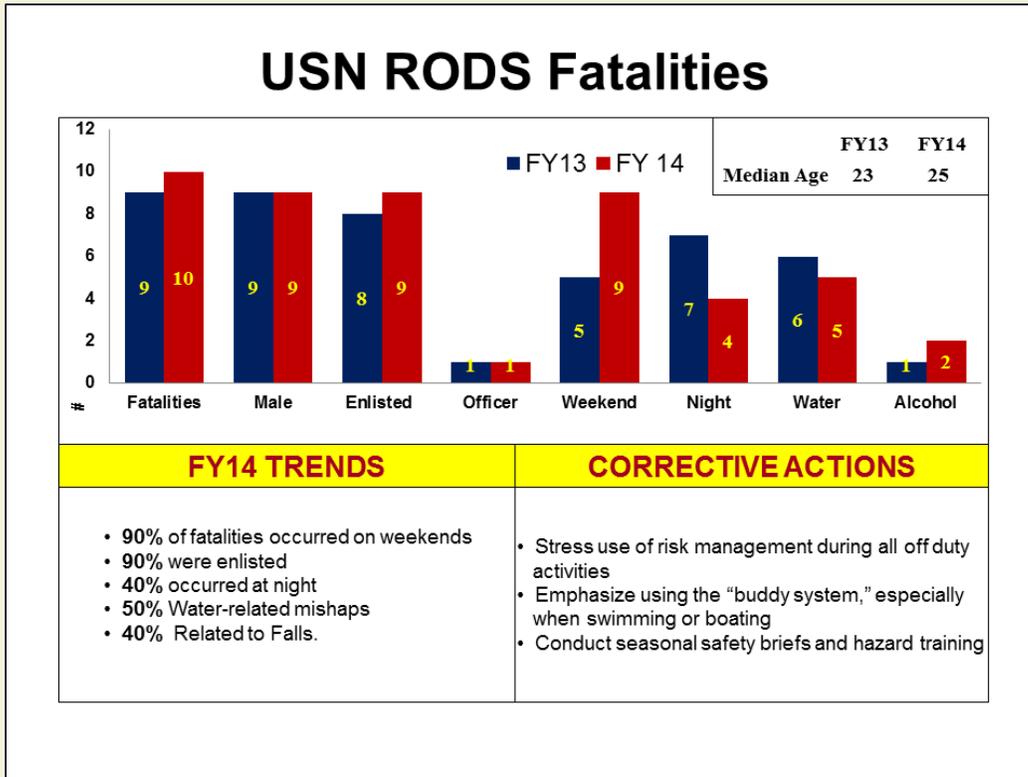
	PMV-2				PMV-4		
	FY 13	FY 14	5 Yr Totals FY 09-13		FY 13	FY 14	5 Yr Totals FY 09-13
CNREU	1		4	CNREU	2	1	2
CNRGU			1	CNRMA	4	4	21
CNRHI		2	1	CNRMW		1	5
CNRJA		1		CNRNW		1	4
CNRMA	5	3	33	CNRSE	8	4	20
CNRMW		1	1	CNRSW	1	1	22
CNRNDW	1		2	Total	15	12	74
CNRNW			4				
CNRSE	5	2	11				
CNRSW	5	11	21				
CNRSWA			1				
Indonesia			1				
Total	17	20	80				

USMC Auto and Motorcycle Fatalities by Controlling Command (Not Including Pedestrian/Bicycles)

	PMV-2				PMV-4		
	FY 13	FY 14	5 yr Total FY 09-13		FY 13	FY 14	5 yr Total FY 09-13
MARFORCOM	3	1	15	MARFORCOM	2	3	35
MARFORLOGCOM	1		1	MARFORPAC	5	7	41
MARFORPAC	7	7	36	MARFORRES	1	2	6
MARFORRES		1	6	MARSOC			2
MARSOC		1	2	MCCDC			7
MCRC		1		MCRC		2	1
SOCOM			1	TECOM/MCCDC	3	2	9
TECOM/MCCDC	3	1	7	Wounded Warrior Regiment			1
Wounded Warrior		1		Total	11	16	102
Total	14	13	68				

Locations with major fleet concentrations and large numbers of Sailors and Marines produce the highest number of fatal mishaps – that’s where we need to focus our efforts.

