

# *Is a Cockpit Video Camera Necessary?*



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**I**n the wake of Egypt Air 990, the media, along with a few politicians, began clamoring for video cameras in all airliner cockpits. Is this an appropriate use of our “aviation safety” dollars? We all agree that there is a finite amount of money available for any project. With this limitation in mind, the question arises: Is this our best use of a limited resource? The answer is found in an analysis of airline accident history, not in the media’s speculation.

The first part of the needed analysis is a review of Egypt Air 990’s pilots. Since the investigation is ongoing, it is much too early to state the probable cause. Until the National Transportation Safety Board publishes its findings, or gives the investigation to the Federal Bureau of Investigation, any conclusion is premature.

The media rush to publish a cause has in the past, and will in the future, caused inaccurate information to be spread. Egypt Air 990 is one on a long list of examples. The media has alleged that the intentional act of a pilot caused the tragedy. This may or may not prove to be true, but the allegation is spread worldwide. This alleged intentional act is being used as a reason to install video cameras in all airliner cockpits. Is this the first case of an intentional act by a pilot causing the loss of an airplane? The analysis continues . . . .

The allegation of a SilkAir B-737 in Indonesia is quickly mentioned by the media as another accident intentionally caused by a pilot. There is no official report on the SilkAir accident. The government of Indonesia has not

completed its work. Until the report is complete, using the SilkAir accident to justify a video camera in the cockpit is premature.

There is another similar case where a Royal Air Maroc ATR 42 crashed. The insinuation of pilot suicide also haunts this accident. Again, there is no final report. Therefore, like the SilkAir accident, it is premature to use it as an example.

Finally, there is a case of an African airline where a disgruntled pilot took-off in his airline’s ATR 42 and crashed it into other ATRs. There were no passengers on any of the aircraft. The act was intended against the airline and not innocent passengers. The only injury or fatality was the death of the pilot.

Consequently, a review of accident history shows cases of unproven allegations in three cases and one case where the act of a mentally disturbed individual took retaliation against his employer. History does not justify the media’s claims of a need for cockpit video cameras.

We can better use the money that some people have proposed to install cameras for installing Enhanced Ground Proximity Warning Systems (EGPWS) or installing Traffic Collision Avoidance Systems (TCAS) on all air carrier aircraft. The case is compelling for the need for these two systems on all air carriers.

One of the leading causes of airliner accidents is Controlled Flight Into Terrain (CFIT). EGPWS can reduce or eliminate future CFIT accidents. Why do some people want to install cameras when we need EGPWS?

The number of near misses occurring in the National Airspace System is a matter of public record. As air traffic increases, the number of near misses will likely also increase. If all air carriers have TCAS installed (currently freighters are not required to have TCAS) then there is a possibility that a midair collision can be avoided. This proven technology is available and needed.

The evidence is overwhelming that the best use of money for aviation safety does not include installing video cameras. Let us learn the lessons from past disasters and prevent the statistically-most-likely accident. We should not spend millions of dollars to videotape crewmembers as they routinely fly millions of passengers safely to their destinations.

Another argument used by the video camera proponents is that videotape would provide indication of control problems. The use of force transducers that are recorded on the Digital Flight Data Recorder (DFDR) would be of much more value. Exact force measurement is always more useful than a video image where exact forces are subject to speculation. Increased parameter DFDRs have been recommended by the NTSB and are endorsed by ALPA. Many accidents could have been solved much faster if enhanced DFDRs were installed on all airliners. Again this need is proven by history, yet some people in the media want video cameras.

There is one strong argument for video cameras that record the indications seen by a pilot in the electronic (glass) cockpit. Will we ever know what the pilots of Swissair 111 actually saw? If there were cameras mounted behind the pilots so that only the instrument panels were visible then we could know exactly what indications were being displayed. Unlike mechanical gauges that leave marks after impact, cathode ray tubes leave no marks. In addition, with electronic displays there are questions about what the display actually shows. The DFDR only can record what is sent through it, and there can be problems before the data gets to the display. Consequently, what is shown on the DFDR may not be exactly what the pilot sees. The probability of this problem increases as the number of electronic displays rises.

The issue of video cameras will continue in the media for upcoming months. As pilots, we have to be ready to ensure that any addition to our airplanes really improves safety. With proper safeguards, video cameras might, but there are much better uses for the money they would cost. We need to use the money most effectively and not blindly follow the premature recommendations of the media. Aviation safety is up to us, not the media.



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