

# Air Education and Training Command

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## Occupational Survey Report

## Maintenance Production Management

Bob Yadrick  
June 03

**U.S. AIR FORCE**

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*Integrity - Service - Excellence*

# Report Documentation Page

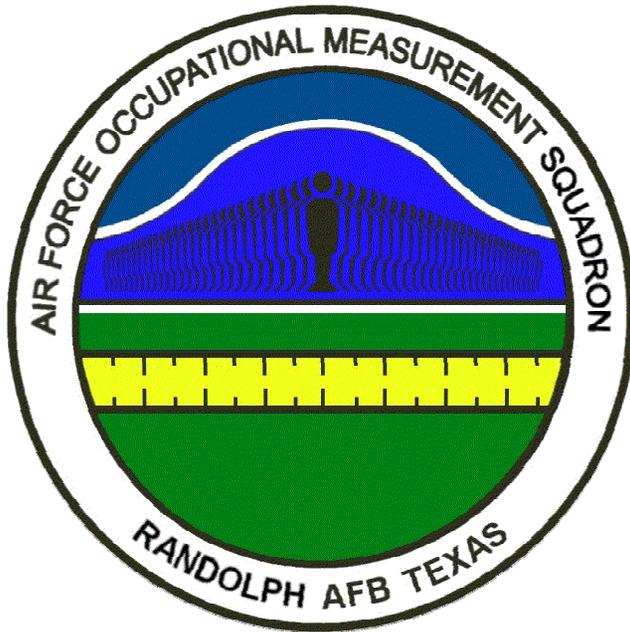
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# Air Force Occupational Measurement SQ

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# Overview



- Survey background
- Survey results
- Training Extract



# Survey Background



- Survey initiated to obtain data to:
  - Define training requirements
  - Identify redundant or obsolete training
  - Develop SKTs
- Last Occupational Survey Report (OSR) – May 2001
- Current survey data collected – Jan 03 – Apr 03
- Components/skill levels surveyed:
  - AD, ANG, AFRC 3-, 5-, 7-, 9-levels, & CEM





# Survey Sample Characteristics



	<u>AD</u>	<u>ANG</u>	<u>AFRC</u>	<u>Total</u>
•Total assigned *	990	423	193	1,606
•Total surveyed	855	380	151	1,386
•Total sample	382	149	69	600
(% of surveyed)	(45%)	(39%)	(46%)	(43%)

- Average time in career field for AD: 9 yrs
- Average TAFMS for AD: 10 yrs 2 mos
- Percent of AD in first enlistment: 18%

\* Assigned as of Aug 02



# AD Survey Sample Characteristics

## N = 382



### Skill-Level Distribution

	Assigned* Sample	
3-Level -	22%	13%
5-Level -	49%	45%
7-Level -	26%	38%
9-Level -	2%	4%
CEM -	**	1%

\*Assigned as of Jun 03

\*\* Less than 1 percent

### Paygrade Distribution

	Assigned* Sample	
E-1 - E-4 -	39%	38%
E-5 -	24%	25%
E-6 -	20%	23%
E-7 -	13%	12%
E-8 -	2%	2%
E-9 -	**	1%



