FEELING QUEASY

By Michael R. Grüninger

Uneasy feelings aroused by studying the AF447 accident: Operational Control and pro-active Flight Watch

On June 1, 2009, an Airbus A330-203 Air France crashed in the Atlantic Ocean. More than six hours elapsed before a DETRESFA emergency phase was declared, where it is considered with reasonable certainty that an aircraft and its occupants are threatened by grave and immediate danger and require immediate assistance.

It appears incomprehensible that the crash of an airliner operated by a major Western air carrier is determined to have occurred "with a reasonable certainty" only after such a period of time. Although, it is unlikely that any lives would have been saved by initiating search and rescue activities sooner, this occurrence highlights an underlying issue. The position and condition of airliners carrying hundreds of passengers may not be monitored and tracked permanently and in real-time. And if this is not the case for large airliners, the situation may be even worse for business aircraft.

Flight Watch

Operations Control Centers of airlines often, but not always, provide a continuous flight watch of their flights. Flight Operations Officers (FOO) monitor the progress of the flight and are able to establish two way communication with the flight crew at all times, by Satcom, ACARS, HF Radio or other means.

In case of any operational or technical problem, flight crews can contact the airline and require assistance from the ground.

Flight Operations Officers/ Dispatchers are able to recognise at an early stage if an aircraft is in distress and react in a timely manner. In addition, dispatch can provide the flight crew with updated information affecting the flight that was not available at the time of flight planning.

This information is usually only provided by ATC when requested by the flight crew. The FOO, on the other hand, can simultaneously monitor such relevant information as weather development at the destination and alternates, thus aiding the crew's decision making, reducing flight crew work load and improving situational awareness.

In Business Aviation the flight crew, when in-flight, is not provided any ground-based assistance other than ATC support.

Does Pro-active Flight Match Make Sense?

PA 2009-02 does not foresee any change to EU-OPS. EU-OPS 1.195 requires an operator to establish an operational control system. Operational control means the taking responsibility for the initiation, continuation, termination or diversion of a flight. In Europe, such responsibility is normally delegated by the operator to the Commander. In the United States, such responsibility is shared between the Pilot-in-Command and the Flight Operations Officer, who at all times has full awareness on the ground of the location and situation of the aircraft in flight. In case of distress, the position of the situation is immediately known with a high degree of accuracy. Search and rescue activities can be immediately initiated.

A flight watch system would further add a layer of safety by allowing a qualified dispatcher on the ground to monitor the aircraft status in real time, including altitude, fuel information, planned and actual flight path, weather, as well as providing permanent two-way communication between the flight crew and operational control personnel.

In today's operating environment there is enormous pressure on the flight crew to complete a flight in the most cost effective manner possible. Business aircraft operator's customers demand arrival at the time planned. This involves avoiding detours, delays, and diversions to alternate landing sites, as all of these events involve additional cost, time and logistical requirements.

Flight-watch can assist the crew in conducting a flight in the most efficient manner. But an FOO with shared safety responsibilities may also act as a safety barrier against a flight crew pressing ahead in situations where a precautionary landing may be advised.

Flight Watch for Private Operators?

Business Aviation safety standards, such as IS-BAO, require an operator to have emergency response plans ready. Real-time information on the flight progress will reduce uncertainty and allow the dispatcher to trigger emergency phases in a timely way. Survival chances will increase and recovery of CVR and FDR will be more likely. Flight crews have at their disposal an additional qualified source of information to aid in the decision making process and enhance situational awareness. Therefore, although not required by regulations, business aircraft operators would also benefit from a voluntary Flight Watch system in the interest of safety and efficiency.

VOLUNTARY To better respond to emergencies, Business Aviation flights would benefit from a voluntary Flight Watch system

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