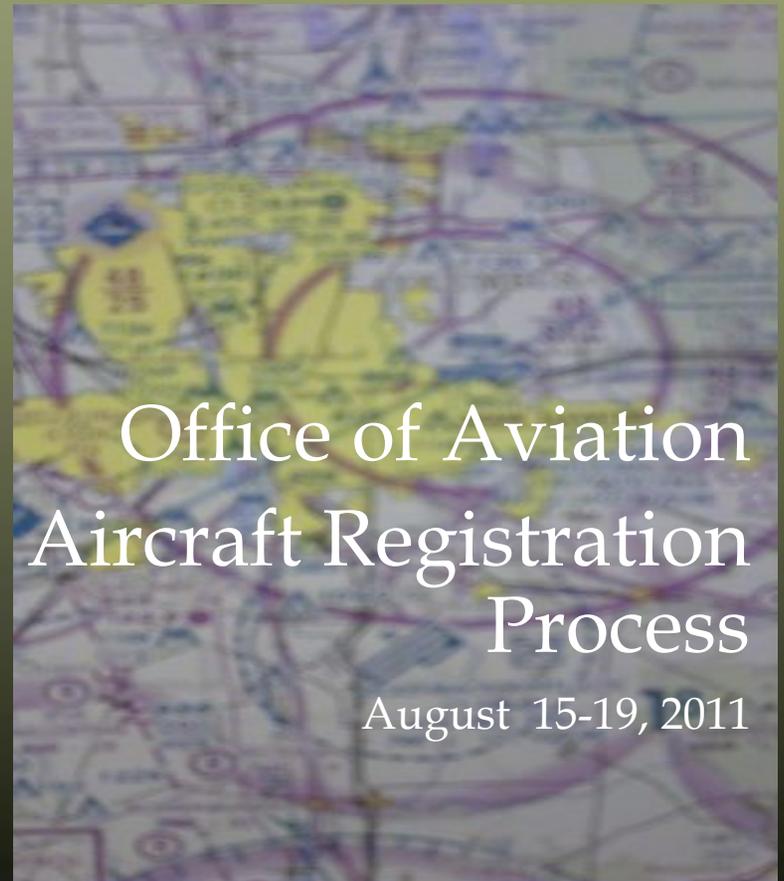


# Ohio Department of Transportation



# Aircraft Regi-ST★RS



# The Team



- Customer: Alan Harding, Ohio Aviation Association
- Dushon Johnson, Division of Operations
- Stephanie Eich, Office of Aviation
- Robin Chambers-Dersoon, Office of Aviation
- Karen McDaniel, Division of Finance
- James Gregory, DoIT
- Michelle Javorsky, Ohio Attorney General's Office
- Sue Grundey, Office of Quality Assurance
- Daveen Goodman, Office of Quality Assurance
- Michael Buerger, Office of Training

**Facilitators:** Bill Demidovich, Steve Wall, Gloria Calcara, Sue Kirby, Rich Martinski

# Leadership

- **Sponsor:** Sonja Simpson, Division of Operations
- **Senior Leadership:** James Bryant, Office of Aviation
- **Team Leader:** Kevin Rogge, Office of Aviation
- **Subject Matter Experts:** Heather Reed Frient, Department of Public Safety, Homeland Security, Christian Selch, DAS IT, Michelle Javorsky, Ohio Attorney General's Office, Spencer Wood, DD Division of IT

# Background

Under the provisions of Ohio Revised Code 4561, the Aircraft Registration Program is administered by Department of Transportation, Office of Aviation under the Manager of Flight Operations and is a work assignment of the Administrative Assistant and Aviators within the Flight Operations Section. The Aircraft Registration Program was established to provide a funding source for navigation facilities and airport capital improvements. The Aircraft Registration Program funds are also used for the cost of creating and distributing the Ohio Aeronautical Chart and Ohio Airport Directory. The revenue collected by the Aircraft Registration Program is deposited directly into Ohio's general fund to the credit of the airport assistance fund.

Aircraft based within Ohio are required to be registered with the Department of Transportation. This includes all airplanes, helicopters, balloons, blimps, dirigibles, autogyros, powered parachutes, homebuilt and sport aircraft required by the FAA to display an "N" number.

Daily administration of the registration program is completed by data entry into the Airport IQ System Manager (ASM) computer program.

# Stakeholders

- Customers
- Office of Aviation
- Finance Office
- DoIT
- Attorney General's Office
- Public Safety  
Office of Homeland Security
- Law Enforcement



# Reasons for improving this process:

## Process Goals

- Reduce amount of time it takes to process aircraft registration
- Eliminate 100% of the backlog within 3 months
- Reduce errors on applications by mistake proofing the form(s)
- Increase customer satisfaction
- Reduce postage and printing costs
- Increase revenue with enhanced collection procedures

# Scope of Event



## **Scope:**

The process begins when ODOT, Office of Aviation prepares aircraft registration applications for (new, renewals) aircraft owners and ends with the registration of the aircraft and satisfaction of any collection procedures and closure for that year's registration.

## **Overarching Theme(s):**

Process aircraft registrations in a timely manner, eliminate backlog and collection of registration tax money.