# ANG Survey Sample Characteristics

## N = 149



### Skill-Level Distribution

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#### Assigned\* Sample

5-Level -	35%	33%
7-Level -	55%	58%
9-Level -	9%	9%
CEM -	1%	0%

\*Assigned as of Jun 03

\*\* Less than 1 percent

### Paygrade Distribution

---

#### Assigned\* Sample

E-1 - E-4 -	13%	14%
E-5 -	18%	13%
E-6 -	26%	27%
E-7 -	33%	37%
E-8 -	9%	9%
E-9 -	1%	0%



# AFRC Survey Sample Characteristics

## N = 69



### Skill-Level Distribution

---

#### Assigned\* Sample

5-Level -	34%	22%
7-Level -	59%	77%
9-Level -	4%	1%
CEM -	2%	0%

\*Assigned as of Jun 03

\*\* Less than 1 percent

### Paygrade Distribution

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#### Assigned\* Sample

E-1 - E-4 -	16%	7%
E-5 -	10%	10%
E-6 -	33%	39%
E-7 -	34%	39%
E-8 -	5%	4%
E-9 -	2%	0%



# Command Representation



## Command

## % of Assigned\*

## % of Sample

AFMC  
 ACC  
 AETC  
 AMC  
 USAFE  
 PACAF  
 AFSOC  
 AFSPC  
 ANG  
 AFRC

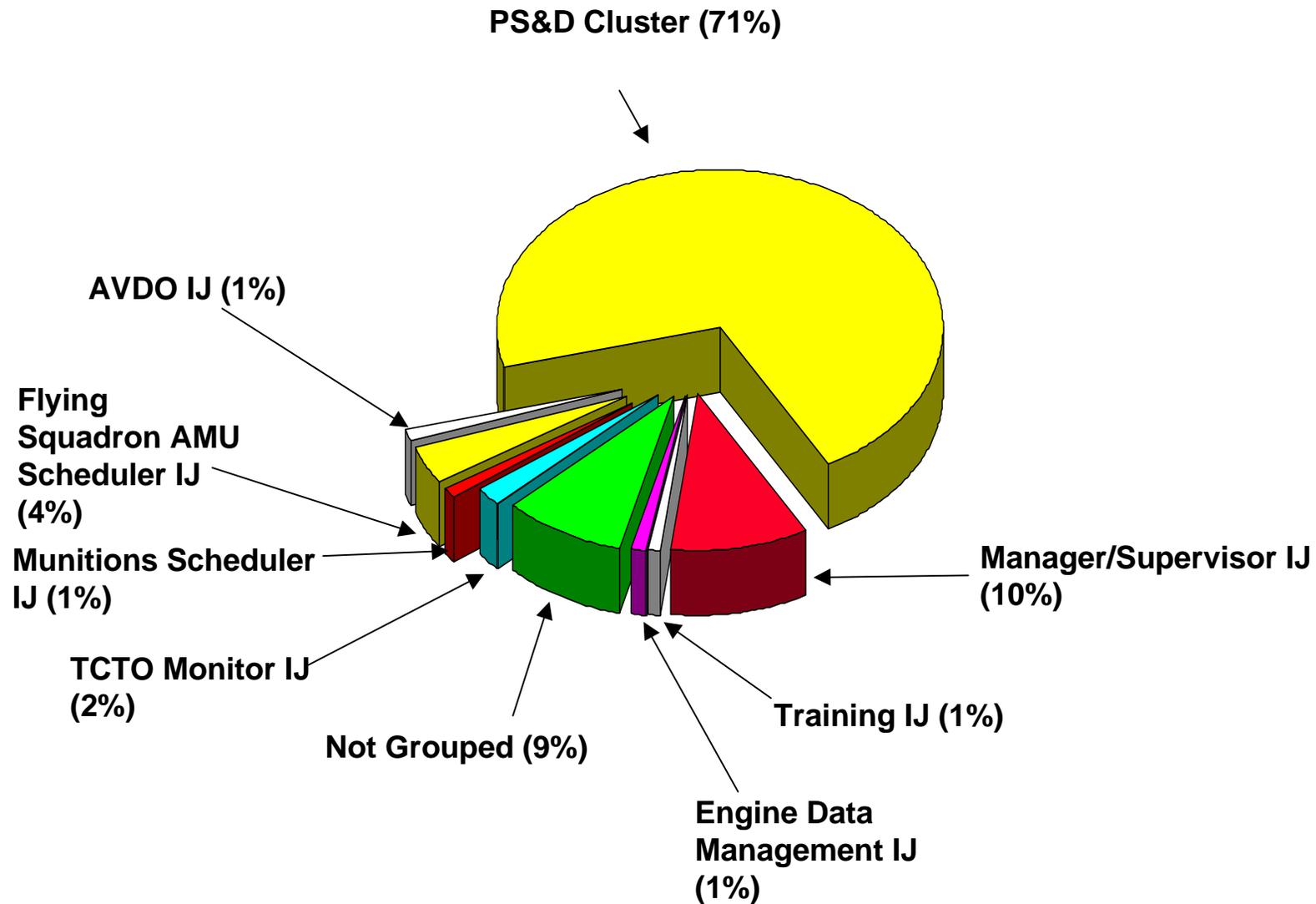
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# Job Structure

