



Controller Training and Labor Issues

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Transportation**



Aug 2006 FAA Administrators Fact Book



U.S. Department
of Transportation
Federal Aviation
Administration

ADMINISTRATOR'S FACT BOOK

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FAA Resources

FAA Employment (Permanent Employees)¹

	FY05	FY04
Line of Business		
Air Traffic Organization (ATO)*.....	35,008	36,328
Aviation Safety (AVS).....	6,335	6,570
Airports (ARP).....	473	480
Comm. Space Transportation (AST)....	54	55
Staff Offices**.....	3,860	3,896
*	45,730	47,329
Region/Center/Headquarters (included in above total)		
Aeronautical Center.....	3,390	1,561
Alaskan.....	1,305	1,330
Central.....	2,277	2,344
Eastern.....	5,074	5,220
Great Lakes.....	6,107	6,280
New England.....	1,785	1,861
Northwest Mountain.....	3,956	4,014
Southern.....	7,092	7,293
Southwest.....	5,076	5,259
Western-Pacific.....	5,091	5,114
Washington Headquarters (only) ²	4,097	4,178
Washington Headquarters Field.....	n/a	1,709
Technical Center.....	1,245	1,166



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Major Work Force Employment

	Employment*				
	FY 06	FY05	FY04	%Chg. FY06 - FY05	Actual Change
Air Traffic Controller Work Force	16,683	16,645	17,070	0.2%	38
ATCS** (bargaining unit employees)	14,305	14,227	14,736	0.5%	78
Traffic Management Coordinators**	629	623	612	1.0%	6
Operations Supervisors**	1,749	1,795	1,722	-2.6%	-46
Flight Service Stations (FSS)***	199	2,087	2,583	-90.5%	-1,888
Field Maintenance (210-211 only)	7,196	7,265	7,253	-0.9%	-69
Airports Work Force	459	466	472	-1.5%	-7
Aircraft Certification	1,112	1,104	1,141	0.7%	8
Flight Standards Work Force	4,312	4,408	4,564	-2.2%	-96



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Labor Relations

	BARGAINING UNITS	LABOR AGREEMENTS	EMPLOYEES REPRESENTED
Unions	48	28	34,399
AFGE.....	10	8	1,617
AFSCME (HQ).....	5	0	1,816
LIUNA.....	1	1	156
NAATS.....	1	1	156
NAGE.....	3	3	293
NATCA (AT).....	4	2	15,572
NATCA (AF).....	2	2	1,365
NATCA (Other).....	8	4	1,428
NFFE.....	3	2	671
PAACE.....	3	2	383
PASS (AF/AEA).....	1	1	7,210
PASS (AVN).....	1	1	331
PASS (AFS).....	2	2	3,251
PASS (AIR).....	1	1	142

- AFGE –American Federation of Government Employees
- AFSCME –American Federation of State, County, and Municipal Employees
- LIUNA –Laborer's International Union of North America
- NAATS –National Association of Air Traffic Specialists
- NAGE –National Association of Government Employees
- NACTA –National Air Traffic Controllers Association
- NFFE –National Federation of Federal Employees
- PAACE –Professional Association of Aeronautical Center Employees
- PASS –Professional Airway System Specialists



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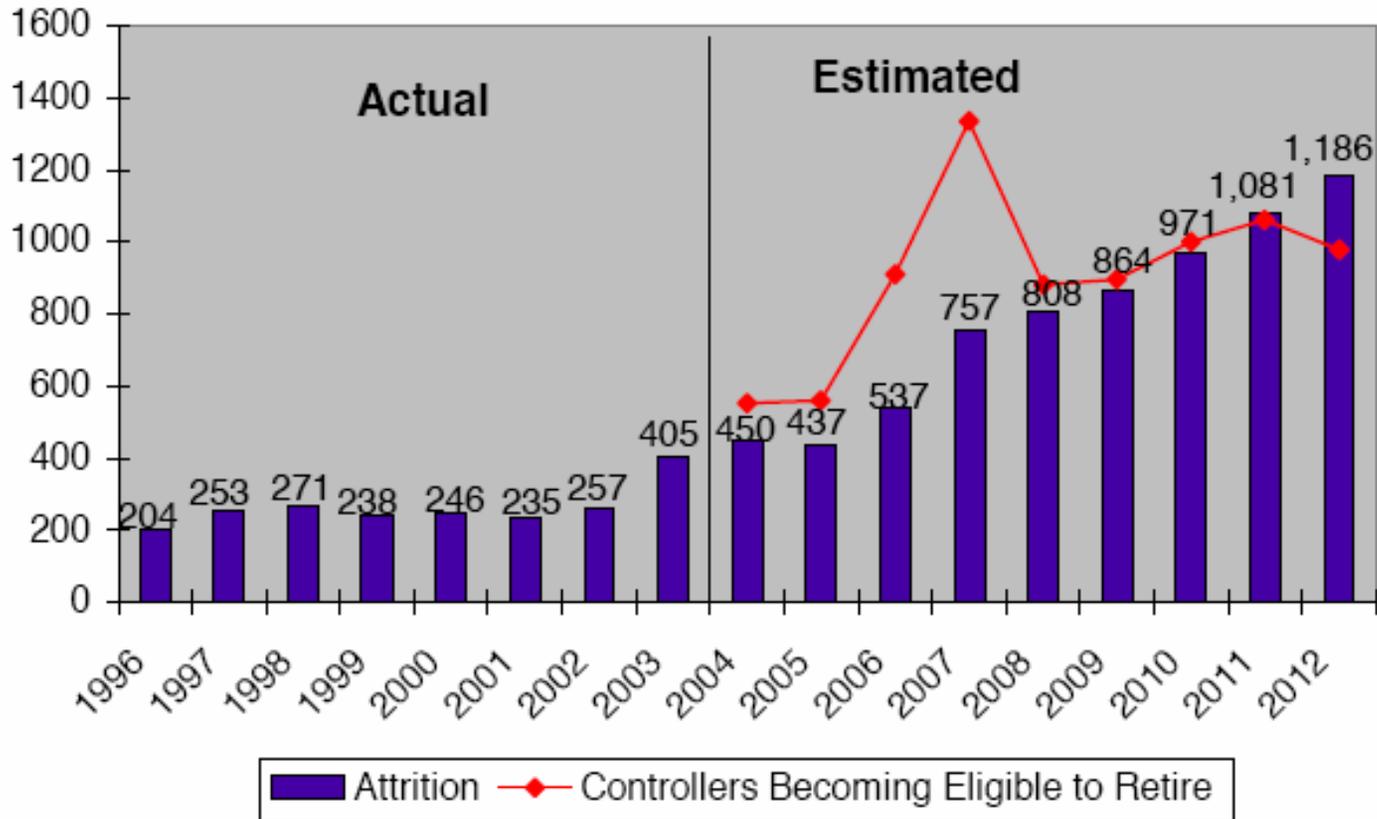
FAA Finances (In Millions of Dollars)

	FY 2005 ¹	FY 2006 ²	FY 2007
	Actual	Enacted	Request
Budget Authority (BA)			
Grants-In-Aid (Obligation Lim/Approp).....	3,472	3,515	2,750
Other Budget Authority.....	25	0	0
Research, Engineering, & Development.....	130	137	130
Facilities and Equipment.....	2,525	2,555	2,503
Operations.....	7,707	7,955	8,366
Flight Service Station A-76 Competition	0	149	0
Total.....	13,859	14,310	13,749
Obligations Incurred—Operations			
Appropriation by Line of Business			
Air Traffic Organization (ATO).....	6,341	6,550	6,704
Aviation Safety (AVS)	904	949	982
Commercial Space Transportation (AST)....	11	12	12
Staff Offices (SO).....	434	445	668
Flight Service Station A-76 Competition		149	0
Total.....	7,691	8,104	8,366
Airport Grant Obligations (NET)			
Primary Airports & Cargo.....	1,021	1,008	589
States/Territories/Insular/Alaska Supp.....	698	706	500
Carryover Entitlements.....	416	432	432
Discretionary Fund.....	859	850	912
Small Airport Fund.....	389	428	215
Total.....	3,383	3,424	2,648
Total FAA Outlays.....	13,839	14,422	14,820
Trust Fund Receipts from Excise Taxes and Interest			
Transportation of Persons by Air	7,061	7,381	7,817
Transportation of Property.....	461	583	616
Use of International Air Facilities.....	1,922	1,866	2,044
Aviation Fuel Commercial Use.....	354	498	517
Aviation Fuel (Other Than Gas).....	478	280	304
Aviation Gasoline.....	38	42	44
Total Tax Revenue.....	10,314	10,651	11,341
Interest revenue.....	429	438	446
Total Tax & Interest Revenue.....	10,743	11,089	11,787



- **PATCO Strike On Aug 3, 1981**
 - ❑ Pay, Stress, Staff Shortages, Out of Date Equipment, Limited opportunities to transfer, Harsh Authoritaratian Leadership
 - ❑ FAA offer
- **Regan invoked Taft Hartly Act**
 - ❑ Peril to National Safety
 - ❑ Ordered back to Work, about 1200 returned
- **Fired 11,359 Controllers on Aug 5**
- **Managed by using remaining controllers, military and supervisors**
 - ❑ Flow Control, 80% Schedule

Air Traffic Controller Attrition and Retirement Eligibility



* Attrition data are as of May 2004. The number of controllers becoming eligible includes only those controllers reaching retirement eligibility in that year and does not include prior years. Retirement eligibility estimates are as of December 31, 2003.

Source: FAA (2004) Opportunities To Improve FAA's Process For Placing And Training Air Traffic Controllers In Light Of Pending Retirements, Report Number: AV-2004-060



Retirement Eligibility for Controllers

Type of Retirement	Controller Age	Years of Service
Special	50	20
Special	Any Age	25
Mandatory	56	20

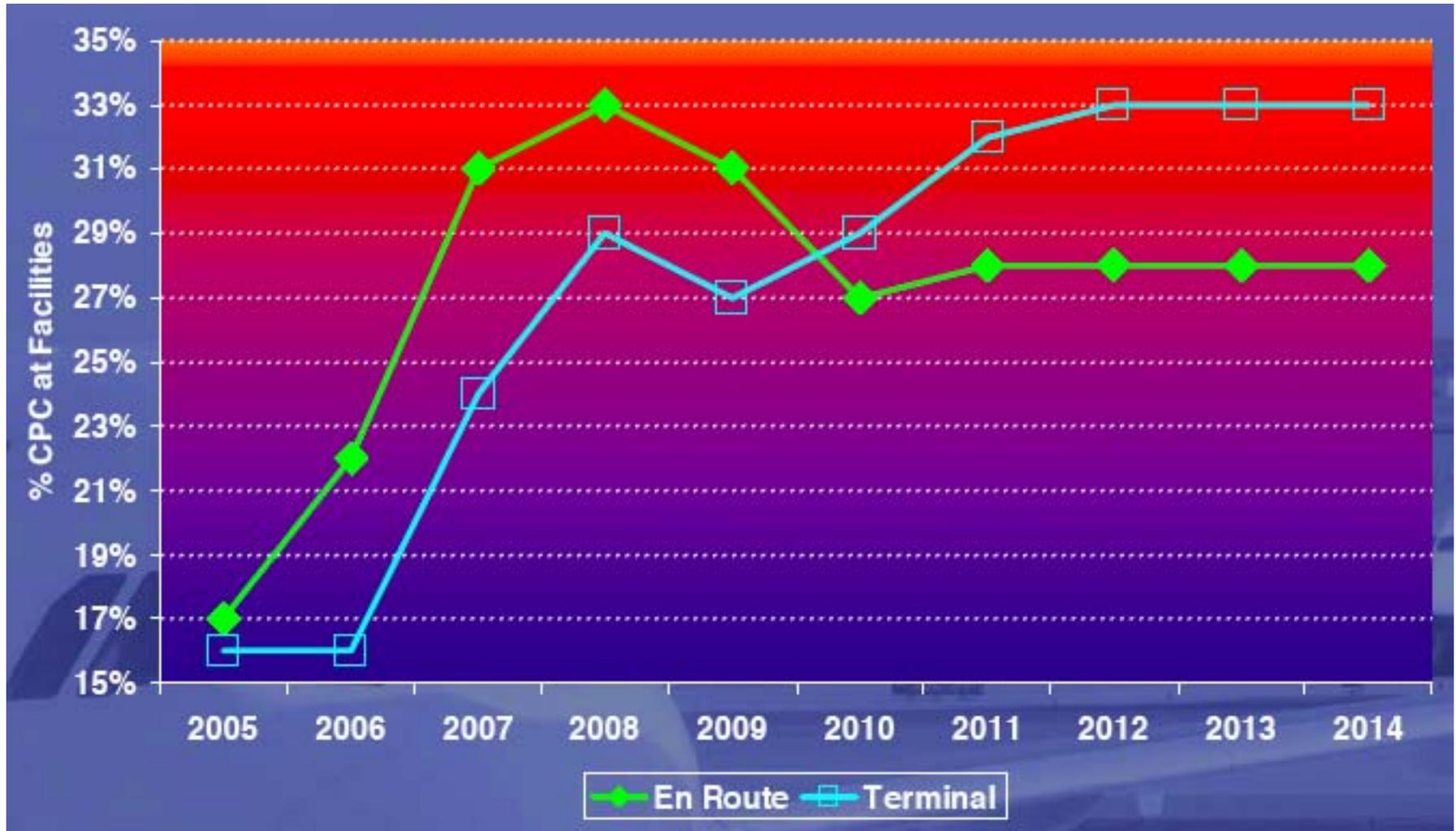
Exemption of Mandatory Retirement for “Exceptional” Controllers

Source: FAA (2004) Opportunities To Improve Faa’s Process For Placing And Training Air Traffic Controllers In Light Of Pending Retirements, Report Number: AV-2004-060

