Fatal landing accidents at San Francisco and Birmingham in 2013 as well as four non-fatal incidents -- two runway excursions and two wrong-runway landings – were the basis in part for two new items in this year’s NTSB annual list of “most-wanted” safety improvements.

New to the 10-item list are calls to “strengthen procedural compliance” by transportation workers, including in aviation, and to “require medical fitness for duty” of those employees. Repeated from last year are requests to boost public helicopter safety and reduce general aviation (GA) accidents, with a focus this year on preventing loss-of-control GA accidents as opposed to identifying and communicating hazardous weather.

Along with highlighting existing recommendations to the FAA and others, the NTSB uses the list to draw attention to the most pressing issues.

A key element in assuring medical fitness at the controls involves diagnosing and preventing sleep apnea, a factor in a Dec. 2013 fatal train accident in New York, and a problem for which the FAA is developing guidance for how to detect the issue in pilots during medical exams. Also problematic is fatigue management, a factor in the UPS Flight 1354 crash in Birmingham, Alabama, in August 2013.

“We had a fitness for duty issue with the first officer, who did not arrive at the departure airport properly rested, although there had been plenty of time to get a rest,” says Board Member Earl Weener. Flight 1354 hit a hill short of the runway in pre-dawn darkness after a non-precision approach below approved descent minimums. Both pilots were killed.

Weener says the results of a study by the NTSB’s research and engineering organization last year on drug use in fatal accidents over a 22-year period also influenced the medical fitness choice. Particularly surprising to the NTSB was the “increasing incidences” of over-the-counter drugs found in autopsies, and the number of loss-of-control accidents where the medications were detected.

The UPS accident, along with the Asiana Airlines Flight 214 crash in San Francisco in July 2013 contained elements of procedural non-compliance. In the Asiana crash, pilots of the 777-200ER allowed the aircraft to fly too slowly and hit a sea wall in advance of the runway, ultimately killing three passengers. “In both situations, procedures should have kept (the pilots) out of trouble, had they been followed,” says Weener.

Procedural compliance issues are also being looked at as contributing factors in four non-fatal investigations that are not yet closed; runway incidents by a US AirwaysA320 in Philadelphia and Southwest 737 at LaGuardia; and wrong-runway landings by an Atlas 747 in Wichita and a Southwest 737 in Missouri.

“Those are not unique over the past 10 years where procedural compliance was an issue in a dozen accidents,” says Weener. “It’s not simply pilots not following procedures, there may be lousy procedures or procedures that were not emphasized in training. We need good procedures, properly trained and with an emphasis on enforcement in following the procedures.”

Other safety improvements related to proper procedures include replacing so-called “dive and drive” non-precision approaches of the type being used by the UPS flight in Birmingham with constant descent angle approaches and emphasizing pitch reduction over power in stall recoveries for large transport aircraft in order to get the airflow
reattached to the wing. Improper stall recovery is a factor in many GA accidents, as well as in transport accidents like Colgan 3407 in 2009. “Get the flow reattached, get it back under control, then sort out the throttle,” says Weener. “It’s a procedural issue.”

http://awin.aviationweek.com/ArticlesStory.aspx?keyWord=weener&id=1b660377-f646-4b08-9030-129c21f2d6f3

**NTSB Most-Wanted Captures Procedural Compliance, Medical Fitness**  
*Aviation Daily Jan 15, 2015*, p. 4  
*John Croft*

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**Procedural Non-Compliance**

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