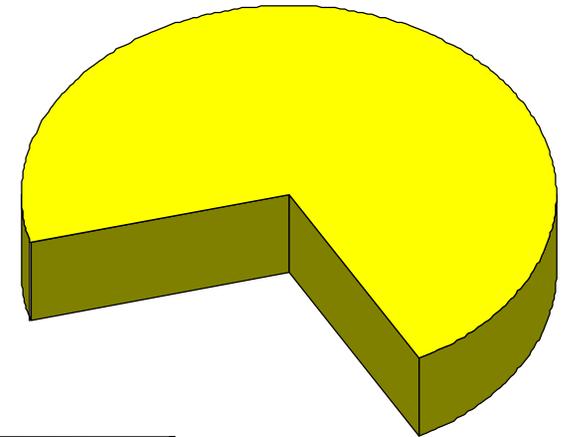




# PS&D Cluster (N=410)



- Schedule inspections, TCTOs, and time changes
- Maintain AFTI Forms 95 (Significant Historical Data)
- Maintain historical data on assigned equipment
- Maintain core automated maintenance system (CAMS) or G0-81 products
- Coordinate time compliance technical orders (TCTOs) with workcenters
- Conduct equipment records reviews
- Manage TCTO requirements
- Input documentation information into CAMS or G0-81, other than AFDO data
- Manage inspection requirements
- Compute due times on new time change items
- Manage time change requirements



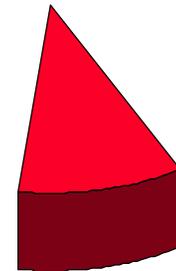
<b>Flying Squadron AMU Documentation Job (N=29)</b>	
<b>Production Controller Job (N=299)</b>	
<b>Engine Management Branch Job (N=74)</b>	



# Manager/Supervisor IJ (N=59)



- Counsel subordinates concerning personal matters
- Determine or establish work assignments or priorities
- Conduct supervisory performance feedback sessions
- Inspect personnel for compliance with military standards
- Conduct supervisory orientations for newly assigned personnel
- Write recommendations for awards or decorations
- Counsel trainees on training progress
- Conduct or attend daily maintenance planning meetings
- Conduct general meetings, such as staff meetings, briefings, conferences, or workshops
- Interpret policies, directives, or procedures for subordinates
- Write or indorse military performance reports
- Evaluate personnel for compliance with performance standards





# Training IJ (N=6)



- Conduct on-the-job training
- Counsel trainees on training progress
- Maintain core automated maintenance system (CAMS) or G0-81 products
- Evaluate progress of trainees
- Maintain training records or files
- Conduct or attend daily maintenance planning meetings
- File scheduled maintenance reports
- Administer or score tests
- Maintain AF Forms 2407 (Weekly/Daily Flying Schedule Coordination)

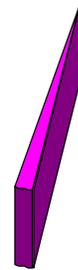




# Engine Data Management IJ (N=5)



- Maintain engine management system databases using CAMS or G0-81
- Maintain engine management system databases using CEMS
- Set up or maintain engine records
- Verify or review engine accumulated hour and event data
- Update engine status in system records, other than CAMS, G0-81, or CEMS
- Forecast engine time changes
- Forecast engine inspections
- Update engine accumulated hour and event data
- Maintain comprehensive engine management system (CEMS) products