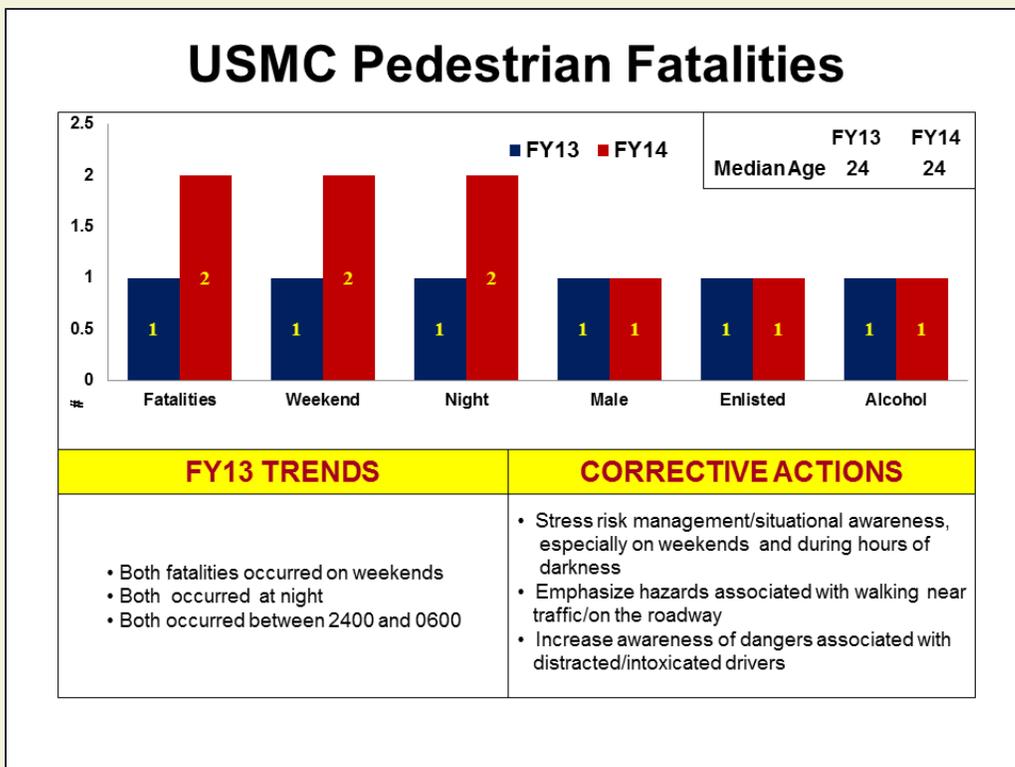
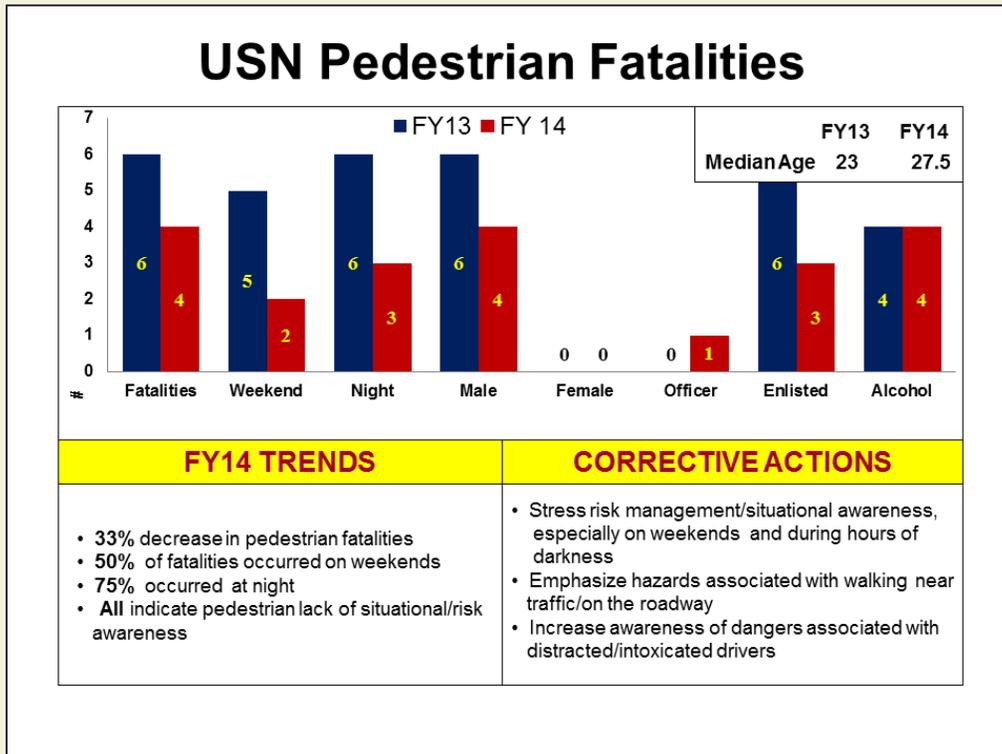
Recreation and Off-Duty Safety (RODS)



