Aviation Lighting Fall Conference Tucson , Arizona October 22, 2013

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IESNA RP-37 - Update
”Recommended Practice for Outdoor Lighting for the Airport Environment”
IESALC Recommended Practice Subcommittee

- Purpose
- Scope
- Table of content
- Section by section review and table 4.1
- Comments form
- Front cover picture
- Conclusion

Agenda

- The purpose of this recommended practice is:
  1. Airside - Provide for adequately lighted areas where parked aircraft are safely serviced; aircraft crew and passengers safely board and deplane; and cargo operations are conducted;
  2. Landside - Provide for adequately lighted access roadway and parking areas for safety and security of pedestrians and vehicles;
  3. Adjacent Development - Provide guidance for lighting in the vicinity of the airport including outside the airport property line. All while taking into account the special needs of the airport environment such as height restrictions and light interfering with air traffic controller and/or pilot vision.

Purpose

- The scope of this recommended practice covered:
  - Outdoor lighting in the airport environment includes aircraft stands and apron areas, roadways, vehicular parking facilities, passenger loading and unloading areas and pedestrian walkways.
  - The recommendations included in this IESNA RP provide guidance for lighting of these areas while emphasizing the restrictions, regulations, and best practices for safe movement of aircraft.
  - Excluding AGL and heliport areas

Scope

Table of Contents

- Characteristics of Airport Areas
- Visual Issues
- Specific Area Design Criteria
- Essential Safety and Security Lighting
- Environmental Condition and Sustainable Development
- Definition
- Reference
- Annex
  - Maintenance Considerations
  - Economics
  - Lighting Equipment

- **Aprons**
  - Aircraft parking stand
  - Commercial (air carrier), general aviation, cargo & hangar
  - Passenger, baggage, catering, cargo, ramp services, mechanical checks, maintenance and repair, fueling operations
- **Other Airport Facilities**
  - De-icing/anti-icing facilities (remote, storage and truck loading), fuel facilities, Ground Service Equipment (GSE) areas, engine run-up test area
- **Roadways and pedestrian ways**
  - Departure, arrival, walkways from parking facilities, surrounding roadways, roadway signage, secure access point
- **Parking**
  - Surface parking lot, top level garage, toll plaza
- **Other exterior lighting**
  - Laser sensitive area, landscape, façade illumination, signs, flagpole, tunnel, temporary construction lighting, cart entrance/exit, …

Characteristics of Airport Areas

- **Airport control towers**
  - Visibility throughout airfield and landside
  - Line of sight (pole and luminaire)
  - Obtrusive light
- **Pilot (dynamic movement)**
  - Approaching the airport
  - Rollout & Taxiing
  - Parking
- **Pedestrian and driver conflict**
- **Security**

