



Flysikkerhetsforum for operatører  
av innenlands helikoptre

# **The Norwegian Helicopter Safety Study – Inland Operations**

EASA 7th Rotorcraft Symposium  
December 5th 2013



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# I will talk about:

- Accident statistics – Norwegian inland helicopter operations.
- The Committee for Helicopter Safety - Inland Operations (FsF, ref logo above).
- The Helicopter Safety Study – Inland Operations
  - Summary
  - Main conclusions and recommendations
  - Approach to follow-up work



## Statistics.

- **1994-2003**
- Airlines:
  - 10 accidents, no fatalities.
  - 2,5 mill flight hours
  - Accident rate 0,41
- Offshore:
  - 3 accidents, 1 fatal (Norne 1997)
  - 420.000 flight hours
  - Accident rate 0,72
- **Inland helicopters:**
  - **31 accidents, 5 fatal**
  - **240.000 flight hours**
  - **Accident rate 12,9**
- **2004-2012**
- Airlines:
  - 7 accidents, no fatalities
  - 2,3 mill flight hours
  - Accident rate 0,31
- Offshore:
  - 0 accidents, 0 fatal
  - 380.000 flight hours
  - Accident rate 0,0
- **Inland helicopters:**
  - **27 accidents, 6 fatal**
  - **240.000 flight hours**
  - **Accident rate 11.2**



# Inland helicopter

- Considerable increase in activity.
- 50 000+ flight hours/year (almost equal to offshore).
- Many small and medium operators.
- Many pilots with low experience level.
- Many helicopter types with different performance and suitability.



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# Establishment of Inland Committee

- FsF established May 2009.
- Meets 3-4 times per year, two day meetings.
- Meets primarily in the period Sept-May to avoid the main helicopter season.
- N-CAA covers all meeting expenses for the members.



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# Important!

- Vital conditions for the Committee:
  - Political support (MOT)
  - Authority support (N-CAA)



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# Members

- The Committee is lead by the N-CAA, but is independent (reports directly to the Ministry of Transport).
- All inland helicopter AOC-holders are invited as members, including Police and Air Ambulance.
- One representative for the PPL-H environment.



# Mandate

- The Committee shall work for a substantial improvement of flight safety for inland helicopters, with zero accidents as a goal.
- The Committee shall be an influencing factor towards the authorities and the operators. The Committee shall raise questions and problems related to flight safety and come up with recommendations for improvement.
- The Committee shall, in addition to working on a national level, cooperate with international organizations working with helicopter safety.



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# Helicopter Safety study – Inland Operations



**SIKKERHETS-  
STUDIE  
INNLANDS  
HELIKOPTER**

**SAFETEC**



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# Helicopter Safety study – Inland Operations

- Ministry of Transport financed a Safety Study for Inland Helicopters in 2011.
- Based on experiences with offshore studies.
- Study performed by **SAFETEC**.
- Finished February 2013.
- Further work with the recommendations is lead by the Committee for Helicopter Safety – Inland Operations.



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# Summary

- The number of Aerial Work related accidents in inland operations have been unchanged for the period 2005-2011.
- The development is still disturbing because the number of fatal accidents has increased.



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# Summary

- Highest probability for fatal accidents:
  - Pax (A to B)
  - A to A
  - Survey flights
  - Ferry flights
  - Private flights
  - Foreign operators
- These are the types of operations which the industry consider has the least risk.
- These are the types of operations which is flown by the pilots with least/minimum experience.



# Summary

- The following conditions increase the probability for an incident to end up as an accident:
  - Weather
  - Lack of planning
  - Loss of control
  - Pilot age
  - Pilot experience (less than 1000 fl.hrs or more than 5000)
  - Operator (private, operators without AOC, small Aerial Work operators)



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# Summary

- The majority of the Aerial Work-operators have had a negative financial result the last 5 years.
- In spite of repeated loss, the industry is fed new capital.
- Investment based on
  - expectations of increased requirement for helicopter services
  - a profitable market for purchase and sale of helicopters.



# Summary

- Among customers/users of helicopter services, price is the primary criteria for selection of operator.
- This is also true for companies where the Government is main shareholder, and public agencies.
- Pushed prices causes cut in cost and reduced flight safety work.
- Cut in cost, in particular within filming and reindeer herding, is stimulated by:
  - Competition from private pilots without any commercial approval
  - Extended use of foreign operators with different framework and lower operating costs



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# Summary

- In 2013 we can expect:
  - 2 accidents
  - 55% chance for fatalities





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# Summary

- After 2013 we can expect an increase in the number of accidents and the chance for fatalities unless measures are implemented.
- Safetec has made 41 recommendations with various effect.



# Recommendations

- The most effectful recommendations are:
  1. Adjustment of regulations to suit helicopter inland operations.
  2. Strengthened supervision and audits.
  3. Increased control of foreign operators.
  4. Increased control of private pilots.
  5. Increased requirements for AOC and Aerial Work permits.
  6. Establishments of a branch union.
  7. Tender criteria must focus on safety – not on price.
  8. Professionalization of the customers/users.



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# Committee work in progress...

- Close recommendations from the Helicopter Safety Study – Inland Operations:
  - Freelance pilots (participation in all safety work, minimum a days payment)
  - Safety related equipment in helicopters
  - Safety Guide in all companies
  - Increased training (simulator)
  - Increased financial audits and improved competence for CAA inspectors
  - Required power reserve in all inland operations (10%)
  - Involve the insurance business in safety work.
  - Get approval for mission related training (flight schools and management)
  - System for GPS marking of obstacles



# Committee work in progress...

- Spreading the word (hand out) about «The Power Industry Recommendations for use of Helicopters»
  - Tender focus on other issues than price
  - Professionalization of the customers/users
  - Committee decisions/agreements must be more binding for the committee members and respected by the customers
  - A committee standard for mission specific training and competence for pilots and crew members.



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We see that the work of the inland committee improve safety, and we hope to avoid some of these in the future...

