

**JOINT WORK SESSION  
FLAGSTAFF CITY COUNCIL/COUNTY BOARD OF SUPERVISORS**

**AGENDA**

**4:00 P.M. - MONDAY  
SEPTEMBER 9, 2013**

**COUNCIL CHAMBERS  
211 WEST ASPEN AVENUE**

- 1. Call to Order**
- 2. Pledge of Allegiance**
- 3. Roll Call:**

*NOTE: One or more Councilmembers/Supervisors may be in attendance telephonically or by other technological means.*

CHAIRMAN ARCHULETA  
SUPERVISOR BABBOTT  
SUPERVISOR FOWLER

SUPERVISOR METZGER  
SUPERVISOR RYAN

MAYOR NABOURS  
VICE MAYOR EVANS  
COUNCILMEMBER BAROTZ  
COUNCILMEMBER BREWSTER

COUNCILMEMBER ORAVITS  
COUNCILMEMBER OVERTON  
COUNCILMEMBER WOODSON

<p><i>As a reminder, if you are carrying a cell phone, electronic pager, computer, two-way radio, or other sound device, we ask that you turn it off at this time to minimize disruption to tonight's meeting.</i></p>
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- 4. Public Participation:**

*Public Participation enables the public to address the Council about items that **are not** on the agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment on an item that is on the agenda is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak.*

- 5. Presentation on the Cherenkov Telescope Array**
- 6. ADOT Interstate 11 Corridor Justification Report**
- 7. *Flagstaff Regional Plan 2030: Place Matters* – Transmittal of document from the Citizen Advisory Committee (CAC) to the Council and Board of Supervisors**
- 8. Public Participation**

9. Informational Items To/From Chairman, Supervisors and County Manager/Mayor, Council and City Manager.

10. Adjournment

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on \_\_\_\_\_, at \_\_\_\_\_ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Elizabeth A. Burke, MMC, City Clerk

# Memorandum

5.

## CITY OF FLAGSTAFF

**To:** The Honorable Mayor and Council  
**From:** Elizabeth A. Burke, City Clerk  
**Date:** 09/04/2013  
**Meeting Date:** 09/09/2013



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### TITLE:

**Presentation on the Cherenkov Telescope Array**

### DESIRED OUTCOME:

Informational

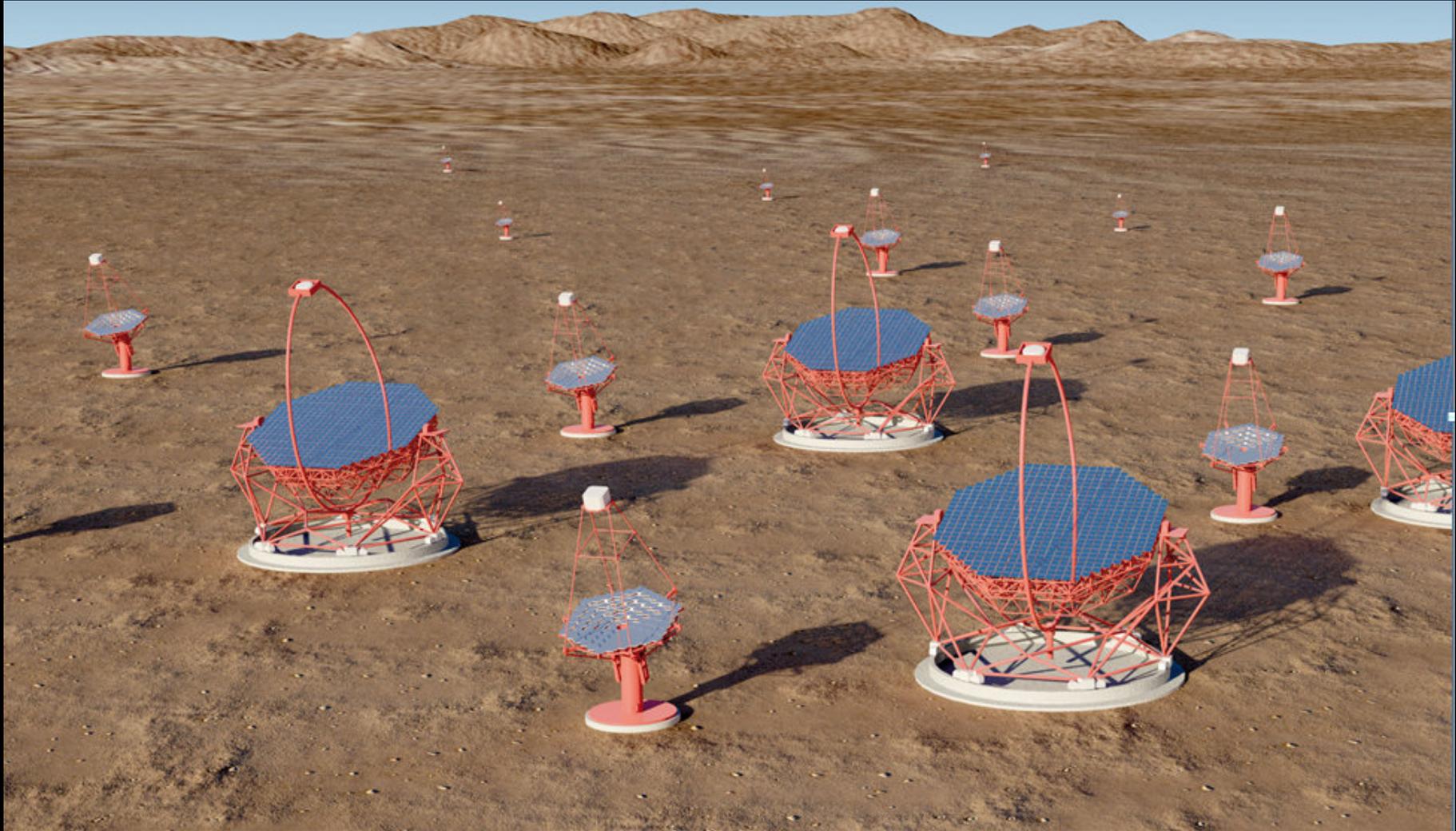
### INFORMATION:

Jeff Hall with Lowell Observatory will be providing a presentation on the Cherenkov Telescope Array. His PowerPoint presentation is attached for your information.