Report available at http://www.natca.org/assets/Documents/legislationcenter/IG_report_ATC_retirement.pdf



Projected % Developmental Controllers





Time to CPC

	Post-Strike (1981-1995)	Current (1996-2005)	Target
Low-Level Terminal	<12 months	~8 months	~8 months
Mid-Level Terminal	~24 months	~24 months	~24 months
High-Level Terminal	~36 months	~36 months	~36 months
En Route	~36 months	36-60 months	~36 months



Training Challenges & Opportunities

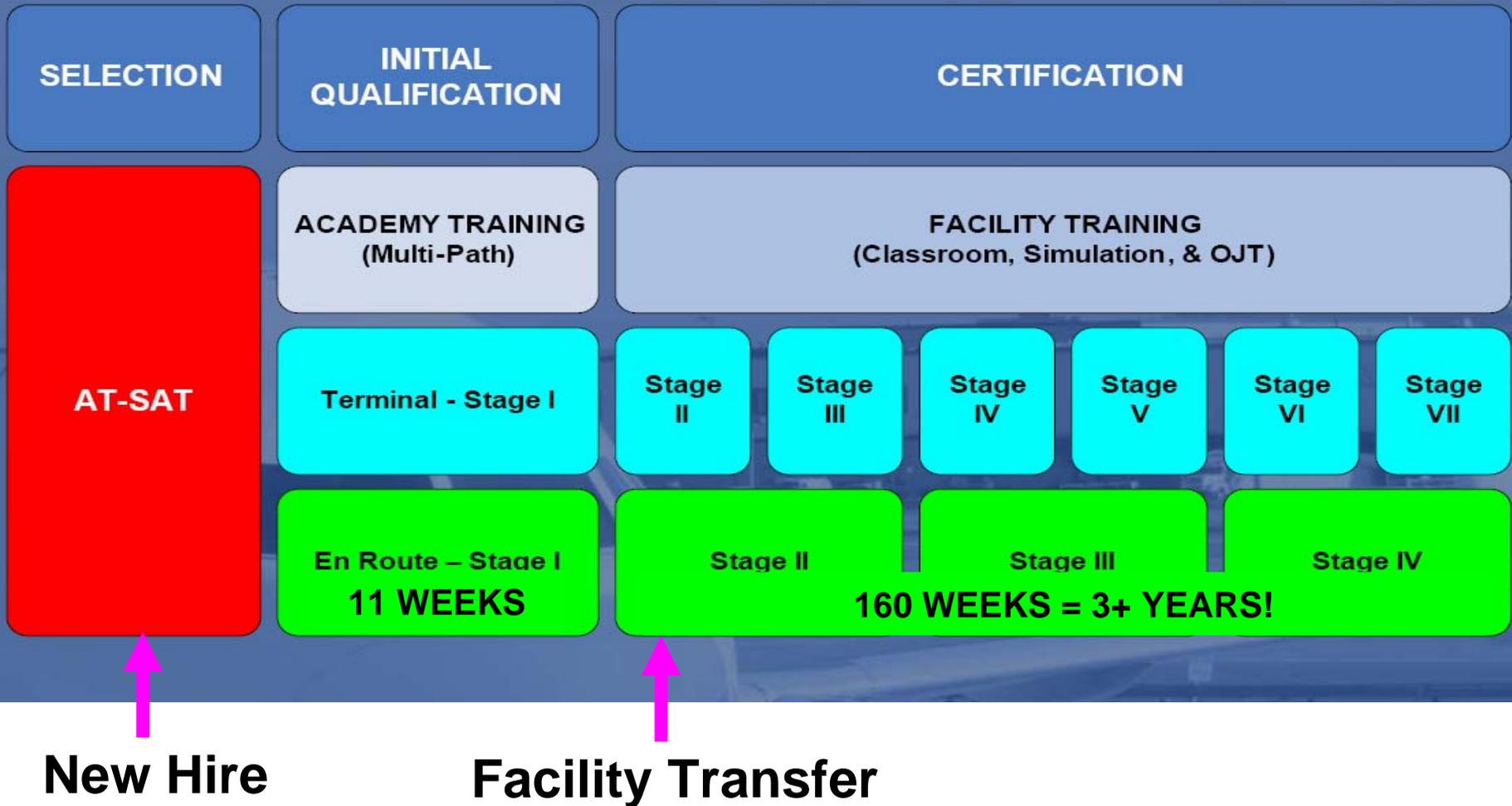
- **Challenges**

- Retirement of demographic bulge resulting from the PATCO strike in 1981
- Long Training Times
 - ab-initio
 - Cross Facility
- Site Specific Staffing Shortfalls
- Exacerbated by:
 - Growth in Traffic
 - Need for New Technology Implementation
 - Need for New Procedures
 - Financial Pressures

- **Opportunities**

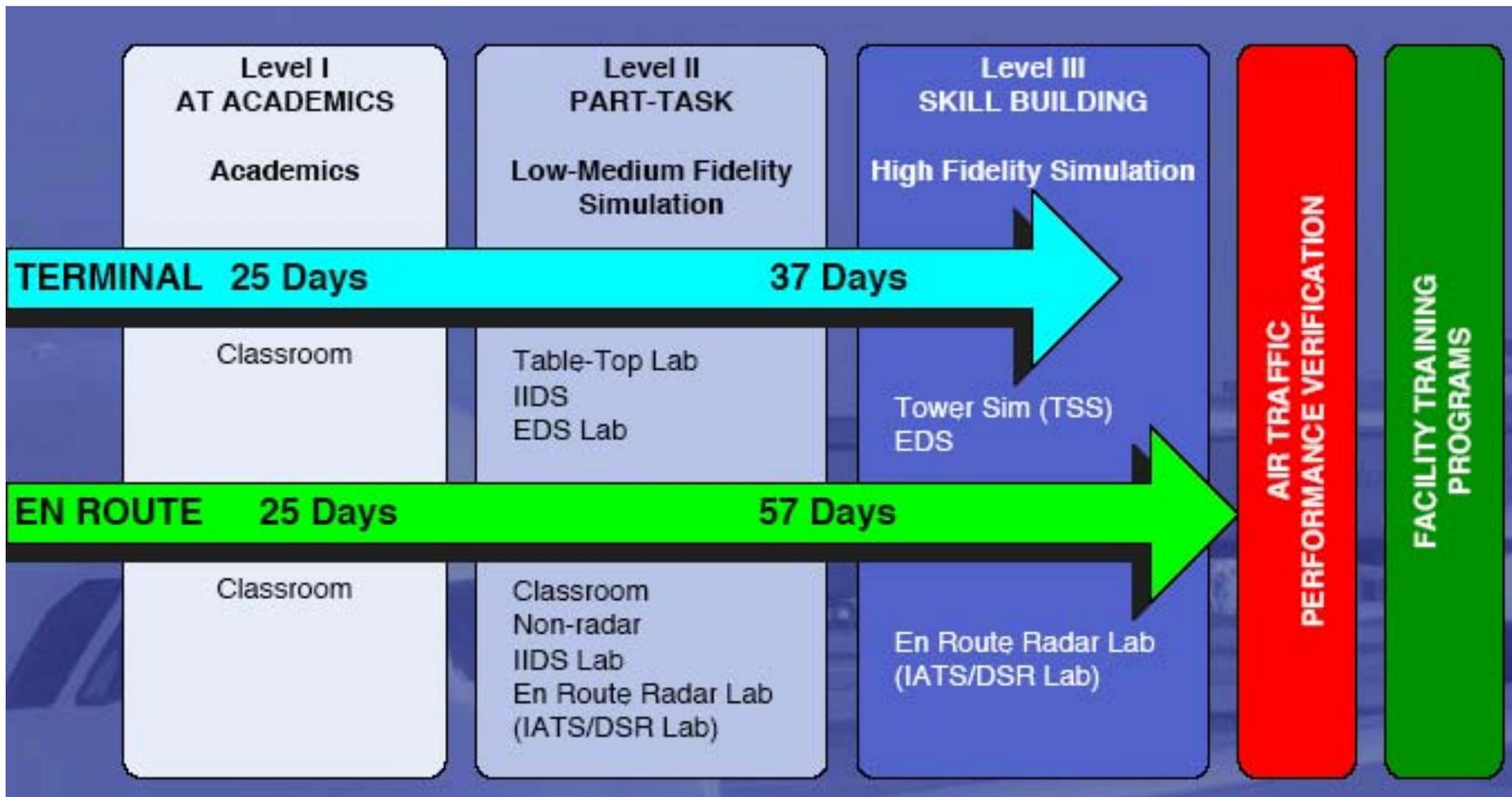
- Renewed workforce (Knowledge, Skills, Attributes)
- New Training Approaches
 - Efficiency
 - Groundwork for future capability
- Stimulates review of current practices and opportunities to improve efficiency
- This generation will operate the NGATS

ATCS training program overview





FAA Academy Training Overview



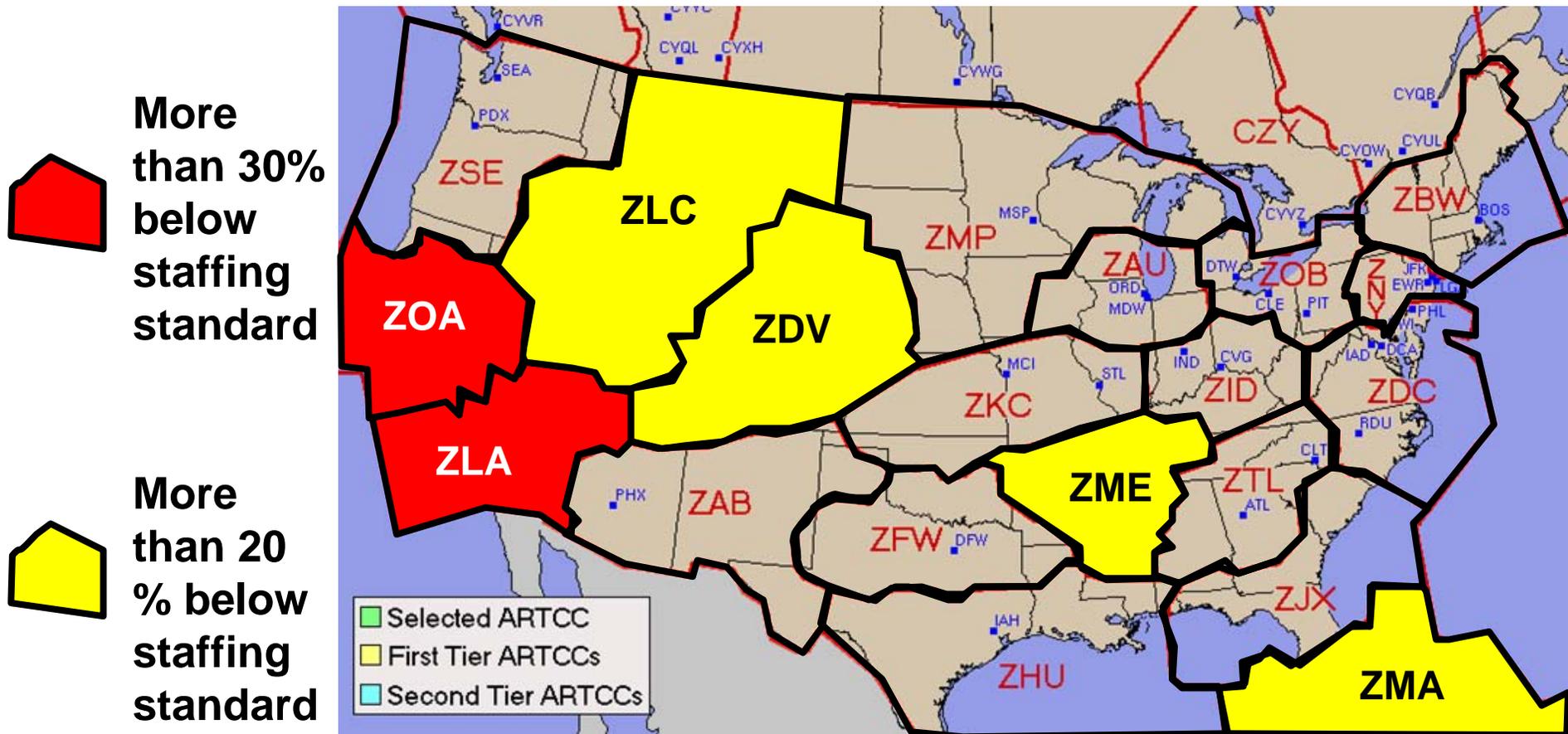


Average Years to CPC (2002-2003)

Facility	Facility Level	Training Failures	Number of Newly Certified Controllers	Average Years to Certify as a Controller*	Average Hours Training on Live Traffic*
Atlanta Center	12	11	36	2.1	666
Chicago Center	12	5	28	3.5	905
Cleveland Center	12	2	26	2.7	677
Jacksonville Center	11	1	28	1.5	402
Los Angeles Center	11	20	26	2.5	847
Minneapolis Center	11	1	22	1.3	434
New York Center	12	15	31	3.8	696
Oakland Center	11	6	14	3.4	655
Washington Center	12	4	12	2.0	492
Atlanta TRACON	12	18	3	Excluded because of recent consolidation	Excluded because of recent consolidation
Chicago TRACON	12	14	3	1.8	462
Minneapolis TRACON	11	1	12	1.7	721
New York TRACON	12	35	16	1.7	Average data not available. Data available by individual.
Southern California TRACON	12	3	8	1.0	299
LaGuardia Tower	10	0	2	1.8	291
Los Angeles Tower	12	1	8	1.3	425
Minneapolis Tower	11	1	5	.6	316

*Statistics are for CPCs that certified during FYs 2002 and 2003 and do not include data from training failures or developmentals who have not certified.

