Every day missions are at stake, lives must be protected and personnel must come home. Range Commander Council RCC-319 provides for the safety of people and missions during flight operations. In the event of an errant flight, a Flight Termination System (FTS) renders each power stage and/or propulsion system non-propulsive.

**WHY FLIGHT TERMINATION SYSTEMS?**

- Redundancy
- Physical separation of redundant strings
- Independence from other vehicle systems
- Inadvertent separation destruct system when applicable
- Both engine shutdown and destruct capability when needed
- Reliability > 0.999 @ 95% confidence

**OUR FLIGHT TERMINATION SYSTEMS INCLUDE:**
FLIGHT TERMINATION SYSTEMS

**TERMINOLOGY**

- AUTONOMOUS FLIGHT TERMINATION UNIT (AFTU)
- EXPLODING FOIL INITIATOR (EFI)
- EXPLOSIVE TRANSFER LINE (ETL)
- FLIGHT TERMINATION RECEIVER (FTR)
- LIQUID OXYGEN (LOX)

**KEY**

- **DESTRUCT CHARGE (DC)**
- **ELECTRONIC SAFE & ARM DEVICE (ESAD)**
- **LANYARD PULL INITIATOR (LPI)**

**PYRO VALVE (OPTIONAL FOR LIQUID STAGES)**
FLIGHT TERMINATION SYSTEM COMPONENTS

**INITIATE**
- Electronic High Voltage
  - ESADs
    - Tactical ESAD (arm after first motion)
    - Launch Vehicle ESAD (arm prior to first motion)
  - Exploding Foil Initiator & Flex
- Laser Optical
  - Laser Firing Unit (LFU)
  - Fiber Optic Cable (FOC)
  - Laser Detonator
- Mechanical Low Voltage
  - Arm/Disarm Switch
  - Lanyard Pull Initiator
  - Mechanical S&A
  - Percussion Initiated Device (PID)
  - Low Voltage Initiator (LVI)

**TERMINATE**
- Explosive Transfer System
  - Manifolds
  - SMDC
  - FDC
  - FCDC
- Misc. CAD/PAD
  - Explosive Transfer Lines
  - Cutters
  - Valves
  - Time Delays
- Destruct Charge
  - Linear Shaped Charge
  - Bulk Destruct Charge EFP/Conical
From concept development through qualification, we partner with you to provide an FTS solution that best fits your needs. Teaming with you while presenting your system solution to Range Safety, we ensure flight certification.

We leverage our flight heritage offering a low risk, best value solution; an FTS which is safe, qualified and functions on command, when commanded. From off the shelf to custom designed solutions, your success is our mission.

WE KNOW RANGE SAFETY.