

New Southern Nevada Airport

Airspace Design, Standard Instrument Arrival
Procedures, and Standard Instrument Departures
Briefing for Desert Managers Group
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Introduction

- Introductions
- Project Background
- Study Objective
- Scope of Work
- Stakeholder Participation



Clark County Project Team

- Clark County Department of Aviation
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- Ricondo & Associates
 - Tom Cornell [tcornell@ricondo.com; (415) 547-1930]
 - John Bergener [jbergener@ricondo.com; (702) 265-3442]
- ASRC Aerospace
 - Robb Varani [rvarani@akspace.com; (763) 786-9582]
 - Shaun Meehan [shaun.meehan@akspace.com (763) 786-3827]

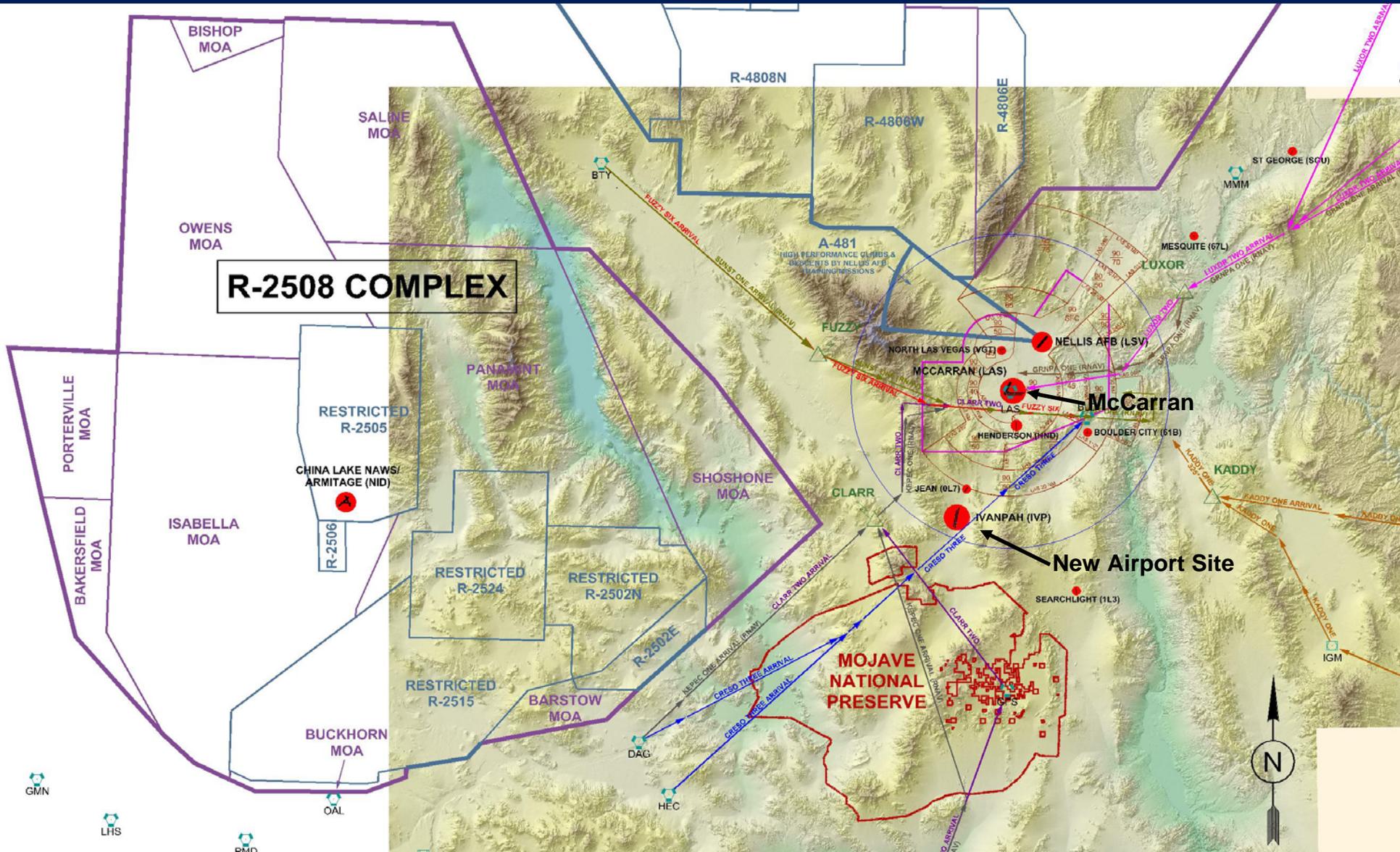


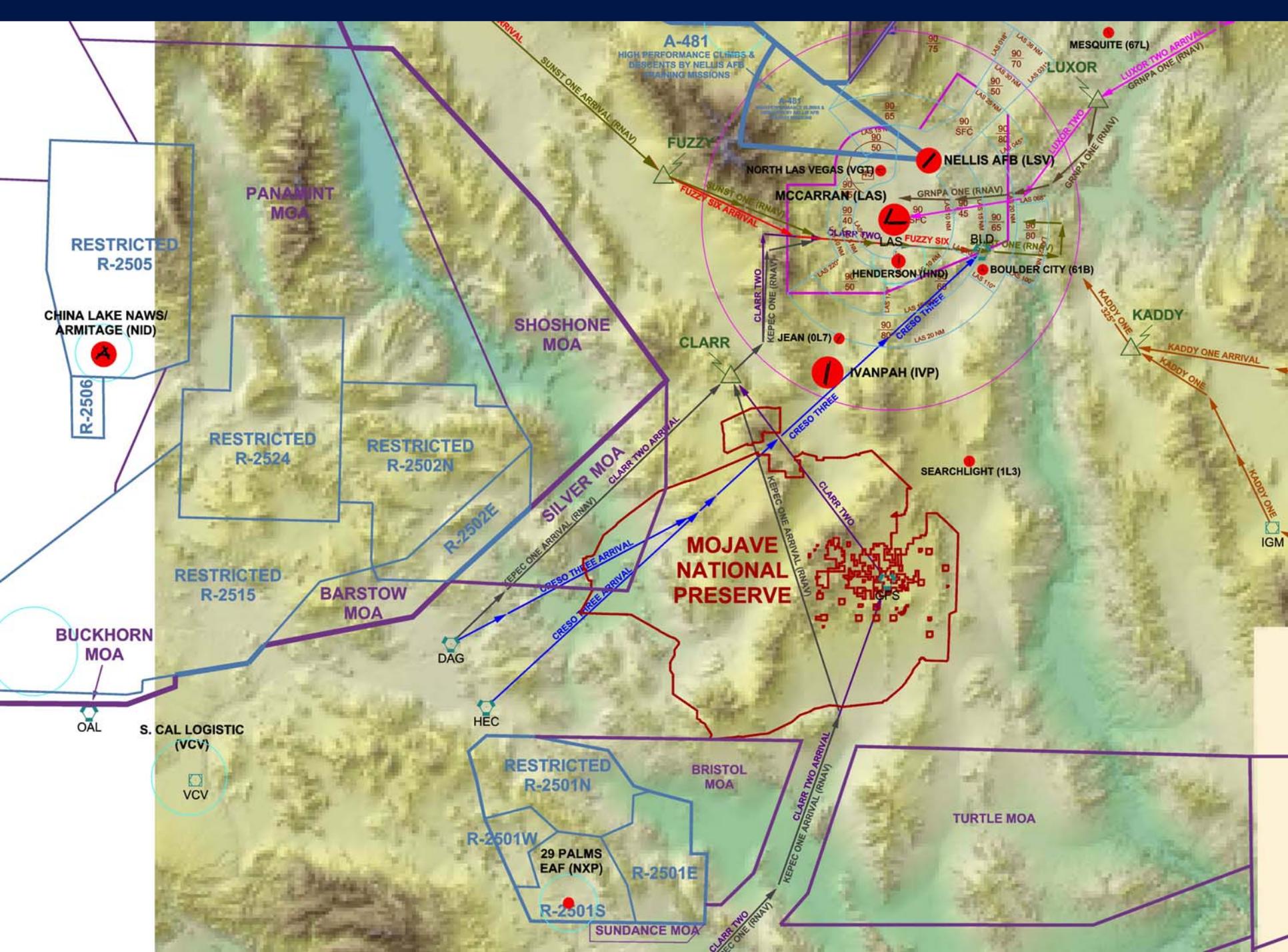
Project History & Background

- Determination of need for additional airport
- Selection of new site
- Land availability
- Airspace feasibility assessment
- Conceptual planning
- Airport layout plan
- Utility planning
- **Airspace design**
- Environmental impact statement
- Design and construction
- Other planning and feasibility studies



New Airport Location





A-481
