



IHST Happenings July-2008

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From the Executive Committee

By [Mark Liptak](#) - Excom

At our July 8 and 9 meeting in Montreal the IHST Excom had an impromptu discussion with Dawn Mancuso, Executive Director of the Association of Air Medical Services (AAMS), and Mike Blake, Executive VP of Bell Helicopter, to discuss how IHST could provide additional focus on the HEMS mission segment. We were responding to yet another high visibility fatal crash, this time a mid air collision in Flagstaff, AZ. Earlier in 2007 we formed a loose relationship with Dr. Ira Blumen from University of Chicago Medical Center, a well known HEMS safety researcher. Ira's team has largely adopted the JHSAT process and has assembled a team of about 35 HEMS stakeholders who will analyze HEMS accidents from 1998 to 2007. The team is known as the Opportunities for Safety Improvement in HEMS (OSI-HEMS). As those of you involved with accident analysis know, this is a labor intensive process. Ira hopes to issue a report of the findings by summer 2009. The IHST will be in regular communication with the OSI-

HEMS effort and will be prepared to take his recommendations and start implementation of them through a USJHSIT team. These folks will use the implementation process currently being developed by the USJHSIT. We'll need to work on staffing up that team sometime next year. We'll keep you informed as this develops.

The USJHSIT is working hard on developing their process for implementing the USJHSAT's recommendations. As we anticipate Safety Enhancements (SEs) and Detailed Implementation Plans (DIPs) coming from the USJHSIT later in 2009 the Excom is doing advance work to open doors for change. We have several active focus areas, the insurance industry, FAA FSDOs and web based tools.

Our current view is that the insurance industry could have great influence in the behavior of small operators, our most common and most difficult entity to reach. Several Excom members (Mark Liptak, Greg Wyght, Bob Sheffield and John Vincent) will be meeting with insurance industry underwriters in London in September. The objective of the meeting is to spread awareness of the IHST's goals and to discuss ways that the insurance policy writers could work with us to benefit helicopter safety. This is a critically important relationship

if we are to effectively reach into the small operator community. We'll report on the outcome of this meeting in the next newsletter.

In the US, each operator has a relationship with a regional FAA Flight Standards District Office (FSDO). As with the insurance industry, we have an opportunity to work with the FSDOs in a way to promote the outputs of the US JHSIT. We're working on developing a strategy to energize the FSDO on our behalf, again, we'll keep you posted on this.

And, we're considering how we might use the web as an effective tool to disseminate lessons learned, important safety information, etc. Please see Laura Iseler's [article](#) below, we're in the initial stages of how to do this, she'd appreciate your feedback.

The Excom continues to work on outreach efforts, looking for international partners willing to adopt the IHST process to improve helicopter safety in their region. The program tracking [graphic](#) attached at the end of this newsletter shows we're trying to set up exploratory meetings in the Mid East, Far East, CIS, South Africa and Mexico. At the time of publication we plan to have an exploratory meeting at the November Dubai Helishow and at a December ICAO/COSCAP helicopter



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maintenance meeting in Moscow.

Transitions

Dave Downey, our government co-chair has moved on to new opportunity in industry, he'll be working at Bell Helicopter in their safety department. We're currently working to identify a new government co-chair for the IHST. Dave, thanks for all your efforts, we wouldn't be where we are without you.

Dr. Amy Prichett from NASA has joined the Excom. Amy brings a deep background in aviation safety and aviation research experience into the group; she is the Director of the Aviation Safety Program Office at NASA. More on Amy's experience can be found [here](#). Welcome aboard!

Since the IHST is indeed an international initiative, we have expanded the Excom to better represent the EU effort. The EU team is progressing rapidly and we felt needed more representation in the Excom. Our latest Excom organization chart is linked [here](#).

Transport Canada's Don Sherrit has requested that we find someone to take his place on the Excom. Greg Wyght from Candian Helicopter Corporation has been selected. We will be working to determine if Greg can participate as a representative of the Helicopter Association of Canada (HAC). Greg had previously worked as the US JHSIT co-chairperson.