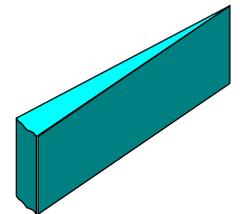




# TCTO Monitor IJ (N=14)



- Manage TCTO requirements
- Coordinate time compliance technical orders (TCTOs) with workcenters
- Complete AF Forms 2001 (Notification of TCTO Kit Requirements)
- Participate in monthly TCTO kit reconciliation meetings
- Maintain core automated maintenance system (CAMS) or G0-81 products
- Schedule inspections, TCTOs, and time changes
- Input documentation information into CAMS or G0-81, other than AVDO data
- Review documentation information in CAMS or G0-81

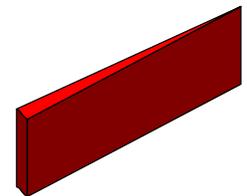




# Munitions Scheduler IJ (N=5)



- Develop weekly utilization or maintenance schedules
- Develop monthly utilization or maintenance schedules
- Schedule inspection, TCTOs, and time changes
- Manage TCTO requirements
- Coordinate time compliance technical orders (TCTOs) with workcenters
- Prepare or maintain gain, loss, or termination messages
- Manage inspection requirements
- Input aerospace vehicle distribution AVDO data into CAMS or G0-81
- Prepare or maintain possession purpose identifier change messages
- Participate in monthly TCTI kit reconciliations meetings
- Compute maintenance scheduling effectiveness data

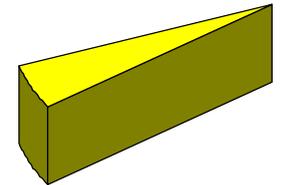




# Flying Squadron AMU Scheduler IJ (N=26)



- Develop weekly utilization or maintenance schedules
- Schedule inspections, TCTOs, and time changes
- Correlate or distribute maintenance plans
- Develop monthly utilization or maintenance schedules
- Maintain core automated maintenance system (CAMS) or G0-81 products
- Maintain AF Forms 2407 (Weekly/Daily Flying Schedule Coordination)
- Conduct or attend daily maintenance planning meetings
- Coordinate maintenance requirements with operations scheduling
- Adjust or coordinate schedules to meet emergency or priority maintenance or operational flying requirements with other agencies
- Develop long-range forecasts or plans

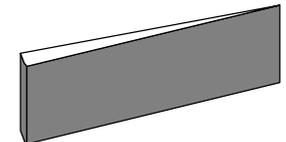




# AVDO IJ (N=8)



- Prepare or maintain possession purpose identifier change messages
- Prepare or maintain gain, loss, or termination messages
- Review aerospace vehicle equipment inventory documents
- Review aerospace vehicle equipment utilization reports
- Correct aerospace vehicle equipment utilization data, other than source documentation
- Prepare or maintain reports on aerospace vehicle inventories
- Prepare or maintain reports on aerospace vehicle utilization
- Review AVDO data in CAMS or G0-81
- Prepare or maintain reports on aerospace vehicle or missile equipment status
- Input aerospace vehicle distribution (AVDO) data into CAMS or G0-81





# Career Ladder Progression



- 3- and 5-skill-level members not very different
  - 5-skill level personnel perform slightly more management/supervisory tasks than 3-skill level members
- 7-skill-level members perform appreciably more management/supervisory tasks than 5-skill-level members
  - Around 25% of 7-skill-level members' time is devoted to management and supervision
- 9-skill-level members and CEMs spend more than half their time on management/supervision



