STATE OF CALIFORNIA

ETP

EMPLOYMENT TRAINING PANEL

Training Proposal for:

Space Systems/Loral, LLC

Agreement Number: ET15-0301

Panel Meeting of: November 14, 2014

ETP Regional Office: San Francisco Bay Area   **Analyst:** L. Lai

PROJECT PROFILE

Contract Attributes:	Retrainee Priority Rate		Industry Sector(s):	Manufacturing
				Priority Industry: ☒ Yes ☐ No
Counties Served:	Santa Clara		Repeat Contractor:	☒ Yes ☐ No
Union(s):	☐ Yes ☒ No			
Number of Employees in:	CA: 2,800	U.S.: 2,856		Worldwide: 4,800
Turnover Rate:	3%			
Managers/Supervisors: (% of total trainees)	6%			

FUNDING DETAIL

Program Costs	-	(Substantial Contribution)	(High Earner Reduction)	=	Total ETP Funding
$421,200		$0	$0		$421,200

In-Kind Contribution:	100% of Total ETP Funding Required	$1,800,000

TRAINING PLAN TABLE

Job No.	Job Description	Type of Training	Estimated No. of Trainees	Range of Hours Class / Lab	Range of Hours CBT	Average Cost per Trainee	Post-Retention Wage
1	Retrainee Priority Rate	Business Skills, Computer Skills, Cont. Improv., Mfg. Skills	650	8 - 200	0	$648	$16.25
				Weighted Avg: 36			

Minimum Wage by County: $16.25 per hour for Santa Clara County

Health Benefits: ☒ Yes ☐ No   This is employer share of cost for healthcare premiums – medical, dental, vision.

Used to meet the Post-Retention Wage?: ☐ Yes ☒ No ☐ Maybe

Although employer provides health benefits, they are not being used to meet Post-Retention Wage.

Wage Range by Occupation		
Occupation Titles	Wage Range	Estimated # of Trainees
Technical Support I (Lab Tech, Assembly Tech, Planner, Machinist, Checker, Associates, Engineer Assistant)		177
Technical Support II (Lab Tech, Assembly Tech, Planner, Machinist, Checker, Associates, Engineer Assistant)		136
Administrative I (Designer, Clerk, Purchasing, Contracts, Program Planning, Analyst, Accounting, Buyer)		29
Administrative II (Designer, Clerk, Purchasing, Contracts, Program Planning, Analyst, Accounting, Buyer)		26
Engineer I		134
Engineer II		111
Supervisor/Manager I		24
Supervisor/Manager II		13

INTRODUCTION

This is a repeat single-employer contractor. However, because the Application for Funding had been submitted by September 19, the date on which the Panel established a preference for first-time single employers, this proposal was allowed to move forward.

Space Systems/Loral, LLC (SSL) is a subsidiary of Macdonald, Dettwiler and Associates Ltd. The Company is located in Palo Alto and currently employs 2,800. SSL designs, builds and tests satellites, subsystems and payload; provides orbital testing; procures insurance and launch services and manages mission operations from Palo Alto's Mission Control Center.

SSL has both commercial and governmental customers whose applications include fixed satellite services, broadband digital communications, wireless telephony, direct-to-home television broadcast, video and radio broadcasting, environmental monitoring, and air traffic control.

PROJECT DETAILS

SSL is in a highly competitive and specialized market as each satellite is designed and built specifically for each customer. To be competitive, the Company must provide leading-edge satellite applications and respond to customers in an efficient and cost effective manner. Sales are projected to be flat for the next several years while net profit is projected to drop by 20% due to increased competition. To maintain current market shares while sales are flat, SSL determined that an immediate focus on improved cost reduction and quality improvement programs is critical for the following reasons:

➢ Change in market - from customers to competitors: Foreign and domestic competitors are cutting prices to below cost. SSL has to reduce costs to maintain current customers and to gain any new accounts. The low cost bids are making the business less profitable. Customers are now competitors and are now offering similar services as SSL. Foreign competitors include Thales (France), various Chinese state run agencies and Indian Space Agency (India) are all developing their own industries and in many cases the state is subsidizing their costs, providing a severe cost disadvantage to SSL.

➢ Change in the market - product size: Customers are seeking smaller satellites to be able to use smaller rockets that are considerably cheaper (lower total costs per bit of data). This drives reduced prices, lower profit margins and necessary changes to the Company's design and manufacturing processes.

Training Plan

Business Skills (2%): Training will be offered to Administrative Staff to learn export paperwork requirements, document control, and interpreting engineering designs. Training is critical to control shipment and transfer of sensitive information and technology. Other topics including communications, negotiating and presentation skills will allow workers to better manage customer relations.

Computer Skills (7%): Training will be offered to all occupations specific to job function. This training will enable workers to develop better understanding of the various systems and to utilize them to the fullest.

Continuous Improvement (48%): Training will be offered to all occupations and focus on process improvement, 5S, team skills, workflow, minimizing waste and other related process improvement skills. The training goal is to give trainees the tools to make necessary decisions to improve productivity and decrease waste.