Centers Currently Below Staffing Standard



Controller Qualification is Facility Specific

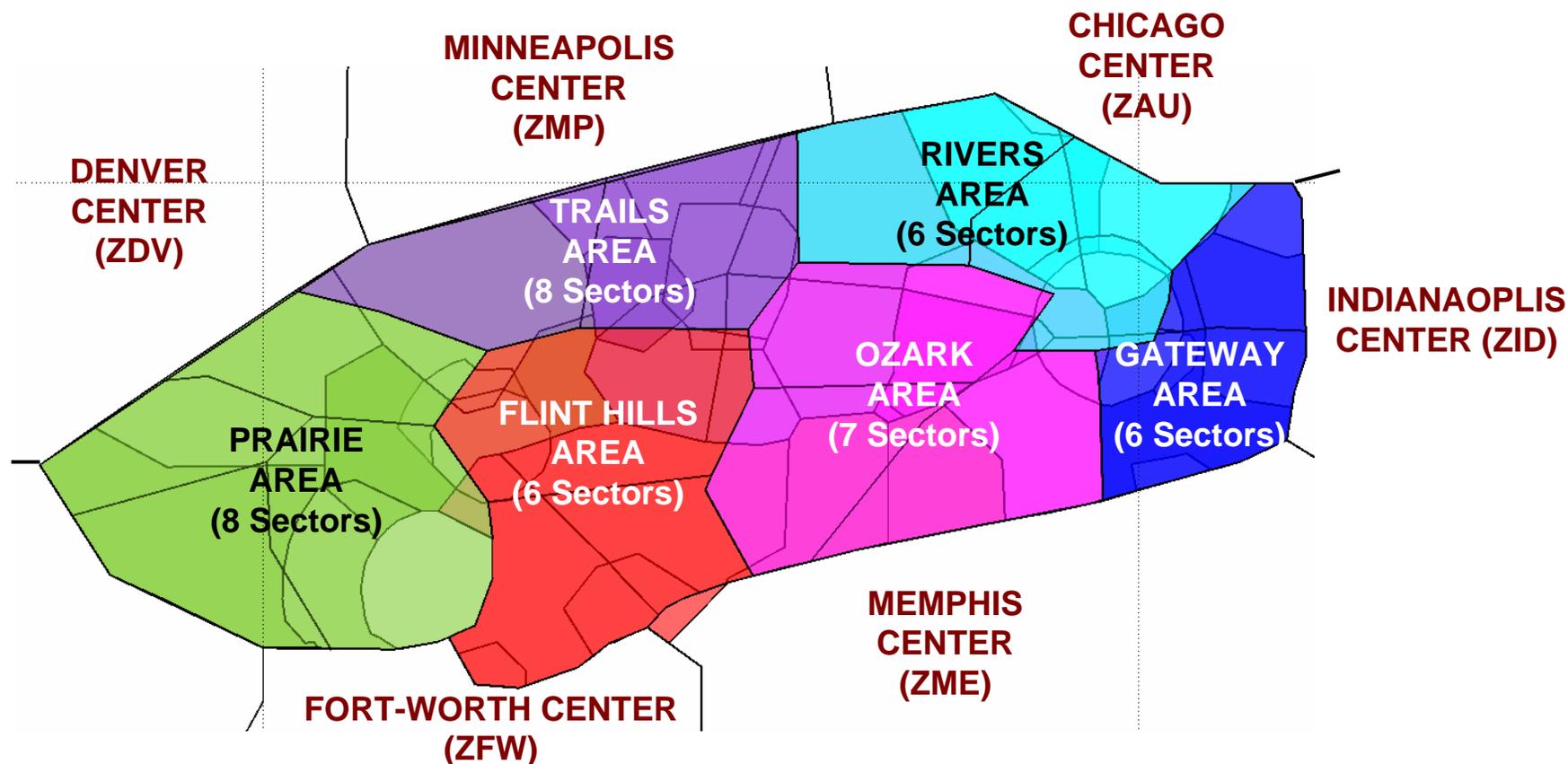
- **Controllers are not interchangeable between (or even within) facilities**
 - Enroute controllers certified across 5-7 sectors within area / speciality in each Center
 - Lengthy retraining – 3+ years!
- **Cannot easily move controllers to where they are most needed**



ZFW 7 Areas of Specialization

Even Transfers Within a Facility Are Impacted by Lengthy Training Times

- **Controllers qualified only in an Area of Specialization or Specialty within a Center**
- **Typically 5-7 sectors within area of specialization in each Center**





MIT International Center for Air Transportation

FAA REDAC
Human Factors Subcommittee
Chair, Kevin Corker

*Report on Controller
Workforce Development Efforts*

Presented at the FAA

REDAC Meeting

September 20, 2005



Charter

- **Administrator's request to review and assess FAA plans and activities related to the skills training and needs of the next generation controller workforce in anticipation of the upcoming retirement replacement needs**



Summary Findings 1

- **Committee commends the development of the *Plan for the Future: The FAA's 10-Year Strategy for the Air Traffic Control Workforce* but is concerned about implementation.**
 - **Near Term:** A management focal point and an aggressive *up-tempo* response of the agency are required to meet immediate staffing requirements.
 - **Mid Term:** The training process should be refined based on a lean (value added) process analysis and clearly defined knowledge, skill and ability performance requirements.
 - **Far Term:** Agency should seize the opportunity for sustained development of the workforce of the future by new techniques of recruitment, selection and training



Summary Findings 2

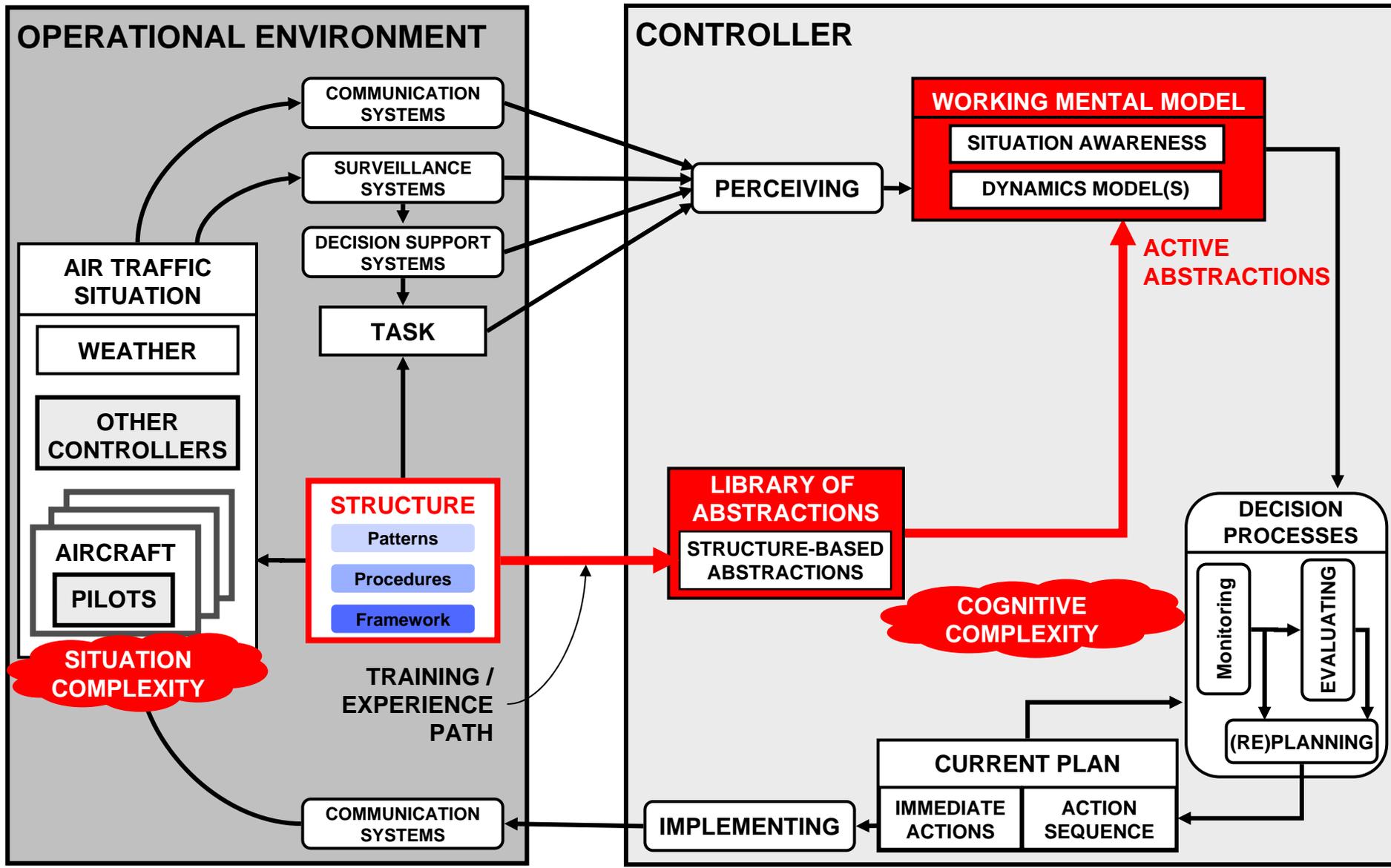
- **Committee has significant concerns with the speed and efficiency of current training practice to meet the system wide and facility specific demands over the next 5 years.**
 - Concern is based on the 2-5 year time to train to CPC and the cost/time for position transfer-training to facility specific operations
 - A large portion of the training time is on the job training. This process is of uncertain efficiency and requires significant controller resources.
- **Committee sees an opportunity to improve effectiveness and efficiency of the recruitment, selection and training process (at all stages: Collegiate Training Initiative, Academy, and On The Job (OTJ) training**
- **More Detail in Following Slides**



Training Process Enhancements

- **Observation:** There are a number of initiatives proposed in the “Plan for the Future” focused on achieving gains in efficiencies and effectiveness in the training process with associated reductions in training time and costs. Much less emphasis has been placed on developing the right training program.
- **Recommendations:**
 - ✓ The FAA should immediately convene an independent lean process review team to, in the near term, assure the response needed to meet immediate needs and, in the far term, development the training program for the future.
 - ✓ Conduct a complete review of the current academy training program and facility training programs, and the age 56 exceptional controller process
 - ✓ Consider new training approaches, eg concurrent Radar and Associate Training
 - ✓ Review options on centralized versus decentralized training
 - ✓ Identify requirements and venues for training of advanced controller tools
 - ✓ Support assessments regarding the use of simulation throughout the training process
 - ✓ Training must be a requirements-driven and performance-based process
 - ✓ Training must focus on determined knowledge, skills and abilities to reach CPC
 - ✓ The FAA should accelerate current efforts in staffing standards model and functional requirements development

Structure Based Cognitive Review of Training (Histon)

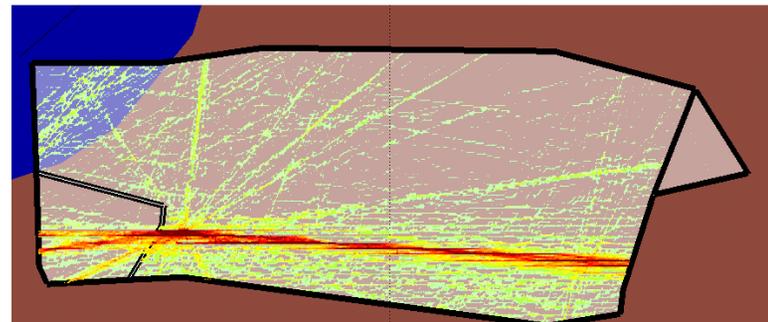
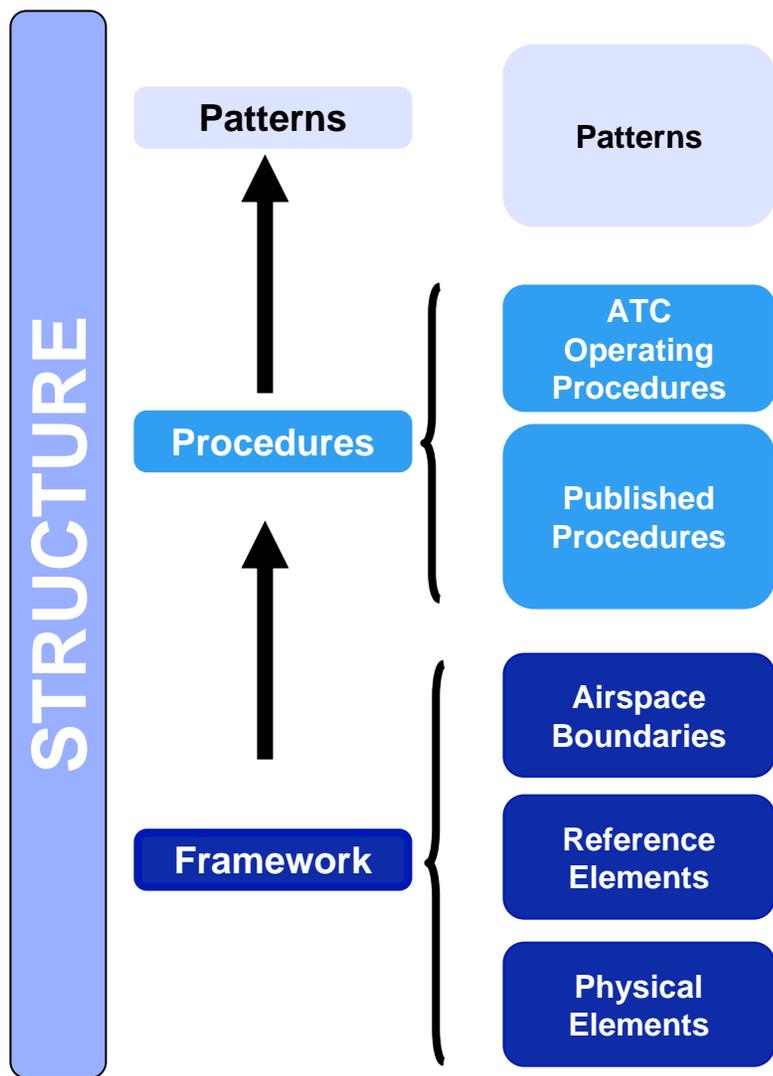




