

TRANSPORTATION RESEARCH BOARD

**8th National Aviation System Planning Symposium
20th – 22nd May 2012, Galveston, TX.**

***Concurrent Session 1A: “The Latest on Air Service
Changes and Impacts.”***

**10:20 a.m. – 12:00 noon, Tuesday, 22nd May 2012
Hotel Galvez – Music Room**

SESSION MODERATOR



Isaac Richmond Nettey, Ph.D.

**Associate Dean, College of Technology
Kent State University, Kent, Ohio, U.S.A.**

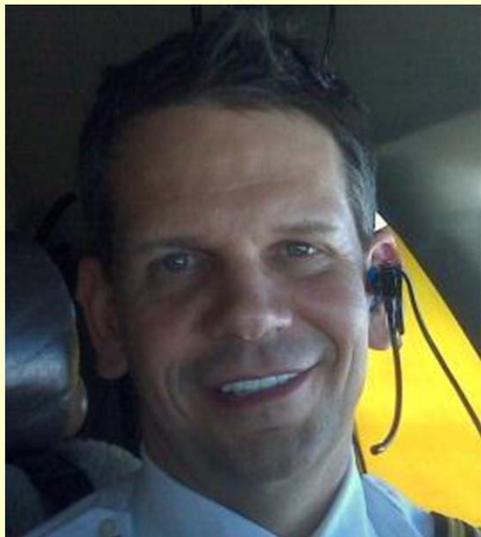
**Research Areas: Airport Operations and Management,
Aviation System Planning, and Intermodalism**

- **Past President, University Aviation Association (1997-1998)**
- **Past Trustee, Council on Aviation Accreditation (d.b.a. AABI) (2003-'07)**
- **Ron McNair Award– Lifetime Contribution to Aeronautics, FAA (2004)**
- **Eisenhower Transportation Fellowship Award, USDOT (1995)**
- **Member, National Academy of Science, Transportation Research Board's Committees on Aviation System Planning (AV020); Airport Terminals and Ground Access (AV050), and Aircraft/Airport Compatibility Committee (AV070), Washington, DC**
- **Management Consultant, Houston Airport System, Houston, Texas**
- **Editorial Board, Journal of Air Transport and International Journal of Aviation Management. Review Panel, Collegiate Aviation Review**

PRESENTATION OVERVIEW

- § **Aerospace & Air Carrier Perspective – Captain Chris Baur**, FRAeS, President and CEO, Hughes Aerospace Corporation
- § **Regional Air Carrier Perspective – Captain Brian Crawford**, Project Lead, Post Merger Integration, Expressjet Airlines, Inc.
- § **Airport Management Perspective – Perry Miller**, A.A.E., I.A.P., General Manager, William P. Hobby Airport and Interim General Manager, Houston Bush Intercontinental Airport.
- § **Airport Planning Perspective – Joshua Francosky**, A.A.E., Senior Consultant, Ricondo & Associates, Inc, Atlanta Hartsfield Jackson International Airport Master Planning Project.

CAPTAIN CHRIS BAUR'S BIO



Captain Chris Baur, FRAeS

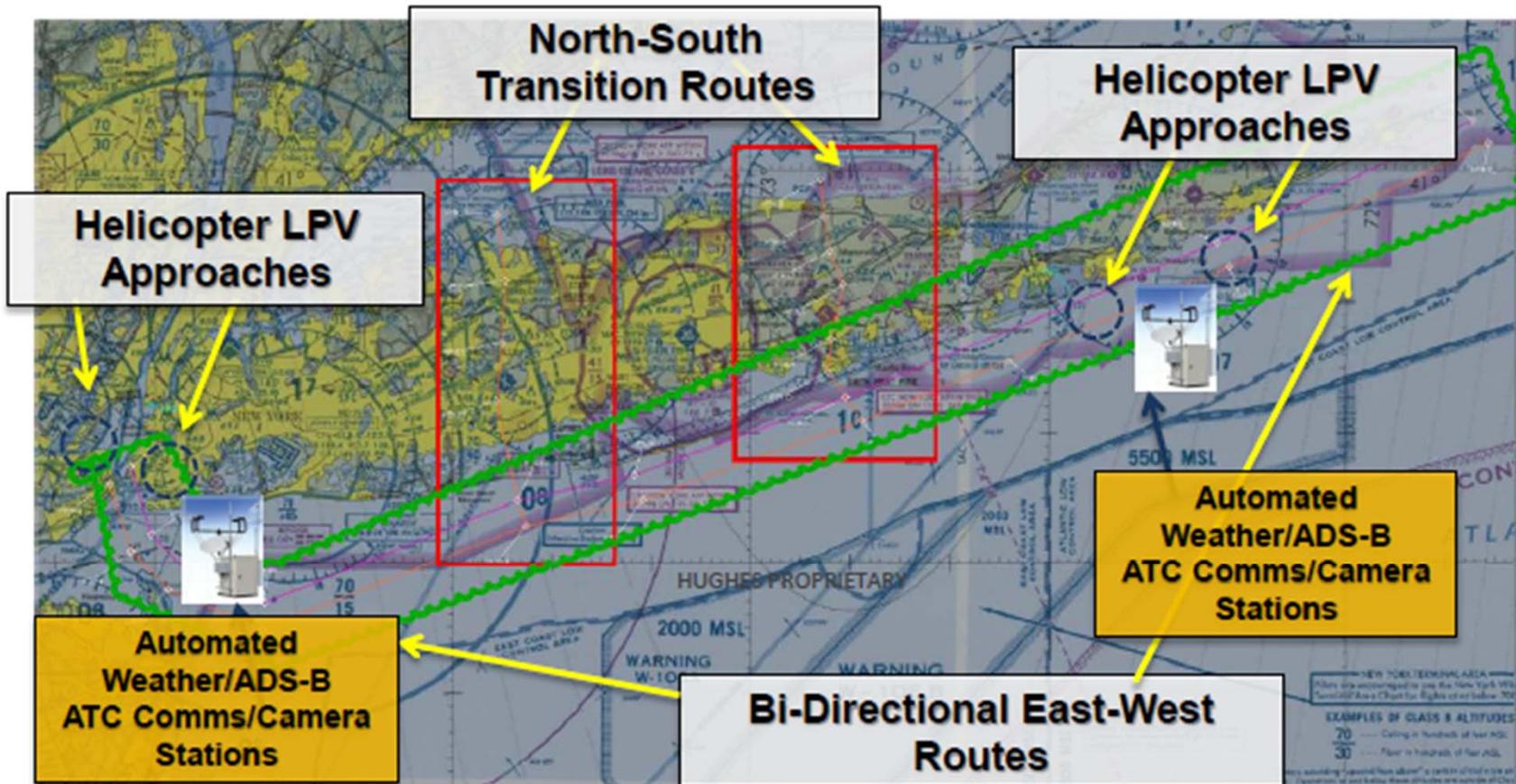
**President & CEO,
Hughes Aerospace Corporation**

