ato
AIR TRAFFIC ORGANIZATION

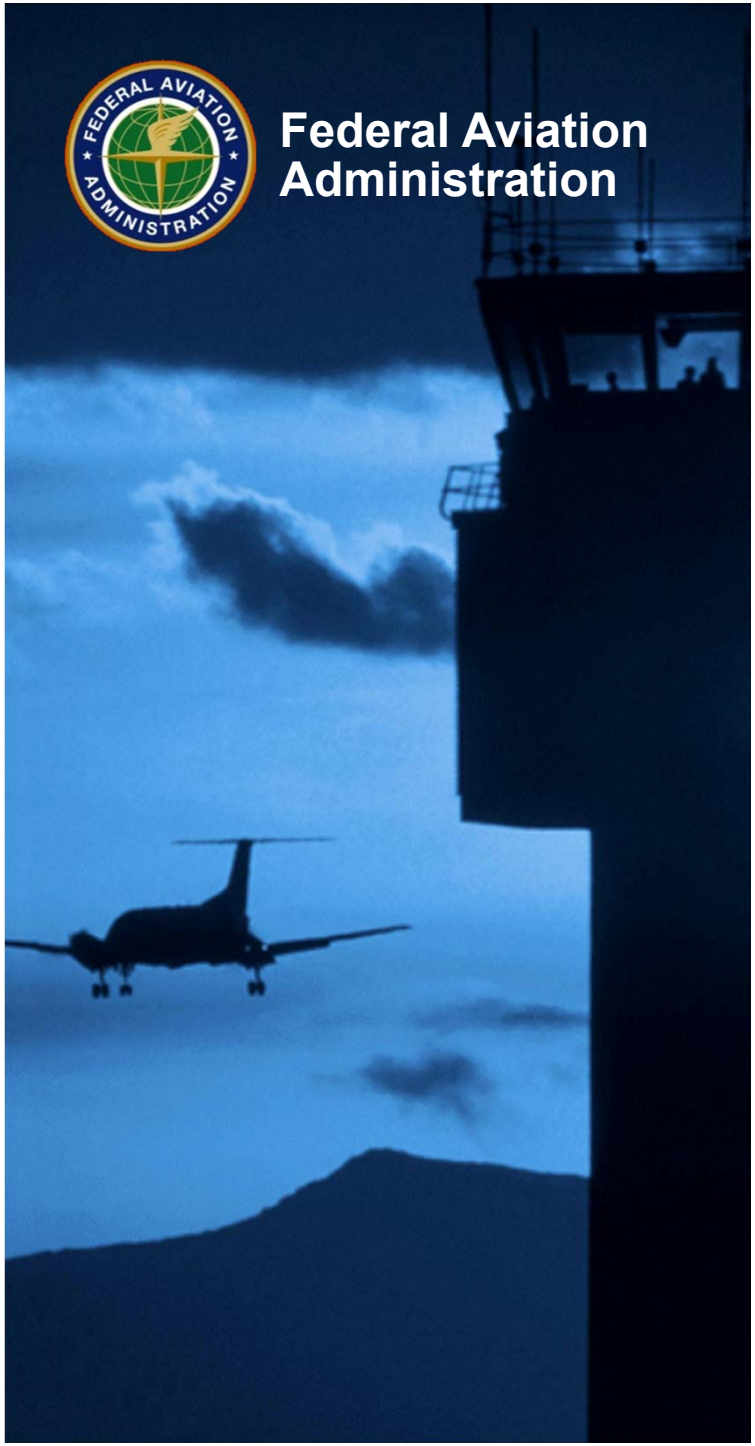
National Airway Systems Engineering (NASE)

AJW-143, Navigation & Landing Second Level Engineering

Presented to: IES ALC

By: Craig Hoelting

Date: October 23, 2017



AJW-143 Primary Roles & Responsibilities

- **Perform OPS second level engineering support:**
  - Field support to ATSSs, TSOG, OESG, etc.
  - Engineering studies to resolve issues and determine solution(s).
  - National modifications via System Support Modification (SSM).
  - Changes to Technical Instruction Books via System Documentation Release (SDR).
  - Updates to Maintenance Handbooks.

- **Support PMO as stakeholder for new acquisition programs/projects.**

- **Owner for Navigation, Landing, and Lighting system baselines once commissioned into the NAS.**

Organizational Chart

Team FAA Staffing (29)
Team Contract Staffing (18)

Manager
Sylvester Ivory
FAA Staffing (1)
Contractor Staffing (2)

Landing Systems
AJW-1431
Tony Cordoves
FAA Staffing (7)
Contract Staffing (3)

Navigation Systems
AJW-1432
Don Megehee
FAA Staffing (10)
Contract Staffing (6)

Visual Guidance Systems
AJW-1433
Donnie Hatfield
FAA Staffing (7)
Contract Staffing (7)