Examples of Complexity Reducing Structure-Based Abstractions

- **Standard Flows**
 - Aircraft classified into standard and non-standard classes based on relationship to established flow patterns.
- **Groupings**
 - Common, shared property, property can define non-interacting groups of aircraft
 - E.g. non-interacting flight levels
- **Critical Points**
 - E.g. merge point
 - Reduce problem from 4D to 1D “time-of-arrival”.
- **Responsibility**
 - E.g. discounting non-relevant parts of situation
 - E.g. delegating separation responsibility (“maintain visual separation”)

Structure Basis for Abstractions Can Be Decomposed Into Distinct Layers



Classroom Training Components

	STAGE II Assistant Controller (Flight Data)	STAGE III Nonradar & Radar Associate	STAGE IV Radar Controller
Structure Knowledge	<ul style="list-style-type: none"> •Center Area Chart •Area of Specialization Chart 	<ul style="list-style-type: none"> •Area of Specialization Chart + Minimum altitudes + Airport procedure details •Instruction on Letters of Agreement and facility orders •Special Military Operations self-study guide 	<ul style="list-style-type: none"> •Locate & identify radar systems •Describe radar coverage & limitations •Identify radio equipment and landlines associated with radar positions •Explain in Detail Letters of Agreement and Special Procedures
Other	<ul style="list-style-type: none"> •Operating Communication System •Flight Data Position responsibilities / operations 	<ul style="list-style-type: none"> •Enroute study guide •Phraseology / Strip Marking self-study guide •FAA Academy developed lesson plans 	<ul style="list-style-type: none"> •Radar qualification exam •FAA Academy developed lesson plans

Based on Initial Cognitive Review Learning Occurs Through Two Primary Mechanisms

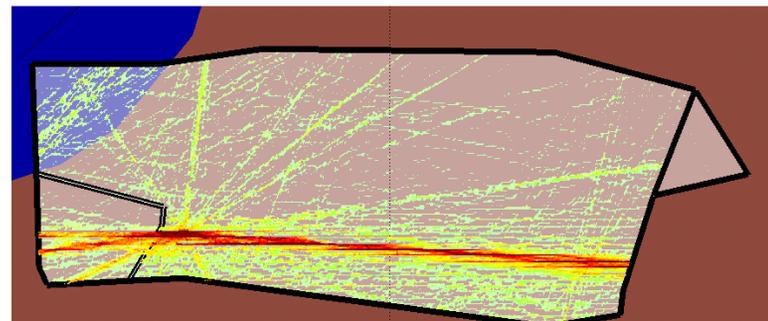
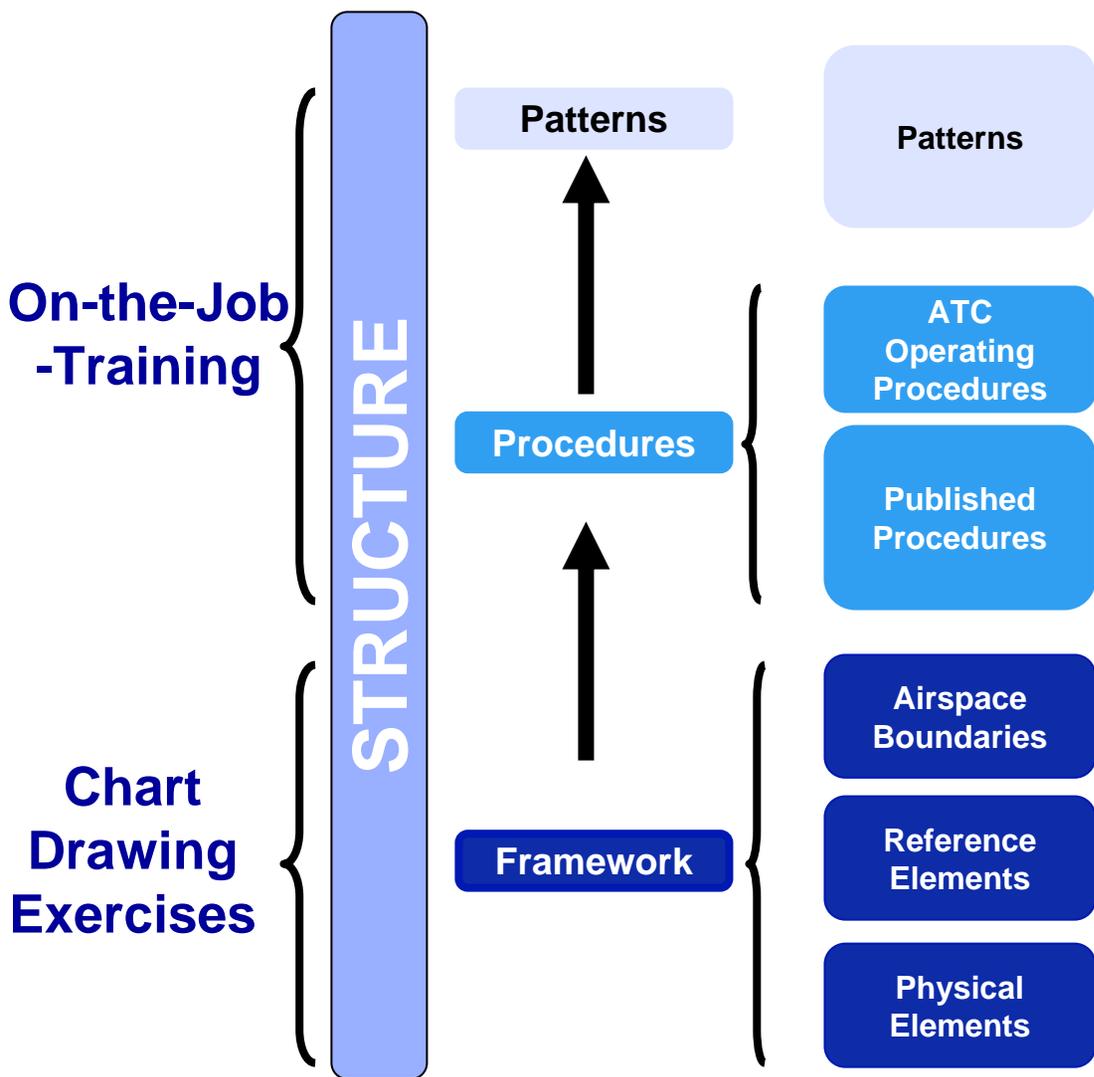




Chart Memorization Requirements

Center Area Chart.

- Label each NAVAID/fix with its correct identifier (including the first NAVAID outside the area).
- Depict all airways and jet routes extending from the first NAVAID/ fix outside the area and label each.
- Depict and identify sector boundaries.
- Depict and identify special use airspace.
- Identify adjacent center sectors.

STAGE II

Assistant Controller
(Flight Data)

STAGE III

Nonradar & Radar Associate
("D-side")



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Area of Specialization Chart

ABOVE AND

- Indicate total mileage between NAVAIDs and/or fix posting.
- Depict and label all intersections.
- Depict and label restricted, prohibited, and warning areas and other special use airspace
- Depict and label all approach control airspace, VFR towers, FSS locations, and class B, C, D, and E airspace.

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STAGE III

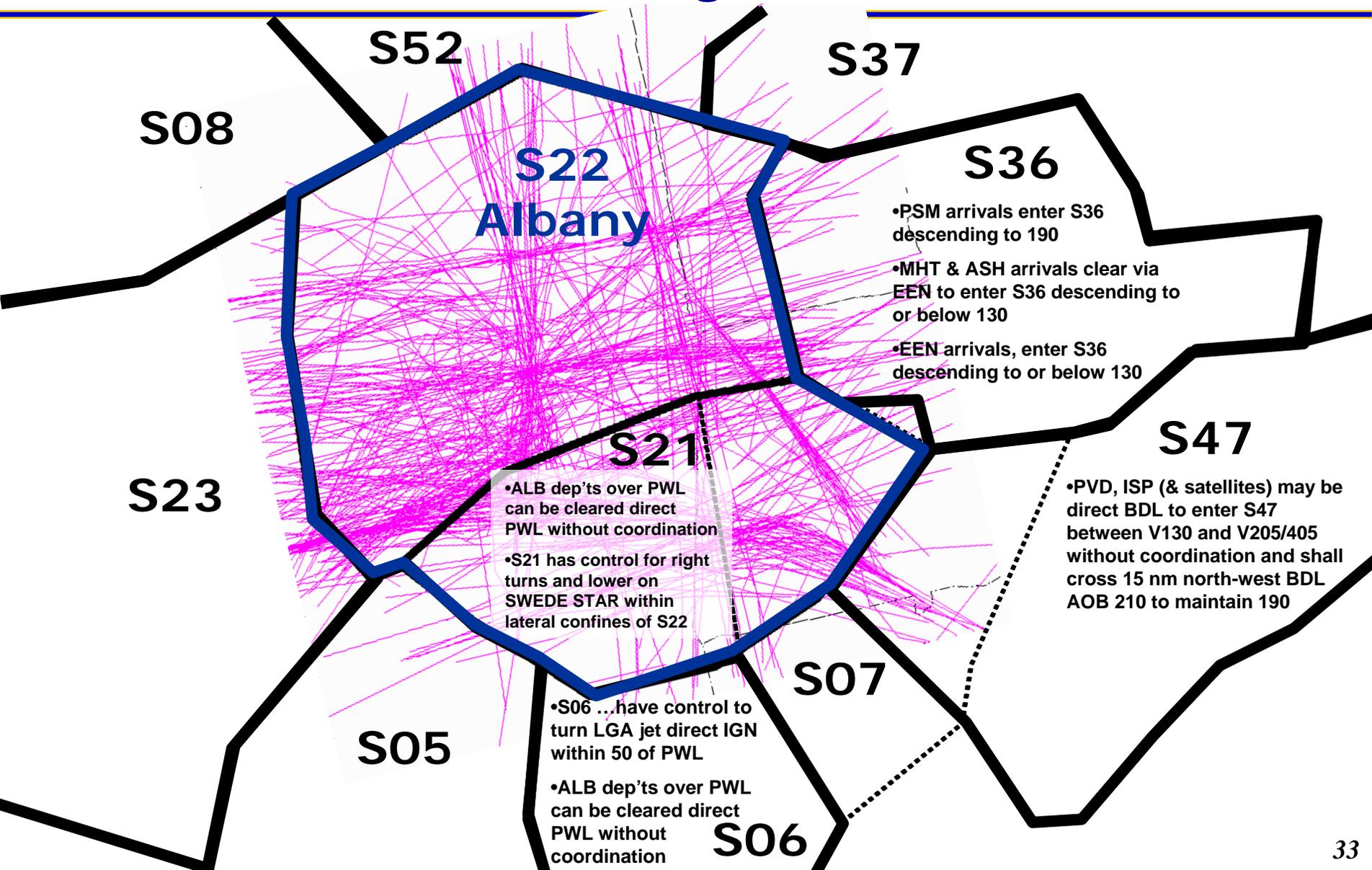
Nonradar & Radar Associate
("D-side")

Area of Specialization Chart

ABOVE AND

- Label all MEAs, MRAs, MOCAs, and MCAs.
- Depict and label ... for ... airports within the area of specialization ...:
 - Published holding pattern direction and turns.
 - Initial penetration/approach altitude.
 - Initial penetration/approach fix.
 - Outbound and inbound heading/bearing/radial.
 - Direction of procedure turn (if applicable).
 - Missed approach procedures and altitudes.

Interface Procedures – Surrounding Low Altitude Sectors





Interface Procedures – Surrounding High Altitude Sectors

S09

- S09 has control for turns direct SYR on ALB dept's over SYR

S39

- BDL departures requesting FL240 or above filed over CAM shall be handed off to S39

**S22
Albany**

S24

- Landing BDL enter AOB230
- Landing PVD ISP cross 85 east of HNK @ 240

S38

- ALB dept's via J6 can be radar vectored to join J6. Heading must establish a/c on J6 within S22. Coordination not required with S38

S46

S20

- ALB departures via J6 can be radar vectored to join J6. Heading must establish a/c on J6 within S22. Coordination not required with ... S20
- Landing LGA JFK & HPN enter S20 at LUFL



Chart Drawing Exercises Appears to Be Used to Achieve Two Key Objectives

- **Supporting development of an underlying mental model of the operational environment**
 - Building foundation for understanding airspace structure and relationships between NAVAIDs, intersections, airways
 - Provides a reference frame for communication between trainee and instructors, other controllers and pilots
- **Forcing memorization of facts / information that must be available for immediate recall (time-critical)**
 - Communication frequencies, minimum safe altitudes



Are There Ways To Make Training More Efficient While Still Meeting Objectives?