HIGH PERFORMANCE CLIMBS &
DESCENTS BY NELLIS AFB
TRAINING MISSIONS

RESTRICTED
R-2505

PANAMINT
MOA

CHINA LAKE NAWA/
ARMITAGE (NID)

R-2506

RESTRICTED
R-2524

RESTRICTED
R-2502N

SHOSHONE
MOA

R-2502E

RESTRICTED
R-2515

BARSTOW
MOA

BUCKHORN
MOA

OAL

S. CAL LOGISTIC
(VCV)

VCV

RESTRICTED
R-2501N

MOJAVE
NATIONAL
PRESERVE

R-2501W

29 PALMS
EAF (NXP)

R-2501E

R-2501S

SUNDANCE MOA

BRISTOL
MOA

TURTLE MOA

NORTH LAS VEGAS (VGT)

MCCARRAN (LAS)

HENDERSON (HND)

BOULDER CITY (61B)

JEAN (0L7)

IVANPAH (IVP)

SEARCHLIGHT (1L3)

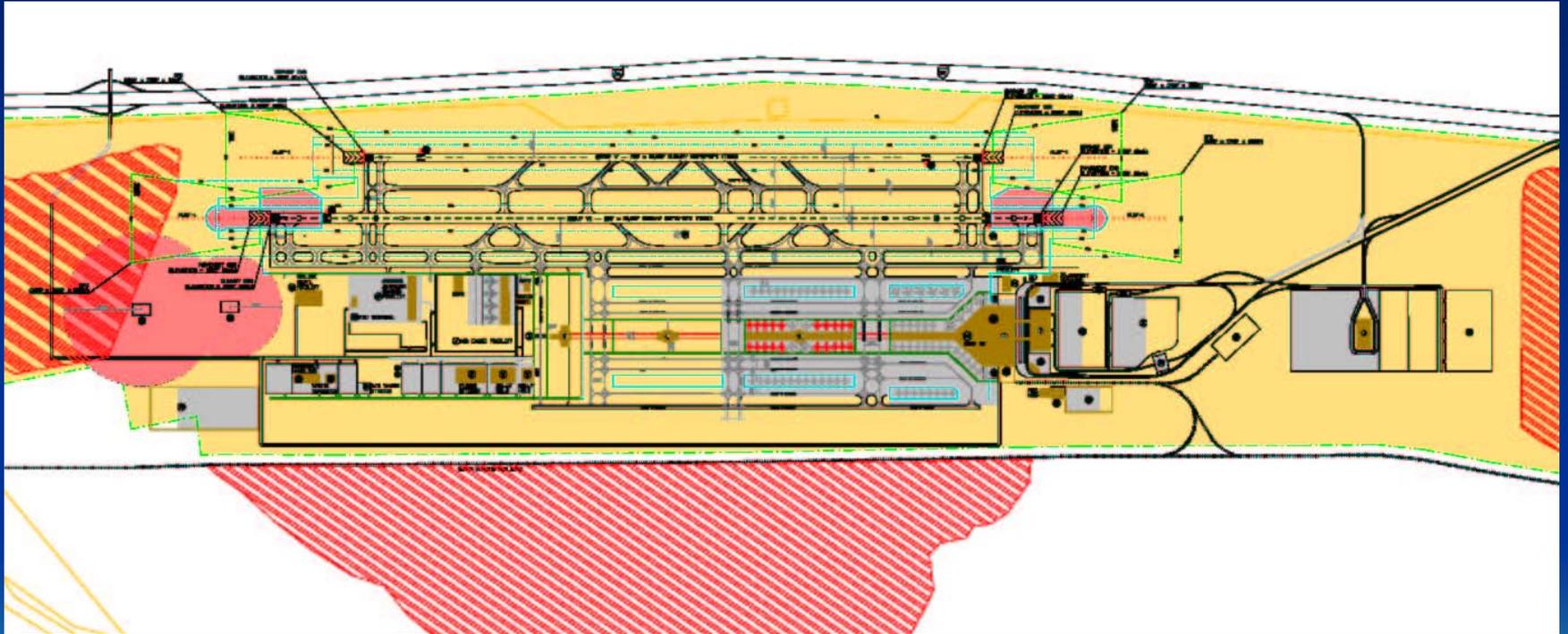
MESQUITE (67L)