Areas of Responsibilities: Provides consulting and technical services to major aerospace manufacturers, industry and government. Leader in Performance Based Navigation (PBN) Projects in the US and Globally.

- **Test Pilot with Type Ratings in the B-737, B757/767 and B777.**
- **Rotary and Fixed Wing Pilot – Business Aviation, US Army, Coast Guard, US Air Force and US Treasury Department.**
- **Record for flying the longest helicopter oceanic rescue mission in history.**
- **Federal Law Enforcement Officer's Association Medal of Valor for Heroism.**
- **Member; International Helicopter Safety Team, Aviation Week & Space Technology's PBN Advisory Board, and**
- **Columnist for *Rotor & Wing* Magazine.**



IFR Helicopter Route System Vertical Flight PBN





Remote Controlled Tower Automated Weather, Communications ADS-B Flight PBN Solutions



- AWOS III w/Dual Pressure Sensor
- RCO – ATC Communications & AWOS Broadcast
- Surveillance – ADS-B – Traffic Display on Website
- (4) Fixed Weather Cameras
- Website & iPhone App
- SWIM Wireless Data Transfer via Harris 802.11
- T1, Internet, SATCOM

- Optional Equipment
- GBAS Facility
- Surveillance Camera
 - Night Vision
 - Infrared
 - Motion Detecting