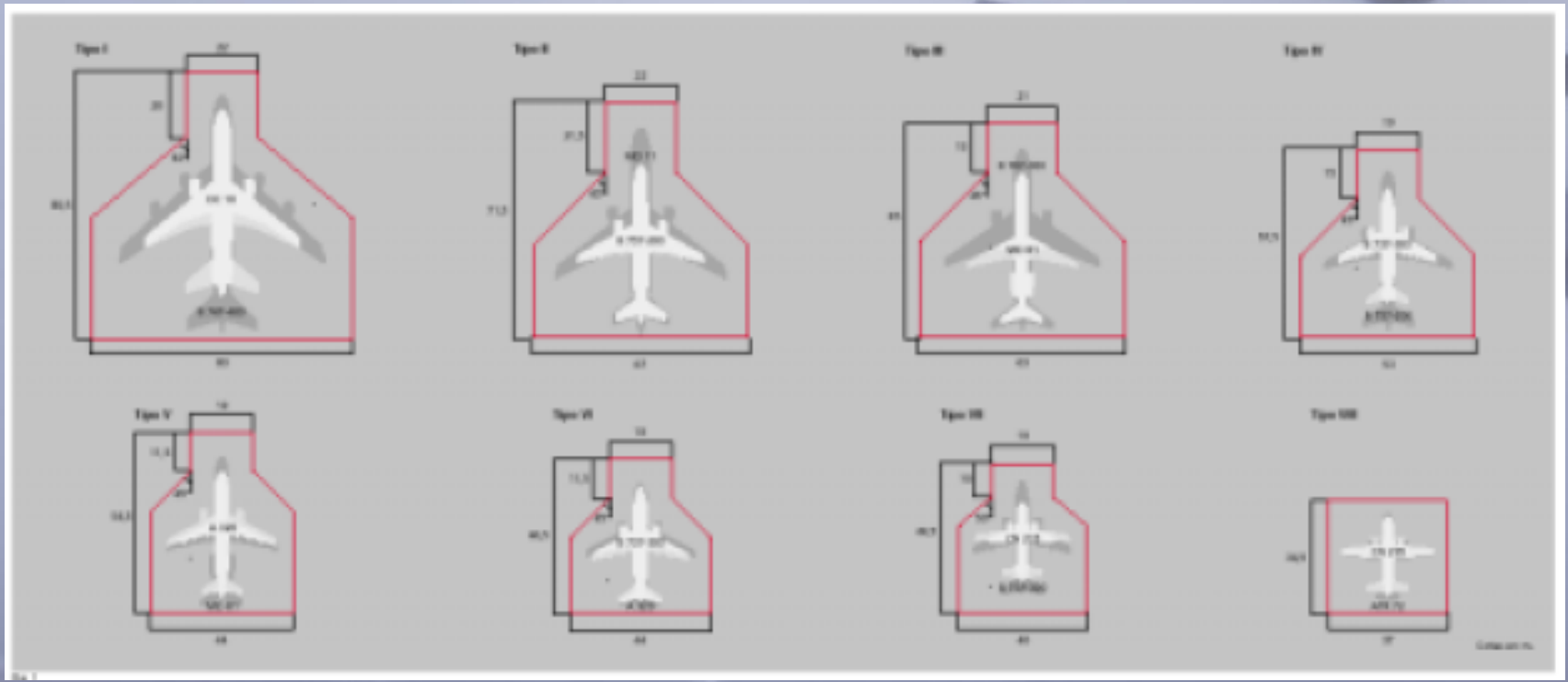
Visual Issues

Stanstead Airport UK

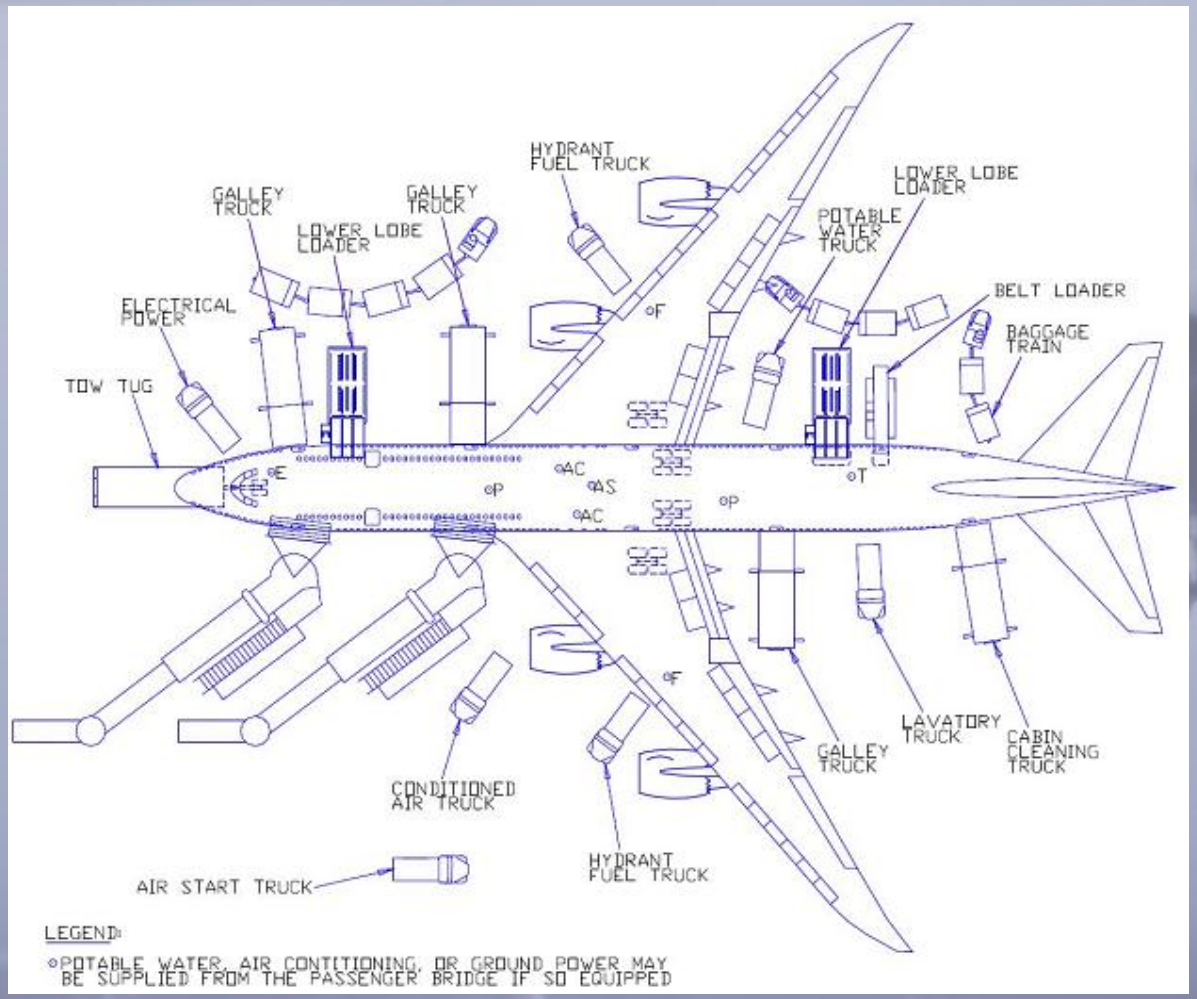
http://www.stopstanstedexpansion.com/documents/SSE_18a_Annex2_Stansted_Airport_at_Night_View_1.jpg