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**Attachments:** PowerPoint

# The Cherenkov Telescope Array



# Candidate Sites

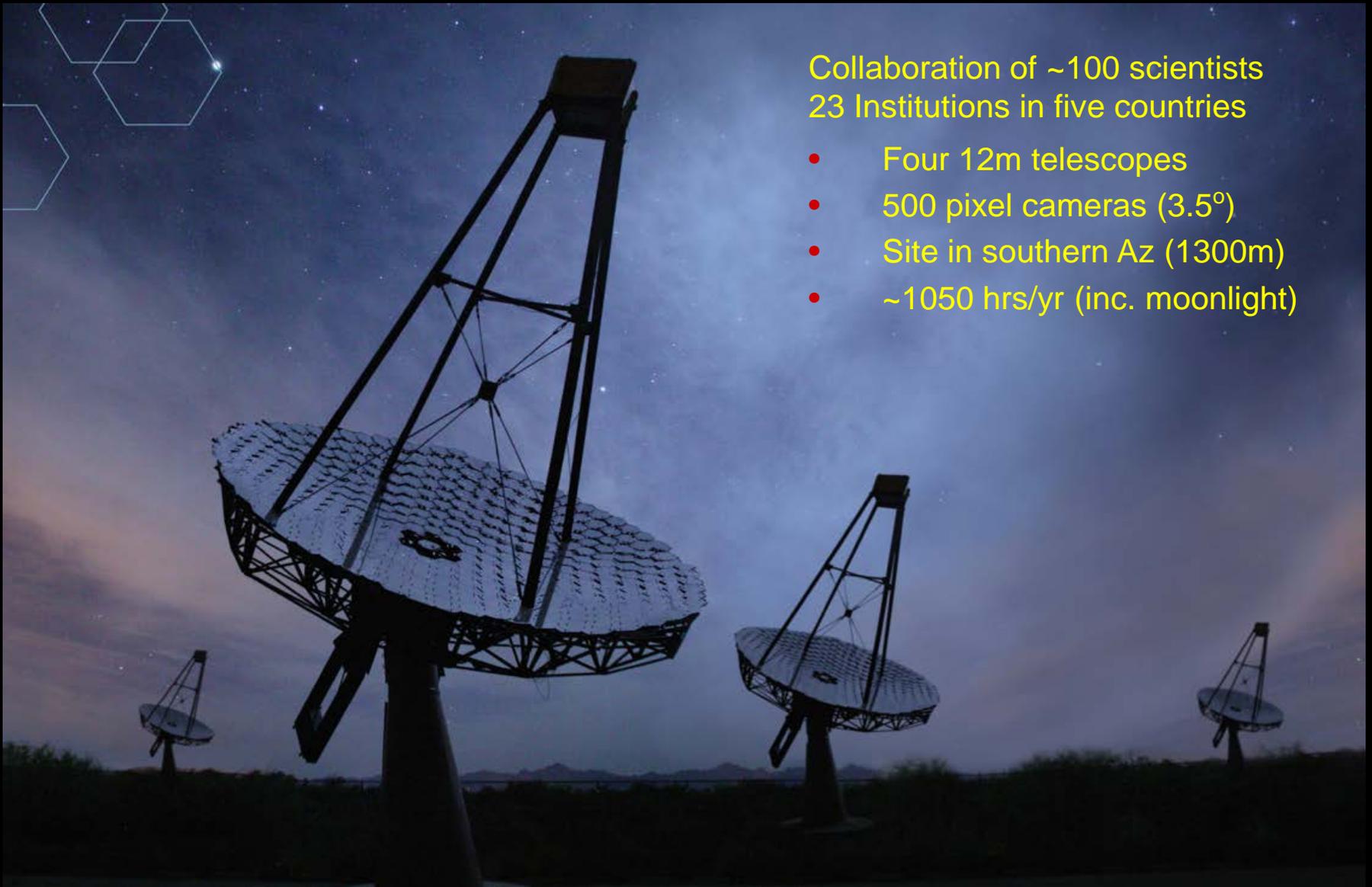
*One observatory with two sites - operated by one consortium*



# Example Telescope Array: VERITAS

Collaboration of ~100 scientists  
23 Institutions in five countries

- Four 12m telescopes
- 500 pixel cameras ( $3.5^\circ$ )
- Site in southern Az (1300m)
- ~1050 hrs/yr (inc. moonlight)



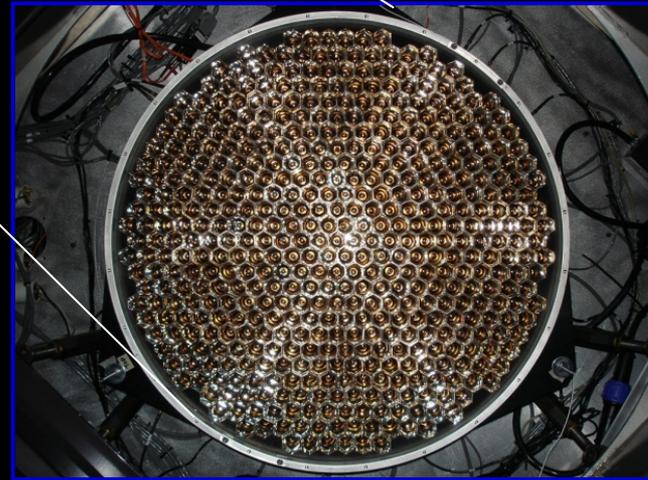
# A VERITAS Telescope



12m reflector, f1.0 optics

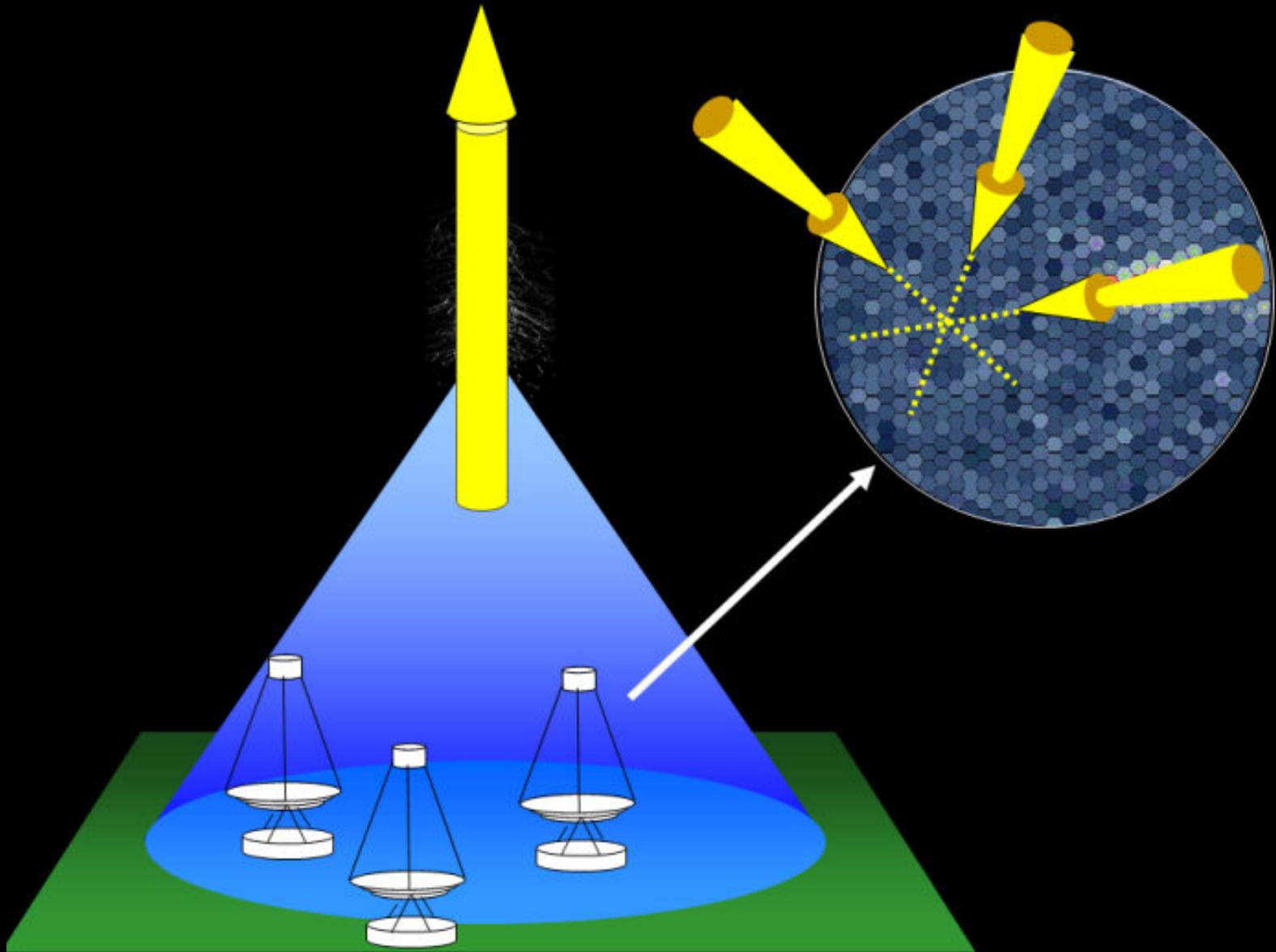


350 Mirror Facets



500 pixel Camera

# Observing Cherenkov Radiation



# CTA-North Telescopes

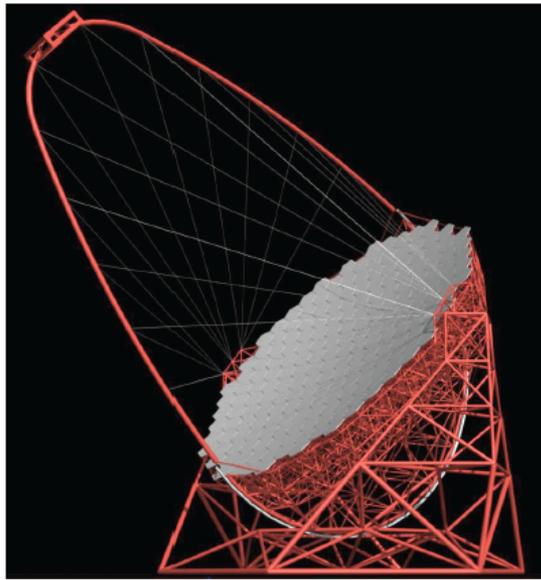
400 m<sup>2</sup> dish area  
27.8 m focal length  
1.5 m mirror facets