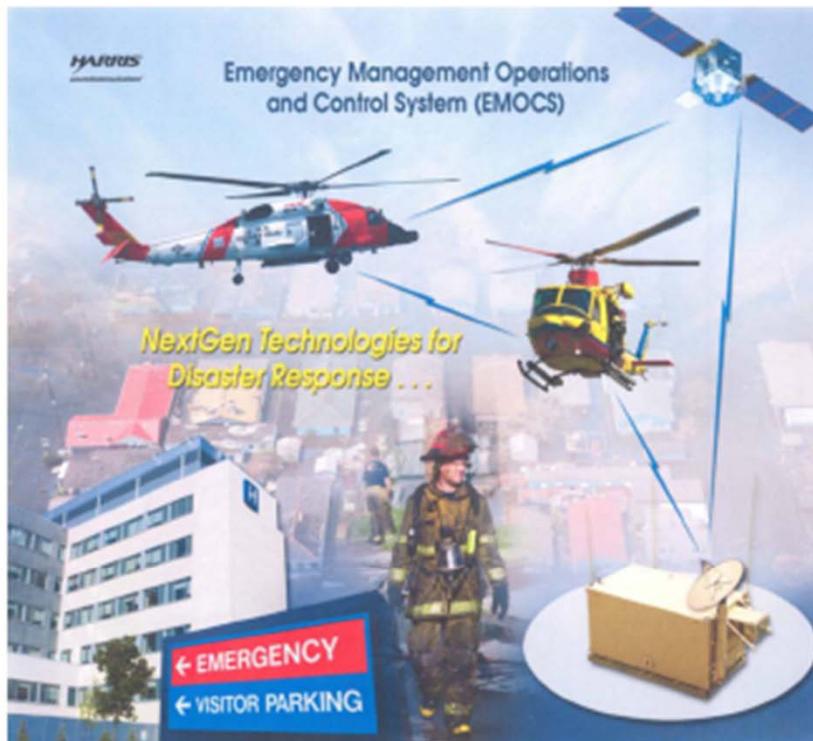


HUGHES PROPRIETARY



EMOCS

Emergency Management Operations & Control System

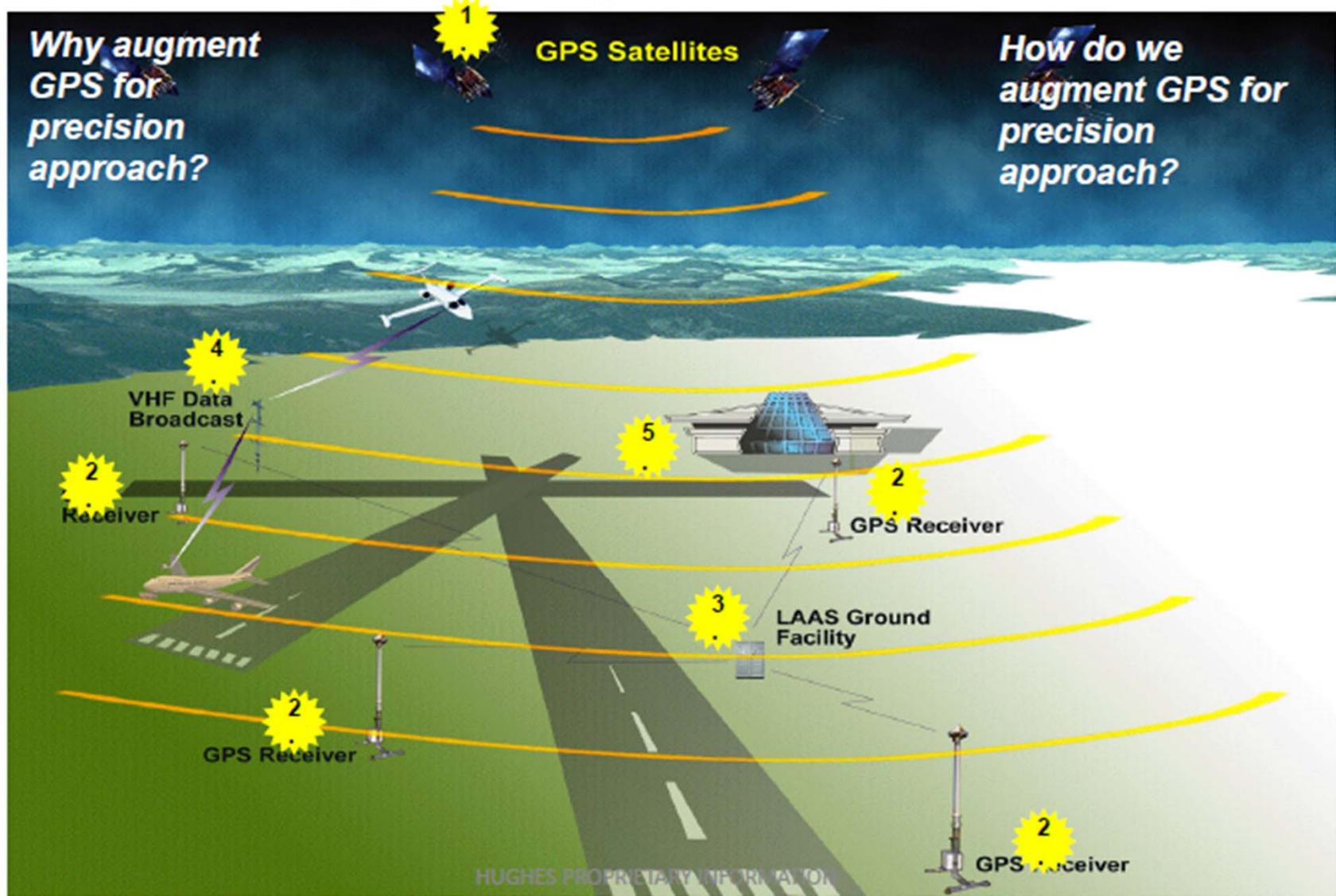


Low Altitude Air Traffic Control	ADS-B Receivers
De-conflict Low Altitude Helicopters	Command & Control Data-link
LPV Approach Surveillance	Monitoring of Mission Priorities
Night Operations for Helicopters	Pilot Access- Wx, Traffic, Obstacles
Radio Bridging with VHF/UHF & P-25	Victim Identification / Medical Needs
Multi-agency Situational Awareness	Use Existing NAS Network