Manufacturing Skills (43%): Training will be delivered to Technical Support, Engineers and Supervisors/Managers to improve manufacturing efficiency with quality assurance checks. Training will include recertification programs, manufacturing practices, Lean manufacturing and production equipment operation.   Training is designed to enable trainees to work more

efficiently and safely, eliminate loss, and understand the impact of their actions on plant performance. Training will also enable employees to increase productivity by becoming more versatile by cross-training.

Commitment to Training

SSL represents that ETP funds will not displace the existing financial commitment to training. Safety training is provided in accordance with all pertinent requirements under state and federal law.

➢ Training Infrastructure

SSL will have a team consisting of management and Administrative Staff to coordinate, schedule and monitor the training as well as input data into the ETP online systems.

RECOMMENDATION

Staff recommends approval of this proposal.

DEVELOPMENT SERVICES

Manex Consulting in San Ramon assisted with development of this proposal at no cost to SSL. However, Manex Consulting will receive a flat fee under the "marketing contract" between ETP and California Manufacturing Technology Consulting.

ADMINISTRATIVE SERVICES

N/A

TRAINING VENDORS

To Be Determined

Exhibit B: Menu Curriculum

Class/Lab Hours

8-200   Trainees may receive any of the following:

BUSINESS SKILLS
- Business Plans
- Communication Skills
- Conflict Resolution
- Customer Service
- Document Control
- Effective Report Writing
- Effective Team Building
- Export Paperwork
- Interpersonal Skills
- Inventory Control
- Listening Skills
- Negotiating Skills
- New Product Introduction
- Presentations

COMPUTER SKILLS
- Accounting Systems
- AIMS –Manufacturing Execution System
- Communications Systems (IBOS)
- Computer Networking/Support systems
- Database Management (Team center)
- Engineering Design Software (CATIA)/ProE, Cadence etc.
- Human Resources Information System)
- IFS – ERP System
- IT Programming/Manufacturing Equipment Support
- MRP/ERP Training (MES)
- PLM/MES Team Center – Engineering & Manufacturing Systems
- Spreadsheets/Advanced Excel and Access Training
- Website Development and Maintenance

CONTINUOUS IMPROVEMENT
- 5S: Sort, Set, Shine, Standardize, Sustain
- Advanced Satellite Systems
- Antennae Sub Systems
- Basic Quality Tools
- Bus Subsystems
- Lean Manufacturing
- Creative Problem Solving Skills
- Cycle-Time Reduction Techniques
- Finance Operations
- Identifying and Assessing Risk
- Interpreting & Analyzing Data
- ISO 9001/AS 9100C

- ISO Audit Principles
- Leadership Skills for Frontline Workers
- Maintenance (TQM)
- Material Review Board (MRB)
- Materiel & Subcontract Management
- Mission Assurance
- Mission Operations
- Payload Systems
- Planning and Product Control
- Process/Product Handling
- Process Control/Process Improvement
- Product Design Reviews
- Product Design Standards and Processes
- Product Development
- Product Development Analysis
- Product Qualification
- Product Reliability
- Production Operations/Workflow
- Production Scheduling
- Program Management
- Program Systems
- Project Management
- Repeater Subsystems
- Risk Reduction Techniques
- Risk Retirement Planning
- Satellite Marketing
- Satellite Technology (Satellite 101)
- Space Test Operations
- SSL Customer and Insurance Obligations
- Standard Operating Procedures
- Subcontract Product Design Management
- Unit and Subsystem Plans for Development & Qualification

MANUFACTURING SKILLS
- Assembly Operations
- Blueprint Reading
- Chemical Usage and Handling
- Conformal Coating
- Conformal Coating Recertification
- Contamination Control Recertification
- Electrostatic Discharge
- Electronic Assembly Workmanship
- Electrostatic Discharge Awareness Recertification
- Facilities Management
- Flight Adhesives Bonding
- Flight Adhesives Bonding Recertification
- Flight Crimp and Strip
- Flight Crimp and Strip Recertification
- Flight Hardware Handling Recertification

- Flight Harness And Cable
- Flight Harness And Cable Recertification
- Forklift Safety/Operations
- Mate Demate
- Mate Demate Recertification
- NASA Hand Solder Recertification
- National Aeronautics and Space Administration Hand Solder
- Printed Wire Board Rework Repair
- Printed Wire Board Rework Repair Recertification
- Quality Control and Final Quality Assurance
- Set-Up Reduction
- Shipping/Receiving
- Solder Attach (Hybrid)
- Solder Attach (Hybrid) Recertification
- Soldering Skills
- Special Machines/Inspections
- Staking of Electronic Components
- Staking of Electronic Components Recertification
- Statistics Skills for Operations
- Surface Mount Technology Operation
- Testing Techniques
- Torque Certification
- Torque Certification Recertification
- Warehousing Operations/Distribution
- XRay Operator
- XRay Operator Recertification
- XRay Reader-Electronics
- XRay Reader-Electronics Recertification
- XRay Reader-Propulsion
- XRay Reader-Propulsion Recertification

Safety Training cannot exceed 10% of total training hours per-trainee

Note: Reimbursement for retraining is capped at 200 total training hours per trainee, regardless of the method of delivery.