Environmental Issues

- Aircraft parking stand concept and limitation

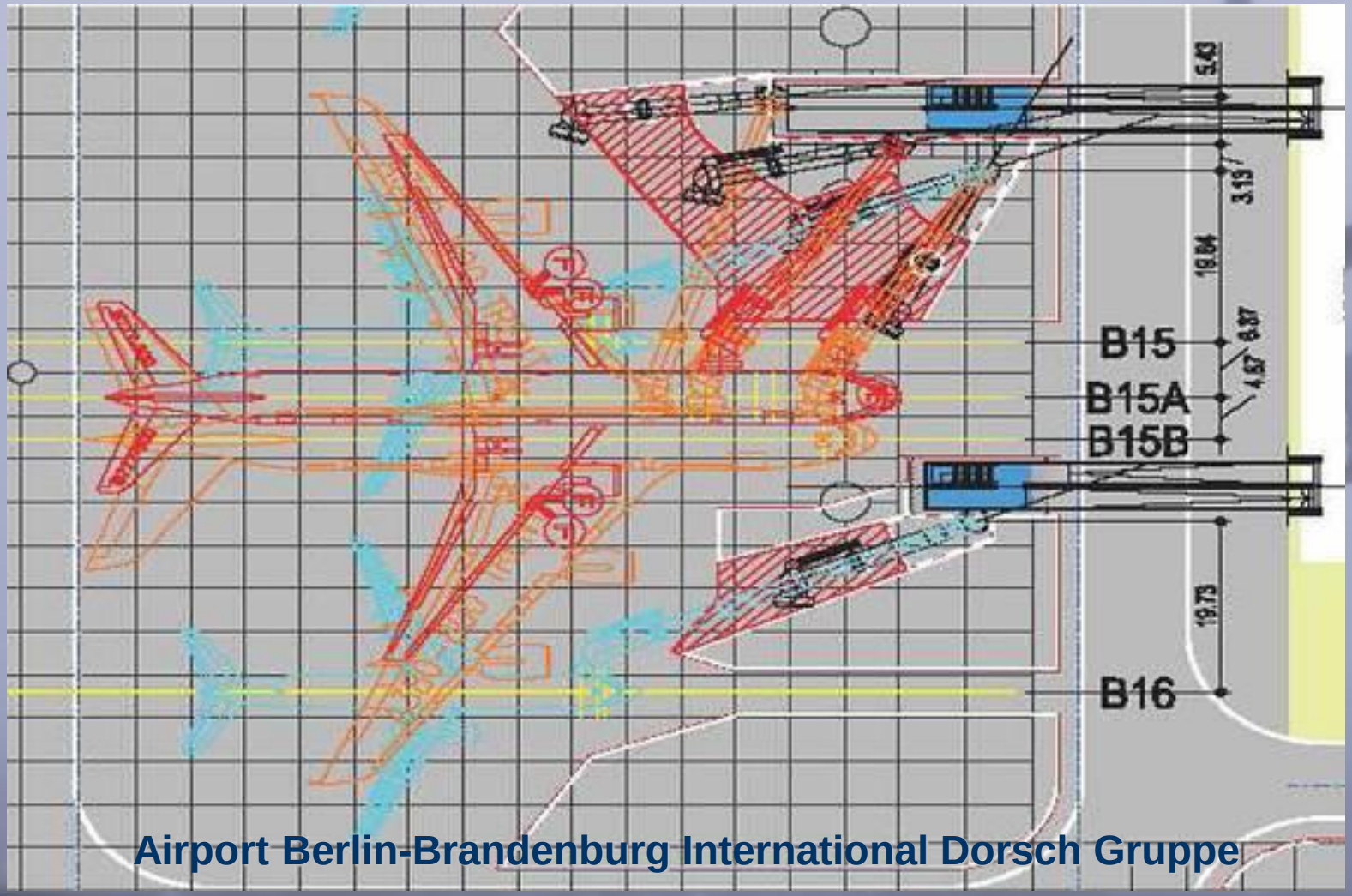


Specific Area Design Criteria – Aircraft parking stand limits



Boeing 747 – Servicing arrangement

Design concepts – tasks related



Airport Berlin-Brandenburg International Dorsch Gruppe

Design concepts – Multiple Aircraft Ramp System

- Actual document
  - + 70 pages
  - + 50 images/photos/graphics
- Finish some graphics
- Review editing and coordinate graphics
- Send to IESALC members
- Send to IESNA
- ***Expecting some comments and review document for publication***
- Future: continuous maintenance of the RP, serial of issues to address

Action plan

- Coordination with IES Roadway Lighting Committee (RLC)
  - Awareness session of aviation business and impact on outdoor lighting
  - Text to be included in various RP of IESNA
- Contacts with other Civil Aviation Authorities and ICAO
- Monitoring of what other countries are doing
  - Stay tune for May Yeung presentation later this week

Work of the subcommitte

- Panel session
  - BETTER LIGHT AND ENERGY SAVINGS
    - Pilots, Airport, R&D, Manufacturers and IDA
- Task assignment to Heather Johnson
  - Specific calculations that RP37 will require