While the number of Sailors and Marines killed when participating in recreational activities is small, leaders at all levels should seek to reduce or eliminate the loss of life from these types of mishaps through implementation of the following actions:

1. Stress the use of risk management during all off duty activities. Most of our recreational fatalities occur on the weekends and involve aquatic activities. Participating in boating, scuba, snorkeling and other water-related activities exposes our personnel to increased risks especially if they are poor swimmers, untrained or have consumed alcohol. To keep awareness high, leaders should constantly remind all Sailors to get trained, keep situational awareness and avoid alcohol while participating in any recreational activity.
2. Emphasize using the buddy system especially when swimming or boating. The hazards during aquatic activities may often go unnoticed by a single person. Should a Sailor or Marine get into trouble while swimming, the buddy can render immediate assistance or get professional help. Leaders should constantly seek to enhance the hazard awareness of personnel and encourage use of the buddy system.
3. Conduct seasonal safety briefs and hazard training. Since in most locations the recreational activities Sailors and Marines participate in changes with the seasons, the hazards they face will also change. Because of our diverse demographic, many Sailors and Marines may be unfamiliar with or novices at the recreational activity that they or their friends are participating in. To eliminate this hazard, leaders should increase hazard awareness through the implementation of seasonal safety briefs, local hazard training, and effective counseling and mentoring programs.

Pedestrian Safety



Leaders at all levels should consider the following actions to further reduce pedestrian mishaps:

1. Stress risk management, especially on weekends and during hours of darkness. Most of our fatalities occur on the weekends and at night. They may or may not involve alcohol, but almost all involve a lack of situational awareness either on the Sailor or Marine's part or on the part of a civilian vehicle operator. Unit commanders must raise the awareness of all Sailors and Marines to the hazards associated with being out late at night during the weekend, during periods of reduced visibility and when others may be under the influence of alcohol.

2. Emphasize hazards associated with walking near traffic. Being near traffic at night or during periods of reduced visibility greatly increases the risk of injury or death. We must use briefings, training courses and counseling to ensure Sailors and Marines are aware of the hazards they face late at night, when near or on highways.

3. Use the buddy system to improve situational awareness for drivers and pedestrians. While we must constantly seek to enhance the hazard awareness of all our Sailors and Marines, one very effective way to increase their potential to avoid injury or death during off duty activities is to use the buddy system. Two sets of eyes are always better than one. Leaders should ensure all personnel comply with all SOFA/SOPA instructions and policy.

4. Increase awareness of dangers associated with distracted drivers. Distracted drivers are a hazard to other drivers and to pedestrians. The likelihood of encountering a distracted or fatigued driver increases at night and on the weekends. Discuss this hazard during safety stand- down briefs prior to all long weekends, major holidays and extended liberty periods.

The Naval Safety Center will continue to promote awareness in all of our print and digital media products, including seasonal campaigns, magazines, presentations, reports, messages, and videos. Use your own media outlets and products to localize and amplify the messages.

