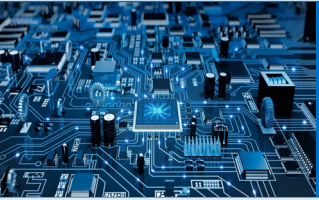


Airlines for
America®



Reducing the Time Required to Qualify and Certify New Graduate Level 3 Engineers





Challenges in the Industry

- **Many Level 3 engineers that are retiring.**
- **Very few replacements in the pipeline.**
- **The NDT field is evolving to deal with:**
 - ✓ Automation and robotics
 - ✓ Advanced composites
 - ✓ Additive manufacturing
 - ✓ AI-assisted defect recognition
 - ✓ Data analytics
 - ✓ Advanced imaging



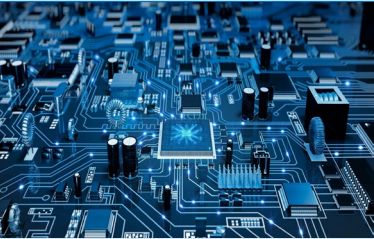
Years and dollars lost qualifying Engineering / Physics Level 3s

To acquire a Level 3 in either UT, ET, or RT:

- ✓ 800 manhours of experience to qualify as a Level 2
- ✓ and one year (2000 manhours) experience as a Level 2 in each method to qualify as a Level 3.

**4.2 years before a new graduate can perform
the jobs they were hired for.**

- **Assume that someone is hired at \$70,000/yr**
- **\$294,000 are spent on training**



How do we get there?

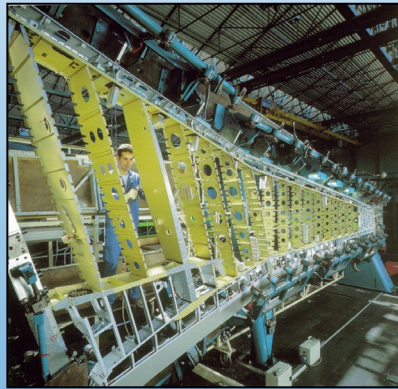


West Chester University near Philadelphia, PA

B.S. Physics
B.S. Physics and Engineering



Provide aerospace specific NDT knowledge



Provide as much experience as possible





Aerospace specific NDT knowledge

- PoD & Reliability
- Materials and processes
- Design & Manufacturing Failures
- Composites
- Stress and Fatigue
- Human Factors / Integrity / Ethics
- Specs: NAS-410, ATA 105
- Other Methods

Upon graduation

- B.S. Physics or B.S. Physics & Engineering
- Level 3 method exams in UT and ET
- Basic exam



Provide as much experience as possible

- ✓ Lab exercises with actual parts
- ✓ Visits to OEM and MX facilities
- ✓ Internships





We need input from you . . .

- ✓ Is this needed?
- ✓ Is this a good approach?

We will need some support . . .

- ✓ Lab exercise suggestions from the real world
- ✓ Scrapped parts or reference standards
- ✓ Internships

Tim Kinsella
484-983-9042
tkinsella6@gmail.com