LUXOR

KADDY

IGM

Preliminary Airport Conceptual Design



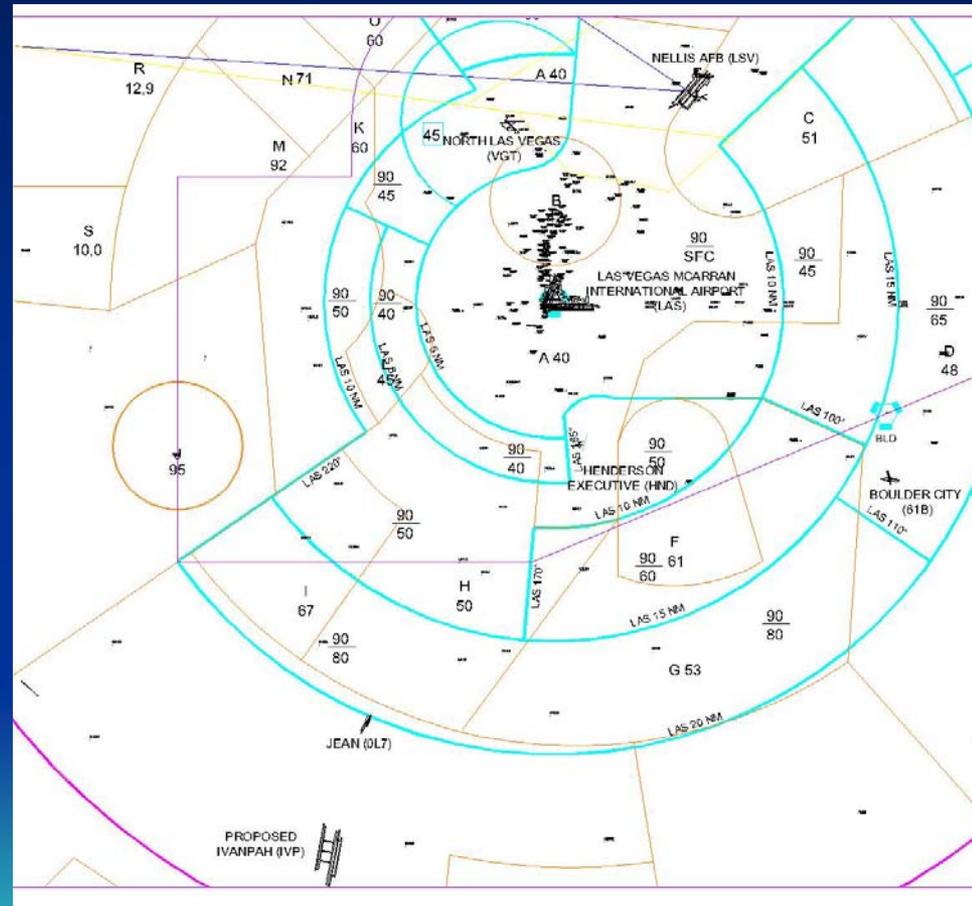
Objective of Study

- Develop airspace and procedure alternatives
- Identify airspace interactions between facilities
- Identify existing and future air traffic constraints
- Establish airspace assumptions for analysis in the EIS