# Percent Across Specialty Jobs

## DAFSC



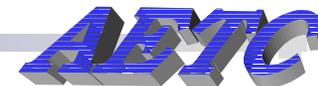
<u>Specialty Jobs</u>	<u>DAFSC 2R131 (N=75)</u>	<u>DAFSC 2R151 (N=268)</u>	<u>DAFSC 2R171 (N=230)</u>	<u>DAFSC 2R191 (N=24)</u>	<u>DAFSC 2R100 (N=3)</u>
PS&D Cluster	73	71	73	42	0
Flying Squadron AMU Documentation Job	25	6	0	0	0
Production Controller Job	37	47	59	33	0
Engine Management Branch Job	5	15	12	8	0
TCTO Monitor IJ	1	4	1	0	0
Munitions Scheduler IJ	1	1	0	0	0
Flying Squadron AMU Scheduler IJ	7	5	3	0	0
AVDO IJ	1	1	1	4	0
Manager/Supervisor IJ	0	5	14	46	67
Training IJ	1	1	*	0	0
Engine Data Management IJ	3	1	0	0	0
Not Grouped	13	11	8	8	33

\* Less than 1 percent



# Career Ladder Progression

## Percent Time Spent on Duties

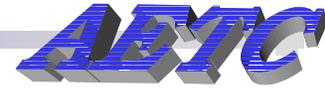


<u>Duty Area</u>	DAFSC 2R131 (N=75)	DAFSC 2R151 (N=268)	DAFSC 2R171 (N=230)	DAFSC 2R191 (N=24)	DAFSC 2R100 (N=3)
A Preparing, Updating, and Filing Forms, Records, and Reports	15	13	11	6	4
B Perf. Aerospace Vehicle Distrib. (AVDO) Act.	6	5	9	8	4
C Perf. Documentation Act.	44	36	29	17	6
D Perf. Planning and Scheduling Act.	26	20	17	12	4
E Perf. Engine Data Management Act.	5	7	6	3	0
F Perf. Test, Meas., and Diagnostic Equip. (TMDE) Act.	*	1	*	0	0
G Perf. General Admin. and TO System Act.	2	2	3	4	3
H Perf. General Supply and Equip. Act.	1	2	2	1	1
I Perf. Deployment and Contingency Act.	*	1	2	5	8
J Perf. Training Act.	1	6	7	8	8
K Perf. Management and Supervisory Act.	1	7	15	37	62