Safety Surveys – Navy High-Risk Training (HRT)

FY13		FY14	
Rank	Discrepancy	Rank	Discrepancy
1	Inconsistent/inadequate ECH II oversight of some HRT programs. ECH II commands not in compliance with OPNAVINST 1500.75B	1 ✓	Inconsistent/inadequate ECH II oversight of some HRT programs. ECH II commands not in compliance with OPNAVINST 1500.75B/75C
2	Instructor records do not reflect required screening and qualifications. Instructors teaching prior to certification.	2	Instructor records contained expired certificates, incomplete Course Unique Instructor Training cards and incomplete instructor evaluations.
3	Emergency Action Plans not IAW OPNAVINST 1500.75B.	3	Instructor screening not documented on a pg. 13 and retained the instructor record IAW OPNAVINST 1500.75C.
4	Unit-level HRT being conducted but not properly identified and managed as HRT IAW OPNAVINST 1500.75B.	4	Emergency Action Plans (EAPs) not documented correctly or documentation not retained for three years IAW OPNAVINST 1500.75C
5	Instructor screening not IAW OPNAVINST 1500.75B.	5	Training facilities at some commands are degraded, posing additional risk to students and causing more strain on instructors to mitigate the hazards.

✓ = Repeat discrepancies

High-Risk Training (HRT) surveys support Echelon 2, Echelon 3, Training Agencies and their compliance representatives. The surveys evaluate the HRT program implementation, policy compliance and the oversight process. Some HRT assist visits are conducted by NAVSAFECEN HRT staff at the request of specific commands and activities.

Some of the above discrepancies were observed by our team and documented by the compliance representatives in their final report to the command. Other discrepancies were identified during our unaccompanied surveys at requesting units, with an all-inclusive final report provided by our team lead.

FY14 discrepancies were identified during six surveys provided in support of HRT programs currently lacking proper Training Agency oversight.

Premeditated Parachuting Program (P3) Surveys

The Naval Safety Center parachuting SMEs conduct paraloft safety surveys and inspections as a means to provide required oversight of Navy and Marine Corps paralofts and to support mishap prevention efforts. Common discrepancies are identified and best practices shared with each paraloft to improve management of jumpers and equipment. These trends, along with lessons learned stemming from Navy and USMC parachuting mishaps, are formally shared three times a year with the Navy, Marine Corps and DoD parachuting communities of interest during the Airdrop Malfunction and Safety Analysis Review Boards.

Safety Surveys – Navy Paraloft

FY13		FY14	
Rank		Rank	Discrepancy
1	Designating personnel with incomplete qualification requirements	1	Missing individual letters of designation in training records for personal qualifications
2	Missing individual letters of designation in training records for personal qualifications	2	Paraloft does not have a verification process for the completion of action items from parachute related messages
3	Inaccurate/missing service- or shelf-life data on components and maintenance documents	3	Facilities are not adequate for the security, storage and maintenance of parachutes and airdrop equipment
4	Missing individual Job Qualification Requirements (JQR) for personal qualifications	4	Designating personnel with incomplete JQRs
5	Incorrect military and non-standard parachute packing procedures	5	Commands are using equipment not on the ANU list

Ranking of Navy paraloft survey discrepancies is based on the number of occurrences (less subjective) of the discrepancy during the seven surveys conducted in FY13 and the thirteen surveys conducted in FY14.