4.5° field of view  
0.1° pixels  
Camera Ø over 2 m

Carbon-fibre structure

Active damping  
of oscillations,  
active mirror control

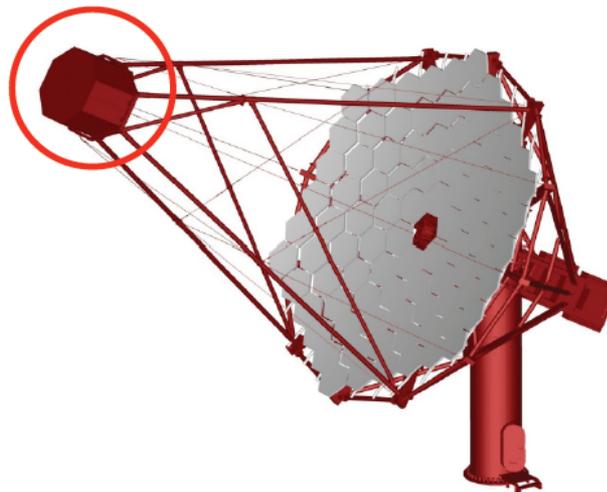
**4 LSTs on each site**



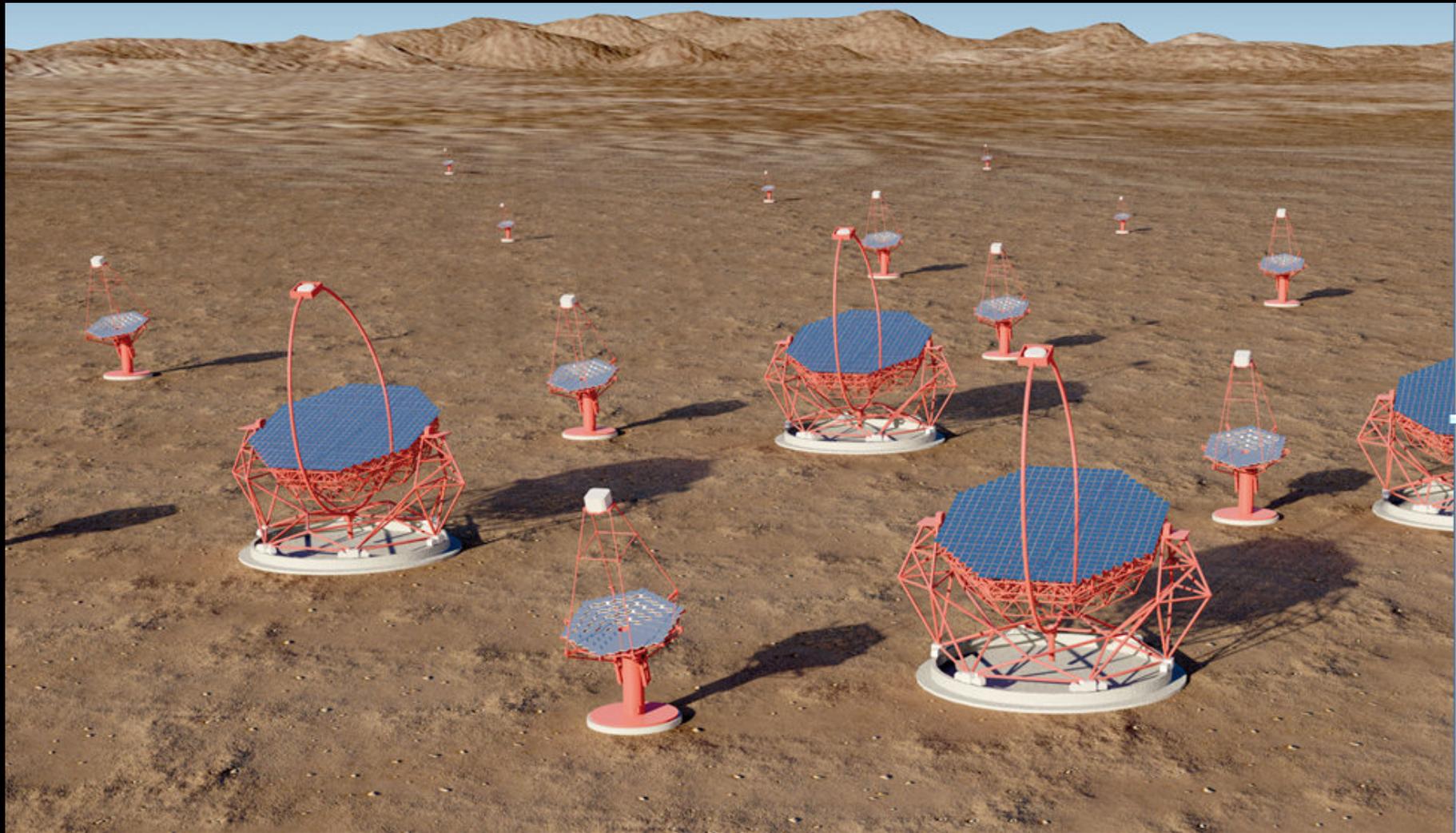
100 m<sup>2</sup> dish area  
16 m focal length  
1.2 m mirror facets