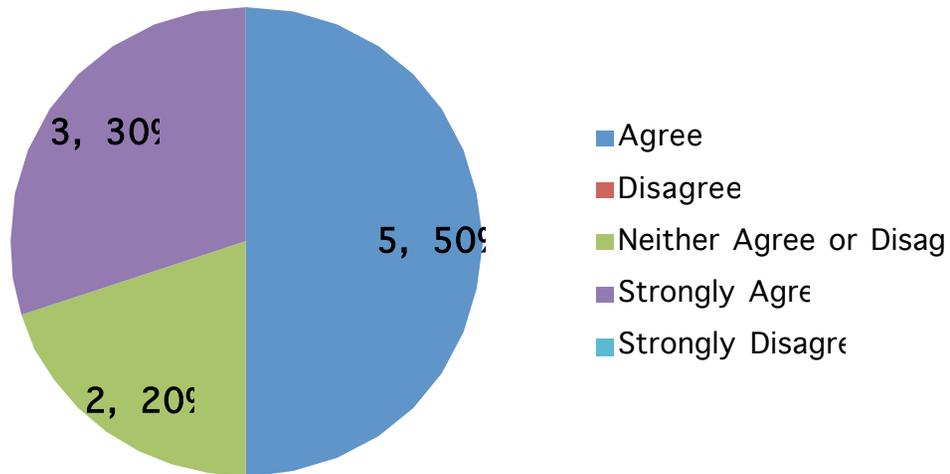
# Out of Scope

## Areas that will NOT change as a result of the Kaizen event :

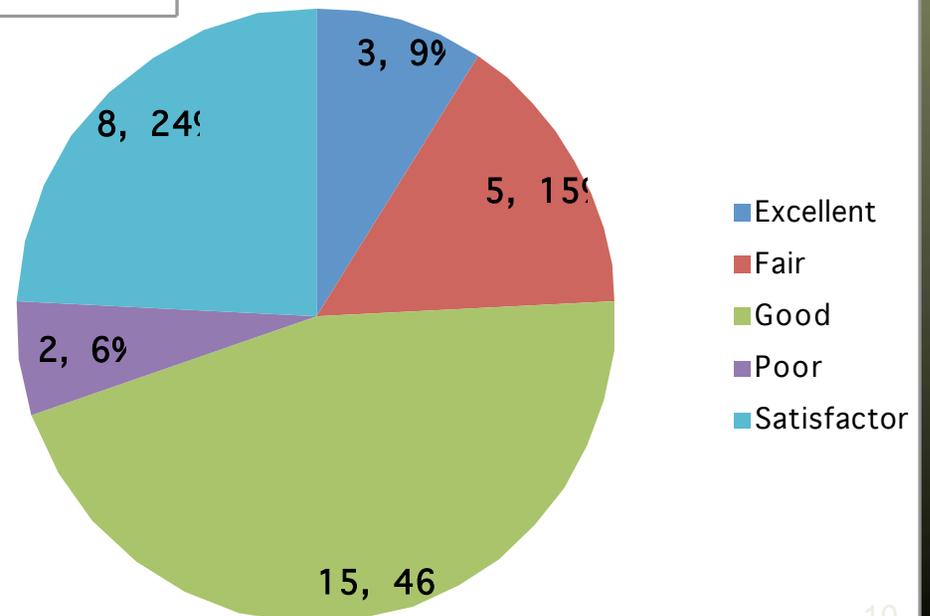
- No one loses their job because of the Kaizen event, but duties may be modified.
- Need for additional personnel is independent of the process.
- Need for additional money is independent of the process.
- No legislative changes or changes to collective bargaining agreement.
- IT solutions are independent of the process.