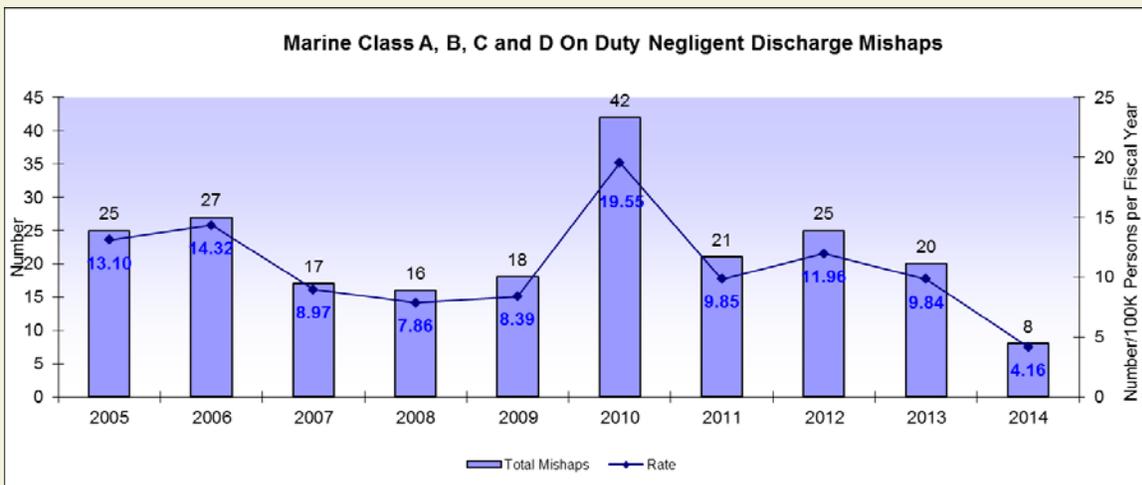
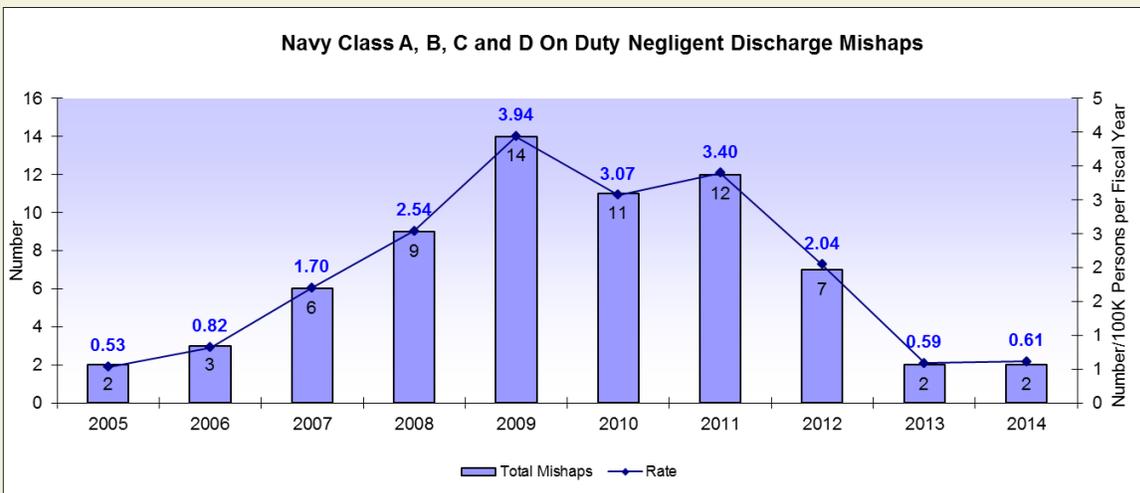
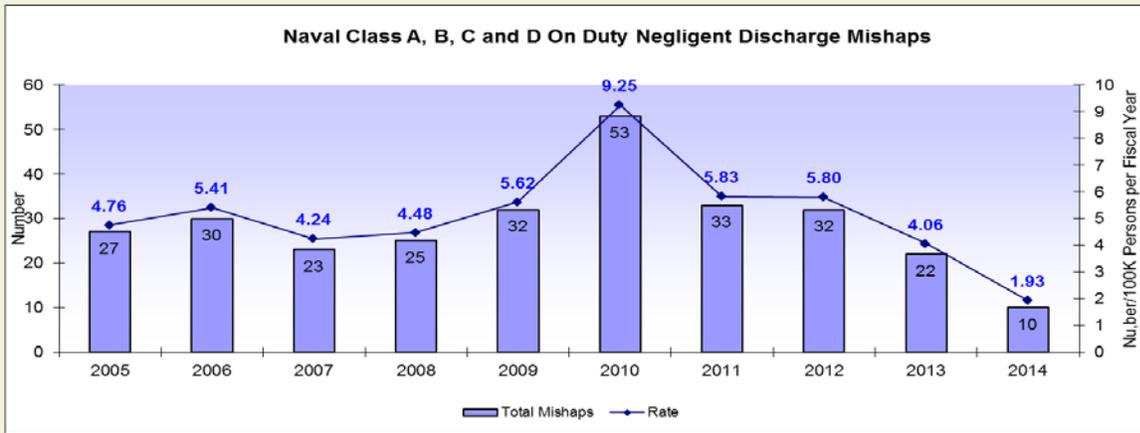
Safety Surveys – Marine Corps Paraloft

