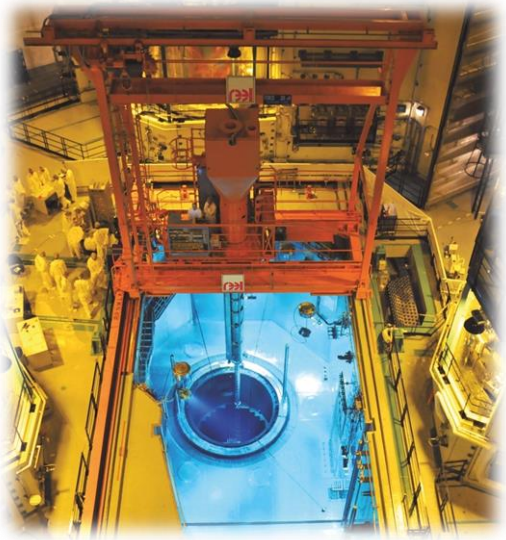
HANDLING AND LIFTING SYSTEMS

10th Rotorcraft Symposium

EASA
European Aviation Safety Agency

70 years of expertise

in critical lifting and handling equipment :



Nuclear

REEL is supplier of complete Fuel handling Systems for nuclear plant

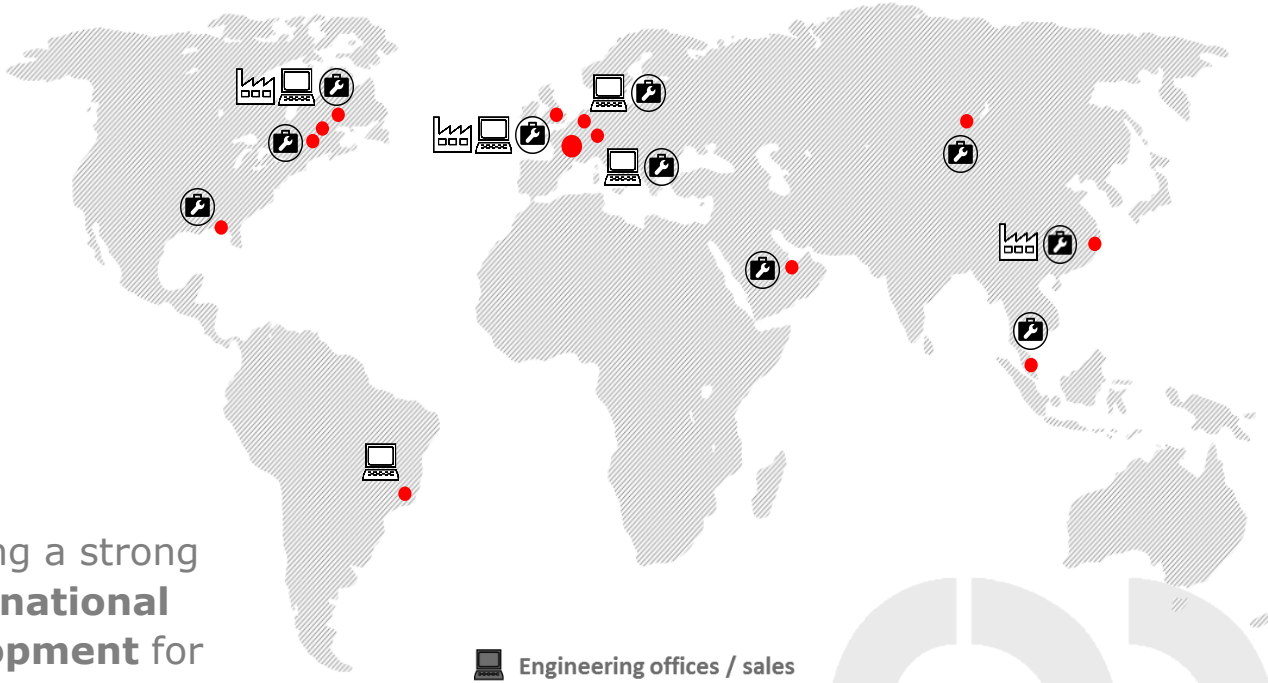
Aeronautics

Ground equipment for Constructors FAL and airline companies

Defense

Strong involvement in the nuclear missile programs

REEL, an independent company employing 2000 people

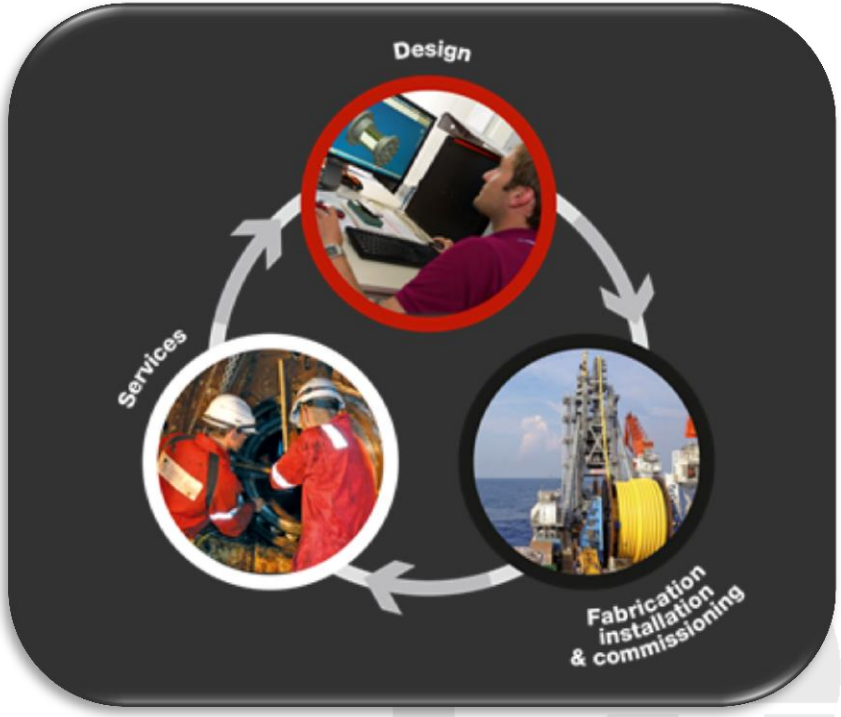


Enjoying a strong **international development** for the last 25 years.

REEL, a completely integrated company

With a strong Experience sharing with the users

Amongst our maintenance teams, our design offices and users for constant improvement of our equipment.



REEL, has decided to start a new business unit :

“Airborne products”

With a first development into human external cargo hoist under the trademark :

Helisar

A LINK TO RESCUE THE WORLD

REEL methodology, place users at the heart of development

- Exchange with users to understand operational constraints and expectations

- Transcription of REEL design expertise for safety into airborne context

➢ **Our analysis leads us to focus onto the following topics to ensure safety of operations :**

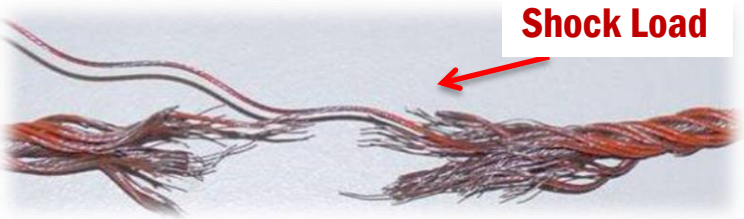
Hoisting Cable recommendation

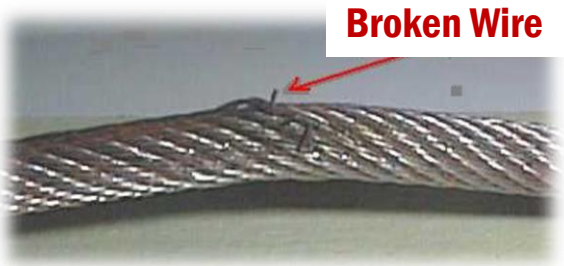
- Avoid numbers of existing phenomena that occurs during hoisting missions

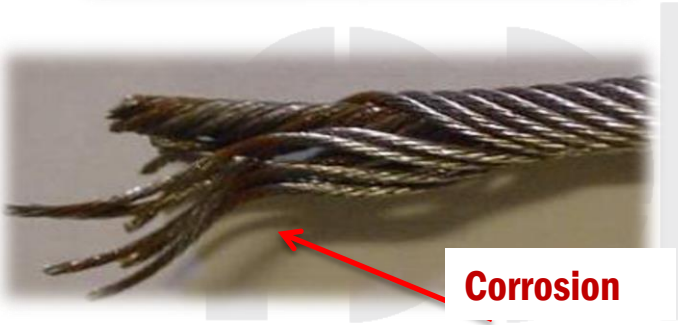
- Increase the strength of the cable to improve safety

Our actions :