7-8° field of view  
~2000 x 0.18° pixels

**25 MSTs on South site**  
**15 MSTs on North site**



# CTA in Arizona

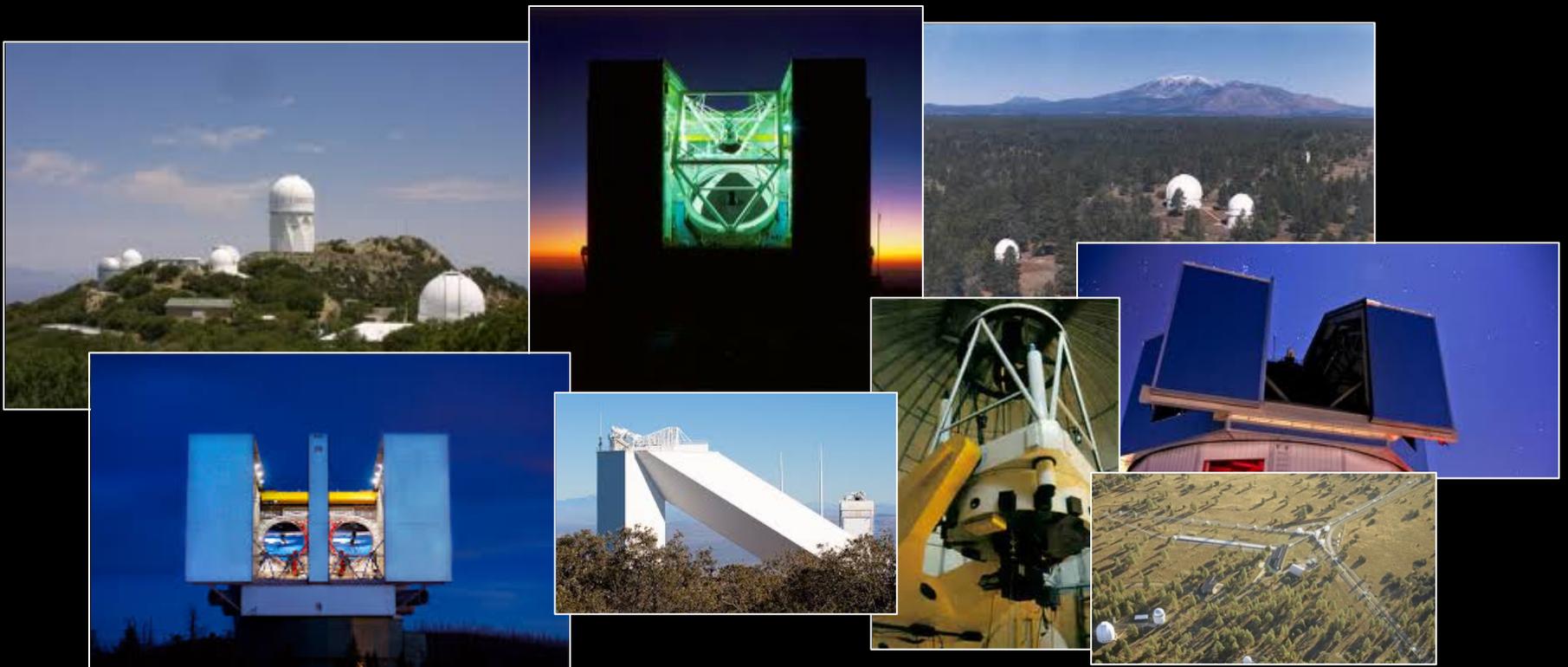


# Astronomy in Arizona

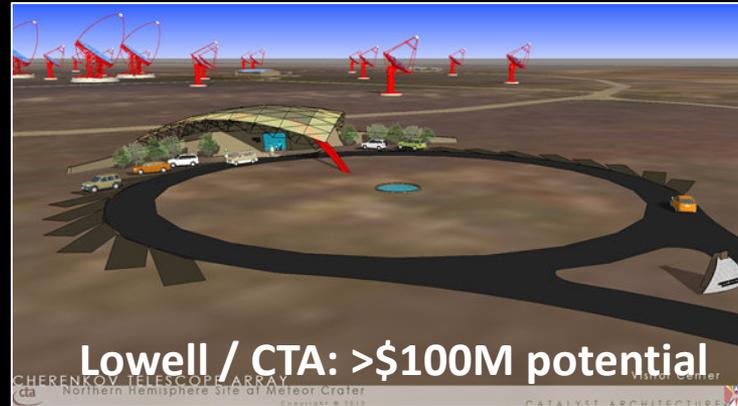
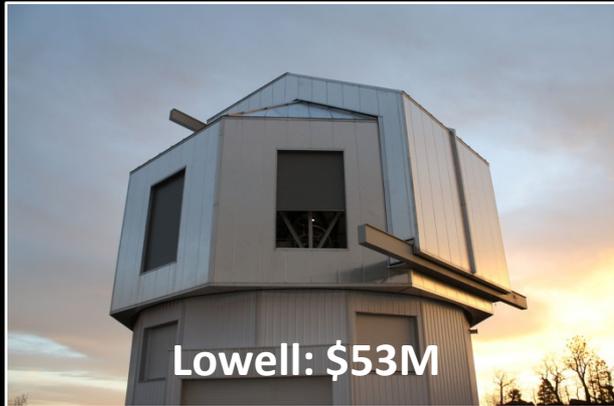
## *Astronomy, Planetary, and Space Sciences in Arizona*

(2006) Capital investment: \$1,200,000,000    Annual Impact: \$252,000,000    Jobs: 3,300

(2013) New/pending investment potential: >\$200M in N AZ alone



# Astronomy in Flagstaff



# Astronomy at Lowell Observatory

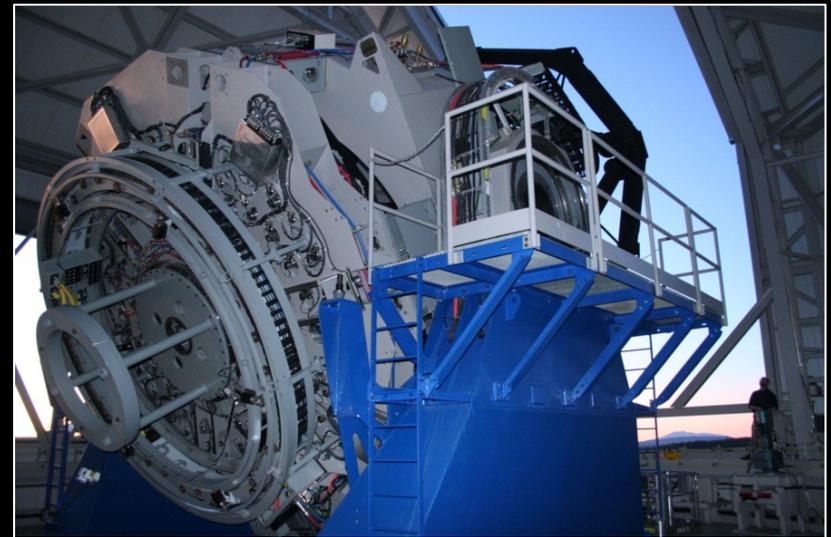


Private, non-profit astronomical research institution founded in 1894

*Current staff of 85*

*20 Ph.D.-level astronomers  
(research strengths include outer solar system, exoplanets, star formation, stellar variations)*

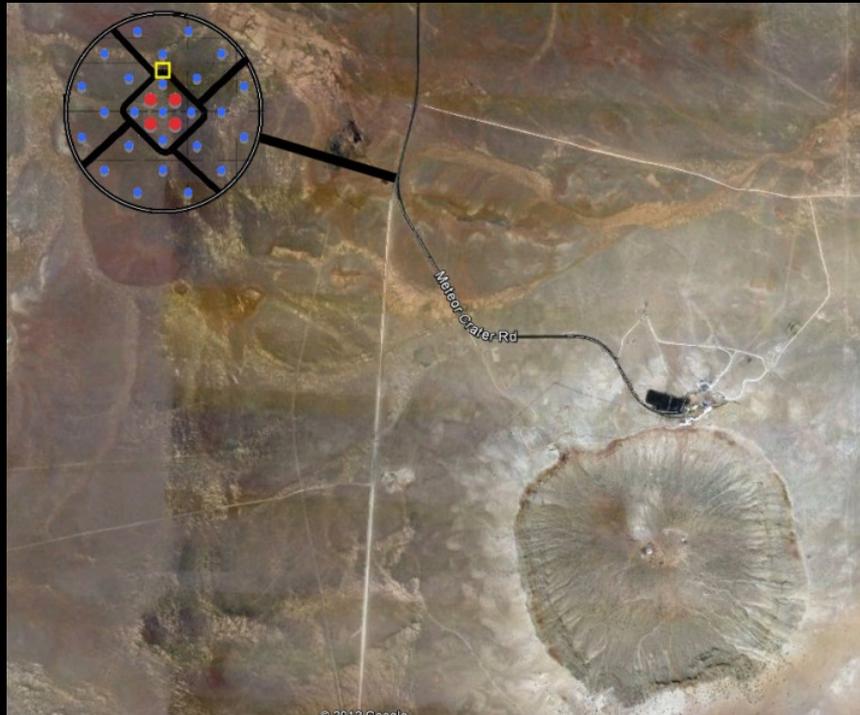
*Annual operating budget \$6.6M,  
growth to \$9.0M projected by 2015.*