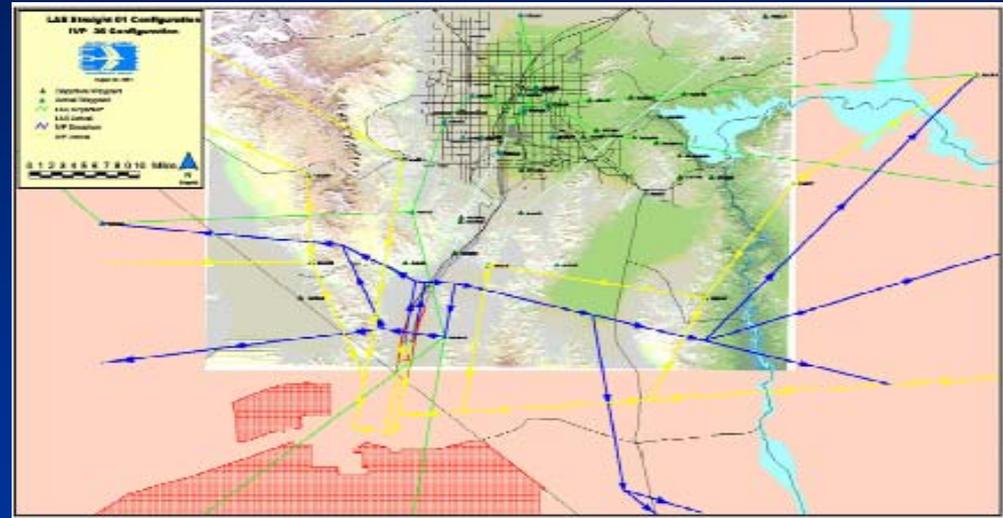
Data Collection/Base Map Development

- Data Collection
 - SOP's, MOU's, LOA's
 - Forecast Documentation
 - Wind / Weather Data
- Airspace Planning Base map
 - Topographical Information
 - Airspace (A,B,C,D,E,)
 - Military Airspace (MOA, Restricted Areas)
 - TRACON, ARTCC Boundaries & Sectors
 - Minimum Vector Altitudes
 - Megadata, ANOMS, STARS Data
 - Existing Airports
 - NAVAIDS, FIXES
 - Existing Procedures
 - Military Training Routes



