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Tegucigalpa, Honduras, 11 – 14 October 2005

Agenda Item 2: **Safety Oversight**
 2.5 **Safety – related topics**

**DISTANCE LEARNING FOR GROUND TRAINING:
FLIGHT/CABIN CREW AND DISPATCHERS**

(Presented by the United States of America)

SUMMARY
This paper describes an emerging trend in the United States with respect to the ground training provided by commercial air operators to their flight crews, cabin crews, and dispatchers. This trend involves the knowledge and cognitive skills aspects of such training and reflects a transition from a traditional classroom environment to an effective distance learning (DL) methodology. The U.S. Federal Aviation Administration (FAA) is in the process of acknowledging this change and is engaged in making appropriate revisions to its regulations and advisory material to further encourage the use of such alternative approaches for conducting ground training for these personnel.

1. **Introduction**

1.1 Ground training - as related to knowledge and cognitive skills - for flight and cabin crews, and airline dispatchers, has been traditionally provided in the United States using an instructor and classroom methodology. This choice usually has significant cost implications, including the cost to the operator of the space, instructors, student travel, and lodging. Productivity is also lost to the operators and/or students depending upon applicable contract provisions of time spent in a classroom that would otherwise be spent generating personal income and company revenue from flying airplanes. In the United States, the Federal Aviation Regulations do not dictate such an option; indeed, these regulations permit other choices for both airline commuter (14 CFR 121), and on-demand (14 CFR 135) operators.

2. **Discussion**

2.1 Distance learning (DL) is emerging as a cost-effective alternative for the effective conducting of ground training. While not presently used in any FAA regulation, the FAA and the aviation industry both use the term DL. The meaning of DL varies depending upon the context in which it is used. For the purpose of new material being drafted for FAA inspector handbooks, DL will be "defined" as any learning that is accomplished by any training method that does not include an instructor and a gathering of trainees co-located in a traditional classroom. DL has also been identified in other ways such as e-learning, computer or web-based training that uses interactive web sites, self-guided training, virtual classroom, distributed training, or simply home study. DL is now a modern and mature training method that, coupled with a performance-based training strategy, is the key to improved training effectiveness and lower cost, a powerful mix that is driving the current shift from the classroom approach

of yesterday. In this manner, DL is expected to become the virtual ground-training counterpart of the virtual flight-training story, i.e. simulators, which have been used for more than thirty years. Indeed, training products now available for use in DL have already proven to be effective for training.

2.2   The performance-based strategy mentioned above supersedes the previous concept which was based on adherence to a number of programmed hours sitting in a classroom, and is now almost universally viewed as being arbitrary and indefensible. The performance-based approach sets appropriate training objectives and continuous validation assures that students are meeting training objectives. In the context of the DL initiative, no subject matter is reduced, waived, or excused. Ground training using the DL method would be applied, at least at the outset, only to knowledge and cognitive skills -- and not to any training involving psychomotor skills or performance. This is the point at which another method of training begins, i.e. hands-on training for flight attendants and flight training for pilots. It is important to note that, even with the DL method, interactivity with an authorized instructor would be accommodated during normal business hours.

2.3   While the Federal Aviation Regulations at present make no mention of DL or any other training method, guidance to its inspectors has been restrictive in that it showed a predisposition to a classroom/instructor-based approach. The FAA is now engaged in a broad-gauged effort to remedy this situation including revising guidance material and the FAR 121 and FAR 135 training rules, and developing and issuing an FAA advisory circular. These initiatives are intended to encourage the use of DL for standardization purposes, maximum training value, and, ultimately aviation safety while, at the same time, imposing some reasonable constraints on its use.

3.   **Conclusion**

3.1   It is important to acknowledge better ways of doing business, particularly when efficiency and effectiveness can be maximized, not sacrificed. This is clearly becoming the case in the air carrier industry as distance-learning mechanisms are increasingly implemented to provide knowledge/skill-based ground training to flight crews, cabin crews, and dispatchers. Regulators such as the FAA are in a unique position to permit, or even foster, the growth and continued use of distance learning in an appropriate manner by their commercial air operators.

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