



FOCA recommendations

Dealing with parachute systems for on-site rescue crews

Safety Officer Christian Hanke





happy

Pilot Perspektive



Solid Propellant Rocket Motor

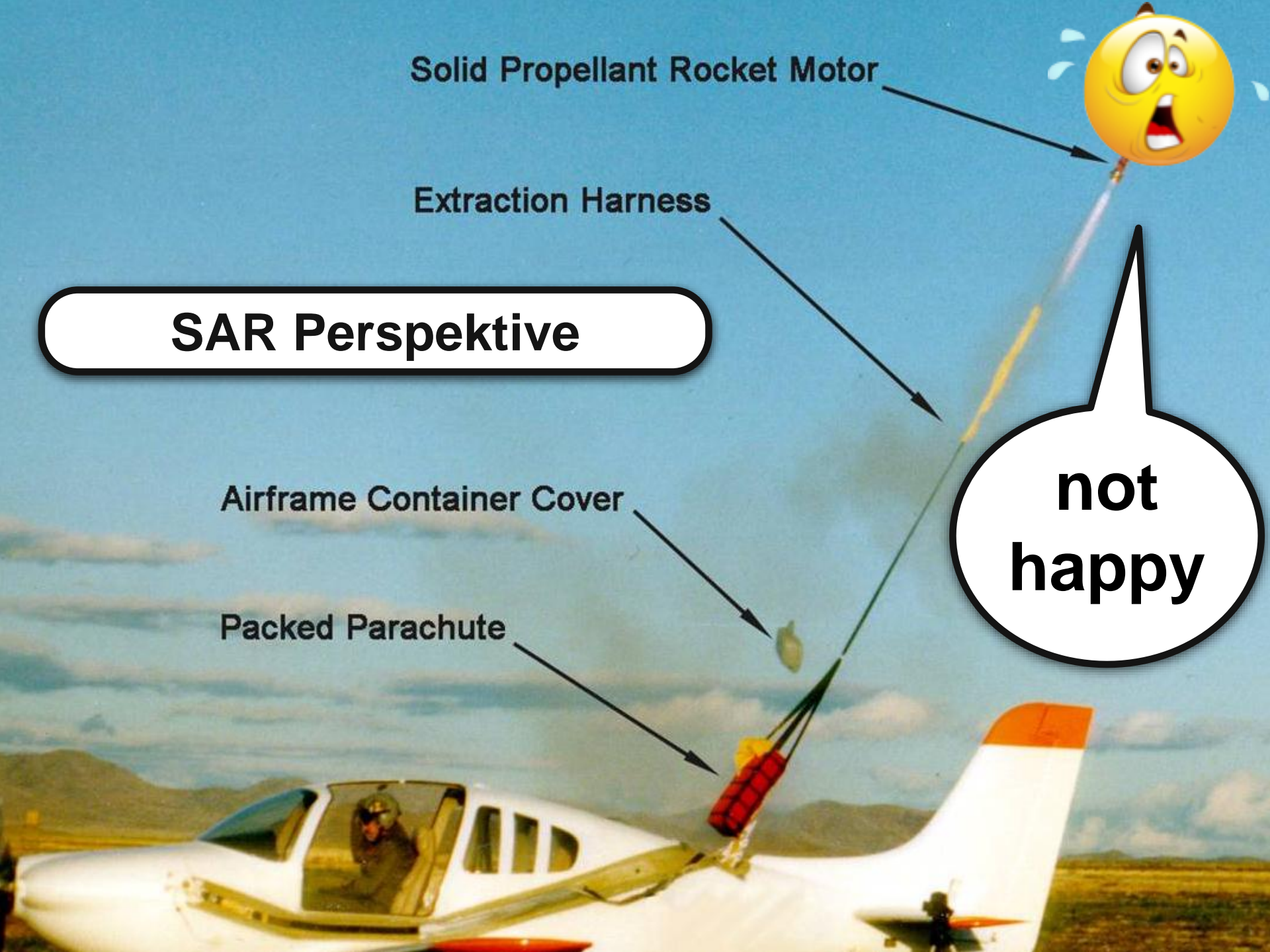
Extraction Harness

SAR Perspektive

Airframe Container Cover

Packed Parachute

**not
happy**





Dangers and problems



... be aware of the risk to third parties by the trip of a missile system ...

The danger for rescue teams, which may emanate from such systems can be shown with Youtube Videos:

<https://www.youtube.com/watch?v=iUotMzNUzuw>

https://www.youtube.com/watch?v=mq2D4Y_WPfs

<https://www.youtube.com/watch?v=b6K-PiOQ984>





Dangers and problems



- An ever increasing number of aircraft owners have a ballistic parachute system installed. In view of this it has to be assumed that a ballistic parachute system has been installed in every light aircraft that has crashed, regardless of the type, and that an unexploded charge could be detonated.
- It is difficult to determine from the exterior whether an aircraft is equipped with a ballistic parachute system, so always assume that one could have been installed.
- In the event of a fire, the risk of explosion increases due to the fact that the rocket motor heats up.
- It is not only crashed aircraft that can represent such a hazard, but also fires in the vicinity of airport buildings (hangars).
- Not every airport/airfield is necessary aware how many light aircraft equipped with ballistic parachute systems are parked or kept there.



How Do I determine whether an aircraft is equipped?



- If a light aircraft is equipped with a ballistic parachute system, a corresponding warning sign is located on the fuselage.
- However, these symbols or labels are relatively small, and depending on the location of the wreckage they may be difficult to identify. Other warnings can also be found inside the aircraft.
- In most aircraft types, the ballistic parachute system is installed behind the passenger and baggage cabin.
- In some cases a cladding in this part of the aircraft can be identified from the exterior (e.g. from above or from the side), but it is also possible that the cladding has been painted over and is therefore not visible.