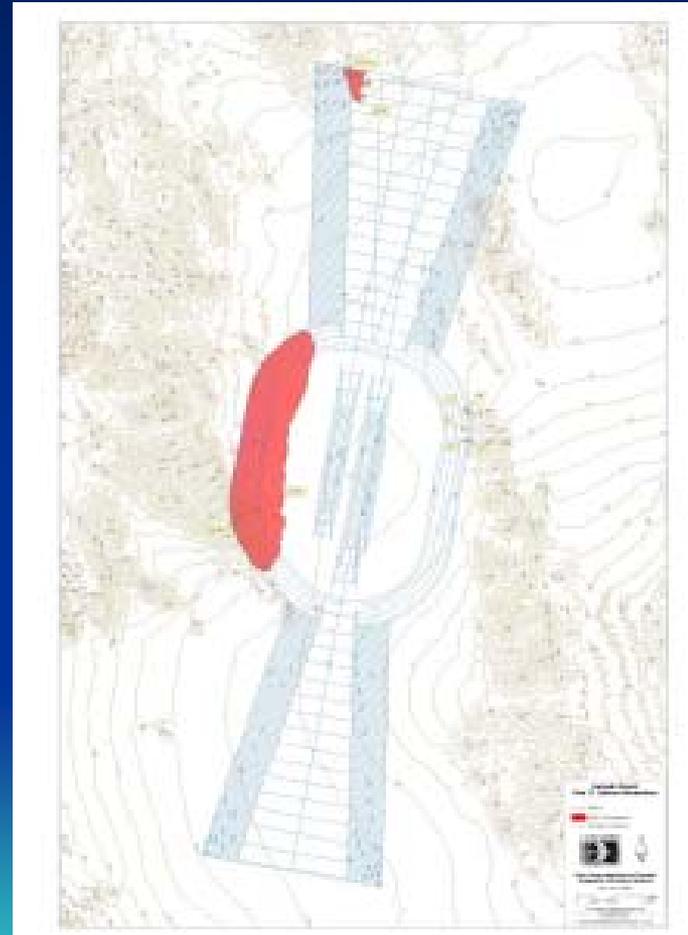
Analysis of Airspace Environment

- Existing operations analysis
- Airspace requirements & design for new airport
- Identify runway operating configurations
- Ground based NAVAID coverage analysis
 - On-airport
 - Terminal
 - Enroute
- Design of Class B airspace