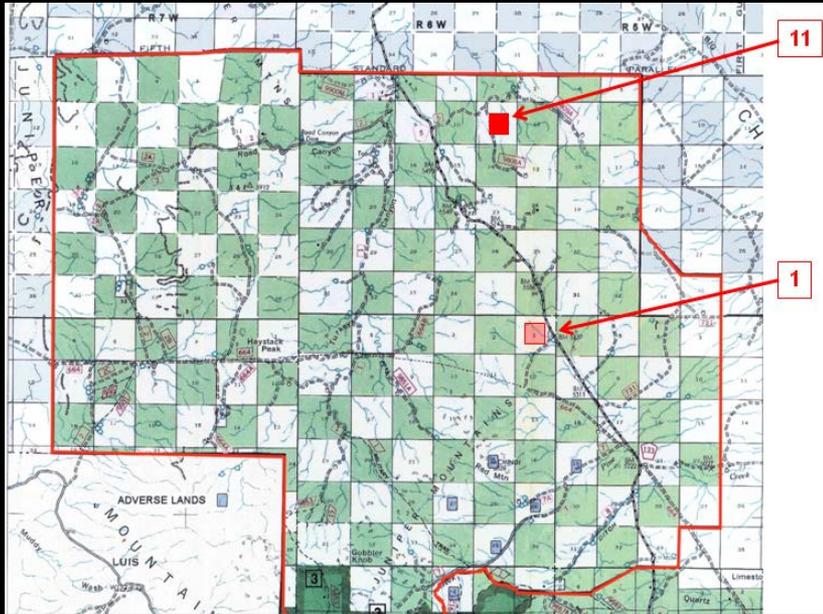
# Proposed Sites in Arizona



# Meteor Crater



# Yavapai Ranch



# Site Selection Timeline

## **JUNE-AUGUST 2012**

Placement of site monitoring equipment at both sites

## **OCTOBER 2012, JANUARY 2013, APRIL 2013**

Site review meetings

April 2013 in Heidelberg, Germany was first presentation to Site Selection Committee