# Voice of the Customer

## Professional & Courte

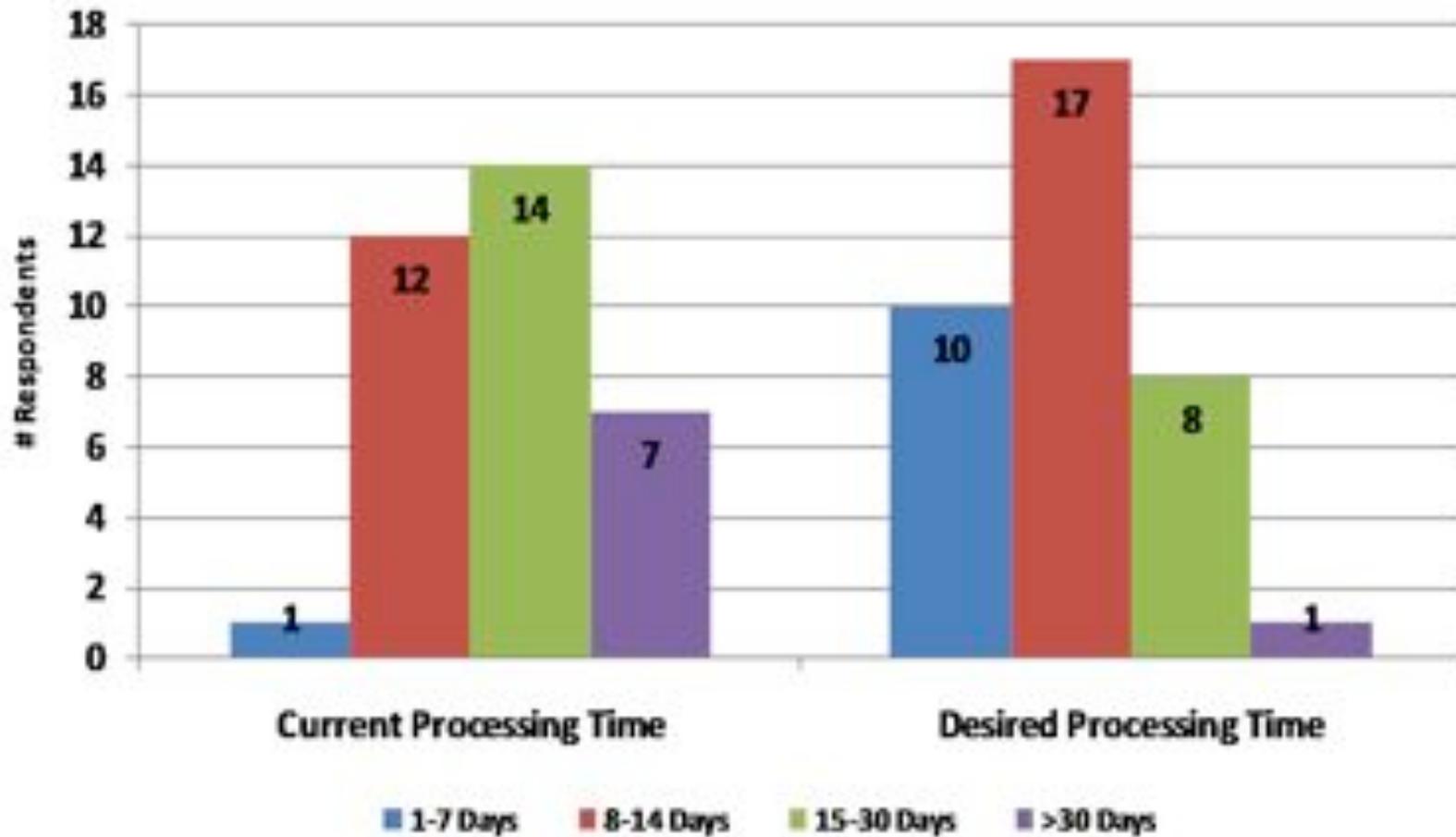


## Quality of Serv



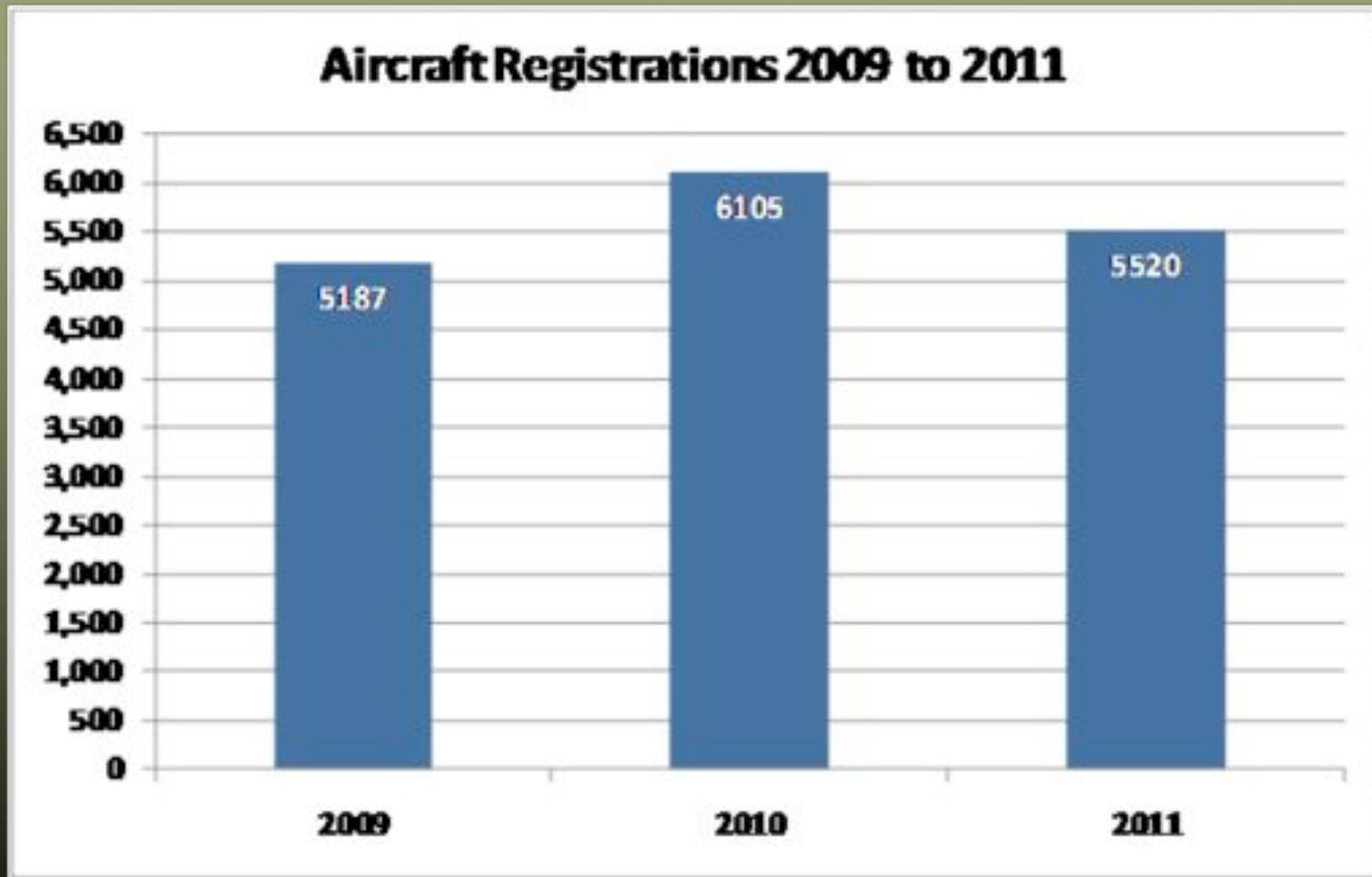
# Voice of the Customer

## Processing Time: Current vs Desired

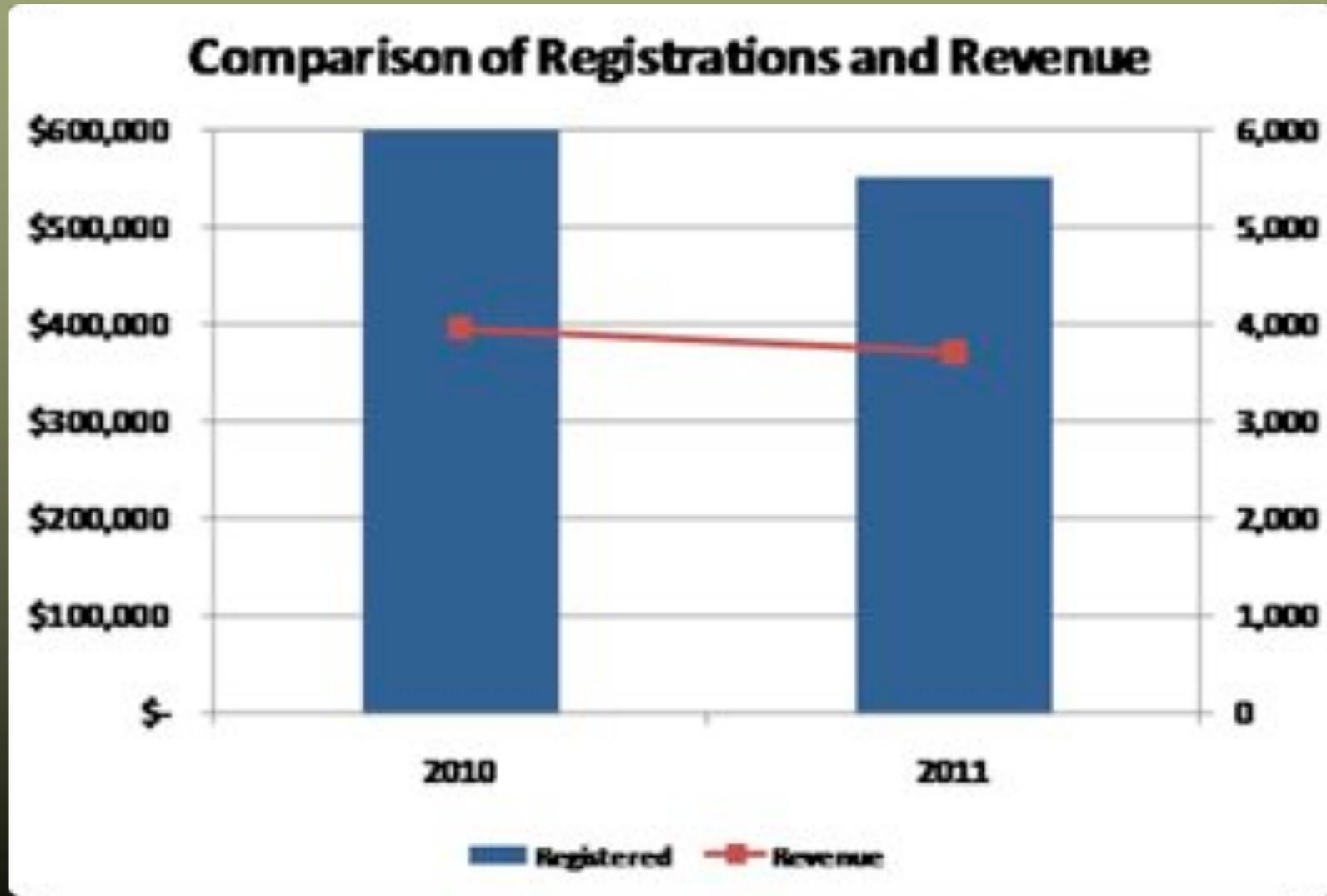


■ 1-7 Days ■ 8-14 Days ■ 15-30 Days ■ >30 Days

# Registrations



# Registrations and Revenue



# Attorney General Outstanding Certified

|      |           |
|------|-----------|
| 2008 | \$132,000 |
|------|-----------|

|      |     |
|------|-----|
| 2009 | TBD |
|------|-----|

|      |     |
|------|-----|
| 2010 | TBD |
|------|-----|

|      |     |
|------|-----|
| 2011 | TBD |
|------|-----|



# Measures of Success

| Measure                         | Current Level | Target        | Gap     |
|---------------------------------|---------------|---------------|---------|
| Eliminate backlog               | 12,000        | 0<br>9-30-11  | -12,000 |
| Improve customer satisfaction   | Good<br>46%   | Better<br>71% | +25%    |
| Collection of Registration Fees | 85% est.      | 100%          | –       |

# The Kaizen Approach

| Team-based energy and creativity drives immediate process improvement                   |                                                 |                                               |                                              |                                                                      |