- Do ALL of the elements memorized contribute to the development of a controller's operational mental model?
- Is it necessary to memorize ALL elements and have them available for immediate recall?
- **Multiple approaches:**
 - Reducing memorization burden
 - Standardizing airspace and procedures

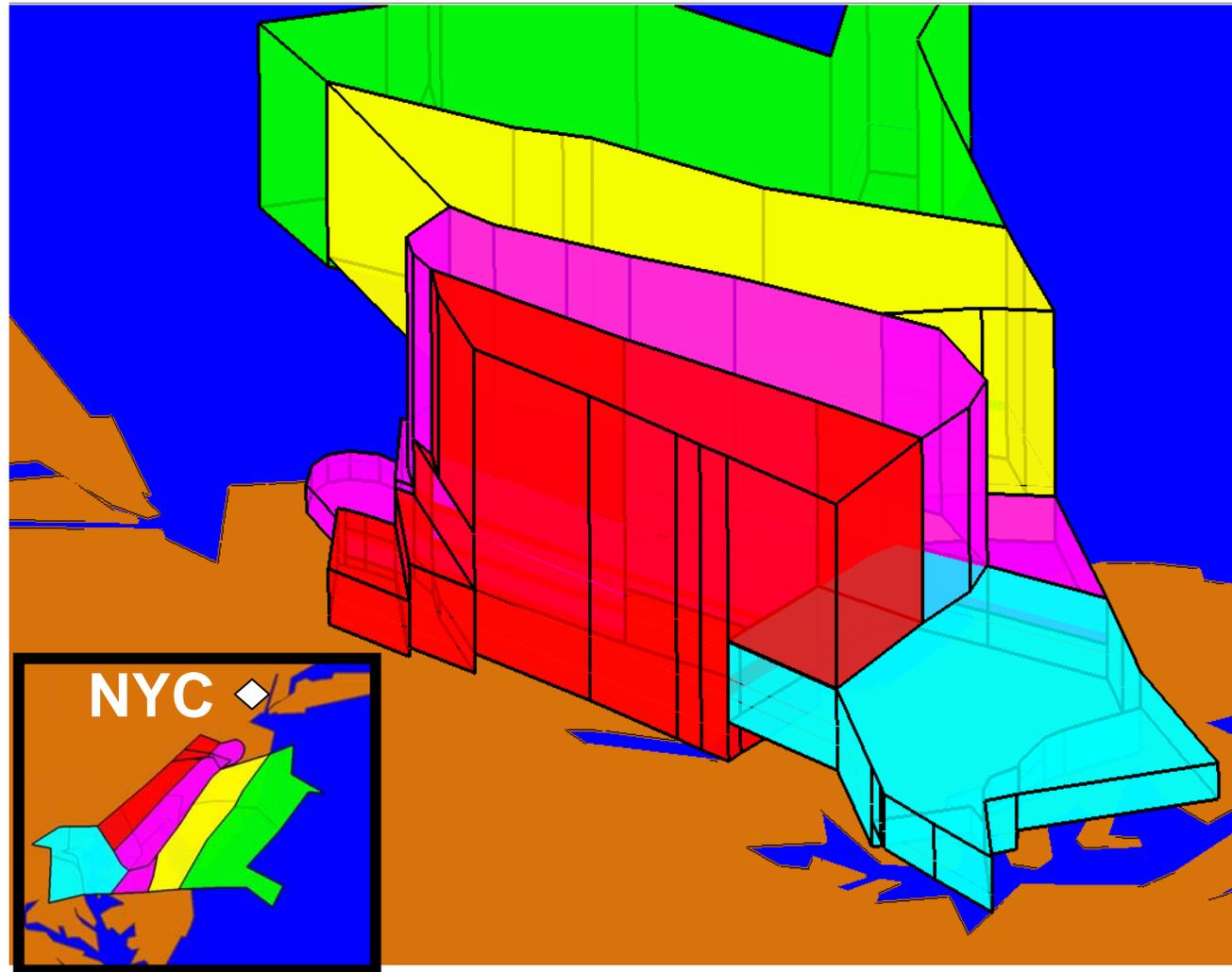


Opportunities to Reduce Memorization Requirements - Offloading Structure Knowledge to Controller Displays

- **ERIDS**
(En Route Information Display System)
 - Currently being deployed
 - Provides access to status information, charts, publications at sector workstation
 - o E.g. operating hours of restricted airspace
- **ERAM**
(En Route Automation Modernization)
 - Opportunity to make critical information available directly at controller display
 - o Communication frequencies,
 - o Minimum altitudes
 - o Intersection names

Current Airspace Structure & Procedures Require the Development of Mental Models that Incorporate Sector Specific Features

- **Non-standard airspace geometries**
 - Airspace shelves
- **Unique flow and aircraft interactions**
- **Non-standard interface procedures**
 - LOAs



Sectors in Area 8, Washington Center

- **Mixture of old and new technologies creates “mixed equipage” problem**
 - E.g. introduction of RNAV
- **Several implications for controller training:**
 - May require development of more sophisticated mental models accounting for performance differences
 - May increase memorization burden by adding additional Structure elements
 - E.g. RNAV MEA’s have been added to IFR charts

Revised IFR Enroute Low Altitude Chart, Route Data, Area Navigation (RNAV) Minimum Enroute Altitude (MEA)





ATCS Performance Measures & Training Effectiveness

- **Observation:** The assessment of Academy training and OJT effectiveness are hindered by a lack of metrics to ensure performance competencies, prioritize efforts to address training and remediation, and track controller development. Training seems largely time-based as opposed to performance and results based.
- **Recommendation:**
 - ✓ The FAA should immediately and consistently develop and implement performance-based metrics and standards for CTI, Academy, facility airspace, and OJT training entry/exit criteria to assess controller competencies
 - ✓ The FAA should seek to standardize, to the extent possible, scenario characteristics for training and exploit advanced simulation technology to converge on a common set of controller skills
 - ✓ The FAA should combine the use of objective measures of skill with behaviorally anchored rating scales to ensure effective use of training exit criteria
 - ✓ The FAA should examine best practice and lessons learned in training for air transport operations and investigate their application to controller performance



Use of Simulation

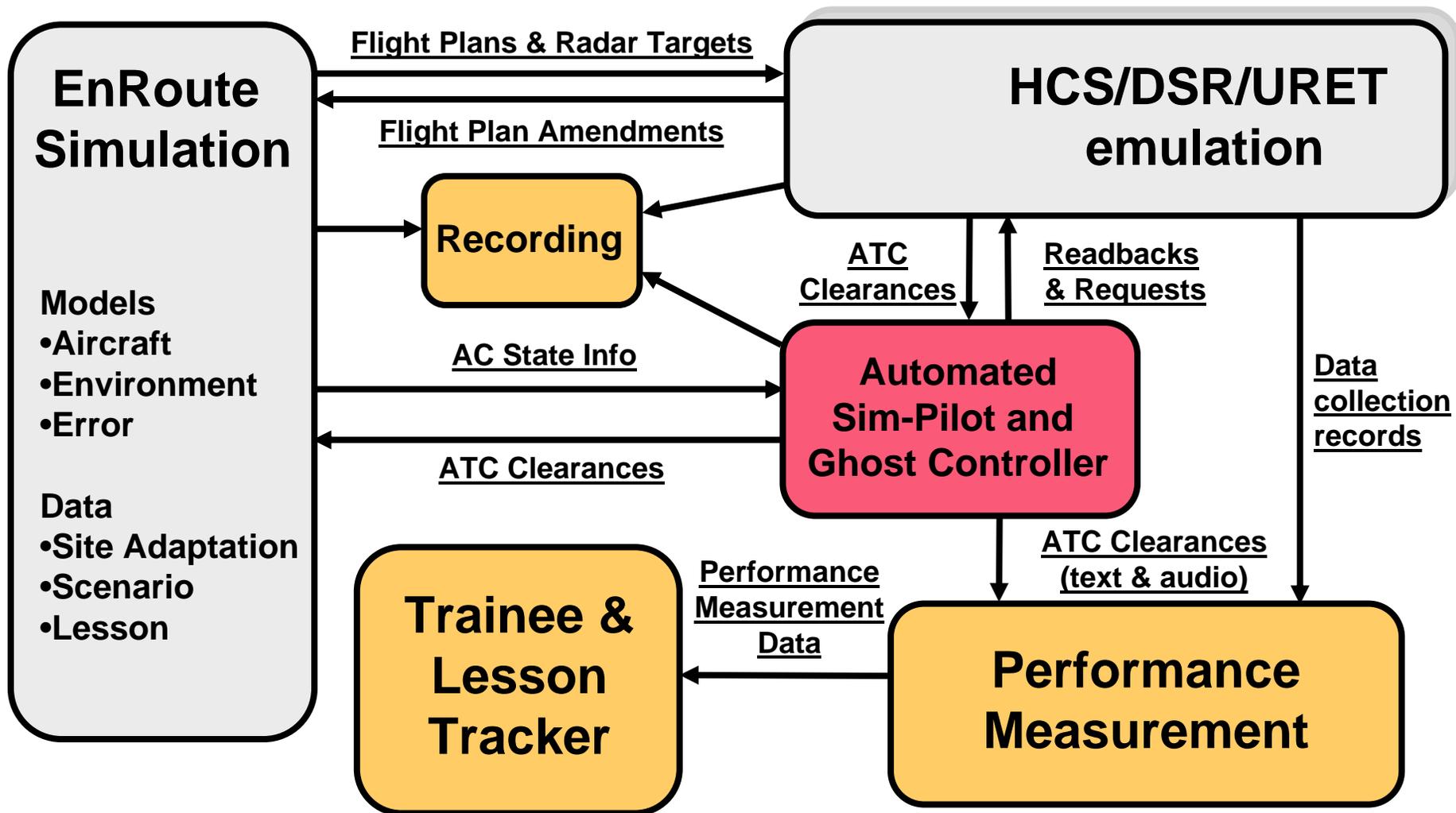
- **Observation: Simulation technology is not properly exploited in ATCS training. The subcommittee observes:**
 - ❑ **An over-reliance on labor intensive full fidelity simulation to mimic the “real world” as opposed to simulation fidelity selected to match training value**
 - ❑ **No basis for what should be trained at varying levels of simulator fidelity**
 - ❑ **Ineffective use of CBT and part-task simulation, which could increase training effectiveness at a lower cost**
- **Recommendation: In the next six months develop a set of technology requirements:**
 - ✓ **To support performance-based training objectives**
 - ✓ **Identify and map skills to training technologies (CBT, part-task simulators, full fidelity simulation) to training objectives**
 - ✓ **Address scenario and airspace specific development issues**
 - ✓ **Evaluate MITRE (R-SAT) simulation training approach (and others) to be systematically matched with training outcomes for effective training delivery**
 - ✓ **Investigate the use of simulators to provide early practice and testing including on airspace knowledge and communications skills**



MITRE Rapidly-Deployable Stand-Alone ATC Trainer (R-SAT)

- **Stand-alone, dedicated training system at facilities that can supplement Radar and Radar Associate training**
 - Independent Operation
 - Automatic assessment of performance
 - Enable quality training during otherwise non-productive time
 - Focus on important tasks and abilities
 - Supplement remedial training
- **Rapidly deployable based on facility needs**
 - Facilities with a large number of trainees expected to need additional simulation training positions
- **Purpose**
 - Validation
 - Demonstration
 - Near-Term Use

Functional Architecture Trainee Scenario Runs



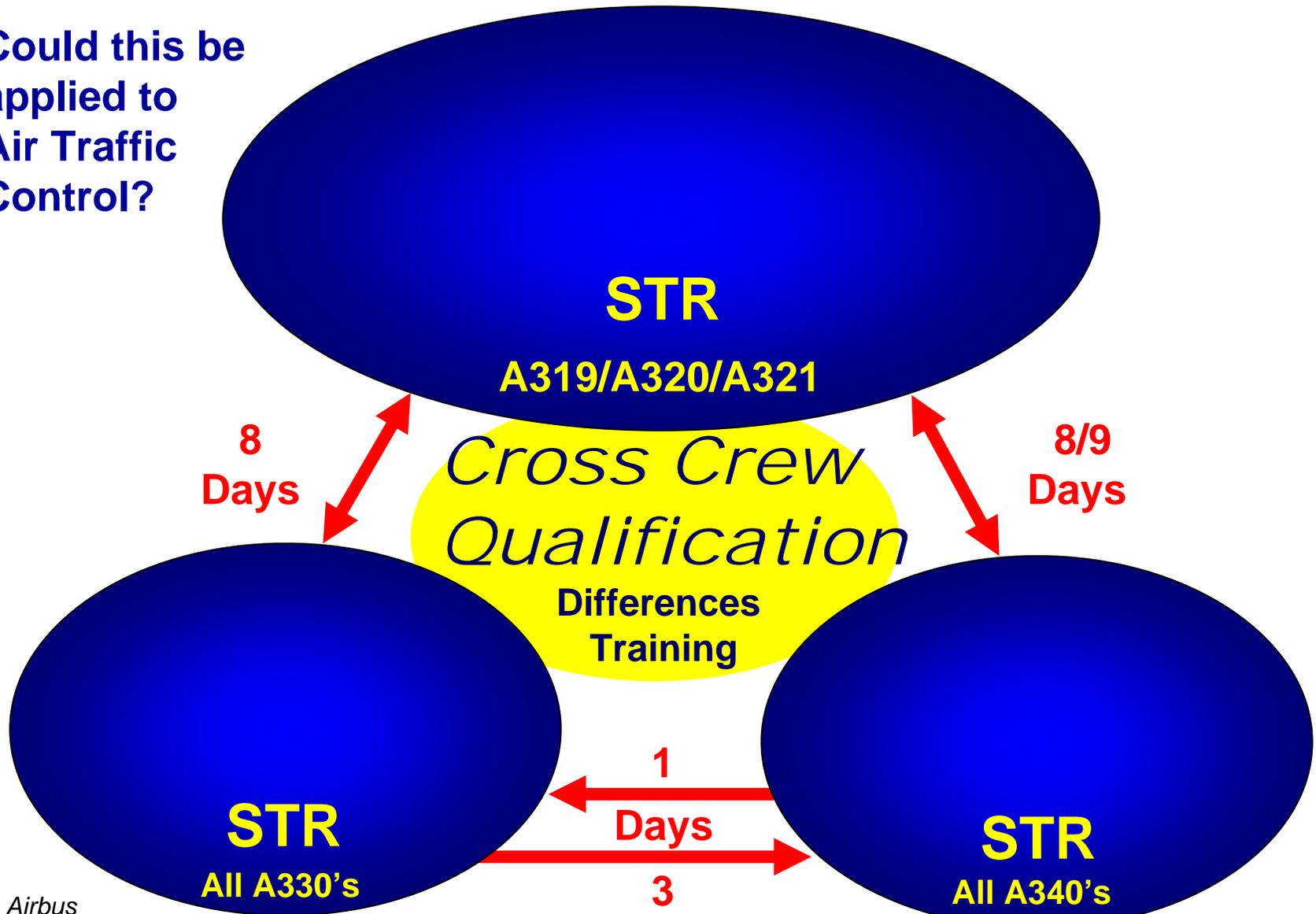


Standardization of Procedures

- **Observation:** A large portion of training at the facility is dedicated to learning local procedures and memorizing detail which is an artifact of prior technology limits. This is compounded by differences in local practices for use of common ATCS tools such as URET.
- **Recommendation:** Immediately determine how to improve, staffing flexibility, OJT and Academy effectiveness through:
 - ✓ Identification of general techniques and consolidation that standardizes procedures and training across facilities such as control techniques for certain operational flows
 - ✓ Targeting facilities at risk of personnel shortfall. Focus on procedure simplification and support for controller rapid indoctrination in local techniques
 - ✓ Enhancing processes for reducing training effort and off-loading sector-specific requirements to perceptual and decision support tools
 - ✓ Anticipating the impact of future initiatives in procedure and equipment to enhance procedural standardization
 - ✓ In the next year, determine how standardized procedures could be improved for use of ATCS tools

Aircraft Manufacturers Have Used Standardization to Allow Rapid Movement Between Aircraft Through Differences Training

- Could this be applied to Air Traffic Control?