## **SUMMER 2013**

Site Evaluation Summary document developed by CTA with input from proposers

## **AUGUST 4-5, 2013**

Werner Hofmann (Heidelberg office) visits Meteor, Yavapai, Lowell, NPOI, DCT

## **SEPTEMBER 1-20, 2013**

Internal CTA committee develops initial rankings of N hemisphere sites

*\*Meteor and Yavapai remain in contention*

## **SEPTEMBER 23-25, 2013**

Consortium meeting in Warsaw to discuss initial rankings for both hemispheres

## **END 2013**

Site Selection Committee issues final recommended rankings for both hemispheres

# Priority Site: Meteor Crater



# Priority Site: Meteor Crater

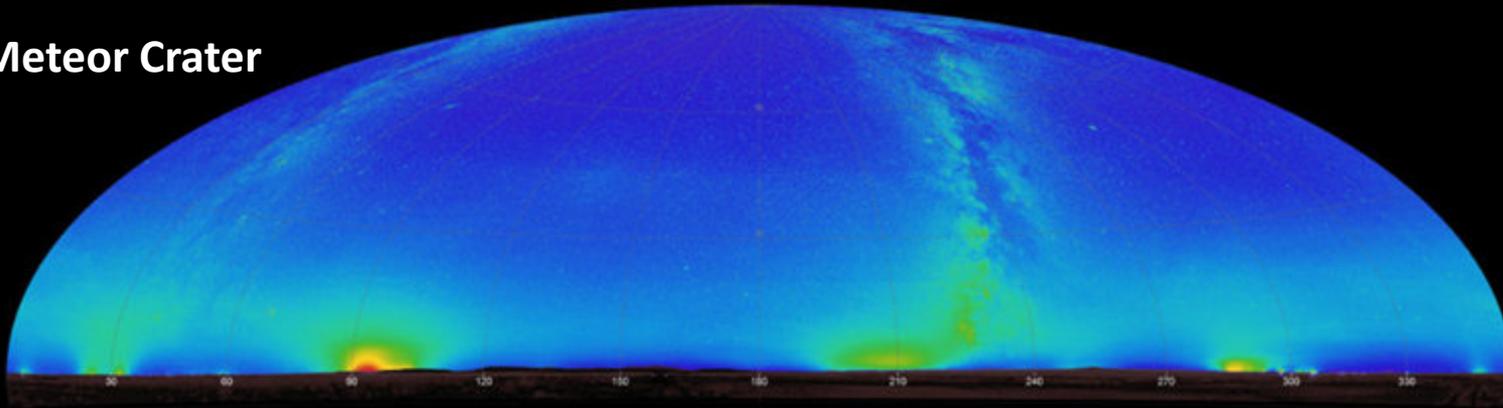


Visual Magnitudes per square arc-second

CTA Meteor Crater Site September 18, 2012 21.87 hours LMT

Full Resolution Mosaic

## Meteor Crater

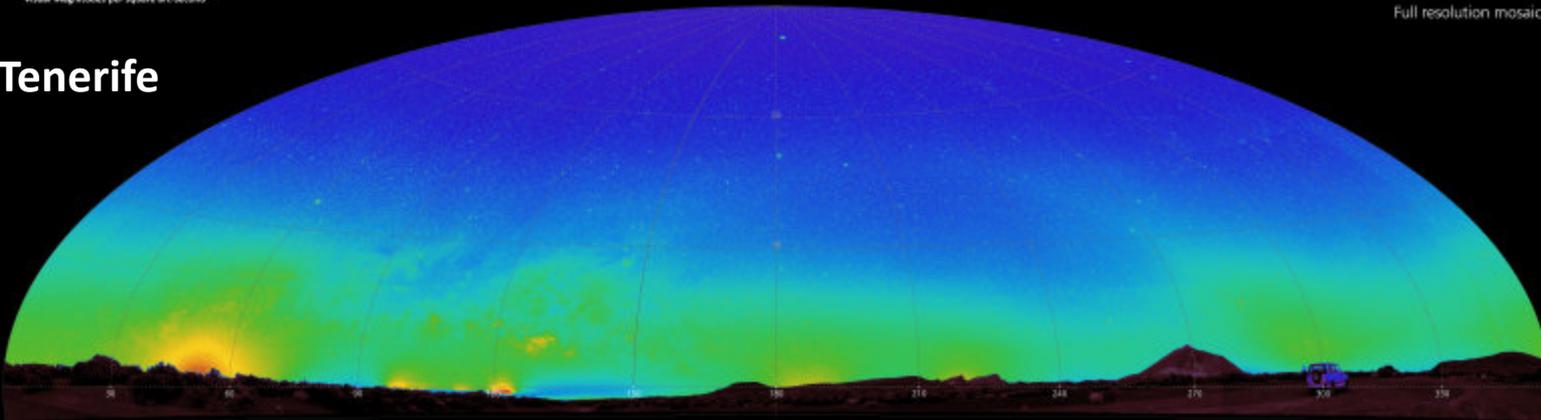


Visual Magnitudes per square arc-second

CTA Canary Islands Site - 16.5441 W 28.27395 N June 5, 2013 21.3 hours LMT

Full resolution mosaic

## Tenerife



U.S. National Park Service  
Night Skies Program

Data collected by: L. Wasserman  
Data processed by: D. Durkovic

Hammer-Aitoff Equal Area Projection - South Centred

# Priority Site: Meteor Crater



CHERENKOV TELESCOPE ARRAY  
Northern Hemisphere Site at Meteor Crater



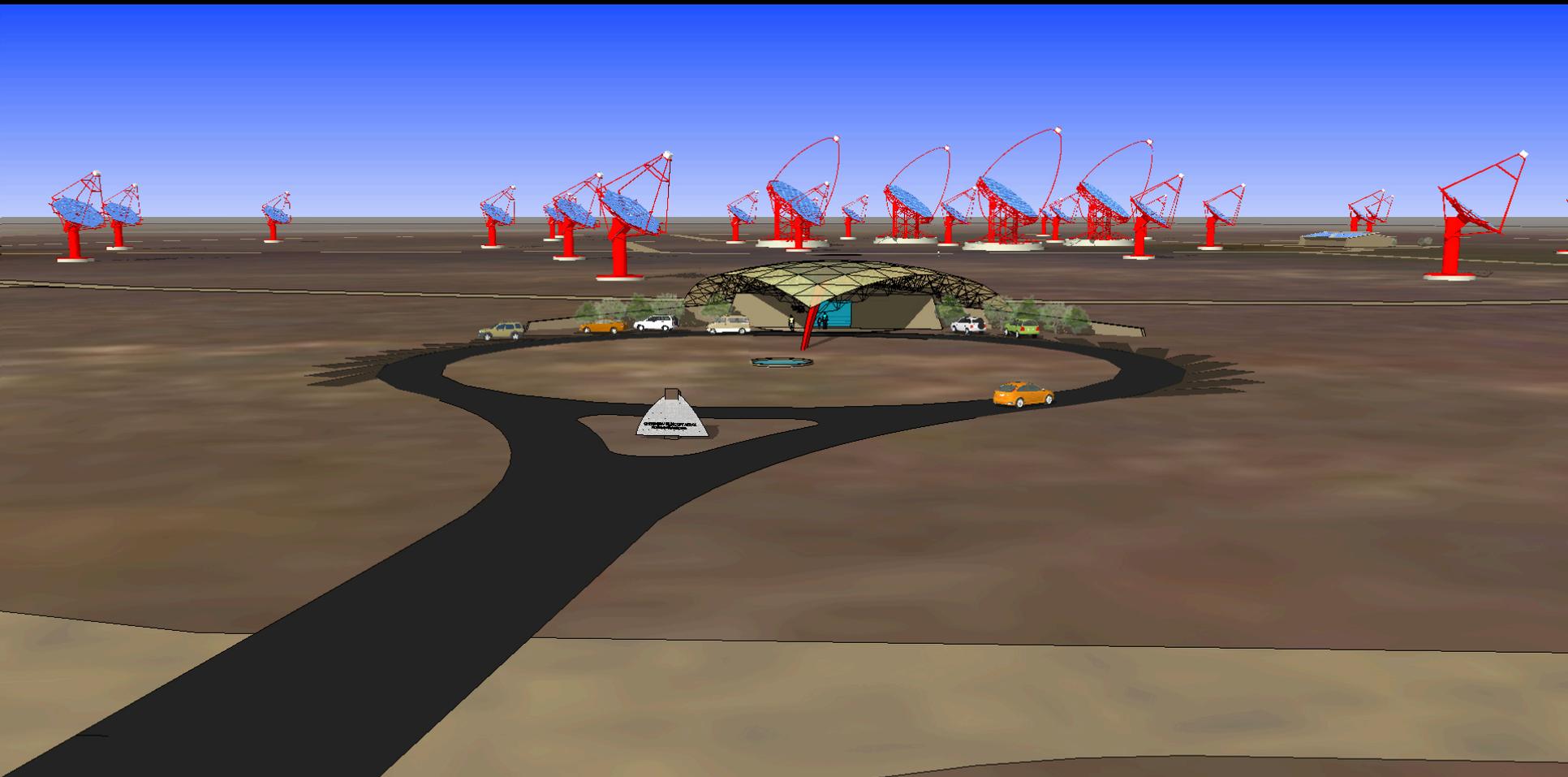
Copyright © 2012

BirdsEye from East

CATALYST ARCHITECTURE



# Priority Site: Meteor Crater

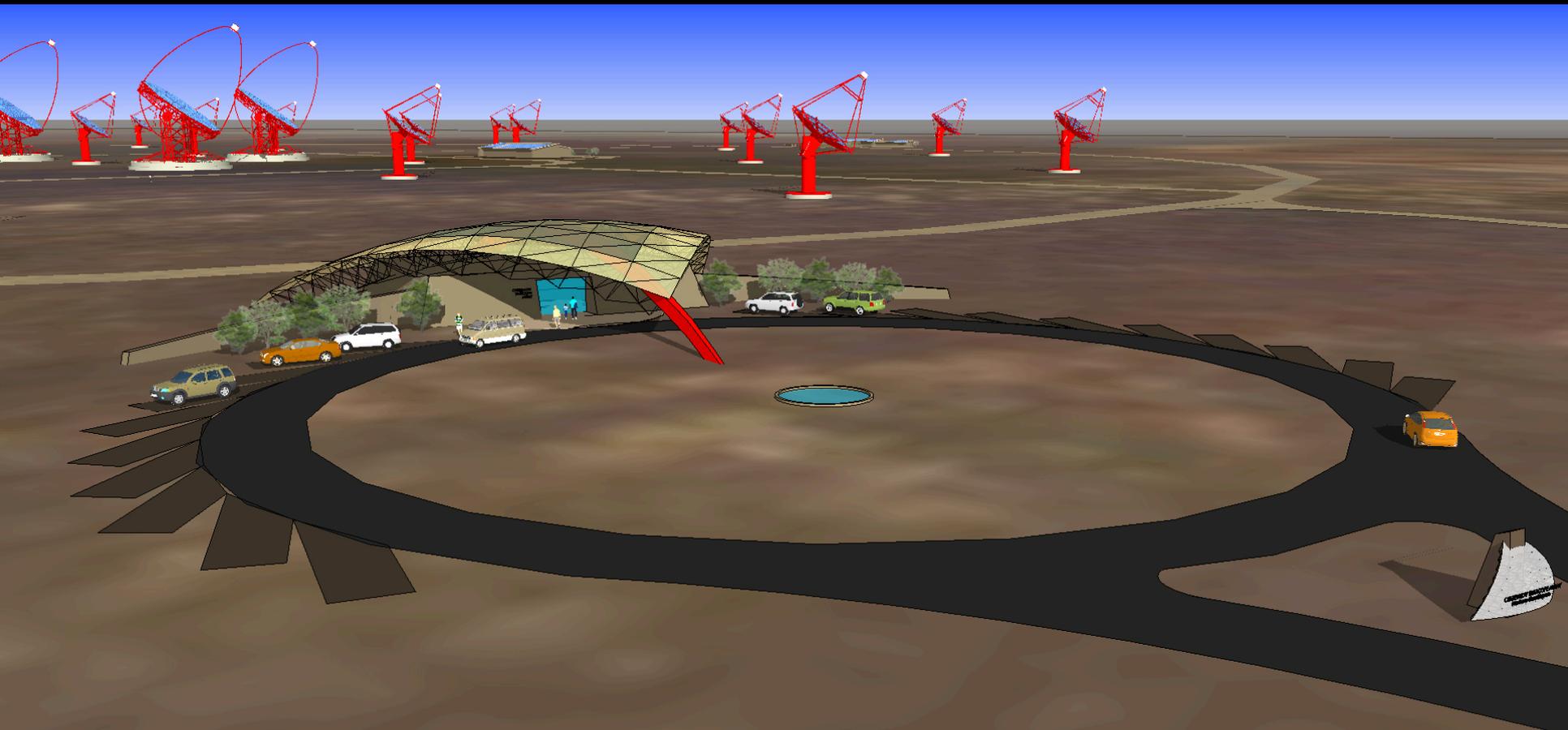


CHERENKOV TELESCOPE ARRAY  
Northern Hemisphere Site at Meteor Crater

Visitor Center



# Priority Site: Meteor Crater

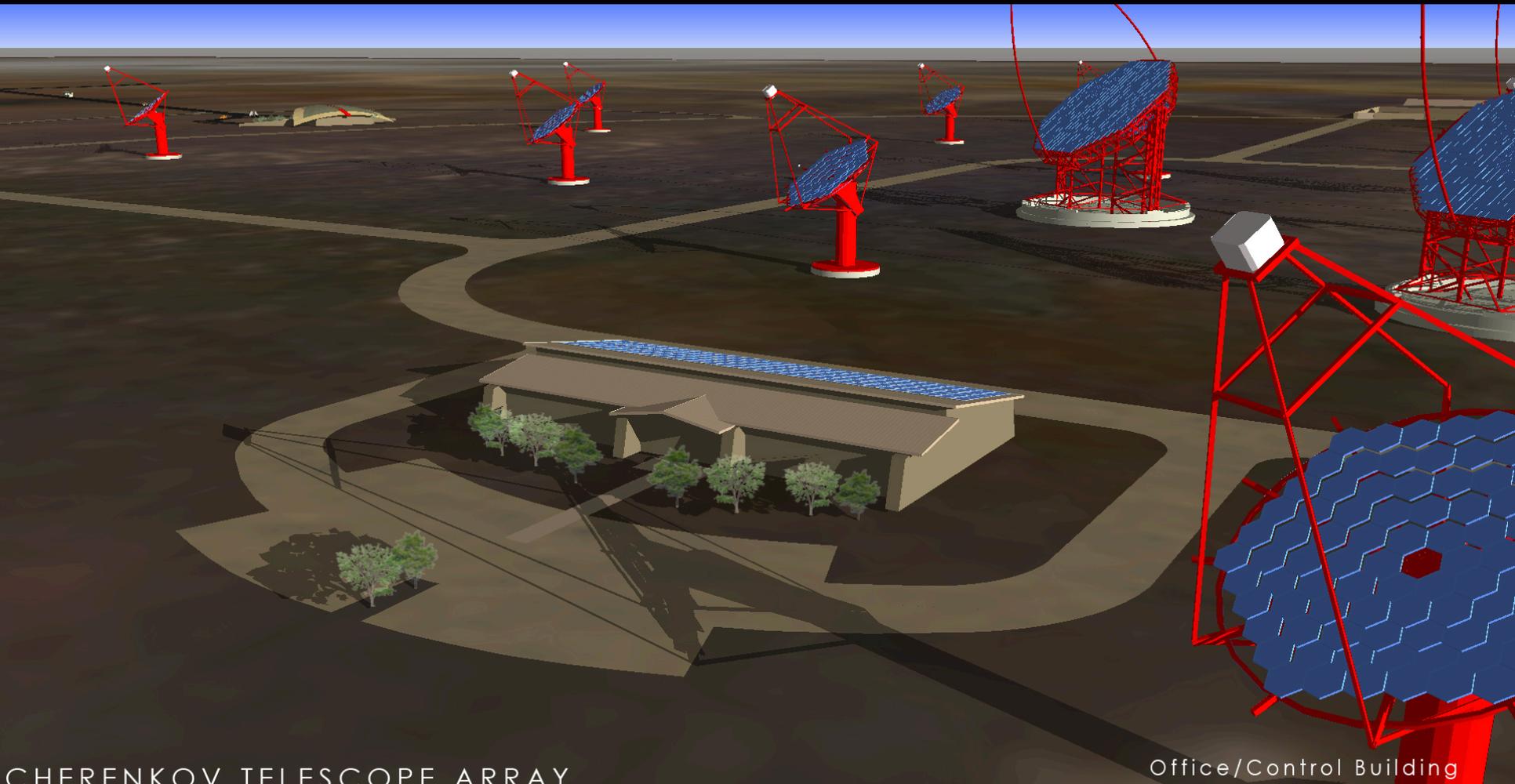


CHERENKOV TELESCOPE ARRAY  
Northern Hemisphere Site at Meteor Crater

Visitor Center



# Priority Site: Meteor Crater



CHERENKOV TELESCOPE ARRAY  
Northern Hemisphere Site at Meteor Crater



Copyright © 2012

Office/Control Building

CATALYST ARCHITECTURE



# The future in very high energy gamma ray astronomy



- Perfect mix of guaranteed science and discovery potential
- Safe extrapolation of proven technologies, well-predictable performance
- Supported by a large and diverse community
- Highly ranked by major science roadmaps
- Currently in FP7-supported Preparatory Phase
- Aim for deployment over 5 years – 2014-2018

# Memorandum

6.