GBAS

Ground Based Augmentation System



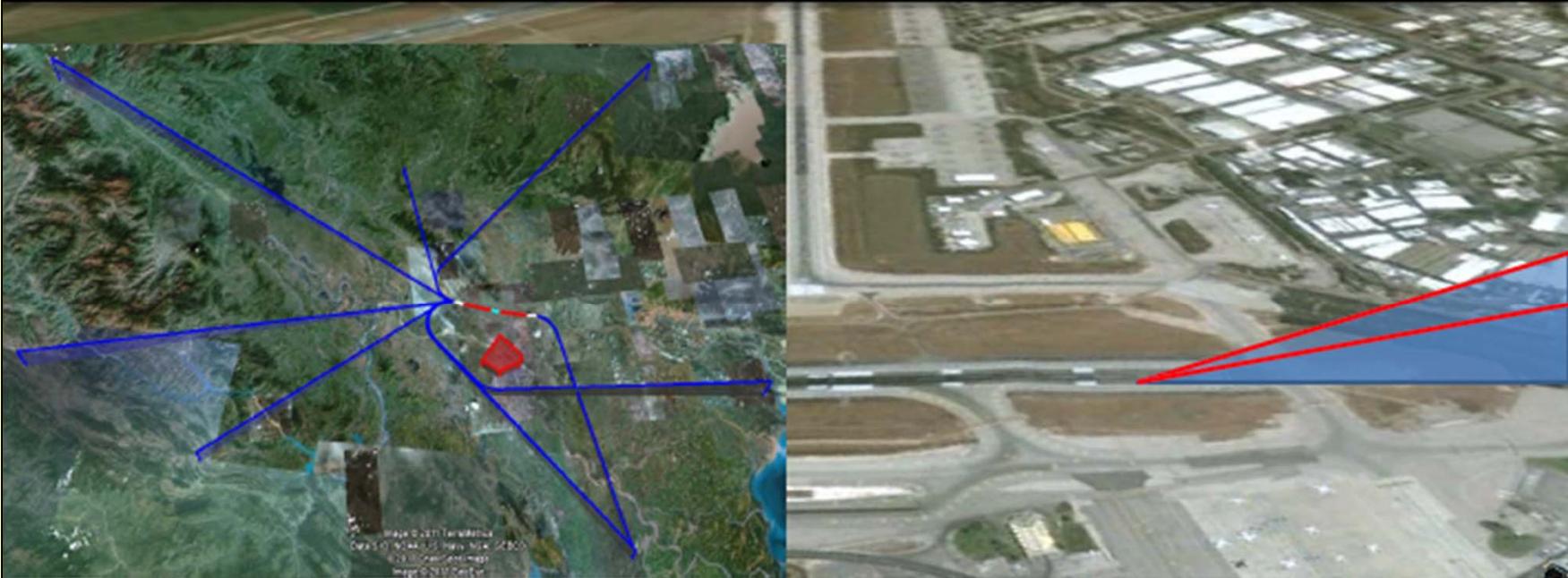
HUGHES PROPRIETARY INFORMATION
HONEYWELL/HUGHES PROPRIETARY



Fusion of GBAS & RNP The Last 250'

Honeywell

RNAV (RNP) & Honeywell GLS SmartPath System Complementary Systems providing MAXIMUM Benefits to States, Airports and Operators
RNP and GLS are not an either/or system. Instead a combination of these two technologies will provide systemic benefits that are unparalleled in aviation.



HUGHES PROPRIETARY INFORMATION

CAPTAIN BRIAN CRAWFORD'S BIO



Captain Brian Crawford, ATP

**Project Lead, Post Merger Integration,
ExpressJet Airlines, Inc.**

Areas of Responsibilities: charged with integrating air carrier systems and philosophies, and harmonizing the remaining parallel programs in accordance with the airline's post-regulatory commitments to the FAA.

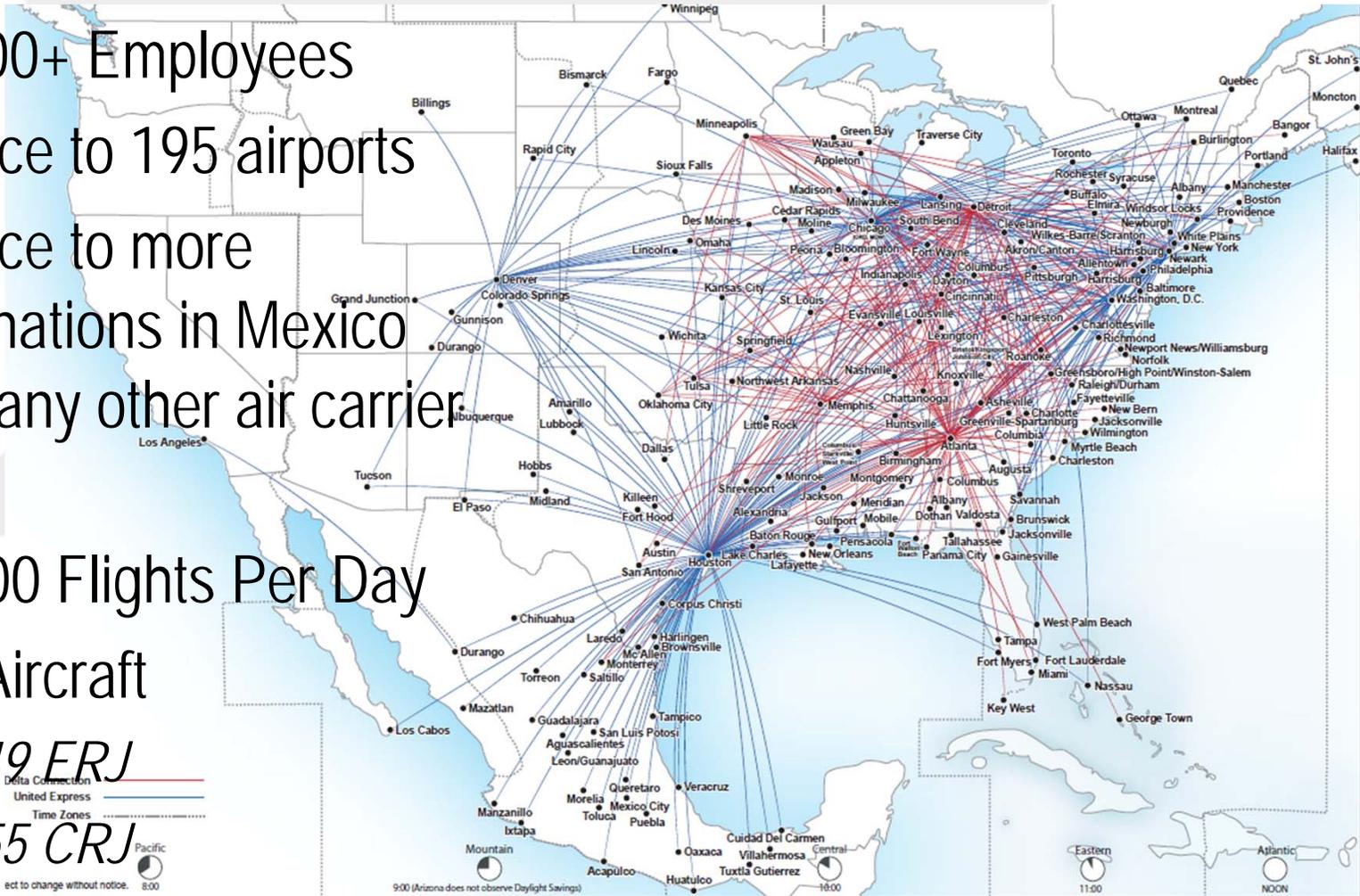
- **Instructor Pilot with Type Ratings in the Beech 1900D and Embraer 145.**
- **Flight Safety Officer and Safety Committee Member.**
- **Manager of Flight Operations, Technical, author of Flight Ops Manual.**
- **Managed Human Factors Department, including Threat and Error Management-based transition to a contemporary safety culture.**
- **Graduate of Kent State University.**