Tension Between Standardizing Airspace and Procedures to Simplify Training and Adapting them to Local Operational Pressures

Standardized Procedures & Airspace

- **Benefits**
 - Simplified training
 - Increased staffing flexibility
- **Challenges**
 - Implementation interactions

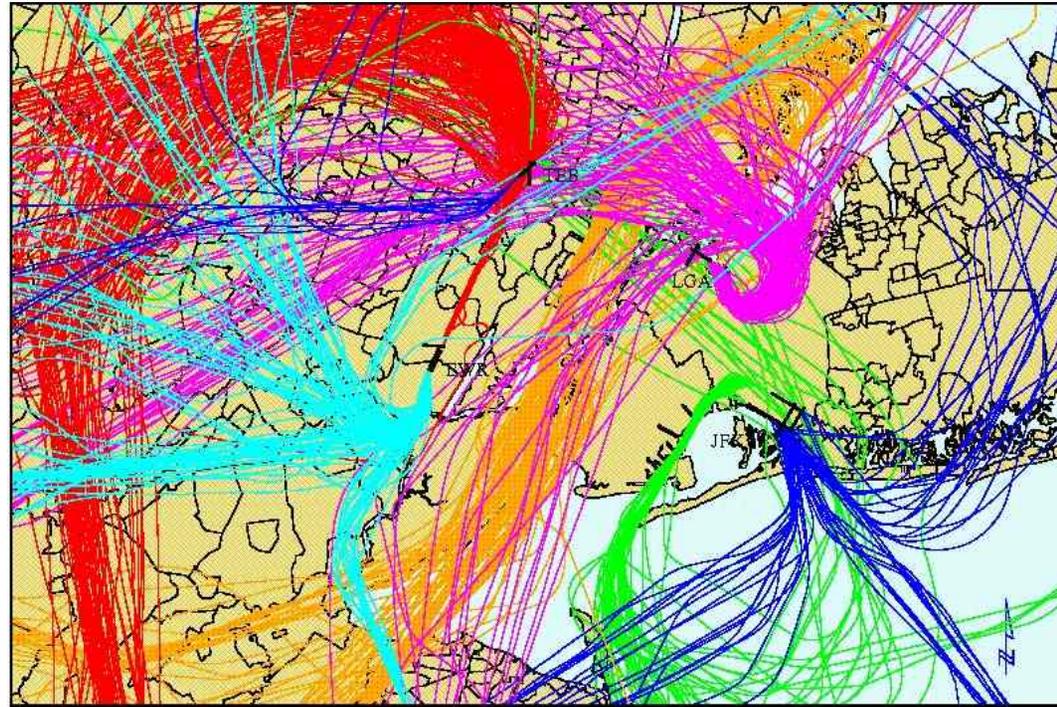


Locally Adapted Procedures & Airspace

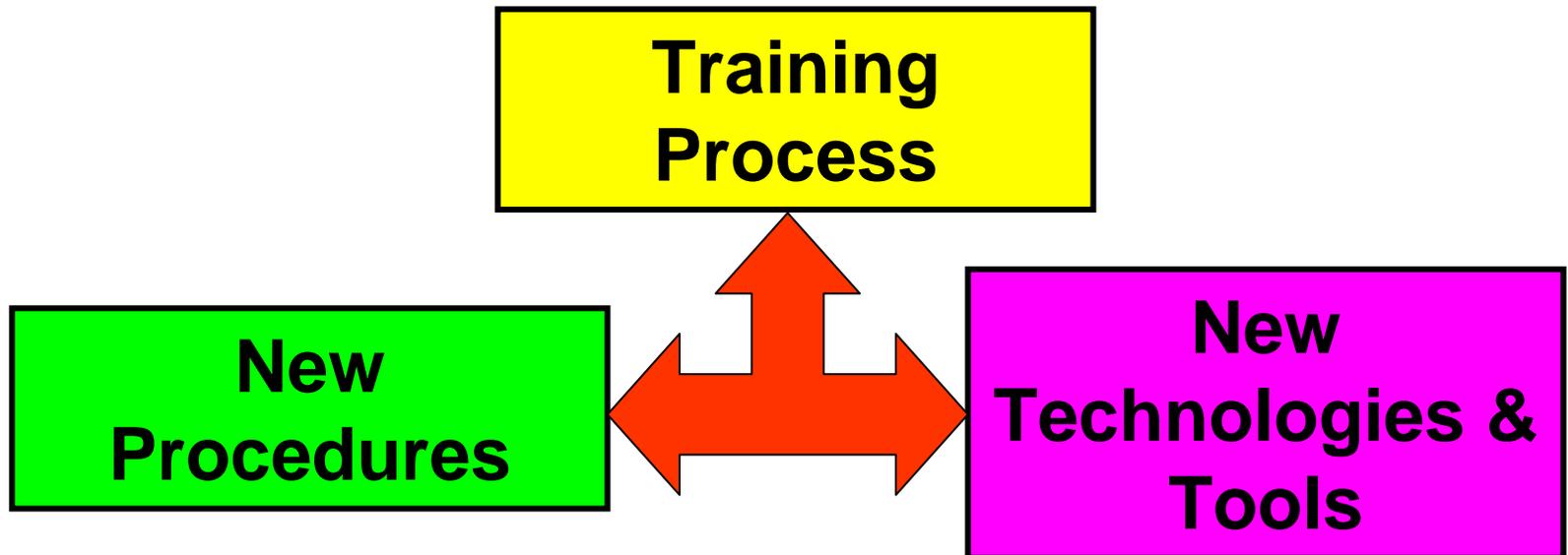
- **Benefits**
 - Easier to implement
- **Challenges**
 - Training and developing sector-specific mental models

Local Operational Pressures are a Significant Challenge to Standardizing Airspace and Procedures

- **Local airport systems**
 - Multi-airport terminals
 - E.g. New York
- **Interactions with adjacent facilities**
- **Noise considerations**
- **Terrain**
- **Regional weather phenomena**
 - Convection
 - Mountain waves
 - Density altitude
- **Military airspace / operations**
- **Aircraft mix**
 - GA vs air carrier vs military
 - Experimental / testing



Training Processes to Enable Rapid Introduction of New Technology and Procedures





NGATS Training Issues

- ADS-B Procedures
- 4D Trajectories
- *Your issue goes here*



CTI - Academy Alignment

- **Observation: Collegiate Training Initiative (CTI) programs are seen as one way of expanding the FAA training capability. In order to exploit that possible expansion, the CTI programs need to be better aligned with Academy and FAA requirements.**
- **Recommendation:**
 - ✓ **Immediately, give the CTI schools clear guidance to allow their graduates advance in Academy training. Immediately establish minimum requirements for CTI graduates to enter Academy training as well as requirements for advanced Academy placement**
 - ✓ **Streamline the transition between CTI and Academy and support currency training during transition**
 - ✓ **Develop a program of feedback to the CTI schools using Academy statistics to improve CTI curricula including use of training technologies.**



Use of Team Training

- **Observation:** Use of team training is not addressed in *A Plan for the Future: The FAA's 10-Year Strategy for the Air Traffic Control Workforce*. Part of this strategy should be ensuring safety management and a reporting culture by indoctrinating controllers early on the value of teamwork.
- **Recommendation:**
 - ✓ In the next six months, implement an approach for leveraging the use of team training, whether in the form of team based collaborative learning, Air Traffic Teamwork Enhancement (ATTE), crew resource management (CRM), or some other approach. Principles should be introduced at the Academy, and practiced in OJT.



Conclusion

- **The upcoming transition in controller workforce provides both the stimulus and opportunity to define the next generation air traffic controller workforce.**
- **Urgent demands will push for short term solutions.**
- **We need to assure that the processes result in a next generation air traffic controller workforce that can enable to Next Generation Air Transportation System.**

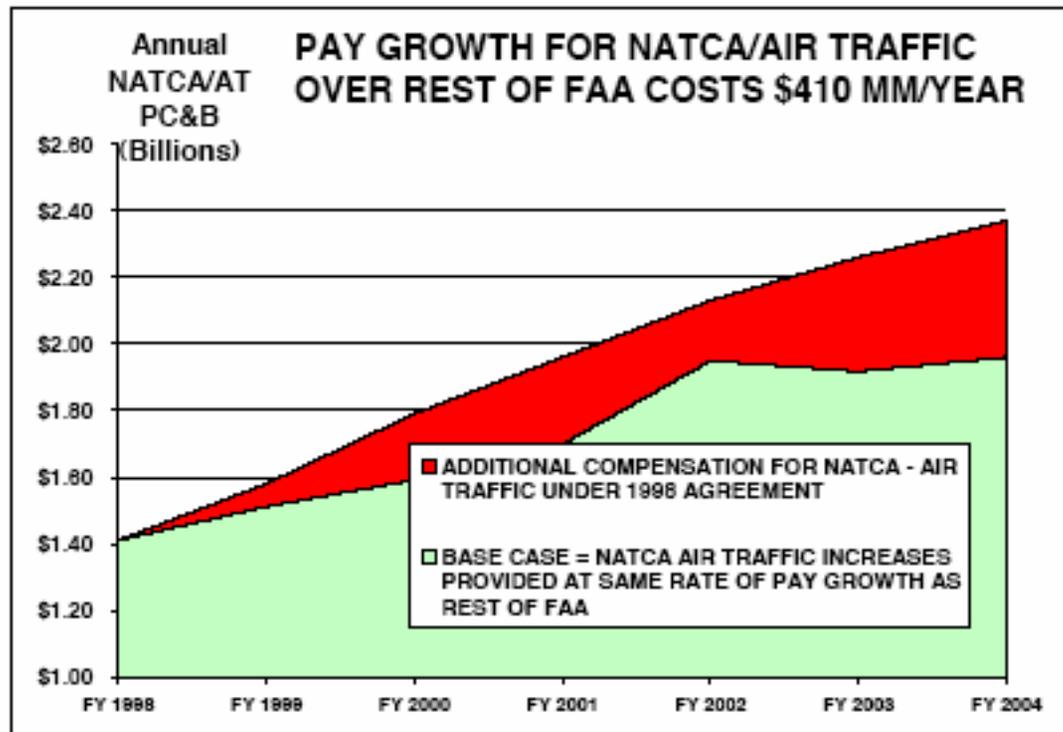


NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION
WE GUIDE YOU HOME

- **Certified in 1987**
- **AFL-CIO Member**
- **14,500 members**
- **Contracts**
 - 88
 - 03
 - 98
 - ◆ \$200 M increased compensation
 - ◆ 2 hrs on station
 - 06 Arbitration



1998 Contract Pay





1998 Contract Signature Page

TMC/TMS/NOTAM Agreement
Between the
National Air Traffic Controllers Association
And the
Federal Aviation Administration

For the Union:

Barry Krasner, Chief Negotiator

Robert Taylor, Director of Labor Relations

Robert J. Stone

Scott D. MacHose

T. C. Williams

Dennie C. Rose, II

Shannon E. Grant

For the Agency:

Marita Johnson, Chief Negotiator

William Buck, Chief Negotiator

Dan Smiley

Steven Lang

Deborah Christianson



1998 Contract Tech/Procedure Changes

ARTICLE 48

TECHNOLOGICAL/PROCEDURAL CHANGES

Section 1. The Agency agrees to provide an overview briefing to the Union at the national level concerning the Capital Investment Plan (CIP) annually and a semi-annual briefing on the status of the Agency's modernization effort. The Agency further agrees to separately brief the Union on any particular project identified by the Union as a result of the overview briefings described above.

Section 2. The Parties agree that it is mutually beneficial for the Union to be involved in work groups established at the local, regional or national level, to provide operational perspective into the development, testing, and/or deployment of technological, procedural, or airspace changes. Further, it is in the best interest of the Parties to resolve or minimize the technical issues so as to ultimately provide for more timely resolution.