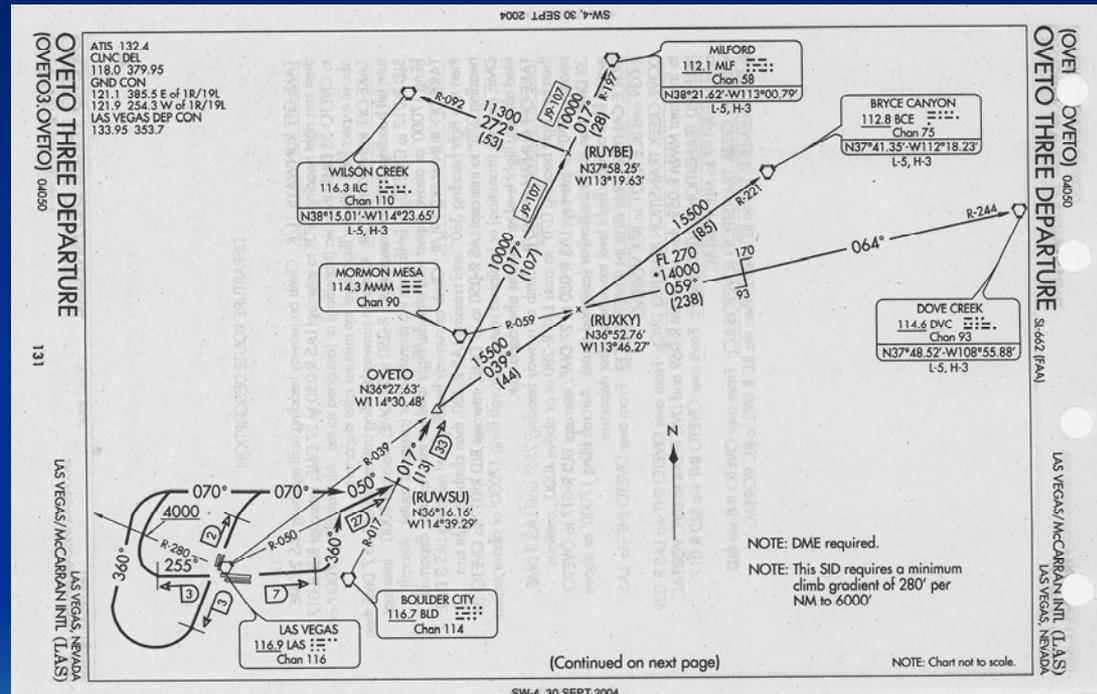
Airspace Obstruction Evaluations

- FAR Part 77
- TERPS
- Aircraft engine-out performance



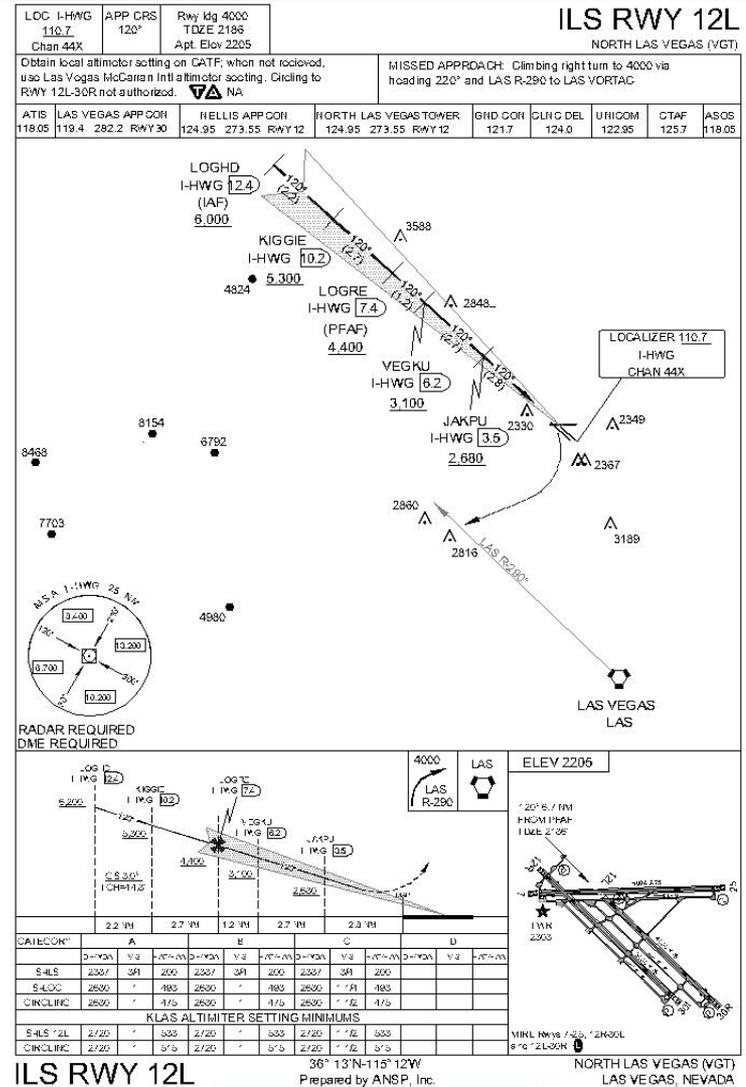
Design of SID's and STAR's

- Develop Standard Instrument Departures
 - RNAV
 - Traditional
- Develop Standard Terminal Arrival Routes
 - RNAV
 - Traditional