And last, but not least, we'll be asking Laura Iseler to take an

active part in our communications needs (newsletter, web site) and to continue to assist us at the IHSS meetings every other year.

Brazil Update

By [Ana Claudia Galvão](#)

We decided in April to adopt the use of the European Spreadsheet, and after two meetings we have all JHSAT participants trained and are seeing a significant improvement in the group's productivity. (Thanks for inputs and explanations received from Marieke and from Sylvain!)

We have been alternating our meetings between São Paulo and Rio. In São Paulo we have a large helicopter fleet and in Rio a concentration of the off-shore helicopter market. We have been pushing the participants to attend meetings in both locations.

We can say today that the JHSAT group is consolidated and trained to accomplish the analysis process of the chosen set of data. Our representatives are from Air Force (Cenipa & SRPV), Off-shore operator (BHS), Helicopter Pilots Association (ABRAPHE), Helicopter Manufacturer (BELL & Eurocopter), Engine Manufacturer (Turbomeca and Rolls Royce), Helicopter Maintenance Facility (Helipark) and the Oil Company Aviation Department of Petrobrás.

We plan to request involvement from ANAC (NAA) for the JHSIT team, and we will need to present our results to others to "recruit" experts for the Brazilian JHSIT team among the helicopter operations community.

We plan to issue a preliminary report with the statistical data from the year 2000 in October 2008. Further, we plan to have a final data review and anticipate a completed JHSAT report by March '09 which will contain recommendations from 1998 to 2000 accident reports.

Update on the Progress of the European Helicopter Safety Team and the European Helicopter Safety Analysis Team

by [Alastair Healey](#) and [Michel Masson](#)

EHEST brings together helicopter manufacturers, operators, regulators, helicopter and pilots associations, research organisations, accident investigators and military operators from across Europe. EHEST addresses the broad spectrum of helicopter operations across Europe; from commercial air transport to general aviation and flight training activities. EHEST brings together



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around 130 participants, from which 70 are actively involved in EHSAT.

In 2007, the majority of EHEST's effort has been directed at the work of the EHSAT, which has the objective to determine and implement an effective method for analysis of helicopter accidents across Europe using a dedicated method adapted from the work of USJHSAT. The EHSAT process is data driven: recommendations will be developed on the basis of occurrence analyses. The scope of the EHSAT analysis are accidents (definition ICAO Annex 13) reported by the accident investigation boards, with date of occurrence starting from the year 2000 onwards and State of occurrence located in Europe. EHEST and EHSAT are committed to ensuring that the analysis carried out in Europe will be compatible with the work of the USJHSAT, so that results could be aggregated at worldwide level. To tackle the variety of languages used in accident reports and optimise the use of resources, EHSAT has established regional teams in France, Germany, UK, Italy, Spain, Switzerland, Norway, Sweden, Denmark and Finland, Ireland and Hungary, and is expanding. In addition, Poland, Romania, Latvia and Slovenia participate in the EHEST. So far the countries covered by the regional EHSAT teams account for more than 90% of the helicopters registered in Europe.

Regional teams try to present a balanced range of competences,

bringing together representatives from the national aviation authority, accident investigation board, a civil operator, a helicopter OEM / TC holder, pilot association, the general aviation community and, optionally, the Military.

The EHSAT held its 2nd 2008 meeting on 3-4 June in Madrid. The meeting was hosted by the Spanish EHSAT team and introduced by F. Soto, Secretary of the Spanish Accident Investigation Board. The objectives were to review analysis results and further standardise the approach among the regional EHSAT teams. By 22 August, more than 210 accident analyses are expected from aggregating the work of the regional teams. In parallel, the EHSAT is preparing version 2 of the analysis tool and process manual building on the teams' feedbacks and suggestions for improvement. EHSAT also discussed the possibility to adapt the taxonomy developed by the CAST/ICAO Common Taxonomy Team (CICTT) for rotorcraft. (CICTT focuses mainly on large commercial fixed wing air transport aircraft). A proposal could be sent to the CICTT for international harmonisation and for future incorporation into ECCAIRS.

