Avalanche burials in France
equipement, rescuers, localization and duration
Avalanche fatal accidents and fatalities since 1971 in France:

- **Avalanche burials in France**

- **ICAR 2013 – Bol - Croatia**

**42 years average:** 21 fatal accidents / 30 fatalities

**Last 10 years average:** 23/31
Avalanche burials in France

ICAR 2013 – Bol - Croatia

Distribution / activities – 2001-2011

95% of avalanche fatal accidents during recreational activities
85% of fatal accidents during backcountry or off-piste activities
Avalanche burials in France

ICAR 2013 – Bol - Croatia

Evolution / Equipment – fully buried – **backcountry activities**

- **skitouring: well equipped with avalanche transceivers**
  - 1991-2001: 49% with transceiver or Recco, 51% no elec equipt
  - 2001-2011: 81% with transceiver or Recco, 19% no elec equipt

n= 124

n= 158
Avalanche burials in France

Evolution / Equipment – fully buried – off-piste activities

- 1991-2001:
  - n=104
  - 40% with transceiver or Recco
  - 60% no elec equipt

- 2001-2011:
  - n=150
  - 51% with transceiver or Recco
  - 49% no elec equipt

ICAR 2013 – Bol - Croatia

Off-piste activities: improve messages towards freeskiers
Avalanche burials in France

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Evolution / Equipment – fully buried – mountaineering activities

Mountaineering activities: improve messages towards alpinists

- 1991-2001:
  - 30% with transceiver or Recco
  - 70% no elec equipt

- 2001-2011:
  - 45% with transceiver or Recco
  - 55% no elec equipt

n= 23

n= 20
Avalanche burials in France

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Distribution / Rescuers – fully buried – 2001-2011

Backcountry: skitourers save their companions
Off-piste: still depend on the ski patrollers
Mountaineering: totally depend on mountain rescuers

<table>
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<tr>
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<th>Companions</th>
<th>Professional Rescuers</th>
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<tbody>
<tr>
<td>Backcountry</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Off Piste</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Mountaineering</td>
<td>0%</td>
<td>100%</td>
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</tbody>
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n= 150

n= 20
Avalanche burials in France

ICAR 2013 – Bol - Croatia

Distribution / Localization-Rescuers – fully buried – **Backcountry** – 2001-2011

Skitourers mainly found with avalanche transceivers, by companions or rescuers.

- **Transceiver**: 94% (94% for professional rescuers, 94% for companions)
  - Professional rescuers: 59%
  - Companions: 94%

- **Probing**: 18% (18% for professional rescuers, 5% for companions)
  - Professional rescuers: 18%
  - Companions: 5%

- **Dog**: 21% (21% for professional rescuers, 5% for companions)
  - Professional rescuers: 21%
  - Companions: 5%

- **Skitourers**: mainly found with avalanche transceivers, by companions or rescuers.
Freeriders still localized with classical means, Recco or transceivers, mostly by rescuers.
Median burial duration – fully buried – 2001-2011

Backcountry activities (n= 158)

- with electronic devices (81%) 0h30
- without electronic devices (19%) 1h55

Off-piste activities (n=150)

- with electronic devices (51%) 0h25
- without electronic devices (49%) 1h10

Median burial duration – fully buried – means of localization – 2001-2011 - Switzerland

Skitouring (n=175) Off-piste activities (n=102)

- Transceiver (77%) 0h20 Transceiver (59%) 0h30
- Other means (23%) 2h00 Other means (41%) 1h05
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discussion:

- Carrying an electronic device for localization increase the survival chances AND shorten the duration of rescue operations.

- Past efforts in prevention for the equipment of skitourers with electronic devices seem to have paid. The vast majority of buried victims are equipped. For this majority, the mean of burial duration is around 30 minutes. The proportion of rescue operations that not last for hours is higher.

- Freeriders, snowshoers and mountaineers still not well equipped. A majority of off-piste buried victims are not equipped. For this majority, the mean of burial duration is around 1 hour. The proportion of rescue operations that last for hours and that need many rescuers on site is higher.

- Prevention efforts must continue towards freeriders, snowshoers and mountaineers in order to see the rate of equipment increase for this categories.
Thank you for your attention. Any questions?