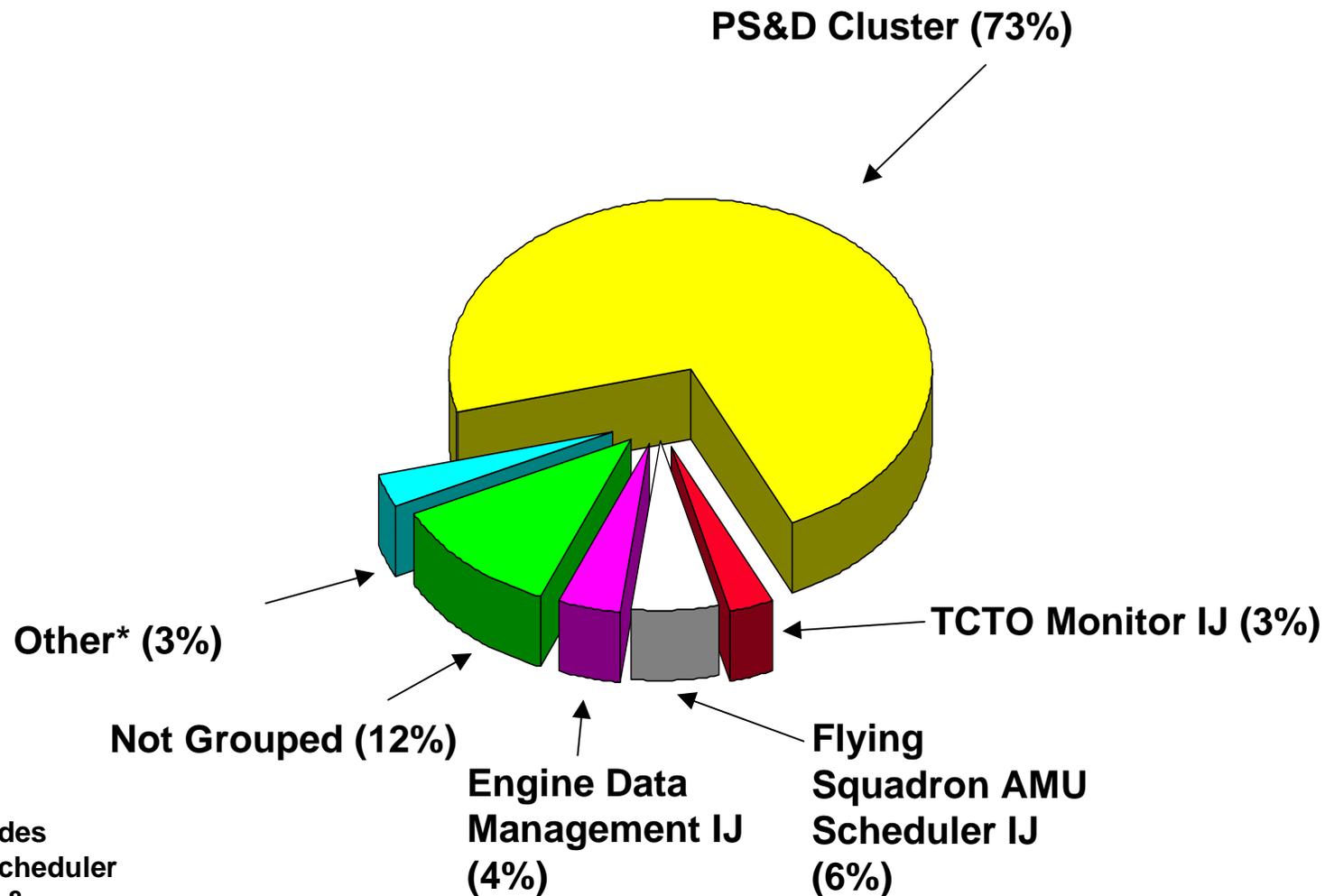
\* Indicates less than 1 percent



# First-Assignment Job Structure



## 1-48 Months' TAFMS Sample Size: 109



\*Other includes  
Munitions Scheduler  
IJ, AVDO IJ, &  
Training IJ



# First-Assignment Personnel Representative Tasks



**Percent  
Members  
Performing  
(N=109)**

## **Tasks**

<b>Schedule inspections, TCTOs, and time changes</b>	<b>73</b>
<b>Maintain core automated maintenance system (CAMS) or G0-81 products</b>	<b>67</b>
<b>Maintain AFTO Forms 95 (Significant Historical Data)</b>	<b>65</b>
<b>Maintain historical data on assigned equipment</b>	<b>61</b>
<b>Compute due times on new time change items</b>	<b>59</b>
<b>Input documentation information into CAMS or G0-81, other than AVDO data</b>	<b>59</b>
<b>Coordinate time compliance technical orders (TCTOs) with workcenters</b>	<b>59</b>
<b>Manage inspection requirements</b>	<b>57</b>
<b>Develop weekly utilization or maintenance schedules</b>	<b>57</b>
<b>Conduct pre-inspection or post-inspection meetings</b>	<b>56</b>
<b>Maintain AF Forms 2407 (Weekly/Daily Flying Schedule Coordination)</b>	<b>55</b>
<b>Manage TCTO requirements</b>	<b>54</b>
<b>Review documentation information in CAMS or G0-81</b>	<b>54</b>
<b>Conduct equipment records reviews</b>	<b>54</b>



# 2R1X1 Specialty Training Standard (STS) Analysis



- 2R1X1 STS appears to be well supported by survey data
  - Only one unsupported element
  - Only one task performed by 20% or more of members was not referenced to the STS
  - Several tasks, however, performed by 20% or more of first-job members were matched to STS elements without proficiency codes