|-----------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------|----------------------------------------------|----------------------------------------------------------------------|
| DAY 1                                                                                   | DAY 2                                           | DAY 3                                         | DAY 4                                        | DAY 5                                                                |
| Day of Learning                                                                         | Day of Discovery & Developing Improvement Ideas | Day of Improvement & Creating the New process | Day of Design Implementation & Documentation | Day of Celebration & Results<br><br>Schedule 30-60-90-day follow-ups |
| At the end of the week, each Kaizen team has designed dramatic operational improvements |                                                 |                                               |                                              |                                                                      |

# KAIZEN: To Break Apart for the Better

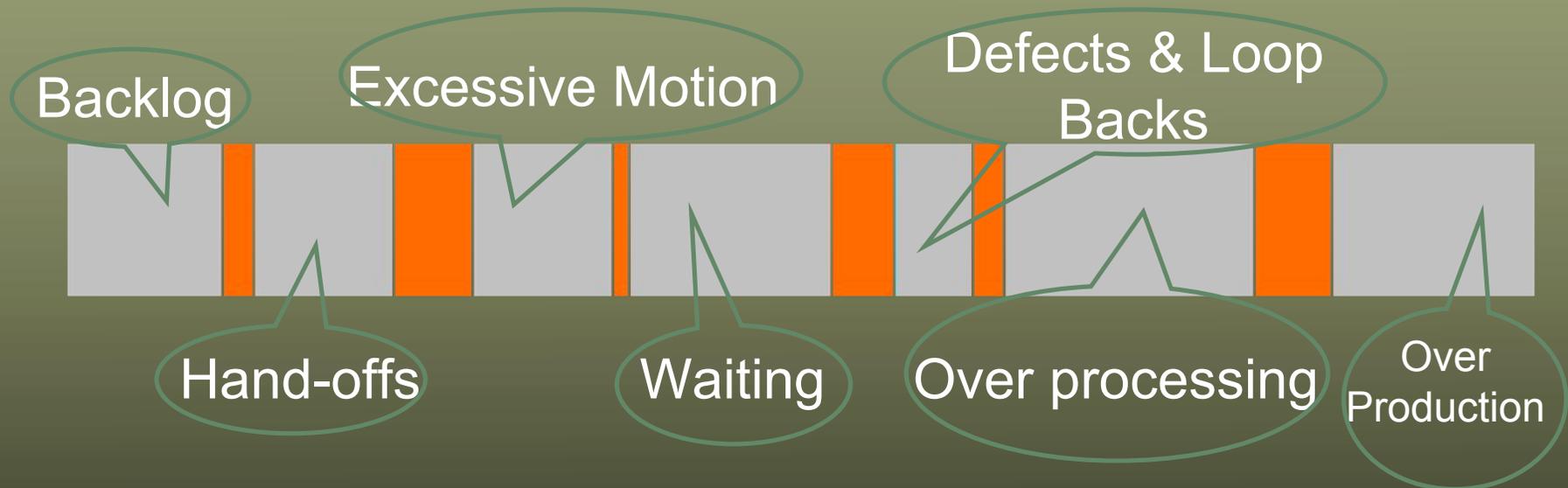
- Clear objectives
- Team process
- Tight focus on time (one week)
- Quick and simple, action first
- Necessary resources available right away
- Immediate results (end of week)



