Spirit AeroSystems Project: How a Partnership Is Transforming Eastern North Carolina

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Spirit Project

• New composite manufacturing plant opened early 2010
• Will design and manufacture the center fuselage and wing spar for Airbus’ new A350XWB passenger aircraft
• Investment of more than $570 million and the creation of 1031 jobs during the next six years
• To establish a process for the recruitment, screening, assessment, and training of potential aerospace workers in Eastern North Carolina
Screening of Candidates

- Weighted questionnaire developed by partners
- Point system determines level of skills
  (i.e., machine operator - highest)
- Specific skills were awarded points
  (i.e., composites, CNC, fabrication, boating fabrication,
  automotive, assembly)
- Vocational and Technical training preferred
- Career Readiness Certification preferred
- Applicants should have three to five years manufacturing experience
- ESC/DWS manager did final screening
Aerospace Industry Training in Eastern North Carolina
THE FUTURE IS TAKING FLIGHT
Enter Website
<table>
<thead>
<tr>
<th>Applications Completed Through 11/30/09</th>
<th>Number/percent meeting minimum standards</th>
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<tbody>
<tr>
<td>507</td>
<td>478 (94.28%)</td>
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1. Do you have a High School Diploma or GED?

2. Are you at least 18 years old?

3. What level of education beyond high school have you completed?

3a. Are you a military veteran?

4. Do you have a North Carolina Career Readiness Certificate?

5. Are you presently employed?

6. Do you have three or more years of industrial manufacturing experience?

7. Do you have specific manufacturing experience in any of the following areas:
478 Applicants Screened in Eastern and Non Eastern Region Counties

- Beaufort (non ER county), 5
- Carteret, 3
- Chatham (non ER county), 1
- Craven, 27
- Duplin, 18
- Edgecombe, 3
- Guilford (non ER county), 2
- Johnston (non ER county), 2
- Jones, 12
- Lenoir, 238
- Mecklenburg (non ER county), 1
- Nash, 0
- New Hanover (non ER county), 1
- Onslow, 5
- Pitt, 67
- Wilson, 4
- Wayne, 35

50%
Website: Lessons Learned

• Degrees above AA level not given additional points

• Additional specific skills (i.e. Welding, Maintenance Mechanic, Heavy Equipment, Auto Mechanic)

• If answer “No” to Manufacturing Experience, application stops. Linked back to LCC for additional training

• Did not have a link from Spirit’s Website directing students to LCC’s Website. Link was added
Candidate is referred to Community Colleges & JobLink Centers

LCC verifies CRC #s

Candidate registers for CRC

ESC identifies top 80 candidates for 40 slots

Yes CRC -Yes

LCC registers candidate

Candidate begins Aerospace Manufacturing Readiness Program

Yes CRC-No

Candidate registers for CRC

Candidate is referred to Community Colleges

Weighted Questionnaire-ESC

No

Candidate is referred to Community Colleges & JobLink Centers
Selection Process for Aerospace Manufacturing Readiness Program: Lessons Learned

- In the beginning, no company involvement
- LCC did all advertising for training
- LCC and DWS did all pre-screening
- Spirit held a Job Fair with the college
- Spirit now advertises for training opportunities at LCC on their company Website
- Pre-hire is transitioning to post-hire
Training: Aerospace Manufacturing Readiness (AMR)

- First classes started November 9, 2010, with a morning (9am-12pm) and an evening (6pm-9pm) class.
- Classes meet Tuesday, Wednesday, and Thursday.
- Classes run for 13 weeks, meeting for a total of 120 hours.
- Class enrollment was limited to 20 students per class.
- Students taught composite fabrication methods, trim and drill procedures, assembly processes and operations, safety, blueprint reading, math and measuring.

[Logo of Lenoir Community College]
Curriculum- Lesson Learned

• Curriculum evolved:
  – Spirit Corporate trainers came on board to help
  – As the instructors gained more experience
  – As the instructors received training through 359 Capacity Training funds
  – As the instructors gained access to the plant
  – Partnered with ECU to teach CATIA software
  – Maintenance and software updates need to be in the budget
  – AMR students could receive up to 11 hours toward the two-year Aerostructure degree
Continuous Improvement of Instructional Process

- Instructors
  - Fabrication review in Wichita with SME’s/WATC
  - Modify & revise content with curriculum developer
- Students
  - Engaged daily
  - Former Student Survey
- Spirit AeroSystems
  - Encouraged Spirit leadership team to visit our training facility
Continuous Improvement Activities

• New lab / classrooms developed
• New computers for faster software applications
• Aerospace Manufacturing Readiness video developed
• Composite Manufacturing Continuing Education Course developed
• Aerospace Manufacturing & Repair Degree Program developed and up to eleven hours of credit applied toward this program upon completion of the AMR
• Instructor Credentialing – Spirit / Wichita on-site training
Spirit is Ramping Up!

• Rate: Going from 2 planes a month to 10 planes a month
• Capital Investment increasing as new machines and equipment installed
• Headcount at the plant will increase for production workers
• With production increasing and the need to hire more people faster, the plant needs a faster turn-around time on hiring production associates
• Proto-type Aerospace Manufacturing Readiness (AMR) class developed
“Revamping” of AMR Curriculum – Lesson learned

Transitioning from pre-hire to post-hire training

• Candidates will be selected by Spirit and hired before the training begins.

• Post hiring will allow our instructors to teach Airbus specific training since the students are employees.
NC Hourly Hiring Proposal – Spirit/HR

Current Process- 20 Weeks

- Inexperienced candidate applies to AMR program
- 13 weeks to complete Course
- Trained in both fabrication and assembly basic skills

Graduates are guaranteed interview with Spirit

On-Boarding Begins

- Manager dispositions candidate
- Offer extended to candidates seen as “good fit”

Candidate Ready for Work

- Candidate completes Work Keys, background check, drug screen
- Start date negotiated
- Attends orientation
- New-hires complete program certification

Proposed Process- 9 Weeks

- Inexperienced candidates apply directly to Spirit
- Candidates selected based on attitude, work history, stability, etc.
- Candidate completes Work Keys, background check, drug screen

Candidates Attend New-Hire Orientation

Employee Reports to Shop Floor

- New employees attend AMR for Assembly OR Fabrication

Candidate Ready for Work

- Employee completes Spirit certification
- Employee completes all mandatory training: EHS, etc
- 30/60/90 day probation period begins
Questions