Industry Consolidation Post 9/11

- USAir & America West 2007
- Delta & Northwest 2009
- ExpressJet & Atlantic Southeast 2011
- United & Continental 2011
- Southwest & AirTran 2012
- American & US Airways? 2013?

Face of Regional Consolidation

- 10,000+ Employees
- Service to 195 airports
- Service to more destinations in Mexico than any other air carrier (26)
- ~2,200 Flights Per Day
- 404 Aircraft
 - 249 ERJ
 - 155 CRJ



Largest Air Operations (DOT 2011)

Airline	Merger Partner	Annual Flights	Total Segments
Southwest		1,141,883	1,141,883
Delta		853,331	853,331
ExpressJet	330829	428,162	758,991
United	348386	383,830	732,216
American		675,294	675,294
SkyWest		620,196	620,196
US Airways		435,533	435,533
FedEx		339,878	339,878
Pinnacle		265,712	265,712
AirTran		253,020	253,020
Eagle		249,273	249,273
JetBlue		238,041	238,041
Republic		174,026	174,026
Air Whiskey		167,640	167,640

Airline	Merger Partner	Annual Flights	Total Segments
Alaska		158,249	158,249
Mesa		157,944	157,944
Mesaba		143,213	143,213
Comair		140,995	140,995
UPS		136,462	136,462
Horizon		121,218	121,218
PSA		117,667	117,667
Colgan		116,484	116,484
Shuttle America		100,884	100,884
Frontier		86,216	86,216
Executive		71,245	71,245
Hawaiian		69,637	69,637
Compass		60,203	60,203
GoJet		47,280	47,280
Virgin America		41,988	41,988
allegiant		41,367	41,367

 legacy commuter airlines



PERRY JAMES MILLER's BIO



Perry James Miller, A.A.E., I.A.P.

**General Manager, Houston Hobby Airport and
Interim General Manager, Bush Intercontinental Apt.**

Areas of Responsibilities: Commands a team of hundreds that must anticipate and juggle the needs of passengers, pilots, flight attendants, visitors and personnel, associated with the 19 domestic and elite international air carriers that operate from IAH

- **Member; American Association of Airport Executives (AAAE)
Airport Management Professional Accreditation Program (AMPAP)**
- **B. S, Degree in Airway Science, Texas Southern University (TSU), Houston, TX.**
- **M.S. in Transportation Planning and Management, TSU, Houston, TX.**
- **Native of Chicago, Married to Tanya and the adopted father of four**