FY13		FY14	
Rank	Discrepancy	Rank	Discrepancy
1	Missing Standard Operating Procedures (SOPs)	1 ✓	Missing Standard Operating Procedures (SOPs)
2	Designating billets with incomplete qualification/currency verification checklists	2	Missing or incomplete Safety of Use Message (SOUM) compliance binder
3	Facility lighting below standard	3	Missing Modification Instruction control log
4	Inaccurate and missing equipment record jackets and maintenance documents	4	Inadequate O451 parachute Riggers on the units Table of Organization to properly support mission requirements
5	Sewing machine preventative maintenance checks and services (PMCS) schedule missing from the Global Combat Support System-Marine Corps (GCSS-MC)	5	Lack of or mismanaged Tool Control Program

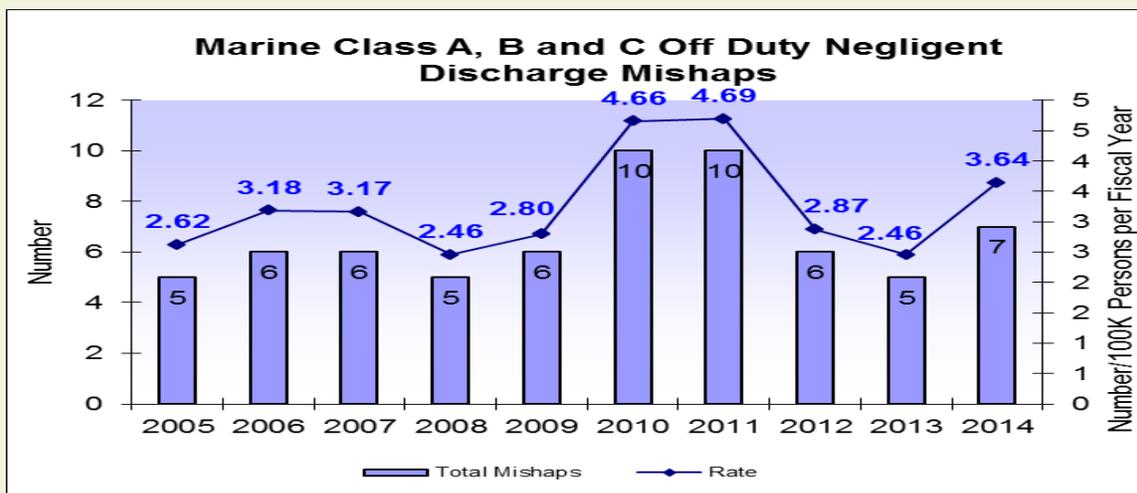
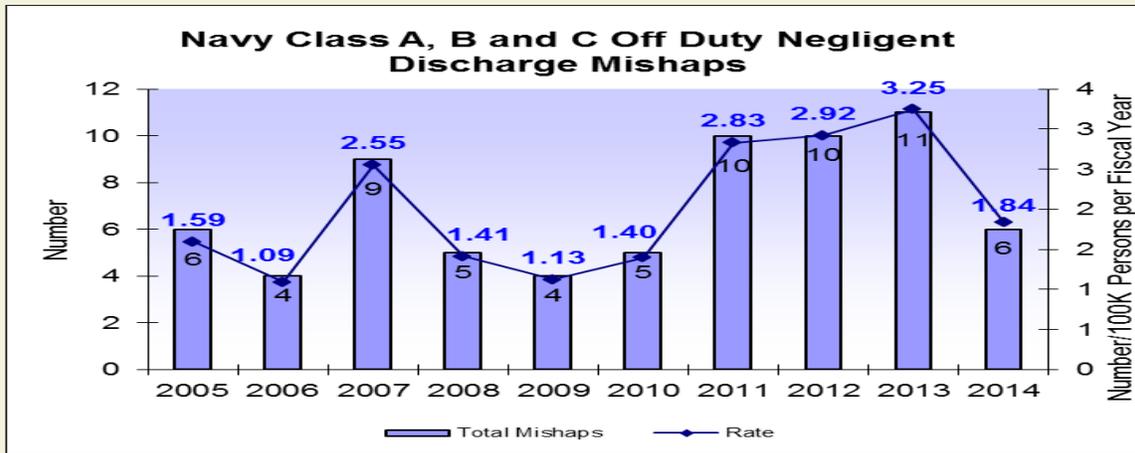
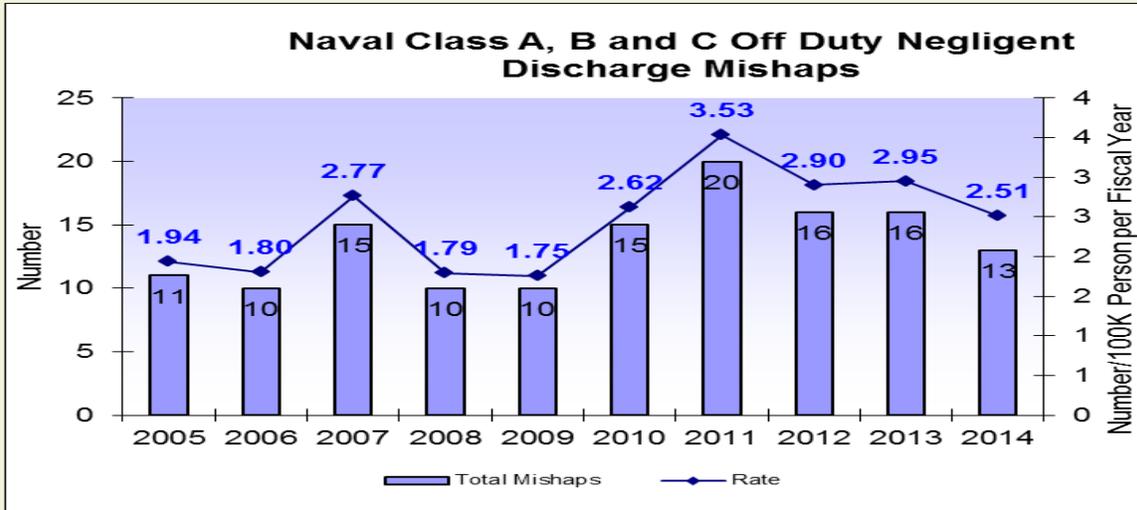
✓ = Repeat discrepancies