The EHEST (the decision making, strategy setting and planning team) held its first 2008 meeting on 6 March to approve the work and plan of

the EHSAT and to prepare the 2008 Conference at HELITECH (see below). EHSAT and EHEST will reconvene on 23-24 and 25 September at EASA in Cologne.

Highlights

- The 2008 EHEST Conference will take place on the HELITECH site, Cascais airport near Estoril, Portugal, on 13 October (the day before the opening of HELITECH). [HELITECH](#)
 - An abstract has been submitted to the 34th European Rotorcraft Forum organised by the RAeS in Liverpool, UK, on 16-19 September. [Conference Call for Papers](#)
 - Andy Evans, Bristow Group, and Michel Masson, EASA, have been approved as industry and authority EHSAT co-chairs by the EHEST on 6 March
 - J. Vincent, EASA, John Black, EHOc, and Jean-Pierre Dedieu, Eurocopter and EHA, act as authority and industry EHEST co-chairs, pending approval by the EHEST on 25 September
- ## Next Meetings
- EHSAT #3-08 in Cologne, 23-24 September
 - EHEST #2-08 in Cologne, 25 September



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Helicopter Safety Web Sight

by: [Laura Iseler](#)

In November 2006 the US JHSAT presented a set of interim recommendations to the Excom at its Carmel, CA meeting. One of the recommendations was to "Establish a helicopter safety website to disseminate important information". As the US JHSIT, and others as they are established, move toward developing Safety Enhancement actions, we need to consider the possible avenues for them to be implemented. Certainly there will be actions taken in training, systems and equipment, maintenance and many of the traditional areas you'd expect we'd like to drive change. But how should we set the stage using some modern tools to disseminate information? What about a web site dedicated to helicopter safety?

Most helicopter safety solutions - - crashworthy devices, monitoring systems, cockpit pilot aids, training and safety management systems -- come with high price tags. Some prohibitively high. Yet one of the most effective and vital elements of the solution toolkit is also one of the most cost effective. A helicopter safety website. Sometimes all that is needed to prevent a potential accident is an "ah ha" moment. That is, finding out that something you or your colleagues tend to do while in the pilot's seat just killed 6 people or totaled a helicopter. Providing awareness of common accident causes and information on how to

avoid or mitigate these situations would be a wake-up call to many pilots and operators who think they act safely but in reality have let things slide bit by bit to the point of compromising safety.

That being said, it will take a lot of work to put a useful website together. Many years ago, I created a helicopter safety website called Safecopter at NASA. Unfortunately, before I got very far, the political winds of government funding changed, and put a halt to further development. I have been able to get Safecopter transferred to IHST and I am anxious to continue Safecopter's development under IHST's supervision. However, I need help, and lots of it from all of you.

The goal of Safecopter is to bring together all the existing helicopter safety information in one easy-to-access location. At its core, Safecopter is a searchable library of articles, books, websites, safety equipment, flight schools, training aids, and safety programs. The website would have two ways of subdividing the material into manageable chunks. One section titled 'Safety Elements' subdivides the material based on what part of the operation is involved: management, maintenance, regulations, etc.. Another section, 'Mission Safety', subdivides the material based on the mission involved. Each mission would

have information regarding accidents, literature, recommended best practices, training, safety aids, links and meetings pertinent to that mission. Both sections would include a preface or perhaps a regular column from an expert in that subject or mission.

My proposed structure outline is shown here: Fly Safe: welcome, IHST, overview, contact us
Accident Information: statistics, main causes, suggested preventions/mitigations
Safety Elements: Management, Operations, Equipment, Human Factors, Crew Support, Maintenance, Infrastructure, Regulations, Training/Education, Customer/passenger education
Mission Safety: aerial application, aerial observation, air medical, air taxi, air tour, business, ENG, external load, firefighting, herding, instruction, law enforcement, military, offshore, personal, public use, search & rescue/disaster response
Safety Resources: literature, links, safety devices, training aids, flight schools, safety programs
Activities: IHST events, classes, safety meetings

See this [link](#) for a better idea of what it might look like. Note: not all of the pages and links are active or well populated. Also note that the 'Accident Information' tab has not yet been



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incorporated. Everything is subject to change pending JHSIT feedback.