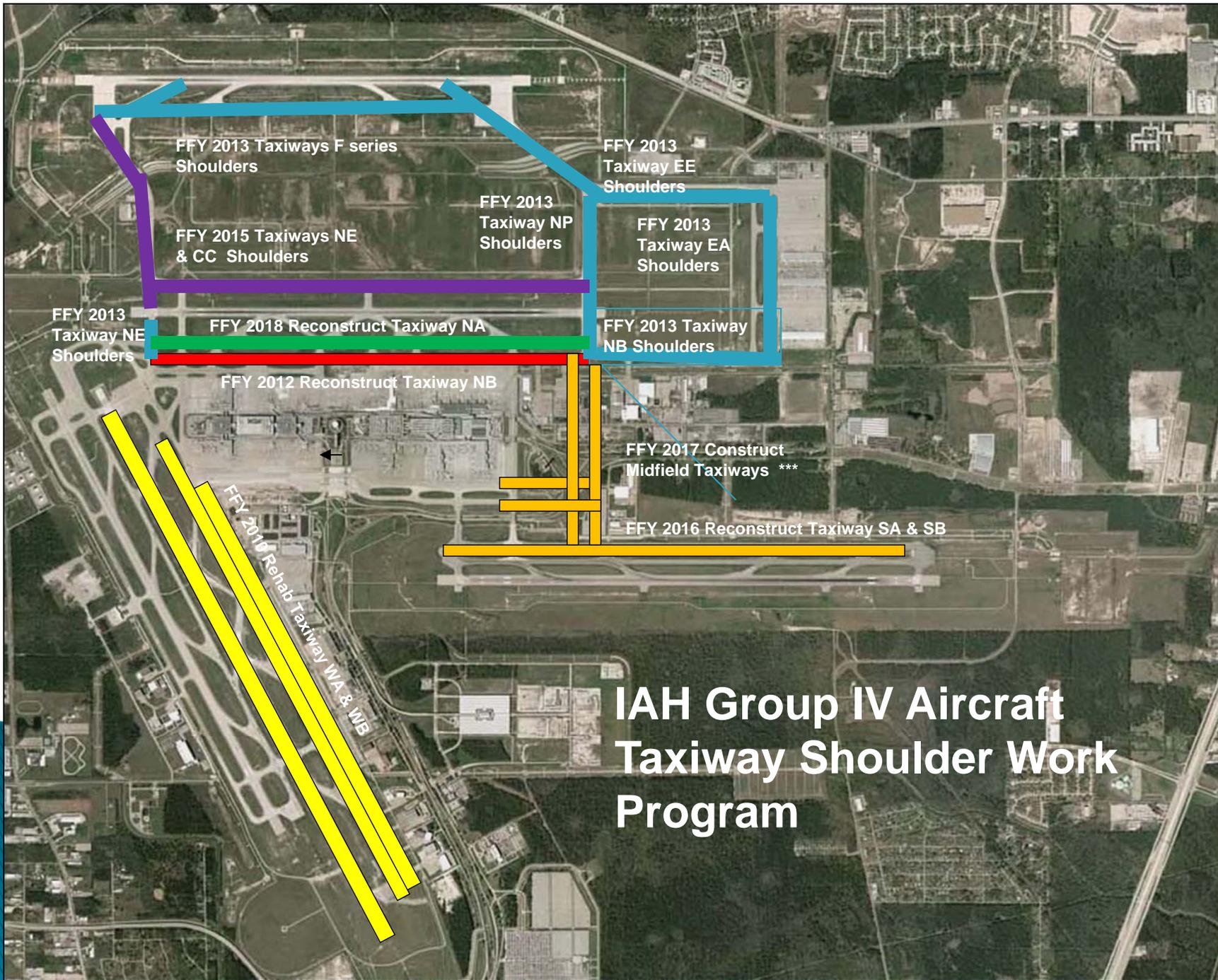
Terminal D

A380 Aircraft Accommodation



FAA Requirements for ADG VI

- Runway Pavement Width = 200 feet
- Runway Shoulder Width = 40 feet
- Taxiway Pavement Width = 100 feet
- Taxiway Shoulder Width = 40 feet
- Runway to Parallel Taxiway Separation = 600 feet
- Taxiway Centerline to Fixed or Moveable Object = 193 feet
- Taxilane Centerline to Fixed or Moveable Object = 167 feet



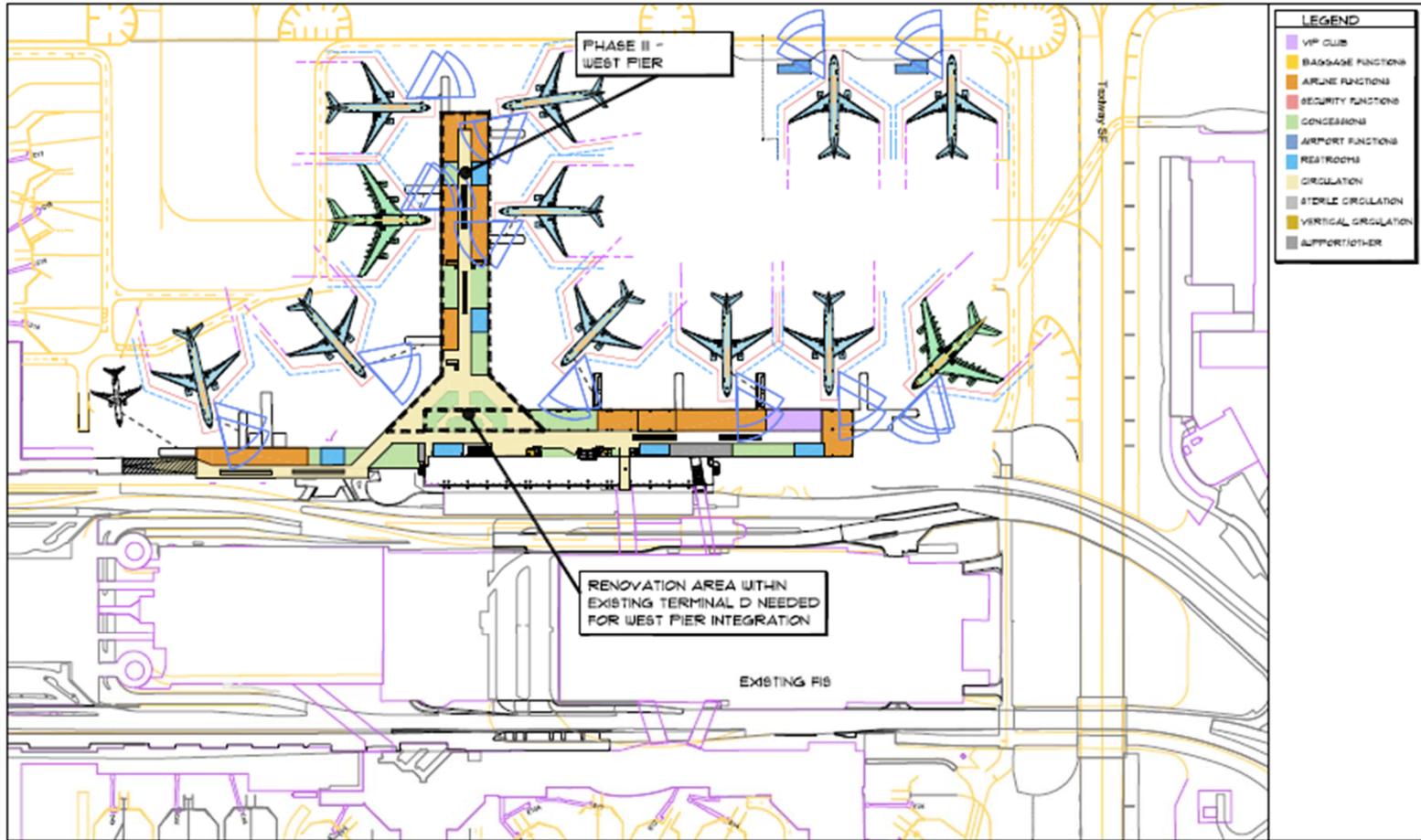
IAH Group IV Aircraft Taxiway Shoulder Work Program