NAS Systems

Landing Sub-Team

- **ILS** (LOC/GS/MB)
- **DF**
- **NDB**
- **ARMS**

Navigation Sub-Team

- **DME**
- **TACAN**
- **VOR**
- **RMCF**
- **RMVC**
- **ICMS**

Visual Guidance Sub-Team

- **ALSF**
- **LDIN**
- **LIR**
- **MALSR**
- **VASI**
- **ODALS**
- **PAPI**
- **REIL**
- **RRCS**
- **RRCIU**
- **RVR**
- **RWSL**

Navigation and Landing Systems (AJW-143)
Purpose of Presentation

- **Overview of the Visual Guidance Team (AJW-1433)**
  - Systems Supported
  - Team Members
  - Equipment/Systems in OKC

- **Discuss some current lighted projects and issues.**

Navigation and Landing Systems (AJW-143)

Visual Team Systems Supported

ALSF	Approach Lighting System with Flashers
LIR	Low Impact Resistant Structures
LDIN	Lead-In Lights
MALSR	Medium Intensity Approach Light System (with RAIL)
ODALS	Omni-directional Approach Light System
VASI	Visual Approach Slope Indicator
PAPI	Precision Approach Path Indicator
RVR	Runway Visual Range
RWSL	Runway Status Lights
RRCS	Remote Radio Control System
RRCIU	Remote Radio Control Interface Unit
REIL	Runway End Indicator Lights

Navigation and Landing Systems (AJW-143)

Visual Team Personnel

ENGINEER	SYSTEMS SUPPORTED / SPECIALTY
Donnie Hatfield	Section Manager
Robin Oxenford	RWSL, MALSR, RRCS, LIR
Kevin Gurkowski	RVR, LIR
Craig Hoelting	MALSR, REIL, Semi-flush
Laura Lindecker	Software
Adam Mills	PAPI, FPAPI, VASI, REIL, LDIN
Dirk Nash	ALSF, MALSR
Paul Wilson	PAPI, MALSR, ALSF, RRCS, LDIN
Christine Huckleberry (CNI)	RWSL
Chad Conant (CNI)	RVR
Gary Scott (CNI)	ALS, PAPI, FPAPI, RVR, REIL / Hardware
Dominic Nzerem (CNI)	MALSR, PAPI, RRCIU
Bruce Nguyen (CNI)	RWSL
Cody Fluitt (CNI)	RWSL
Bill Fish (CNI)	ALSF, RVR / Software

Navigation and Landing Systems (AJW-143)
Program Support Facility

- **Physical Location**
  - National Engineering Test Structure (NETS) at MMAC, OKC, OK.

- **Equipment Types supported at NETS**
  - FA-10700 NBP ALSF-2
  - FA-10290 AVW MALSR
  - FA-11500/FA-17900 MALSR
    - DME and FA-21000 NBP solid state switcher control cabinets
  - FA-10268 Teledyne RVR
  - FA-19200 Vaisala PC-Based RVR
  - FA-10620 NBP PAPI
  - FA-24000 DME PAPI
  - FA-10264 DME REIL
  - FA-18300 DME REIL
  - FA-19900 DME REIL
  - FA-10047 Sonicraft RRCS
  - FA-10141 RRCIU
  - FA-29900 RWSL
  - FA-30200 LED PAPI
  - FA-30700 NBP LDIN

*** Received equipment recently and install beginning.**

Navigation and Landing Systems (AJW-143)
OPS Projects and Issues

- Order 6850.5C Update
- ALSF
- MALSR
- PAPI
- REIL
- RLMS
- Semi-flush in-pavement light fixture support

Order 6850.5C Change

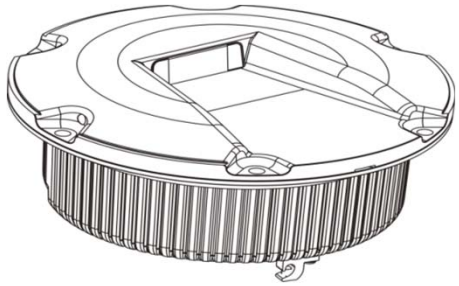
- **Update to 6850.5C in the works.**

- **Primary changes include:**
  - Incorporate information in Notices (cable maintenance, LED PAPI, Par-56 aiming procedure changes, PAPI tilt switch operation, etc.)
  - Resolve NASTEP issues.
  - Correct other known problems.
  - Big change is PAPI cannot RTS if tilt monitoring system failure exists such that a tilt condition cannot be detected. Notice to be released in the coming weeks with interim guidance.