So, what I need from all of you is feedback on this concept. Does my vision of this contain the right elements? Is it missing anything? Please feel free to provide suggestions for improvements on anything including style and format. The best way to provide input regarding Safecopter is to [e-mail](#) me. The website can be a great tool, if we all pool our safety knowledge. Please help!!

Occurrence categories for helicopters

By [Marieke van Hijum](#)

Analyses currently performed by the Helicopter Safety Analysis Teams are based on Standard Problem Statements (SPS). By going through the accidents and occurrences in detail, events and causes that are considered relevant by the team are combined into SPS's.

In addition to the allocation of SPS's, the teams identified the need to also categorise the accidents at a higher level. For instance, how many controlled flights into terrain occurred, in how many cases control was lost in-flight or on the ground, or were there many occurrences related to technical failures of systems? While the SPSs give insight into the details of an accident, an occurrence

categorisation indicates the general family of accident.

This idea of using general identifiers has already a long history. The CAST/ICAO Common Taxonomy Team (CICTT) was established by ICAO and the United States Commercial Aviation Safety Team (CAST). The team was charged to develop common taxonomies and definitions for aviation accident and incident reporting systems. These taxonomies and definitions are intended to improve the aviation community's capacity to focus on common safety issues. In 2002, the CICTT completed taxonomy for occurrence categories for large commercial fixed wing aircraft occurrences. This taxonomy is now internationally accepted and is used in different accident statistics. More information on the CICTT and the occurrence categories can be found [here](#).

Many of the occurrence categories are also applicable to helicopter operations. In other areas this taxonomy is not adapted to helicopter operations. An example is accidents during external sling load operations. Another area that was identified involved collisions with obstacles during take-off and landing, for instance in confined areas. Also, no category currently covers the specific circumstances at off-aerodrome/off-helipad landings.

EHSAT has, in coordination with the US JHSAT, started to review the existing 'fixed wing taxonomy' in order to tailor this to helicopter specificities. A proposal is being drafted based on the existing categories and expanded to cover helicopter operations. This proposal will be presented to the CICTT meeting in Cologne, Germany, end of July. The next step will be to validate the developed categories using accident data.

The development of helicopter occurrence categories will be a powerful tool to assist the IHST in grouping the occurrences for analysis purposes, measuring results and focusing on specific safety issues. International cooperation and standardisation on this issue is essential.

Regional Process Tracking

The Excom is using this [chart](#) to track the progress of our regional partners. Key process steps are noted in the green circles, the approximate implementation date for each program element is noted by region in the chart.