# Lead-time Reduction

Wasted Time and Activity

Core Process Value Added



**TIM WOOD** – Transportation, Information, Motion, Waiting, Overproduction, Over processing, Defects

# Current-State Process Map



129 Steps

13 Decision Points

7 Delays

24 Handoffs

# The original processes had:

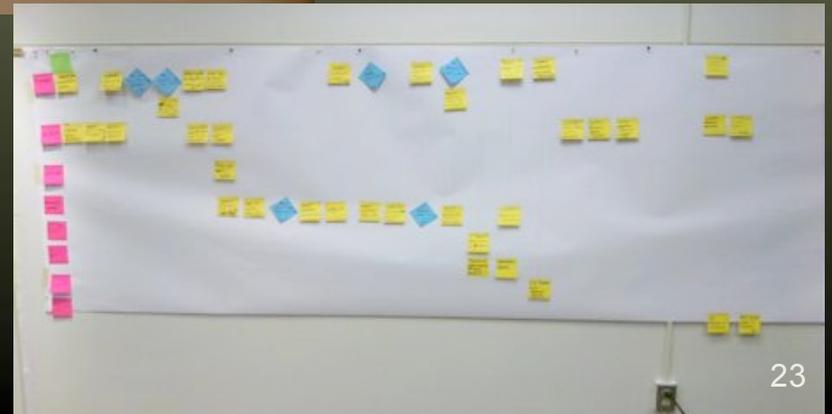
- Too much paper
- Too much mail
- Too many delay points (storage)
- Caused too much process lead time
- Resulted in backlog



# The team brainstormed more than 69 improvement ideas



# Clean Sheet Redesign



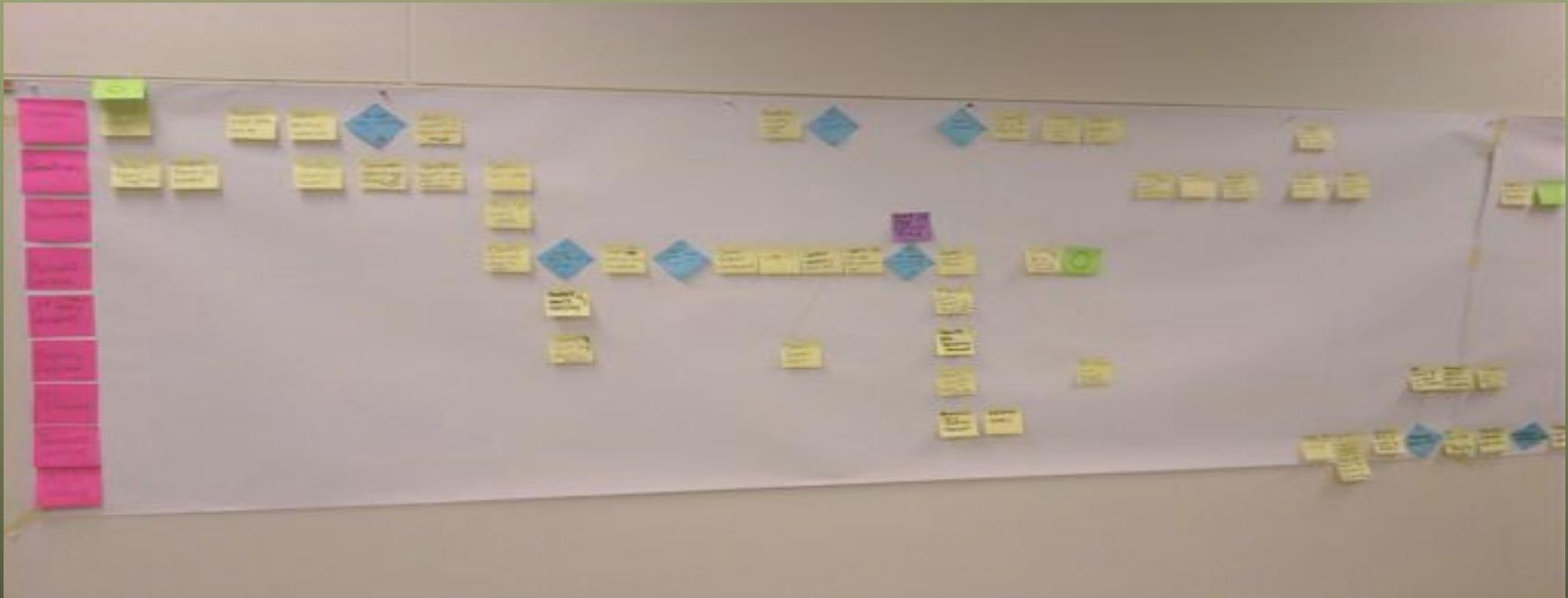
# Common Ground



## Common Ground

- ONLINE
  - CERT TO AG
  - STILL SAME FUNCTIONS (AGENCIES/DEPTS)
  - SHORTER
- ELECTRONIC FORMS/SIGS/FILE RETENTION
- MORE TIME FOR RESEARCH (NON-COMPLIANCE)
- 3RD PARTY PYMT.
- INITIAL MAILING