Section 3. The Agency shall promptly notify the Union as to the formulation of any such work group(s) which affects bargaining unit employees. The scope of the work group shall be defined in writing and communicated to each member prior to the commencement of business. The extent to which the individual Parties are empowered to reach agreement in specific areas shall be determined in writing by the respective Parties.

The Union shall be allowed to designate a participant from the affected bargaining unit(s) to those work group(s). Union designated work group members will be provided access to the same information as any other work group member. Agreements reached by the Parties in the work group(s) referenced above shall be reduced to writing and shall be binding on both Parties.

Section 4. The Agency agrees to notify the Union at the National level, no less than sixty (60) days prior to the field operational evaluation utilized to support system development and the operational test and evaluation (OT&E), unless a shorter notice period is required. The notification shall contain proposed start and stop times, and shall outline the reasons and intent of the test and/or evaluation.



1998 Contract

Research and Performance Monitoring

ARTICLE 49

STUDIES OF EMPLOYEES AND THEIR WORKING CONDITIONS

Section 1. Mass medical and/or psychological study participation by bargaining unit employees shall be on a voluntary basis. All individual medical and/or psychological information acquired by an outside study group and their associates shall be kept strictly confidential. This information shall not be disclosed to the Agency with identification of participating individuals. Publication of data resulting from a controller related study shall not identify individuals and shall be limited to group statistics. This Section does not apply to time and motion studies. Employees shall not, as a condition of employment, be required to participate in any studies.

Section 2. Before entering into a study, the Union and the employees shall receive a document stipulating the conditions under which the study will be conducted and a statement of intent and practice by which data will be held in confidence. The Union shall receive a copy of the study concurrently with its submission to the Agency.

Section 3. The Agency shall refrain from any efforts to relate data to any individual participant in such a study.

Section 4. Participating controllers or their designated Union representative shall be afforded an opportunity to review and comment, in advance, on any publication based on or derived from such controller studies.

Section 5. Any participation in studies shall not adversely affect any compensation, benefits or travel and per diem to which an employee is otherwise entitled.

Section 6. All examinations shall be conducted on the employee's duty time.

Section 7. The Union may designate a representative to serve as its liaison between a study group and/or the Agency.

Section 8. The Agency shall not conduct any study that involves the time and motion measurement of employees or their job performance, without notifying and affording an opportunity for participation by the Union.



1998 Contract Tech/Procedure Changes

ARTICLE 48

TECHNOLOGICAL/PROCEDURAL CHANGES

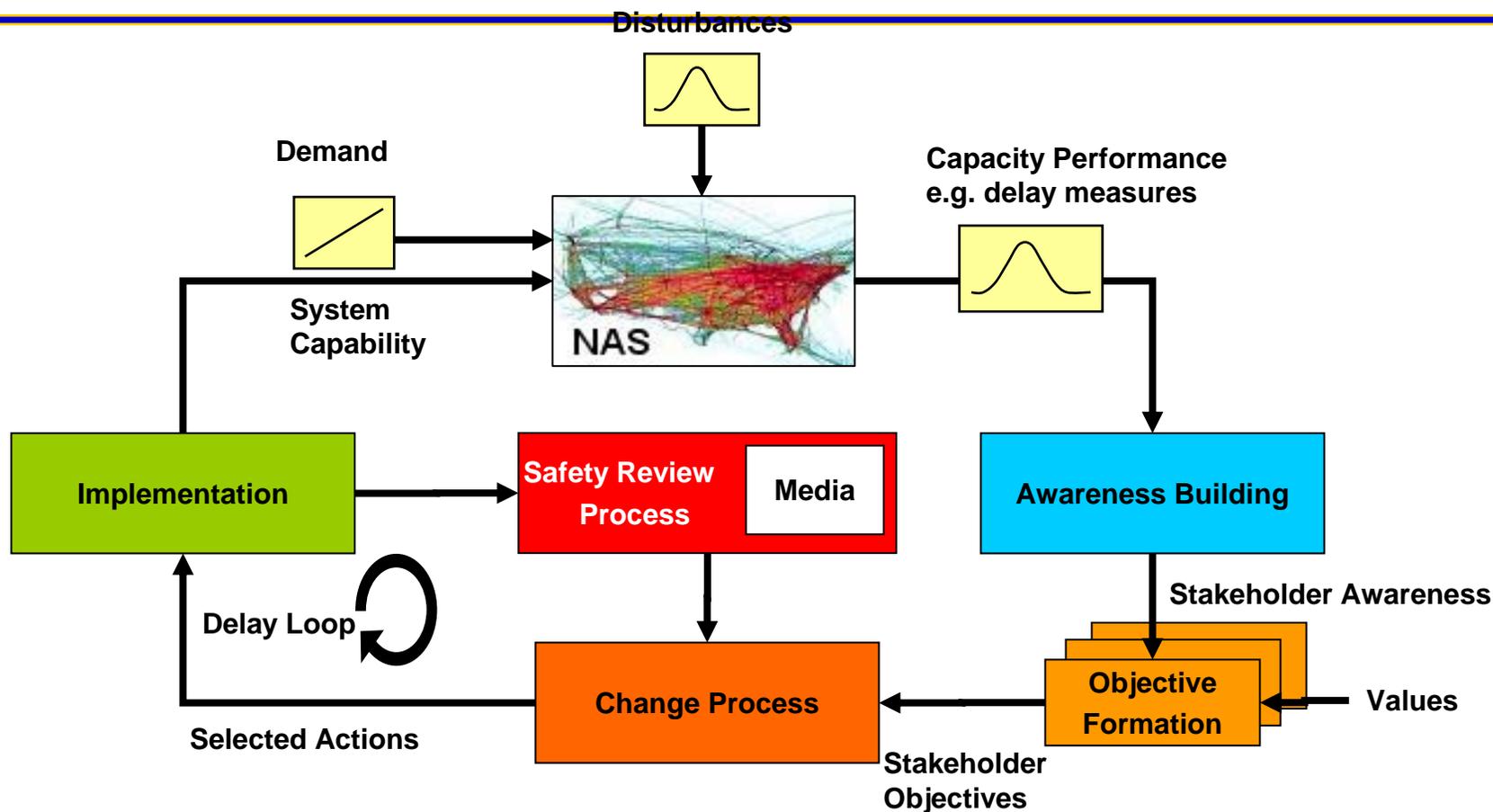
Section 5. The Union representative will be allowed to participate in the activities of the group in a duty status, if otherwise in a duty status. If requested by the representative and operational requirements permit, the Agency shall change his/her days off to allow participation in a duty status for these purposes. When a Union representative is unable to be released to participate in a meeting, the meeting shall be rescheduled, to the extent practicable, to ensure Union participation. The Agency shall make every reasonable effort to ensure the availability of the Union representative.

Section 6. The Agency agrees to notify the Union at least sixty (60) days prior to the In-Service Decision (ISD) of the proposed implementation of technological changes affecting employees, unless operational necessity requires a shorter notice period. Except for the initial notice period, as specified above, the provisions of Article 7 of this Agreement govern negotiations between the Parties on the impact of changes arising from revisions to technology, procedural, and/or airspace changes, as well as the effect of procedural and/or technological tests which impact employees.

Section 7. Employees adversely affected by changes in technology shall be entitled to pay and grade retention in accordance with the agreement of the Parties. Such employees shall also be notified of any right with respect to early retirement and given the fullest consideration for early (discontinued service) retirement that law and regulation provide.

Section 8. Nothing in this Article shall be construed as a waiver of any Union or Agency right.

Safety Veto



- Safety and media process provides a mechanism for concerned stakeholders to block implementation



1998 Contract Surveys

ARTICLE 50

SURVEYS AND QUESTIONNAIRES

Section 1. The Agency recognizes that it is in its interest to have Union support for surveys of bargaining unit employees. The Agency shall not conduct surveys without providing the Union an opportunity to review and comment on the questions and related issues. The Union will be provided an advance copy of any survey prior to distribution.

Section 2. Surveys shall be conducted on the employee's duty time.

Section 3. The Union shall be provided with the geographical/organizational distribution of surveys which are distributed on a random sample basis.

Section 4. The Union shall be afforded an opportunity to review and comment in advance on any publication based on or derived from survey results.

Section 5. If feasible, the Union shall be provided a copy of survey results at the same time they are distributed to the corresponding level of the Agency.

Section 6. Participation in surveys shall be voluntary. To assure the anonymity of survey comments, employees shall have reasonable access to a typewriter/computer, if available.

Section 7. The Union representative shall participate in all debriefing and action planning sessions involving employees including, but not limited to, the Survey Feedback Action (SFA).



1998 Contract

Operational Error Investigation

ARTICLE 64

OPERATIONAL ERROR/DEVIATION INVESTIGATION, REPORTING AND REVIEW BOARD

Section 1. Employees shall be relieved from position as soon as operationally possible when the occurrence of an operational error/deviation is known or suspected. If the Agency determines that an operational error/deviation (OE/OD) may have occurred and any unit employee is to be interviewed by the Investigator-In-Charge (IIC) or any agent of the Agency, the Union representative or his/her designee may be present if the employee so requests. In the event of any operational error/deviation, the principal Union representative or his/her designee shall be notified promptly.

Section 2.

- a. Initial Evaluation - Employees shall verbally provide the preliminary information, of which they have knowledge, which is requested by the Agency to make an initial determination as to whether an investigation is warranted. This phase is meant only to determine the need for an investigation and is not investigatory. Therefore, Union representation is not required at this time.
- b. Interim Written Statement - Employees are required to make an interim written statement as soon as possible after an operational error/deviation. The employee shall be permitted to listen to relevant tape recordings available within the facility prior to making this statement. Union representation of the employee, at the election of the employee, shall be granted at this and later phases of the investigatory process.
- c. Final Written Statement - Employees and their representatives shall be permitted to review any data utilized in the related investigation by the Agency or, if convened, the review board, prior to making a final written statement. An employee may elect to use the interim written statement for this purpose. The final written statement shall supersede any previous oral or written statements. All copies of the employee's statements written prior to the final written statement shall be returned to the employee and shall not be maintained by the Agency.



1998 Contract

Operational Error Investigation

ARTICLE 64

OPERATIONAL ERROR/DEVIATION INVESTIGATION, REPORTING AND REVIEW BOARD

Section 3. The employee and his/her Union representative, if the employee so elects, shall be permitted to review relevant recordings available within the facility before being interviewed by the IIC or any agent of the Agency.

Section 4. The determination that an employee has been identified as the primary cause of the operational error ("Controller A") shall be made after consideration of the factors listed in FAA Order 7210.56, paragraph 5-1-5, Investigation Process. When an employee is involved in an operational error/deviation, the Agency may elect not to decertify the employee in accordance with paragraph 5-1-7.

Section 5. The employee and the principal Union representative shall be given an entire copy of the facility investigation report when such a report is required by FAA Order 7210.56 concurrently with its submission to the facility manager. If the employee or his/her Union representative do not feel the findings of the facility investigation are correct, they may submit their comments, in writing, to the facility manager within five (5) days of receipt. The facility manager shall consider these comments in his/her deliberations and shall append them to the facility final report.

Section 6. At the request of both the employee and the Union, or the IIC, an operational error/deviation review board may be convened by the Air Traffic Manager. If the request is denied by the Air Traffic Manager, the requesting Party(s) will be advised of the reason(s) in writing. The purpose of the board shall be to provide an effective method for investigating and analyzing causal factors so that deficiencies in human, procedural and equipment elements of the air traffic system can be identified and corrected.

Section 7. The operational error/deviation review board shall consist of equal representation by bargaining unit employees and the Agency, including a chairman who shall be the IIC. Bargaining unit participants will be designated by the Union. The board shall prepare a facility investigation report as provided in Section 5. Any dissenting opinions shall be attached to the report.



1998 Contract

Operational Error Investigation

Section 8. An employee, with his/her requested Union representative, shall be permitted to review all data available to the board prior to appearing before the board.

Section 9. Employees, Union representatives and/or their designee(s) shall be on duty time during the review board proceedings. Union representatives will be on official time for all other purposes of this Article if otherwise in a duty status.

Section 10. The employee and the principal Union representative shall be given an entire copy of the review board report concurrently with its submission to the facility manager. If the employee or the Union representative does not feel the findings of the review board are correct, they may submit their comments, in writing to the facility manager within five (5) days of receipt. The facility manager shall consider these comments in his/her deliberations prior to making a final decision and shall append them to the review board report. If the Agency does not concur with the findings of the OE/OD board, the reasons for non-concurrence will be submitted to the Union representative and employee in writing.



1998 Contract

Dress Code

ARTICLE 69 **DRESS CODE**

Section 1. Members of the bargaining unit shall groom and attire themselves in a neat, clean manner which will not erode public confidence in the professionalism of the bargaining unit workforce.

Section 2. The display and wearing of Union insignias such as pins, pocket penholders or tie tacks, shall be permitted. Apparel shall not be considered inappropriate because it displays the Union logo or insignia.

Section 3. Denim trousers shall be permitted as long as their condition meets the standards of Section 1 of this Article. Neckties shall not be mandatory in any facility.



2006 Controller Contract

Congressional 60 day response period ended June 5, 2006



Federal Aviation
Administration

U.S. Department of Transportation Federal Aviation Administration

Submission to the United States Congress
Concerning the Agency's Collective Bargaining Proposal
to the National Air Traffic Controllers Association

April 5, 2006

NATCA's Rebuttal to the FAA Administrator's Submission to the United States Congress Concerning the Agency's Collective Bargaining Proposal to the National Air Traffic Controllers Association

Considering that the FAA Administrator routinely demonstrates her disdain for the role of the United States Congress in setting our national aviation policy, it should come as no surprise that the FAA Administrator's Submission to the United States Congress Concerning the Agency's Collective Bargaining Proposal to the National Air Traffic Controllers Association is a collection of revisionist history, misrepresentation, finger pointing and contempt for the role of the Legislative branch. This coming from an Administrator who just last week told a U.S. Senator, during a public hearing, that there was not a list of TRACON's planned for co-location on Tuesday -- by Friday that list was published in Congressional Quarterly. The same FAA told the Chairman of its oversight committee that controllers in New York who were fired were not really fired, even as the FAA processed their final termination papers. Her efforts to exclude Congress from exercising its oversight role even extends to advocating a new funding process that would extract the FAA from the appropriations process, virtually eliminating the system of checks and balances envisioned under the Constitution when the drafters gave Congress the power of the purse. Providing misleading information to Congress has sadly become status quo for this Administrator.