# Example 2R1X1 STS Elements Without Proficiency Codes



Element	Learning Objective	Code	Percent Members Performing		Tng Emp
			1-24 Mos TAFMS	1-48 Mos TAFMS	
A.2.9.4.2	Engines	-			
Tasks	C0046 Incorporate inspection, TCTOs, and time changes into weekly schedules		48	52	6.35
	D0084 Correlate or distribute maintenance Plans		43	38	2.38
	D0087 Develop weekly utilization or maintenance schedules		58	57	7.69
	D0091 Plan maintenance support requirements to include shared resources		33	30	5.04
A.2.10.3.6	Conduct Post dock Meeting	-			
Task	C0041 Conduct pre-inspection or post-inspection meetings		58	56	5.96

Mean TE Rating is 3.00, Standard Deviation is 2.03 (HIGH TE= 5.03)



# Job Satisfaction Indicators (AFSC 2R1X1 vs. Comparative Sample\*)



	1-48 Months		49-96 Months		97+ Months	
	2003 2R1X1 (N=109)	Comp Sample (N=1731)	2003 2R1X1 (N=73)	Comp Sample (N=762)	2003 2R1X1 (N=199)	Comp Sample (N=2378)
Job interesting	56	67	56	68	74	76
Talents well utilized	81	78	76	78	90	86
Training well utilized	85	89	68	89	89	85
Sense of accomplishment	67	84	64	83	73	84
Plan to reenlist	51	51	70	62	62	64

\* Comparative sample of AFSCs surveyed in the last 24 months includes 2R0X1 (Maintenance Data Systems Analyst), 2A5X1 (Aerospace Maintenance, J shred), 2A5X2 (Helicopter Maintenance), 2A7X2 (Nondestructive Inspection, and 2A7X4 (Survival Equipment



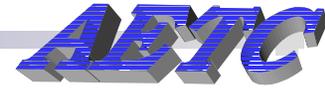
# Job Satisfaction Indicators (Current vs. Previous Study)



	1-48 Months		49-96 Months		97+ Months	
	2003 2R1X1 (N=109)	2001 2R1X1 (N=178)	2003 2R1X1 (N=73)	2001 2R1X1 (N=104)	2003 2R1X1 (N=199)	2001 2R1X1 (N=384)
Job interesting	56	63	56	63	74	72
Talents well utilized	81	76	76	80	90	83
Training well utilized	85	91	92	87	89	84
Sense of accomplishment	67	66	64	65	73	68
Plan to reenlist	51	51	70	60	62	66



# Job Satisfaction Indicators (Across Specialty Jobs)



	<b>PS&amp;D Cluster (N=424)</b>	<b>TCTO Monitor IJ (N=14)</b>	<b>Munitions Scheduler IJ (N=5)</b>	<b>Fly Sq AMU Scheduler IJ (N=26)</b>
<b>Job interesting</b>	<b>73</b>	<b>50</b>	<b>40</b>	<b>85</b>
<b>Talents well utilized</b>	<b>87</b>	<b>79</b>	<b>20</b>	<b>92</b>
<b>Training well utilized</b>	<b>88</b>	<b>71</b>	<b>60</b>	<b>84</b>
<b>Sense of accomplishment</b>	<b>74</b>	<b>43</b>	<b>40</b>	<b>81</b>
<b>Plan to reenlist</b>	<b>66</b>	<b>64</b>	<b>40</b>	<b>77</b>