Approach Procedure Development

- ILS
- RNAV
- GPS
- VOR/DME

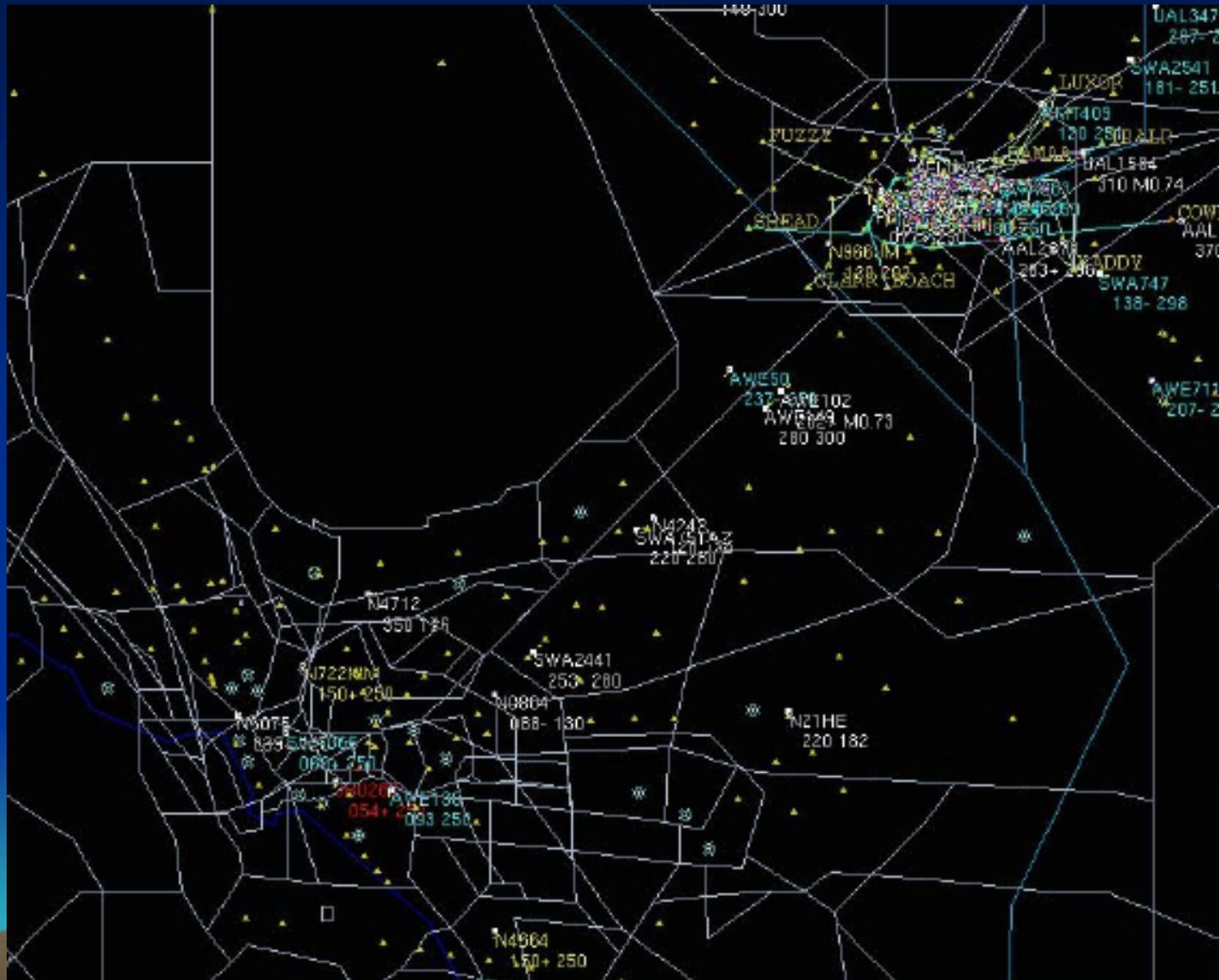


Airspace Simulation Modeling

- Potential airspace designs will be modeled using the Total Airport and Airspace Modeler (TAAM); TAAM can provide:
 - Visual verification of SIDS, STARS, and airspace and procedures interface
 - Capacity and delay comparisons between airspace design alternatives
- It is important to note that TAAM
 - is not a 3D SID or STAR builder
 - is not a human-in-the-loop simulation
 - is not a design tool
- Potential follow-on modeling with NASA Future Flight



Airspace Simulation Modeling



Stakeholder Participation

- FAA
 - Western Pacific Regional Office (AT, AFS, AVN, ANI)
 - Airport District Office
 - Flight Standards District Office
 - LAS TRACON and ATCT
 - ARTCC (Los Angeles, Albuquerque, Salt Lake City)
- Military
 - Regional liaison
 - Branches of military utilizing airspace in the vicinity including Nellis AFB and R-2508 Complex
- Industry
 - Airlines
 - NBAA
 - AOPA
 - Manufacturers (avionics and aircraft)
 - RTCA Working Group
- Resource agencies including BLM and NPS
- CCDOA Team
- Who have we forgotten?

Coordination / Communication

- Point of contact for the CCDOA Team
- Identify contacts and liaisons for stakeholders
- Communication process
- Coordination process
- Information dissemination



Open Discussion

- Q & A



Meeting Close-Out

- Review – *Did we cover all bases?*
- IOU's – *Who owes whom?*
- Meeting minutes distribution
- Next meeting