Ranking of Marine Corps paraloft inspection discrepancies is based on frequency of occurrences during the eleven paraloft inspections conducted in FY14 and the seven inspections conducted in FY13.

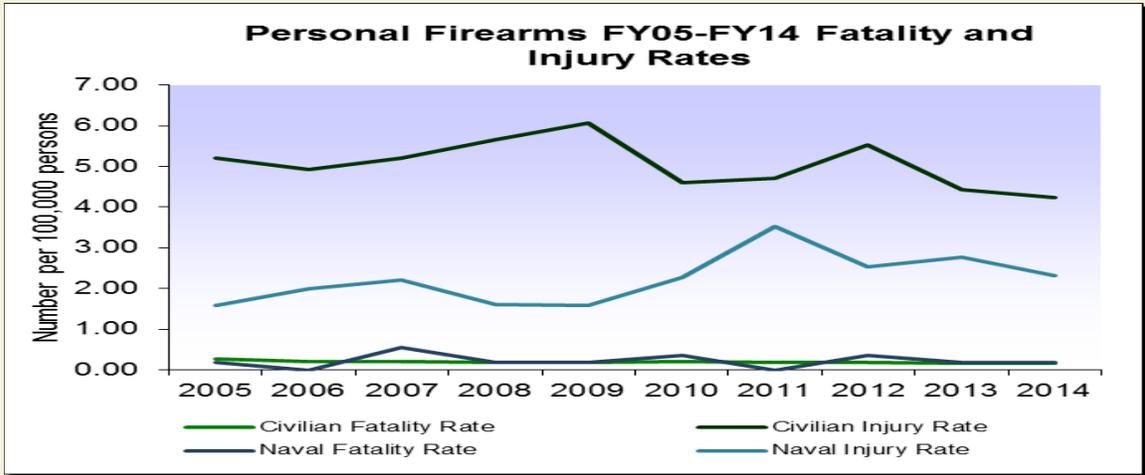
Negligent Discharge of Firearms (On Duty and Off Duty)



The data show that FY13 rates are statistically significantly lower rates than those from FY08 to FY12. The FY14 rates are statistically significantly lower rates than the previous five year rates.