# The New, Improved Process



**51 Steps**

**9 Decisions**

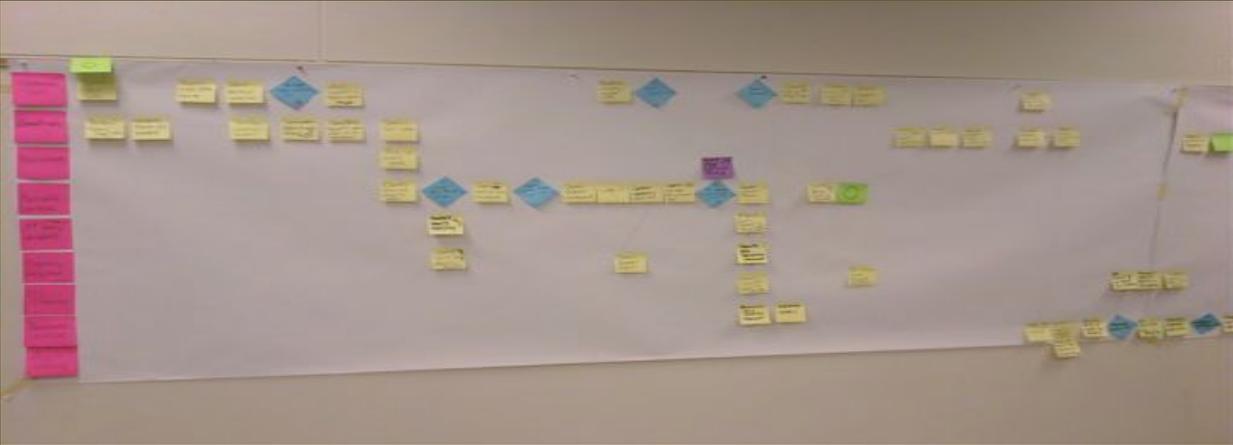
**18 Handoffs**

**0 Delays**

# Old Process



# New Process



# The Results Matrix

| Measure                      | Before                | Projected After | Difference                     |
|------------------------------|-----------------------|-----------------|--------------------------------|
| Steps                        | 129                   | 51              | 78 fewer steps<br>-60%         |
| Decisions Points             | 13                    | 9               | 5 fewer<br>-19%                |
| Handoffs                     | 24                    | 18              | 10 fewer<br>-25%               |
| Registration Processing Time | 275 days to 375 days  | 11 to 75 days   | 264 to 300 days<br>96% to- 80% |
| Storage and delays           | 8 months to 2.5 years | 0               | -100%                          |

# More Results

- Transforming to a paperless “state of the art” registration process
- Targeted increase in customer service
- Reduced job frustration; revitalizing job satisfaction through backlog elimination
- Buy-in from all levels of staff
- Projected Cost Avoidance and savings

# Projected Financial Gains (Annual)

|                              |           |
|------------------------------|-----------|
| Cost Savings                 | \$75,200  |
| Cost Avoidance               | \$33,350  |
| Revenue Enhancement          | \$60,000  |
| Total Potential Annual Gains | \$168,550 |



# Implementation Plans

- Training plan
- Communication plan
- Technology Plan
- Backlog Plan
- HR Plan



# Information Technology Plan

| IT Plan - Phase 1                      |                 |              |
|----------------------------------------|-----------------|--------------|
| What                                   | Who             | When         |
| Research Available Input               | Rosa + IT       | Aug 22 - 24  |
| Work on DNS on G-Box                   | IT + OSS/IT     | Aug 22       |
| Submit Project Request                 | IT + Rosa       | Aug 22       |
| Finalize Project Scope                 | IT              | Aug 29       |
| Developing Business Requirements       | IT + PO         | Sept 16      |
| - Load for Web Services                | IT + PO/Finance | Aug 22 - 24  |
| - Review All information               | IT + A/B/IT/IT  | Aug 22       |
| - Review All information               | IT              | Aug 27       |
| - Review All information               | IT + IT/IT      | Aug 28       |
| • Development of Business Requirements | IT              | Oct 15       |
| • Extension of Current Time sheets     | IT              | Oct 16       |
| • Review Form Completion               | IT + IT         | Nov          |
| • Development of Business Requirements | IT              | Nov 15       |
| • Testing (Original)                   | IT + Rosa       | Dec 1 - 2015 |
| - Performance Testing                  |                 |              |
| - QA                                   |                 |              |

| IT Bridge Plan                                                                      |                   |        |
|-------------------------------------------------------------------------------------|-------------------|--------|
| What                                                                                | Who               | When   |
| Create a Report to find <sup>all</sup> <del>all</del> <sup>all</sup> <del>all</del> | IT + Rosa         | Aug 22 |
| Create a Report to find <sup>all</sup> <del>all</del> <sup>all</sup> <del>all</del> | IT + Rosa         | Aug 22 |
| Create a Business Verification Report                                               | IT + Rosa/Finance | Aug 27 |
| - Review Spreadsheet - Top                                                          |                   |        |
| Create a Certification Report                                                       | IT + Rosa         | Sept 6 |
| - Review Spreadsheet - All + Details                                                |                   |        |