- Upgrade the cable and design a associated lifting solution to reduce wear and increase lifetime of the cable.







Operational safety recommendation

- Avoid risks of overload and entanglement during hoisting operation

- Ensure ESD protection of Hoistman, Rescuer and personal on ground

Our actions :

- Design a Safe and accurate overload detection system

- Propose a combined design solution with new operational procedure to avoid static discharge

Maintenance recommendation for safety

- Define a program to minimize risks of human error during maintenance tasks to ensure safety (No adjustments, easy inspection,…)

- Provide the ability to retrieve on ground as much information as possible from mission data

Our actions :

- Design a system to minimize complex maintenance tasks
- Ensure a training program dedicated to maintenance operator
- Provide an efficient ground support equipment

New regulation recommendation

- There is a process to define new standards :
  - AS6342 - Minimum Operation Performance Standard for Helicopter Hoist. With support of EASA, FAA and hoisting specialists (Helicopter and hoist manufacturers + Operators)
  - TSO and ETSO for hoist will be published by regulation authorities.

Our actions :

- Contribute to this regulation
- Take into account these new requirements in our design

Conclusion

- Hoisting missions have changed :

  Huge frequency of operation and diversity of new hoisting application (Harbor pilot, windfarm, …)

- The hoist community is working to answer to this change.

↳ REEL wants to be part of this future by providing a new conception of the helicopter hoist :