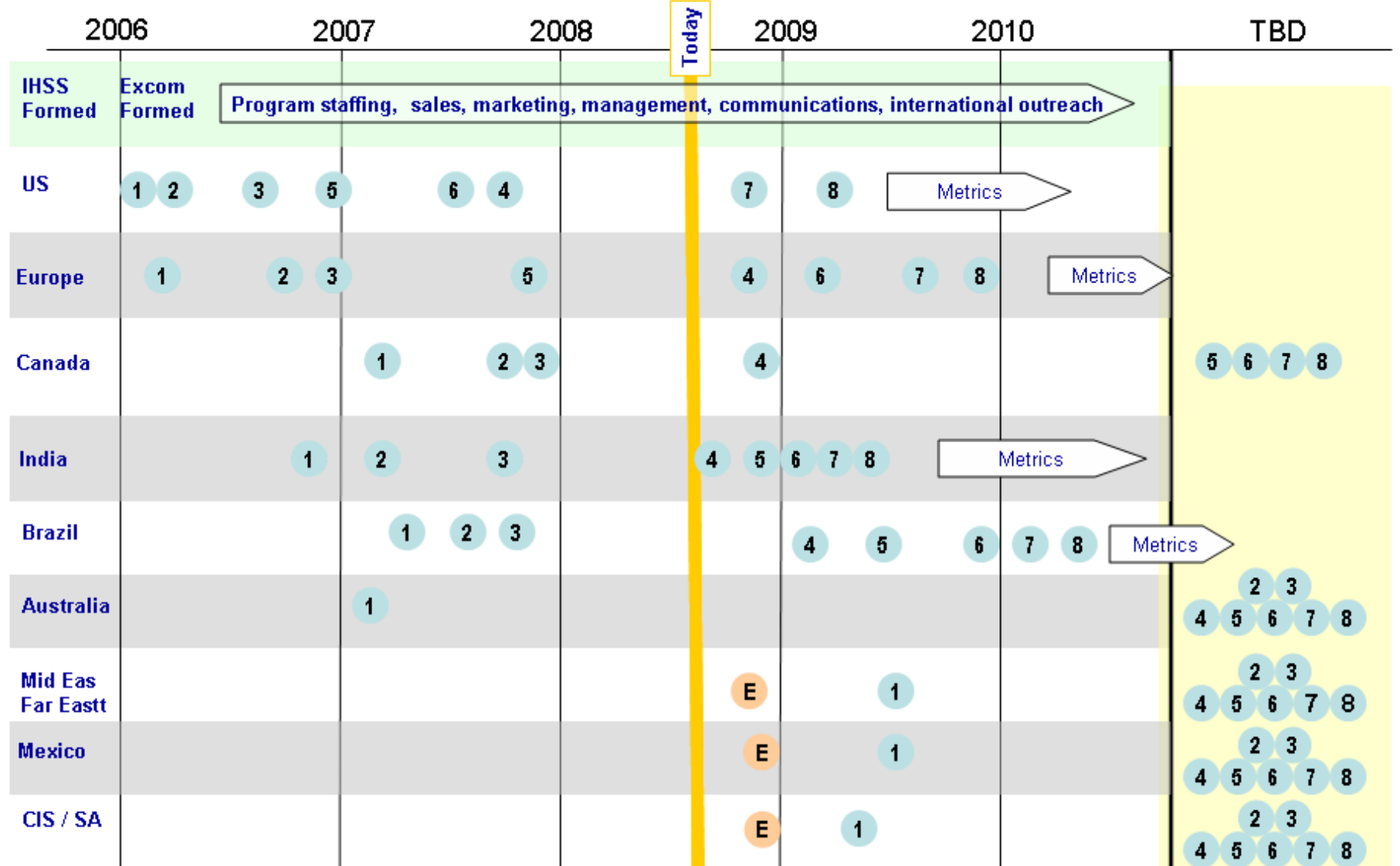


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Abbreviations:

AHS – American Helicopter Society
ANAC - Agência Nacional de Aviação Civil (Brazil)
CAST – Commercial Aviation Safety Team
CENIPA - Centro de Investigação e Prevenção de Acidentes Aeronáuticos (Brazil)
CICTT - CAST/ICAO Common Taxonomy Team
COSCAP - Cooperative Development of Operational Safety and Continuing Airworthiness Project
EASA – European Aviation Safety Agency
EHA – European Helicopter Association
EHEST – European Helicopter Safety Team
EHOA – European Helicopter Operators Committee
EHSAT – European Helicopter Safety Analysis Team
FSDO – Flight Standards District Office (FAA)
HAI – Helicopter Association International
HEMS – Helicopter Emergency Medical Service
ICAO – International Civil Aviation Organization
IHST – International Helicopter Safety Team
JHSAT - Joint Helicopter Safety Analysis Team
JHSIT – Joint Helicopter Safety Implementation Team
NASA – National Aeronautics and Space Administration
OEM - Original Equipment Manufacturer
RAeS – Royal Aeronautical Society
SPS – Standard Problem Statement
TC – Type Certificate

IHST Program - Regional Process Tracking



- Key:**
- 1 Regional Kickoff Meeting
 - 4 JHSAT Report Complete
 - 7 JHSIT SEs complete
 - 2 JHSAT Team Formed
 - 5 JHSIT Formed
 - 8 JHSIT DIPs complete
 - 3 Accident Dataset Established
 - 6 JHSIT Process Refined
 - E Regional "exploratory" mtg

IHST Organization Chart

Executive Committee