# Marketing and Communications

Marketing/Communication

| what                                                                                                                                                                                                                                                                                                                                                                                                                                                                | who                                                                                                                       | when |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------|
| <p>New Online Reg Process</p> <ul style="list-style-type: none"> <li>• results of the online (soon)</li> <li>• Faster / instant log/exit</li> <li>• Pay online / credit card</li> <li>• Easy to Update Information</li> <li>• Pay for online or Deputie (log 2)</li> <li>• Less paperwork</li> <li>• Fees Pay for Airport Maintenance</li> <li>• <del>Online Registration Available March 31st</del></li> <li>• Online Registration Available March 31st</li> </ul> | <p>(Office of Communications/dep/ → 9/1<br/>                     (Morrison)<br/>                     deployment → 2/1</p> |      |

ODOT  
 Transcript  
 ODOT Messenger

How

- Posters / Flyers (At Airports) (Deputie Reg)
- Email Campaign (ODOT to OAH/OAA to customers)
- Aviation website
- OAA Newsletter article

| no | When          | IT   |
|----|---------------|------|
| IT | Aug 22 → 2011 | What |



# Backlog Plan



1/1/11  
6 BMS  
Backlog  
11/11

## BACKLOG PLAN

| WHAT                                                                                                                                                        | WHO                                               | WHEN   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------|
| 1) Research how far we go back to keep outdated files (certify bad address)                                                                                 | Stephane, Kasia, Kelen, Jim Bryant, Sooja Simpson | 8/22 ✓ |
| 2) Request for ODOT Personnel assistance for research into why a filing (2 data entry, 1 AG)                                                                | Sooja Simpson                                     | 8/22   |
| 3) Train assistance spreadsheet each year put in responsible folder A-2 by year complete each year etc etc<br>- certify 1 San Jose for 3 years not 3 certs- | Stephane, Robin                                   | 8/29   |
| 4) Research bad addresses - 11/12 certification                                                                                                             | Stephane + 1                                      | 8/29   |

Need 2 laptops

| WHAT | WHO | WHEN |
|------|-----|------|
|------|-----|------|

|                                  |              |      |
|----------------------------------|--------------|------|
| Research into why a filing to AG | Stephane + 1 | 9/30 |
|----------------------------------|--------------|------|

|                                  |          |      |
|----------------------------------|----------|------|
| Research into why a filing to AG | Stephane | 10/1 |
|----------------------------------|----------|------|

3) Maintain w/Electronic System

## BACKLOG GONE BY 9/30



# HR Plan

## HR Bridge Plan

| What                                                                               | Who        | When         |
|------------------------------------------------------------------------------------|------------|--------------|
| 2 Data Entry (3) Filing<br>(2 Temporarily - HR<br>1 - 0207 Kater) - Sergio/Darshan |            | 8/29 - 9/30  |
| 2 Temporarily (copy)                                                               | HR         | 10/1 → 10/31 |
| 1 Pilot (copy - in house)                                                          | Jim Bryant | 8/29         |

## HR Future Plan

|                                                       |        |       |
|-------------------------------------------------------|--------|-------|
| 1 - Permanent Employee (New - fulltime) * Reallocated | Sergio | 11/12 |
|-------------------------------------------------------|--------|-------|

## Stephanie's Other Duties

| Duty                                | hrs WK     | hrs monthly |
|-------------------------------------|------------|-------------|
| Flight Scheduling                   |            | 20 hrs      |
| Flight Billing                      |            | 8 hrs       |
| Maintenance billing                 |            | 28 hrs      |
| Marc's Monitor                      | Continuous | 0           |
| Travel Reimbursements & Requests    |            | 2 hrs       |
| Flight Operations training          |            | 4 hrs       |
| Training Coordinator                |            | 4 hrs       |
| Records Retention Coordinator       |            | 1.5 hrs     |
| Airport Inspection (Coordinator)    | 1 hr       | 4 hrs       |
| Public Records Request              | 1 hr       | 4 hrs       |
| Customer Service (Research, e-mail) | 30 hrs     | 120 hrs     |
| Equipment/Space Needs               |            | 195.5       |

|                            |             |
|----------------------------|-------------|
| 1 Work Station w/ Computer | Sergio      |
| 2 Additional Computers     | Spencer had |

20 work days



hrs WK  
5

hrs monthly

20 hrs

8 hrs

28 hrs

0

2 hrs

4 hrs

4 hrs

1.5 hrs

4 hrs

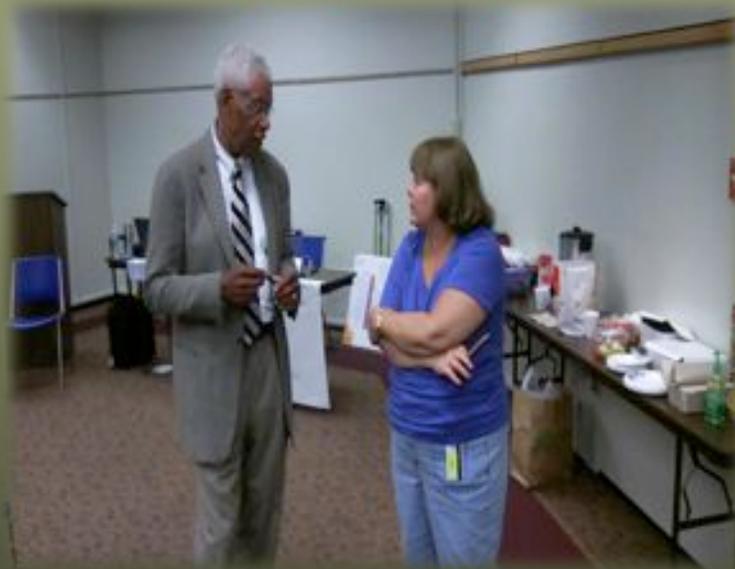
4 hrs

120 hrs

195.5

Does it

# Training Plan



Bridge Training Plan

| <u>What</u>                       | <u>Who</u> | <u>When</u>         |
|-----------------------------------|------------|---------------------|
| Train Temp Ees on Current Process | Stephnie   | 8/29                |
| Train New Plat (Aby/Pal)          | Stephnie   | 9/6 <del>2002</del> |

