For more than 50 years, L3Harris has specialized in optics technology, integration, and testing services for the world’s most sophisticated Earth and space observation systems.

**WHAT**
- Leverage advanced mirror production processes such as replication, construction, and additive manufacturing for rapid, affordable mirror production
- Utilize new, advanced materials such as composites for mirror optimization
- Achieve high precision optical surfaces through advanced deterministic finishing processes

**HOW**
- L3Harris advanced mirror construction strategy targets technologies that drive schedule, cost, and weight for space-based mirrors
  - Mirror replication
  - Mirror material and structure optimization
  - Advanced bonding

**WHY**
- Customer-driven space resiliency demands rapid imaging capability deployment
- New approaches to produce optical components faster and lighter with lower cost are desired

**TODAY’S CHALLENGES**
- Traditional space-based mirror processes drive system schedule
- System launch requirements limit conventional mirror light weighting
- Traditional approaches are costly

**OPTICS TECHNOLOGY PROGRESS | 1970S - PRESENT**

**1970**
- Ultra Low Expansion Glass

**1980**
- Ion Beam Figuring

**1990**
- Abrasive Waterjet (LTF)

**2000**
- Segmented Core (LTF)

**2010**
- Ultra-LT(LTF/LT)

**2020**
- Magneto-Rheological Finishing (MRF™)
- Replication/Construction
- Advanced Materials - Complexes

**L3Harris’ innovative manufacturing technologies meet demanding quality requirements and offer faster production of lighter weight optics to respond to our customers’ challenging costs and schedule needs.**