Completed A380 Gate

IAH Terminal D Interim Plan (D12A)



Terminal D Long - Range Concept



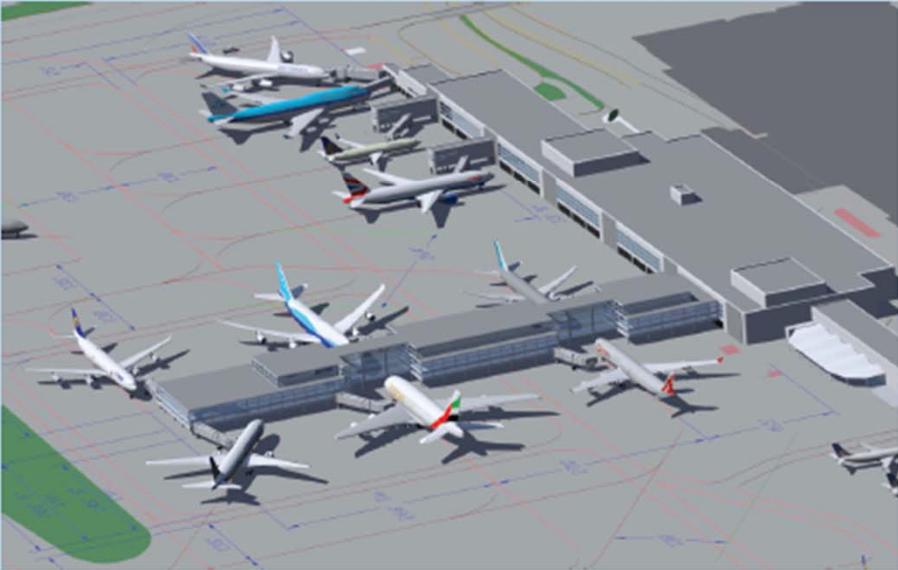
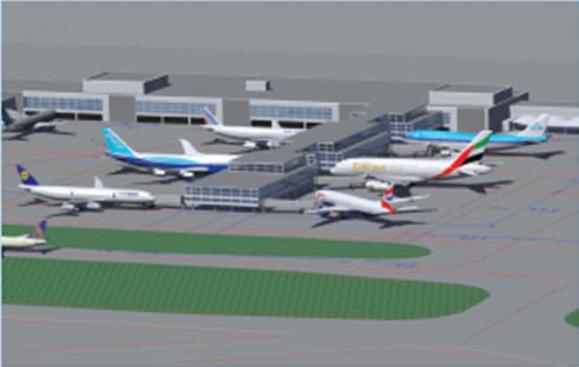
HOUSTON GEORGE BUSH INTERCONTINENTAL AIRPORT - HYBRID - DEPARTURES LEVEL (LEVEL 121) - PHASE III WEST PIER
 CONCEPTUAL - FOR DISCUSSION ONLY



Terminal D Long Range Concepts



Proposed Terminal Expansion
Houston Intercontinental Airport Terminal D



JOSH P. FRANCOSKY'S BIO



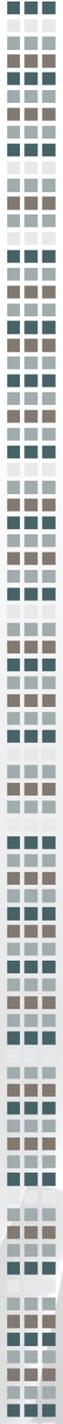
Joshua P. Francosky, A.A.E.

