Case Study: Defense Technology Leader

REO provided a technical and collaborative approach to design and manufacture a state of the art laser range receiver for a global defense technology leader.

As a leader in the global aerospace and defense markets, this company is challenged to deliver flawless performance and provide solutions that are more effective and affordable than other global defense companies. Their internal engineering and design team developed some initial units of an improved laser range receiver to provide enhanced performance for targeting systems. Suppliers invited to bid on manufacturing the improved design were evaluated by their ability to provide technical insight, a short production time, and cost at the target price.

The Challenge: The improved laser range receiver incorporates 12 demanding optical components which need to be precisely assembled. REO was challenged to produce this critical optical assembly that met all system level performance specifications and stay within the required delivery timeline and cost.

The solution: REO’s engineers partnered with the customer’s engineering and design team to modify the balance of component and assembly level specifications. Utilizing our optical and mechanical engineering expertise combined with 20 years of component and assembly experience, we were able to develop alternative component and assembly tolerance allocations to drive out cost, enhance performance and facilitate manufacturability. REO’s ability to fabricate and coat both reflective and refractive optical components, including off-axis parabolic (OAP) mirrors, freed the customer from the hassle of dealing with multiple suppliers. REO served as the single point of contact for all 12 components that were completely aligned and assembled at the REO facility.

REO is a very engineering driven organization and proved to be an ideal match for this defense technology leader. The customer was constantly informed of any challenges that could result in schedule delays or required design changes. The combined expertise of the two companies resulted in a laser range receiver with superior performance. Going forward, REO is committed to continue to work to drive down the production cost, enhance performance and meet demanding production schedules.