# Job Satisfaction Indicators (Across Specialty Jobs Cont.)



	<b>AVDO IJ (N=8)</b>	<b>Mgmt./ Superv. IJ (N=59)</b>	<b>Training IJ (N=6)</b>	<b>Engine Data Mgmt. IJ (N=5)</b>
<b>Job interesting</b>	<b>88</b>	<b>68</b>	<b>50</b>	<b>100</b>
<b>Talents well utilized</b>	<b>88</b>	<b>93</b>	<b>67</b>	<b>100</b>
<b>Training well utilized</b>	<b>100</b>	<b>93</b>	<b>84</b>	<b>100</b>
<b>Sense of accomplishment</b>	<b>75</b>	<b>78</b>	<b>50</b>	<b>100</b>
<b>Plan to reenlist</b>	<b>63</b>	<b>61</b>	<b>33</b>	<b>80</b>



# Job Satisfaction Indicators (Across Components)



	<b>AD (N=382)</b>	<b>ANG (N=149)</b>	<b>AFRC (N=69)</b>
<b>Job interesting</b>	<b>65</b>	<b>87</b>	<b>77</b>
<b>Talents well utilized</b>	<b>85</b>	<b>90</b>	<b>87</b>
<b>Training well utilized</b>	<b>88</b>	<b>88</b>	<b>86</b>
<b>Sense of accomplishment</b>	<b>70</b>	<b>80</b>	<b>74</b>



# Retention Dimensions First-Term Airmen (N=109)



	Percent Responding	Average
<b>Planning to Reenlist (N=55)</b>		
Job security	71	2.69
Medical/Dental care for AD member	69	2.68
Pay and allowances	69	2.47
Off-duty education or training opportunities	67	2.59
Retirement benefits	56	2.55
<b>Planning to Separate (N=54)</b>		
Military lifestyle	55	2.52
Civilian job opportunities	36	2.42
Location of present assignment	36	2.26
Pay and allowances	34	2.44
Recognition of efforts	25	2.23

Scale: 1 = slight influence, 2 = moderate influence, 3 = strong influence



# Retention Dimensions Second-Term Airmen (N=73)

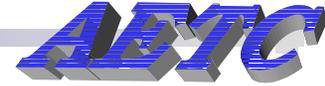


	Percent Responding	Average
<b>Planning to Reenlist (N=39)</b>		
Medical/Dental care for AD member	74	2.69
Off-duty education or training opportunities	69	2.67
Military lifestyle	67	2.46
Pay and allowances	67	2.69
Job security	67	2.92
<b>Planning to Separate (N=34)</b>		
Military lifestyle	52	2.29
Civilian job opportunities	45	2.73
Esprit de corps/morale	45	2.27
Pay and allowances	39	2.54
Recognition of efforts	36	2.08

Scale: 1 = slight influence, 2 = moderate influence, 3 = strong influence



# Retention Dimensions Career Airmen (N=133)

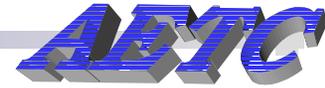


	Percent Responding	Average
<b>Planning to Reenlist (N=124)</b>		
Retirement benefits	69	2.69
Pay and allowances	60	2.38
Job security	56	2.65
Medical/Dental care for AD member	53	2.56
Off-duty education or training opportunities	53	2.45
<b>Planning to Separate (N=9)</b>		
Bonus or special pay	67	1.67
Military lifestyle	44	2.75
Promotion opportunities	44	2.75
Civilian job opportunities	44	2.25
Recognition of efforts	33	3.00

Scale: 1 = slight influence, 2 = moderate influence, 3 = strong influence



# Summary of Results



- Career ladder progression fairly typical
  - Very few differences in tasks performed by 3- and 5-skill-level members; slightly more supervisory by 5-level
  - Pronounced differences between 5- and 7-skill-level members regarding management/supervisory activities
  - 9-skill-level and CEM members spend majority of time on management/supervisory responsibilities
- Specialty Training Standard well-supported by survey data
  - Minimal problems with important tasks matched to uncoded elements
- Job satisfaction indicators
  - Job satisfaction uniformly good across TAFMS groups, components
  - Stable since last survey, compare favorably to other 2XXXX AFSCs
  - A few indicators relatively low among members of some small jobs



# Questions?



Visit our web site at:

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