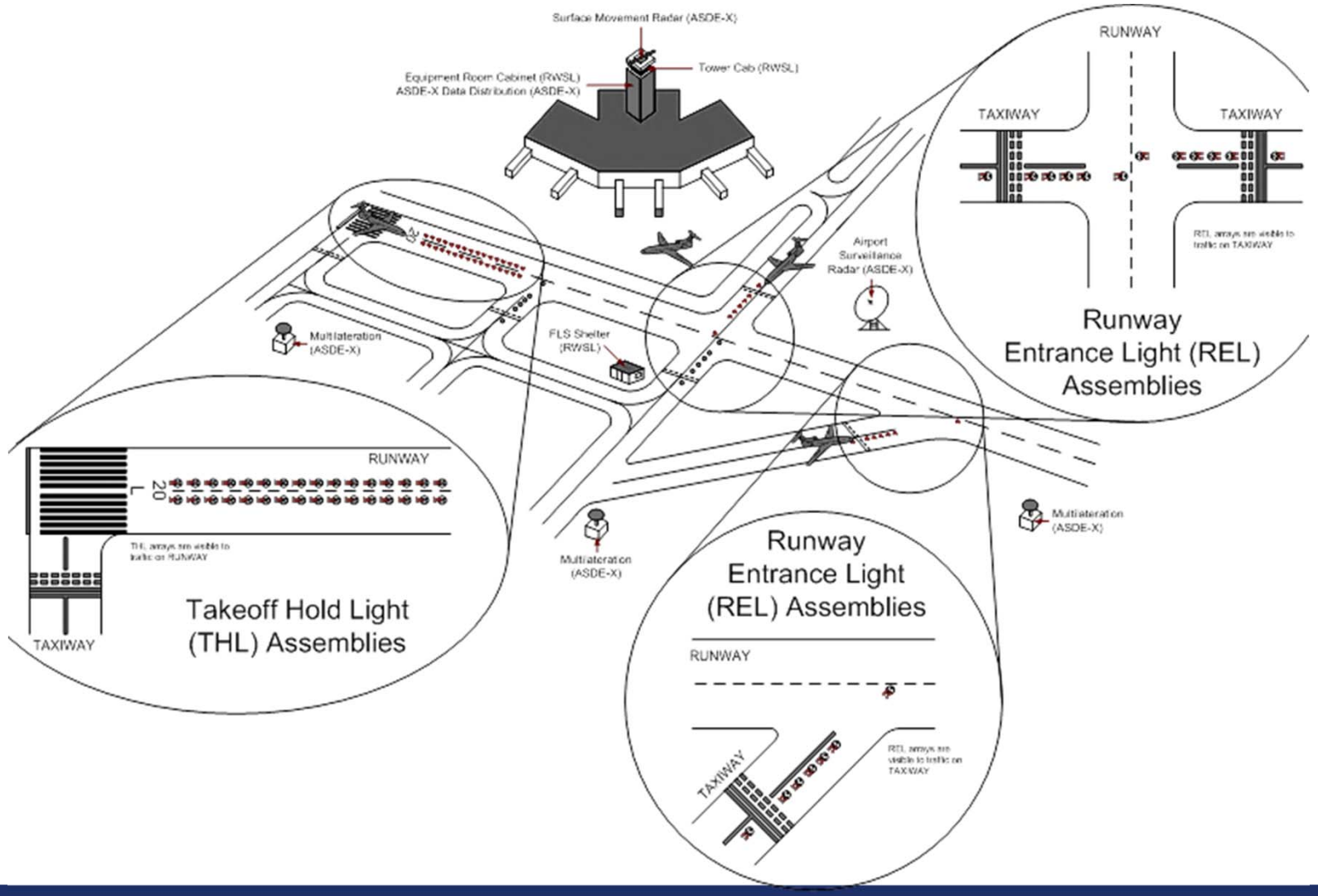
Semiflush Sustainment Issues

- **Steady Burners**
  - Many different types procured over the years.
  - Not clear where installed, how many, make... FSEP being updated to capture data.
  - AJW/AML effort to support replacement of obsolescent fixtures upon failure.

- **Semi-flush Flasher Unit (SFFLU), FA Type FA-32000/3**
  - PMO project per TechOps request.
  - NCPs 36060 & 36061 approved 2016 (ALSF and MALSR).
  - Note: LVICC and SFFLU have to be used together.



Runway Status Lights (RWSL)



RWSL Sites

- Commissioned: 14
  - Orlando
  - Dulles
  - Phoenix
  - Houston
  - Seattle
  - Las Vegas
  - Charlotte
  - Ft. Lauderdale
  - LaGuardia
  - Minneapolis
  - Detroit
  - Los Angeles
  - Newark
  - John F Kennedy
- Initial Operating Capability (IOC)
  - Chicago
- Final Construction/IOC Prep
  - San Francisco
  - Baltimore
- Prototypes Under Consideration
  - Dallas (CSER Stage)
  - Boston (CSER Stage)
  - San Diego (Still in Negotiations)

RWSL FLS OPS Projects

- **New Light Fixture Testing**
  - Testing production units of a new second-generation RWSL fixture that is lighter, tougher, easier to replace and designed to prevent Stuck-on Fixtures.

- **MLC Breakdown**
  - Breaking the Master Lighting controller into smaller Line Replaceable Units (LRUs) to save money and increase availability.
  - Requires updates to logistics, sparing strategy and maintenance procedures.

- **MLC Firmware Update**
  - Testing new firmware for the MLC to keep up with manufacturer updates.

- **TIB & Handbook Updates**

- **Thank you for your attention!**

- **Craig Hoelting**
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