Future Training Plan

|                                                         |                      |        |
|---------------------------------------------------------|----------------------|--------|
| Training on NEW Online Sys System                       | Vendor/IT            | 1/2002 |
| Firmna train on AG Atlanta Process                      | AG (Atlanta)         | 9/05   |
| Aviation train on new Records Relation                  | Design study<br>Ingl | 10/1   |
| Orientation / User Acceptance Testing                   | IT                   | 12/1   |
| Overview on AG Certification Report                     | IT                   | 9/6    |
| Train New/Revised Ee on "Atlanta"<br><del>Process</del> | Stephnie             | 11/1   |

BACKL

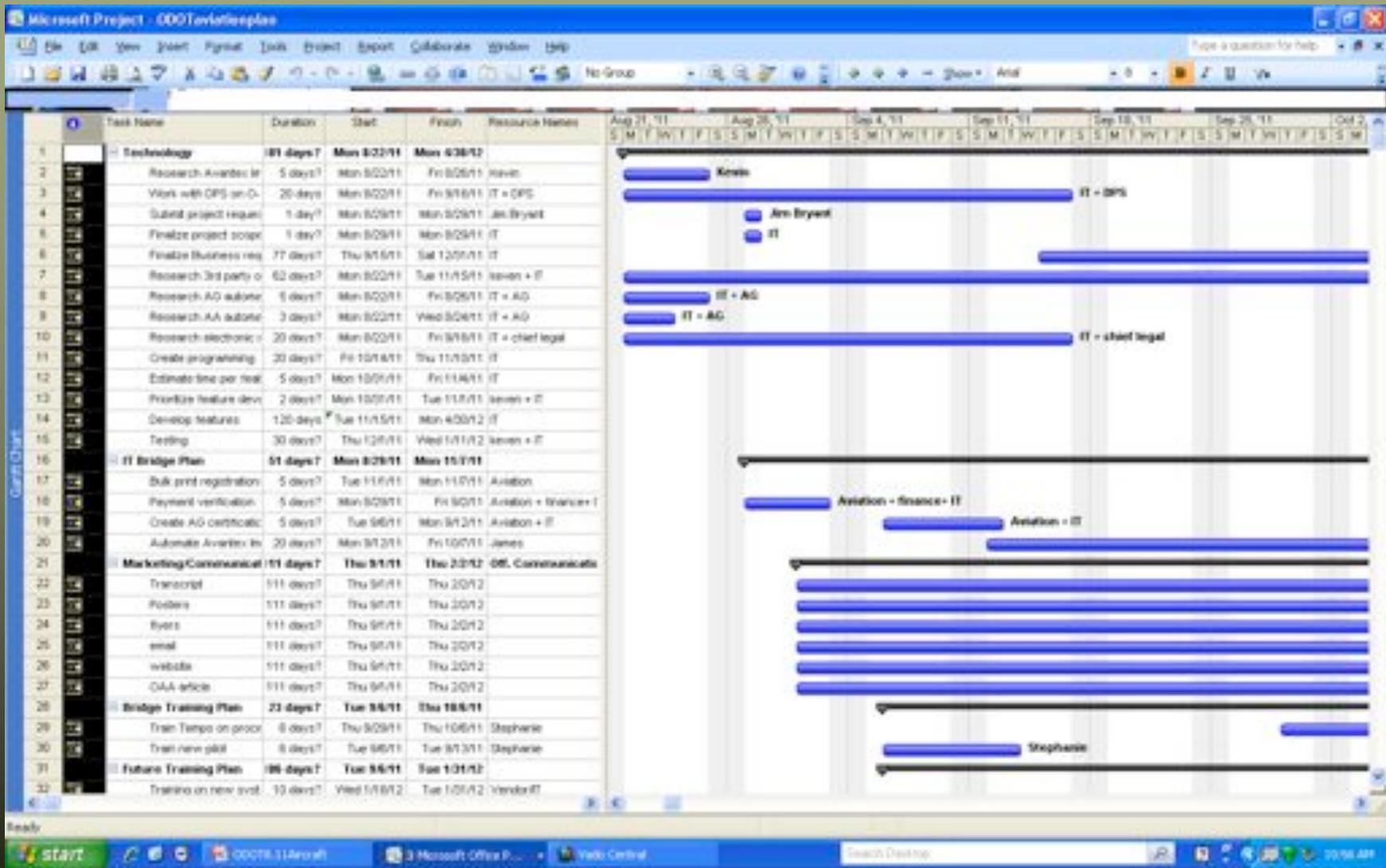
Bridge Plan

Who

When

WHAT

# ODOT Aviation Registration Plan



# Beginning Monday...



- Begin IT bridge Plan
- Aviation submit IT project request
- Finance research 3<sup>rd</sup> party payment system
- Operations work with HR to get Temporary employees
- IT/Finance/Operations to look at funding
- Facilities begin work on adding cubicle



# Benefits

Less paper

Reduced postage costs

Increased satisfaction among  
aircraft owners

Less delay time

Less frustration for employees

Streamlined process

Process is a product of the employees

Reduces the opportunity for human error

Fewer incomplete/incorrect submissions

Reduced need to certify with AG



# Personal Lessons Learned

Not as easy as I thought

The method works

Many different minds are better than one

Getting everyone involved brings buy-in

Involvement from many levels

Skeptical of the process, but we all came together

Coffee is essential

Three plans really came together

Everyone learned that the process was not what they thought

Executive buy-in is critical

We have to fix the process first

Documenting the process is painful

Facilitator outside the process is important

Customer involvement was critical

# Life as a member of a Kaizen event Team...



# Special *THANKS* to...

- **Sponsor:** Sonja Simpson, Division of Operations
- **Senior Leadership:** James Bryant, Office of Aviation
- Spencer Wood, DoIT
- LeanOhio Team