The current FY14 rate is not statistically significantly different than the previous 5 year rates and is not statistically significantly different than the rates from FY06 to FY10. Naval Personnel under the age of 25 have a higher probability of being involved in off duty personnel firearms incident. Statistics show that most incidents occur during casual handling and/or cleaning of the weapons. It also indicates that 13% of the incidents are alcohol related.



The statistics show that there is no statistically significant difference in the naval fatality rate and civilian fatality rate. However, the civilian injury rate is statistically significantly higher than naval injury rate.

Naval Safety and Environmental Training Center

In FY14, the Naval Safety Center's subordinate command, the Naval Safety and Environmental Training Center (NAVSAFENVTRACEN) held a total of 443 class convenings via resident, mobile training teams, and Global Online delivery venues, training a total of 8,803 full-time safety and occupational health and environmental protection professionals, collateral duty safety personnel, and safety and environmental protection program specific managers.

NAVSAFENVTRACEN continued transitioning its courses to our Global Online delivery venue. NAVSAFENVTRACEN now has nine courses being delivered via our Global Online venue – Afloat Environmental Protection Coordinator, Aviation Safety Specialist, Hazardous Material Control and Management Technician, Introduction to Hazardous Materials (Ashore), Introduction to Industrial Hygiene for Safety Professionals, Introduction to Navy Occupational Safety and Health, Navy Occupational Safety and Health Assessment Tools and Strategies, Safety Programs Afloat, and Submarine Safety Officer. In March 2014, NAVSAFENVTRACEN successfully executed the 22nd Annual Joint Safety Professional Development Conference, once again doing so in a 100% virtual environment. The five day 2014 PDC attended by over 2200 globally based safety and occupational health professionals from all four Department of Defense services, as well as the US Coast Guard. The PDC was an overwhelming success, earning a more than 90% approval rating for speakers, seminars, and online format.

Fleet Safety Campaign Plan

The Operational Planning Team (OPT) tasked with drafting a Fleet Safety Campaign reached a major milestone in the effort to operationalize safety across the enterprise in 2014. The safety campaign was signed by Commander, U.S. Fleet Forces Command Admiral Bill Gortney and Commander, U.S. Pacific Fleet Admiral Harry Harris June 27. The impetus for the plan was the \$1 billion in materiel resources and 117 lives lost due to preventable mishaps between fiscal years 2011 and 2014. The plan immediately went into effect for all commands and personnel in the operating forces of the U.S. Navy Fleet. They are responsible for understanding and executing the plan, which will ultimately save lives and resources.

The campaign brings the fight to the enemy of safety, which is a mishap. In this case, the enemy's center of gravity is our own human error. The sobering fact is that 80 percent of mishaps are due to our own mistakes. The campaign focuses on learning from our past mistakes and improving risk-management processes in order to strengthen our culture. The safety campaign calls upon leaders to collaborate and share lessons learned as well as to be open to new ideas and willing to adopt best practices from other warfighting communities.

The Fleet Operational Safety Council, required by the campaign plan, began meeting in August. The group consists of Naval Safety Center, USFF, CPF, and safety professionals from all TYCOMS who meet monthly to share concerns and best practices. The group also raises issues beyond TYCOM capabilities to solve up the chain of command for visibility at the Fleet level. The NAVSAFECEN OPT worked with TYCOM representatives to draft the components and elements of the Fleet Safety Management System (SMS), which broadly consists of Safety Policy and Organizational Commitment, Risk Management, Safety Assurance, and Safety Promotions. The associated gap analysis tool is designed to help commands of all echelon levels to determine where they are meeting the requirements of the SMS and what areas they need to strengthen and improve.

The SMS Planning team, led by NAVSAFECEN, USFF and CPF met monthly at NAVSAFECEN throughout 2014. TYCOM representatives in attendance provided feedback about the proposed SMS and discussed concerns related to Fleet implementation.

Other campaign plan requirements NAVSAFECEN has assisted with include analysis of mishap recommendations and whether or not those recommendations have been implemented and achieved the desired effect.

Efforts in support of the Safety Campaign Plan will continue into FY15 and beyond with the release of fragmentary orders and related tasking and action.



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