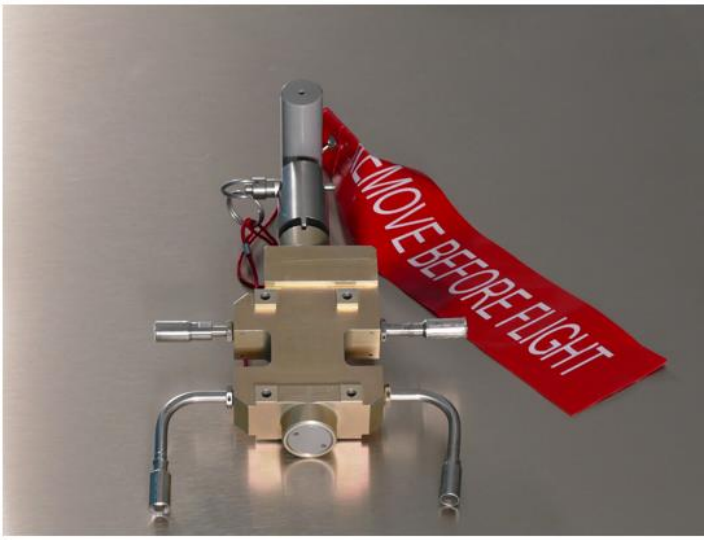
pyroalliance
arianeGROUP



AERONAUTICS - *CIVIL*

FLIGHT TERMINATION SYSTEMS (FTS) FOR AIRCRAFT

Pyroalliance designs and manufactures pyrotechnic systems involved in different kinds of actuations for aerospace applications. A typical application is the flight termination function requested for several kinds of aircraft, from test planes to stratospheric balloons.

The overall dimensions as well as the nature of the structures to be severed to terminate the flight can be very heterogeneous and our solution is then customized depending on the requirements. We rely on a large portfolio of severance solutions to elaborate the appropriate design and optimize the performance while limiting weight and size of the embarked equipment.

More generally, Pyroalliance delivers complete pyrotechnic chains adapted to its customers' needs. They are designed and manufactured under Pyroalliance design authority.

FTS FOR AIRCRAFT

Operating mode

Pyrotechnic devices enable the implementation of specific systems on various aircraft to be activated in case of emergency. Specifically customized systems allows in particular the flight termination.

A Flight Termination System is made of a chain of components designed and assembled to operate a termination sequence. It is typically made of an electro-pyro initiator in a Safe & Arm Device, a pyrotechnic line (if necessary) and a charge.

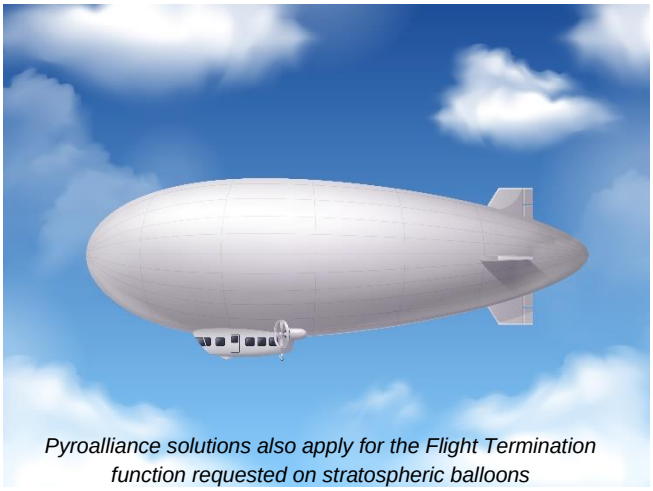
The initiator embarked on the aircraft will receive the flight termination order from the ground and transmit it to the Safe & Arm Device that will convert it into a detonation activating a linear shaped charge or possibly another form of charge designed to severe the body of the aircraft.

Benefits

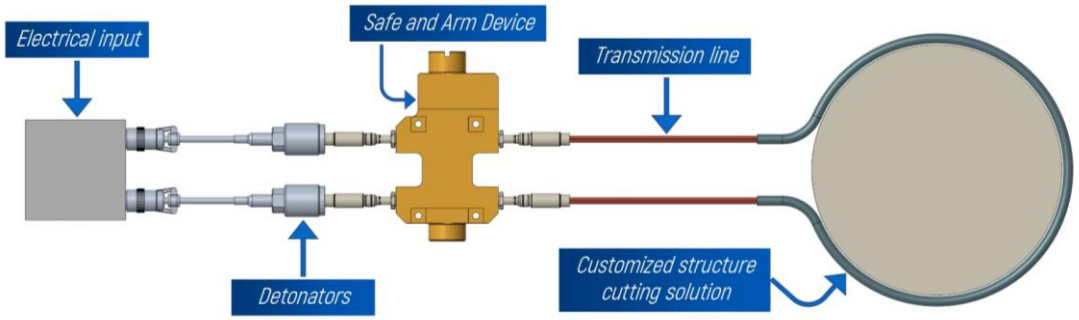
- Functioning time of such equipment is extremely short, thus perfectly fitted for the responsiveness expected from a Flight Termination function
- Redundancy and physical separation of two distinct initiation chains usually contribute to the extreme reliability of function
- Appropriate pyrotechnic components are selected to meet the environment constraints – especially temperatures – associated to the mission profile of the considered aircraft
- Such system is energetically autonomous. Its integration and check are very easy and no maintenance is required

Typical performances and features

Operating time	<<1 second
Size, Weight and Power (SWaP)	SWaP adapted to the mission
Temperatures	Adapted to typical airborne military climatic environment
Reliability	Very high
Life Time	Adapted to the mission and life profile
Triggering input	Electrical signal



Pyroalliance solutions also apply for the Flight Termination function requested on stratospheric balloons



CLASSIFICATION

Transport regulation:

- UN Number : UN 0349
- Proper shipping name : Explosive Devices
- Division : 1.1
- Compatibility group : D

Not restricted by ITAR regulation

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Produced by the Communication Department of Pyroalliance
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