



ECAC / CEAC

**Workshop on
Underwater Recovery Operations**

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KEYNOTE ADDRESS

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Good morning, Ladies and Gentlemen. Thank you for participating in this Workshop on Underwater Recovery Operations, in the framework of aviation safety investigations.

First, let me express my gratitude to the authorities of Croatia who invited us to this beautiful and historical city of Dubrovnik, an example of the best achievements of our civilisation. Many people in Croatia have worked hard, during more than a year, and their role is not over, to make this Workshop a success. I thank them all, and I ask our friend and host, Dinko Vodanović, to transmit my thanks, and yours,

to each of them. An important element of success has been Dinko himself, with his enthusiasm, his dedication to aviation safety and his well known efficiency. We all know and appreciate Dinko. He is not only an experienced investigator, an active member of ACC and an example to every European investigator; he is also a man of openness, of dialogue and international cooperation. Accidents in public transport are always a trauma for the people in the involved countries and a risk for the stability of the aviation system: with Dinko we know, we can be guaranteed, that, if an major accident involves one day Croatia, either on its territory or abroad, things will be dealt with in the most professional manner and in the perfect spirit of Annex 13 and the ECAC Code of conduct.

This Workshop is the fifth to be organised by ACC, under the auspices of ECAC, in order to address jointly an aspect of our activity. In 2000, we hold a symposium in Tallinn on the assistance to victims of aviation accidents and their families. In 2002, we reviewed in Nicosia the national implementation of aircraft accident and incident investigation. In 2005, in Bucharest, we addressed the communication aspects of accident and incident investigation and in 2006, in Athens, the drafting and issuing of safety recommendations. For all these workshops, as for this week's, we received the total and confident support of ECAC staff. On your behalf, I wish to express to them, and especially to Peter Kirk and Monique Inizan, my deepest gratitude. I wish also to highlight the fantastic work of the Steering Committee in organising this workshop. The members of the Committee have re-

viewed the existing tools and procedures, they have chosen the examples which will be presented, they have prepared an electronic support with a number of complements to the presentations (the CD which is to be distributed during the workshop); also, they have prepared a hands-on, on-site exercise, with the help of the Croatian Marine and the participation of professional divers from Croatia and Hungary. A warm thank you to all of them.

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In any investigation, access to the site and to the wreckage is of primary importance. But, in some cases, like when the aircraft crashes in the sea, or in a difficult area like a desert or in mountains, these aspects are a challenge by themselves and demand an organised and fast collective response. Preparation and real time action are difficult, expensive, and an improper management may degenerate into a crisis, at a national or even an international level, not to mention the probable loss of evidence.

Without trying to elaborate a comprehensive list of all the challenges which are encountered in such cases, let me give a few examples:

The tools, the necessary resources and even the organisational set-up for performance of the task, will be different according to a number of parameters, the depth of the water being only one of them. The first step then will be to reach as precise as possible an understanding of

the environment and its probable characteristics. A good knowledge of the available tools, and of potential resources, is also needed for a proper decision to be taken.

Information contacts, feedback loops, coordination with every potential partner (for example the responsible military and foreign affairs agencies, or colleagues outside the country) are to be established as soon as possible. And in the emergency context generally encountered, this will not be always an easy task.

Costs may vary dramatically, but as a rule of the thumb they will exceed the normal budget of any investigation authority. Every country, normally, has the resources to face the first days of a crash on land (I don't speak here of medical resources needed to address large numbers of injuries – that maybe an issue for another workshop). It is different when the aircraft is under water. Finding the budget and the resources will be a challenge, especially when the role of each actor on scene is not determined in advance.

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Let me briefly present now the organisation of the Workshop.

During these three days, through examples and personal experience, we will try to address the challenges and the existing tools, in order to provide every participant with a comprehensive overview of what could be needed to handle effectively any accident situation with an

underwater aspect. It is a highly ambitious task, we know it, and none of us at the end of the exercise will consider that everything has been reviewed, and that we are ready. We will come back to the subject during our next ACC meeting, in order to go and try to elaborate check lists dealing with the preparation for such an event, as well as the handling of such situation if it occurs. I am, in addition, already envisaging another workshop, next year, in order to continue to exchange experience and to undertake some joint training, especially on the use of remotely operated vehicles.

Here are some details on this week's programme:

Today, we will focus on the different equipment and strategies available.

Tomorrow will be an occasion for everybody to watch and participate, on board ship, in a research and recovery exercise in shallow water, with a real recorder somewhere in the Adriatic. There will be a short briefing on the exercise at the end of today's session, and details will be provided, both on the logistics and on the purpose of the exercise.

On Friday, we will debrief on the exercise, before addressing important associated aspects, such as costs, control of the site, search and rescue, and the important subject of human remains.

But enough for the preliminaries. It is time to give the floor to the speakers.