## CITY OF FLAGSTAFF

**To:** The Honorable Mayor and Council  
**From:** David Wessel, Metro Planning Org Manager  
**Date:** 09/03/2013  
**Meeting Date:** 09/09/2013



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### TITLE:

**ADOT Interstate 11 Corridor Justification Report**

### DESIRED OUTCOME:

Flagstaff City Council and Coconino Board of Supervisors are informed on the status of the broader Interstate 11 study and particularly the latest deliverable where the justification report for the corridor is complete. Council and Board members have the opportunity to pose questions to ADOT staff for immediate and subsequent response.

### INFORMATION:

ADOT staff will be make the presentation which is attached to this report. A presentation by the Maricopa Association of Governments on Transportation and Infrastructure is available at [www.flagstaffmpo.org](http://www.flagstaffmpo.org) under the "News" section or at <http://www.flagstaff.az.gov/DocumentCenter/View/42833> and may also be of interest. Slides 25-32 in particular show relationships to future freight movements, regional population growth projections and how they compare to a similar north-south corridors in the central United States.

FMPO Staff review to date finds:

- Significant investment has taken place and is programmed in Arizona and Nevada on the segment between Phoenix and Las Vegas on US 93 in Arizona and US 93/95 in Nevada
- Much of the travel between Phoenix and Las Vegas takes place on this route now
- Long term demand for the route is primarily driven by future freight demands as well as competition and economic diversification for Arizona and Nevada
- ADOT has made clear that funding separate from current revenue streams will be needed to deliver I-11

FMPO staff has asked for clarification on the following:

- Forecasts for I-17 with and without I-11
- Nature of future freight demand from points north and northwest of Las Vegas
- Arizona Commerce Authority economic impact study relative to the Flagstaff region

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**Attachments:** Interstate 11



**&  
INTERMOUNTAIN WEST  
CORRIDOR STUDY**

I-11 & Intermountain West Corridor Study

Flagstaff Metropolitan Planning Organization

# Intermountain West Corridor - Update



In partnership with



U.S. Department of Transportation  
Federal Highway Administration  
Federal Railroad Administration