Senior Consultant

Ricondo and Associates, Inc., ATL, College Park, GA

Areas of Responsibilities: Provides leadership in performing Inventory, Forecasts, and Demand-Capacity Analyses for the master plan update of Hartsfield-Jackson Atlanta International Airport.

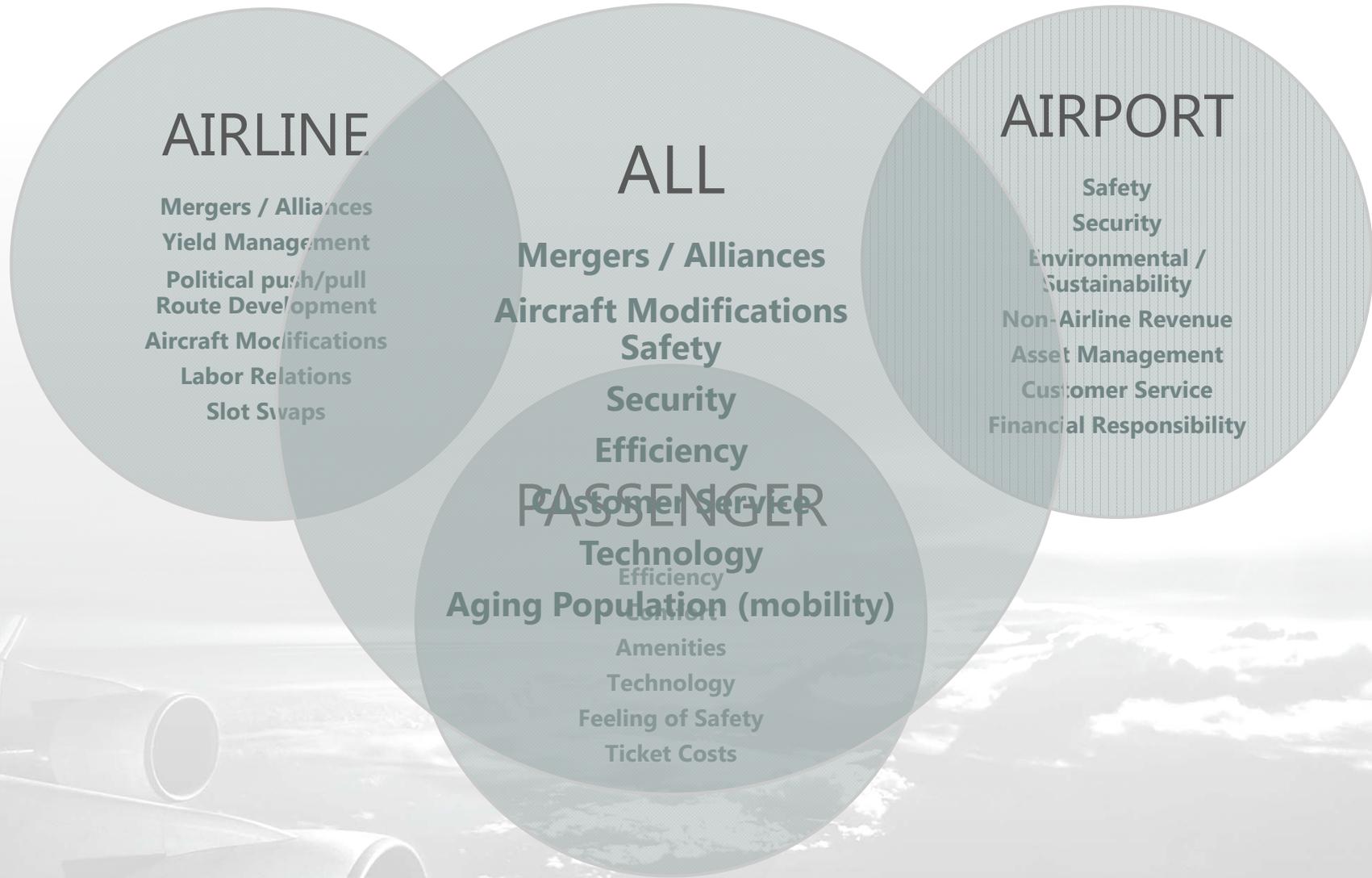
- **B.S. – Airport Management, Embry Riddle Aeronautical University, DAB, FL**
- **M.B.A. – Corporate Finance, Kent State University, Kent, OH**
- **10 years of combined Airport, Airline and Aviation Consulting Experience at Atlanta Hartsfield Jackson International Airport and Delta Airlines.**
- **Specializes in aviation planning and airport finance with broad experience in airport planning, strategic development, capital programming, financial management and debt instrument acquisition.**
- **Senior Airport Planner and Interim CIP Manager, Finance Division, ATL**



Contents

- Airport Planning – A Historical Perspective
- Catalysts to Change
- Industry Trends
- What Does the Future Hold?

Catalysts for Evolving Airport Planning Methodologies



What Does the Future Hold?

- Continued environmental and sustainability initiatives
- Multi-modal and mass transit enhancements to/from airports
- Smartphone use for boarding and airport wayfinding
- Threat based screening & enhanced biometrics
- Aerotropolis concept (highest and best use of available land)
- Economic viability and sustainability through non-aeronautical revenue initiatives