Actions



... define and create a reasonable and functional checklist FOCA

... starting a Stay Safe campaign on the Internet (Facebook)

... update and renew the publications on the FOCA Website and the affected AIP

... address and discuss security deficits in international working groups (Certification Standards)



Recommendations for on-site rescue crews

- Specify and install a sufficiently large safety zone around the site.
- Whenever possible, approach the aircraft from the front.
- Only those persons who are directly involved in the rescue operation may remain in the vicinity of the aircraft.
- Pieces of wreckage may not be moved or taken away unless the Accident Investigation Bureau personnel issue instructions to do so.
- For the choice of location from which the rescue crews are to carry out their work, the possible direction of ejection of the ballistic parachute has to be taken into account.
- Do not pull out or separate any cables or installations! No manipulations may be made to any installations or the aircraft itself.
- When removing people from the wreckage, take special care to avoid any items hanging out of the cockpit.





Recommendations for on-site rescue crews

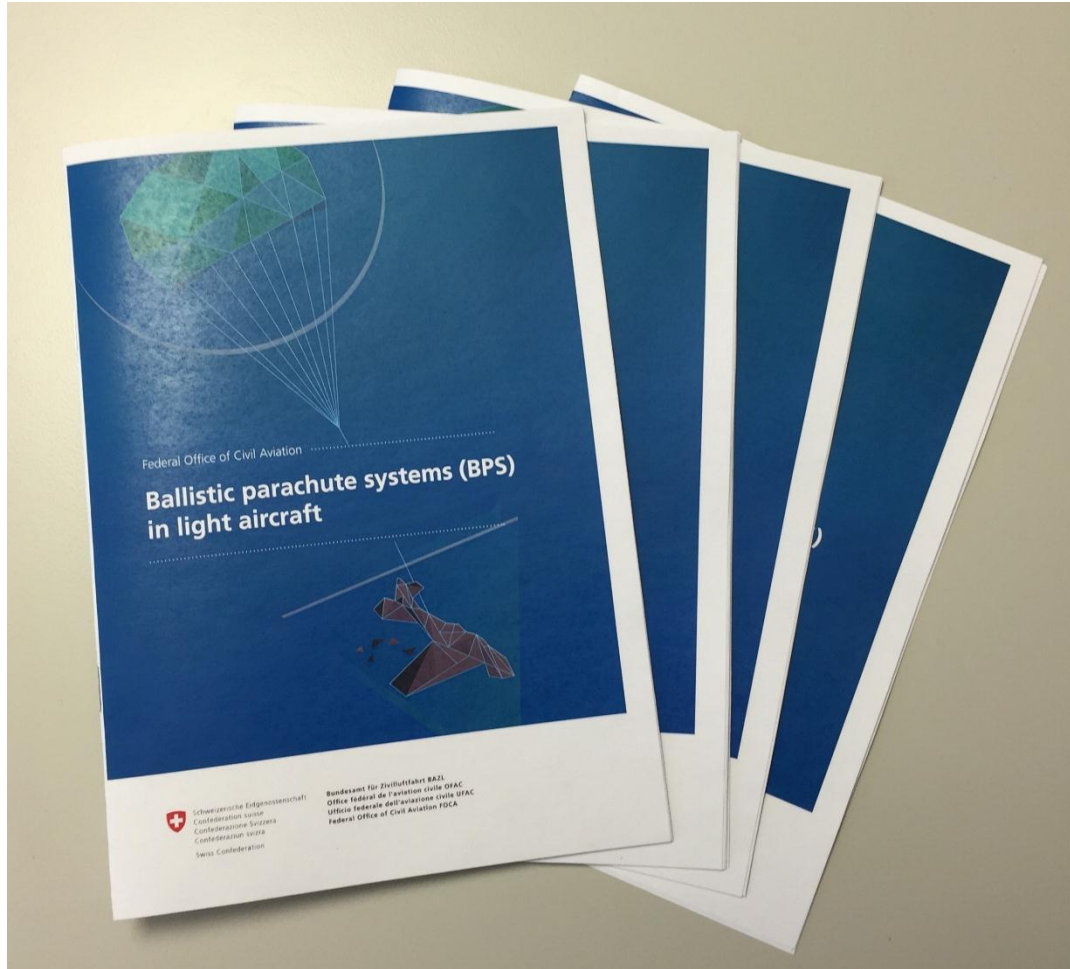


... use a checklist:

- Determine whether the aircraft is equipped with a ballistic parachute system: look for warning symbols and signs on the body of the aircraft.
- Determine where the detonation mechanism, parachute and ejection aperture are located (look for warning symbols and signs).
- Set up a safety zone: Cone-shaped zone with a length of at least 100 metres and a width of at least 30 metres (at the far end).
- Contact an Accident Investigation Bureau official via the REGA emergency number (1414).
- Request the deployment of an explosives removal team.



Leaflet in English, German, French, Italian





Links / Questions

Links BAZL:

further Information:

<http://www.bazl.admin.ch/dienstleistungen/03878/index.html?lang=de>

allgemeine Fragen:

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Safety Officer Safety Division Aircraft: christian.hanke@bazl.admin.ch

Emergency Phone:

REGA: call 1414

Sources

Referenz Schlussbericht Nr. 2148

der Schweizerischen Unfalluntersuchungsstelle SUST sust.admin.ch

Wenn Fallschirme töten anstatt Leben zu retten swissfire.ch

Gefahren bei Rettungsarbeiten nach Unfällen mit Kleinflugzeugen police.be.ch Kriminalabteilung

Bilder bGg / NASA / Bernhard Baur

Film Internet Youtube