After the FAA rejected NATCA's proposal, declined further bargaining, and ended mediation on Friday, March 31, the FAA issued numerous public statements denying that negotiations had ended and that the parties were still bargaining. It is clear that the FAA was simply buying time to prepare a submission to Congress and launch a sneak attack by sending the submission to the Hill just prior to leaving for a two-week district work period. It is important to note that the FAA is not subject to any timeline with regard to making its submission to Congress. There is nothing that requires them to send it within one day, one week, or even a month of ending negotiations. The only other time the FAA chose to take this course of action regarding a bargaining impasse, it was several months after bargaining broke down before the submission. Once it was submitted, the FAA waited a year and a half to impose the proposal.

Throughout this process, the union has worked to meet the stated needs of the administrator. With regard to pay, the major issue in dispute, the union came to the table proposing the status quo, including the government-wide pay raises set by Congress and the GCI which supplanted the step increase. The union was asking to be treated as other government employees. As the talks progressed, NATCA made considerable movement on every pay provision. It offered to eliminate the two highest pay bands in the system, lower the top of all pay bands by 13% and the bottom of the bands by 3%, as well as institute a multi-year freeze in band movement which would allow the FAA to close the gap between controllers and other FAA employees (there is no gap between controllers and FAA managers or supervisors as their pay bands are above the controller pay bands.) The NATCA proposal would have closed the gap by approximately 12% depending on the Administrator's treatment of other pay bands. In contrast, the FAA proposal was to lower pay bands by 30% when bargaining started in July of 2005 and at the end of negotiations in April of 2006. The FAA made no movement on the fundamentals of their pay proposal, with agency counterproposals amounting to little more than editorial changes. It is difficult to characterize the FAA's actions as truly seeking a voluntary agreement when it was unwilling to make any progress on this key issue.

Revisionist History

The FAA submission states, "In 1996, as part of reauthorization, the Agency's statute was amended to bar the Administrator from negotiating with labor unions over compensation and benefits except under limited circumstances..." This odd sentence construction and emphasis on the word "bar" appears intended to lead the reader to believe that the 1996 reauthorization had a new provision to preclude bargaining. In fact, the FAA statute previously restricted the scope of bargaining to subjects that did not include compensation and benefits. The amendments to the statute required bargaining over





2006 Controller Contract

Issues in Dispute

- **Changes in Compensation & Benefits**
 - Annual Pay Increases
 - Pay Premiums
 - ◆ CIC, Location Incentive
 - Pay Setting & Retention
- **Holidays**
- **Relief Breaks**
- **Overtime**
- **Dress Code**
 - “Business Casual”
- **Work Assignment**
- **Annual Leave**



2006 Controller Contract

FAA Arguments

Controller Pay Is Now Excessive by Any Standards for Public Servants

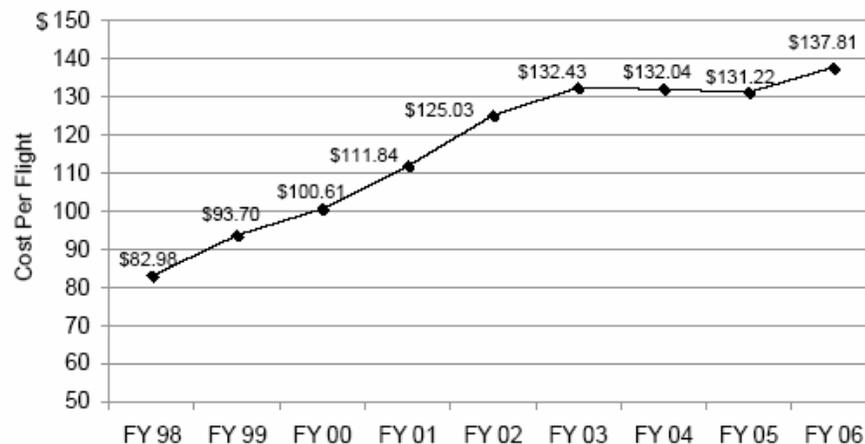
Avg. Earnings of Various Federal Employees

EXCLUDING BENEFITS

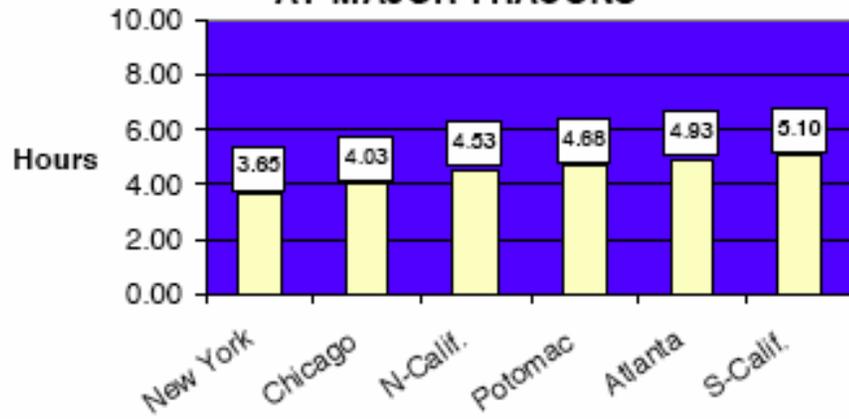
● Vice President	\$ 208,700
● Associate Justice – U.S. Supreme Court	\$ 199,200
● Top 100 FAA Controllers	\$ 197,000
● Cabinet Secretary	\$ 180,100
● Congressman / U.S. District Judge	\$ 162,100
● FAA Administrator	\$ 162,100
● Air Force One Pilot-in-Command	\$ 137,400
● Top 100 Aviation Safety Inspectors	\$ 133,300

In the Agency's view, the overall appearance of the controller workforce has deteriorated significantly in recent years. Under the current agreement, controllers regularly come to work in exercise clothes, shorts, tank tops, and flip-flop sandals.

Escalating Controller Labor Costs Per Flight



CONTROLLERS SPEND LESS THAN 5 HOURS ON POSITION EACH WORKDAY AT MAJOR TRACONS





Contract Response

NYT Article by Matt Wald

DALLAS, Sept. 13 — A drive by the Federal Aviation Administration to cut the number of air traffic controllers nationally by 10 percent below negotiated levels, and even more sharply at places like the busy radar center here, is producing tension, anger and occasional shows of defiance among controllers.

At the radar office that controls planes around Dallas/Fort Worth International Airport and at a cluster of other airports where staffing levels are falling fast, unhappiness is usually not visible in the darkened radar centers where they work, except when it is glaringly obvious.

Like the recent day when a controller here went to work in lime green pants and a clashing brown jacket, along with hair dyed blue, to protest a new dress code. Elsewhere, male controllers have rebelled by going to work in dresses.

Most controllers here say they are far more concerned with workplace changes that do not involve wardrobe, including salary caps, lower pay for new hires and stricter control of vacation schedules and sick leave.

The F.A.A. imposed the changes on Sept. 3, three months after it declared an impasse in contract talks. Most of the changes have had little effect on the public. But one in particular may have safety implications, controllers and some outside experts said. That is the ending of contractual protection against being kept working on a radar screen controlling traffic for more than two hours without a break.

The agency has been defensive about staffing rules since a plane crash on Sept. 1 in Lexington, Ky., in a case where the workload of the lone controller on duty violated policy.



Aug 2006 FAA Administrators Fact Book

Air Route Traffic Control Center Activity

CY 2005 Rank	Center	Aircraft Handled (000's)		
		Jan-Jun 2006*	Jan-Jun 2005	Jan-Dec 2005
1	Atlanta, GA.....	1,561	1,646	3,236
2	Leesburg, VA.....	1,445	1,564	3,079
3	New York, NY.....	1,461	1,565	3,074
4	Cleveland, OH.....	1,411	1,494	3,020
5	Chicago, IL.....	1,396	1,429	2,898
6	Indianapolis, IN.....	1,333	1,441	2,884
7	Jacksonville, FL.....	1,303	1,335	2,557
8	Miami, FL.....	1,340	1,357	2,501
9	Memphis, TN.....	1,134	1,155	2,308
10	Los Angeles, CA.....	1,151	1,146	2,288
11	Minneapolis, MN.....	1,005	1,044	2,142
12	Fort Worth, TX.....	1,074	1,061	2,134
13	Houston, TX.....	1,076	1,089	2,122
14	Kansas City, KS.....	1,011	1,034	2,083
15	Nashua, NH.....	876	907	1,869
16	Denver, CO.....	913	898	1,836
17	Albuquerque, NM.....	865	893	1,762
18	Oakland, CA.....	840	849	1,703
19	Salt Lake City, UT.....	732	756	1,552
20	Seattle, WA.....	632	639	1,306
21	Anchorage, AK.....	274	297	623
22	Guam **.....	125	101	206

*Preliminary

**Center Radar Approach Control (CERAP)



Aug 2006 FAA Administrators Fact Book

50 Busiest FAA Airport Traffic Control Towers

CY 2005 Rank	Tower and State	Airport Operations (000's)		
		Jan-Jun 2006*	Jan-Jun 2005	Jan-Dec 2005
1	Hartsfield-Jackson Atl Intl, GA.....	473	497	980
2	Chicago/O'Hare Int'l., IL.....	477	483	972
3	Dallas/Ft. Worth Int'l., TX.....	348	356	718
4	Los Angeles Int'l, CA.....	322	322	651
5	Las Vegas/McCarran Int'l, NV.....	308	304	614
6	Denver International, CO.....	296	278	568
7	Phoenix Sky Harbor Int'l, AZ.....	274	280	564
8	Houston/G Bush Intercont'l, TX.....	299	277	564
9	Washington Dulles Int'l, VA.....	208	289	553
10	Philadelphia Int'l, PA.....	255	268	536
11	Minneapolis-St. Paul Int'l, MN.....	238	270	532
12	Charlotte/Douglas Int'l, NC.....	251	262	523
13	Detroit Metro Wayne Co., MI.....	239	265	523
14	Covington/Cincinnati Int'l, KY.....	173	262	495
15	Salt Lake City Int'l, UT.....	207	224	455
16	Newark International, NJ.....	221	216	441
17	Boston/Logan Int'l, MA.....	199	207	422
18	Van Nuys, CA.....	195	211	411
19	La Guardia, NY.....	202	202	406
20	Memphis International, TN.....	195	196	395
21	Miami International, FL.....	199	197	381
22	Phoenix-Deer Valley, AZ.....	212	182	378
23	Santa Ana/John Wayne, CA.....	184	185	367
24	John F. Kennedy Int'l, NY.....	179	176	363
25	Orlando International, FL.....	184	183	360

*Preliminary

As of: 06/30/06



Aug 2006 FAA Administrators Fact Book

50 Busiest Radar Approach Control Facilities

CY 2005 Rank	Facilities/State	Instrument Ops (000s)		
		Jan-Jun 2006*	Jan-Jun 2005	Jan-Dec 2005
1	Southern Calif. TRACON, CA.....	1,045	1,045	2,129
2	New York TRACON, NY.....	991	1,005	2,066
3	Potomac TRACON, DC.....	841	947	1,887
4	North California TRACON, CA.....	778	755	1,612
5	Chicago TRACON, IL.....	695	701	1,425
6	Atlanta TRACON, GA.....	695	698	1,393
7	Dallas/Ft Worth, TRACON, TX....	605	601	1,221
8	Houston TRACON, TX.....	477	454	923
9	Miami International, FL.....	476	486	919
10	Phoenix TRACON, AZ.....	361	391	780
11	Denver TRACON, CO.....	393	377	771
12	Philadelphia International, PA.....	350	367	738
13	Boston TRACON, MA.....	335	353	730
14	Detroit TRACON, MI.....	325	360	715
15	Las Vegas TRACON, NV.....	355	331	689
16	Minneapolis TRACON, MN.....	303	336	669
17	Charlotte/Douglas Int'l, NC.....	311	328	652
18	Orlando International, FL.....	349	330	637
19	Covington/Cincinnati Int'l, KY....	237	335	637
20	San Juan CERAP, PR.....	327	333	607
21	Tampa International, FL.....	288	307	576
22	Seattle/Tacoma TRACON, WA.....	251	277	549
23	Honolulu Control Facility, HI.....	268	273	549
24	Salt Lake City TRACON, UT.....	245	275	547
25	Memphis International, TN.....	229	230	463

* Preliminary

Source: APO-130
(202) 267-9947



Aug 2006 FAA Administrators Fact Book

FAA NAS Operational Facilities

(As of February 28, 2006)

	2005	2004	2003
NAS Operational Facilities¹	40,992	41,082	40,997
Communications.....	14,383	14,383	14,277
Automation.....	3,930	3,964	4,057
Environment.....	6,144	6,194	6,506
Navigation.....	11,119	11,122	11,131
Surveillance.....	1,850	1,882	1,894
Weather.....	3,566	3,537	3,133
Air Traffic Control Facilities²			
Air Route Traffic Control Center.....	21	21	21
Airport Traffic Control Tower.....	518	517	449
Flight Service ³	76	76	76
Flight Service Stations.....	15	16	16
Automated Flight Service Stations...	61	60	60