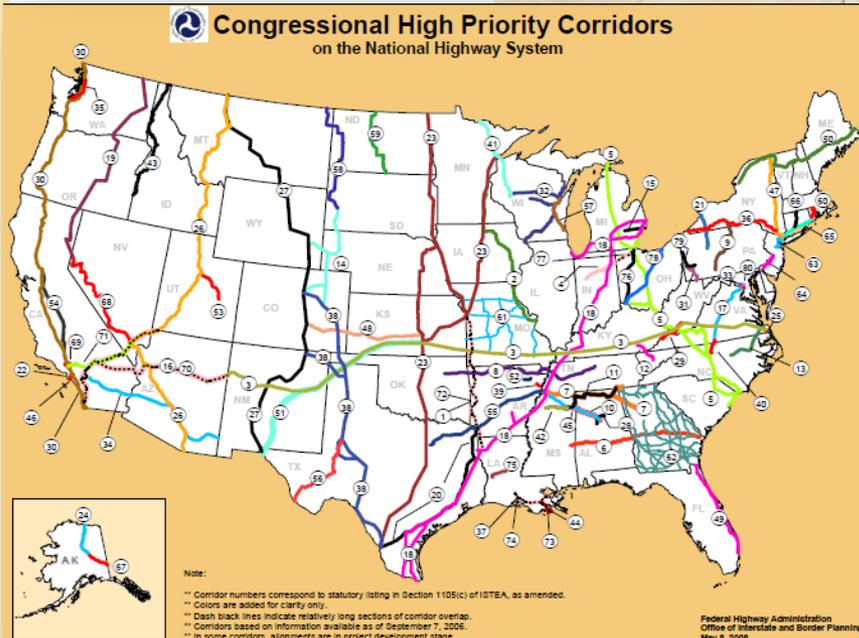
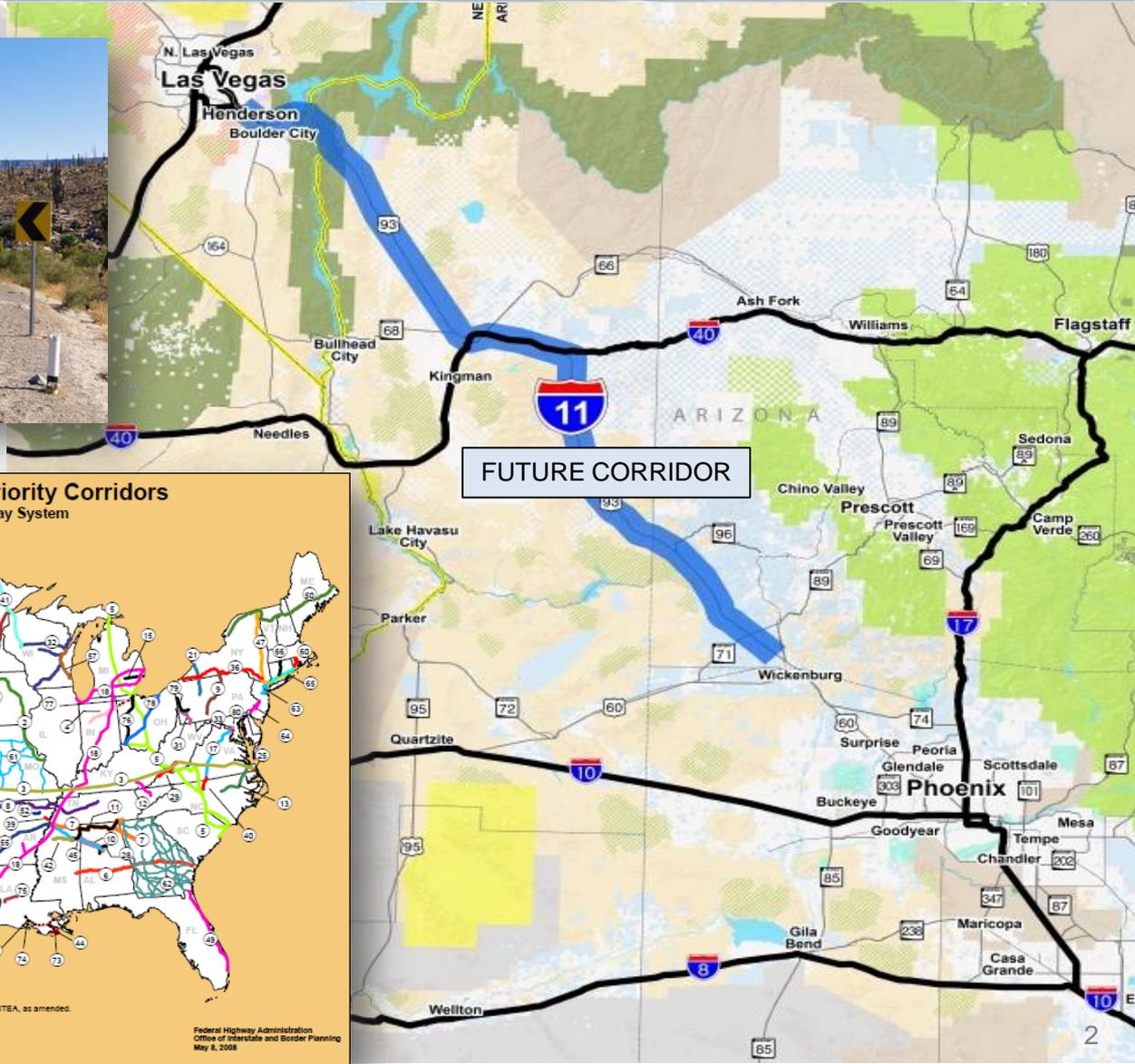


Michael Kies, PE  
ADOT Multimodal Planning

August 1<sup>st</sup>, 2013

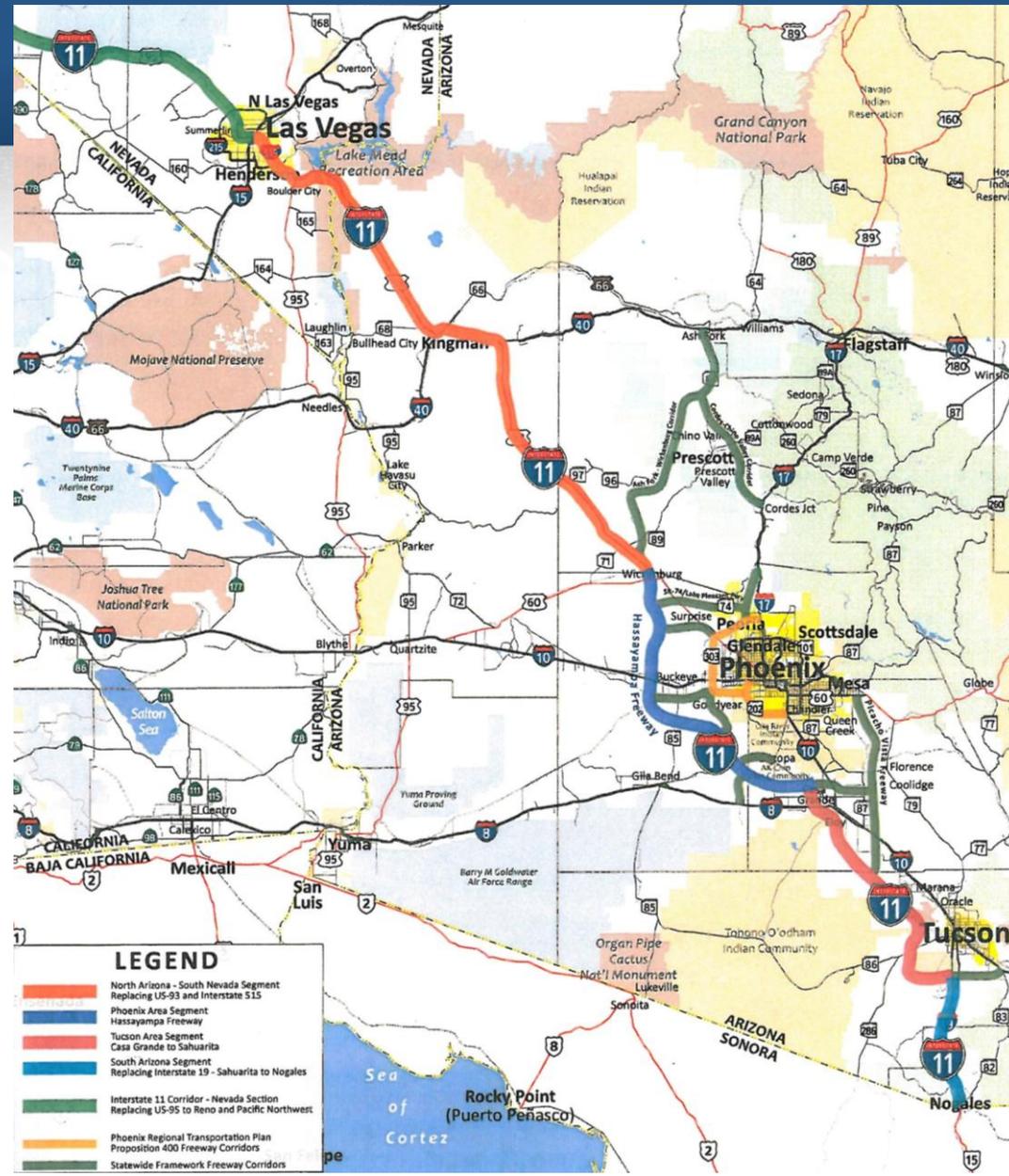


# Background





# Alignment ?





# Alignment ?



**Any specific routes proposed are speculation at this time.**

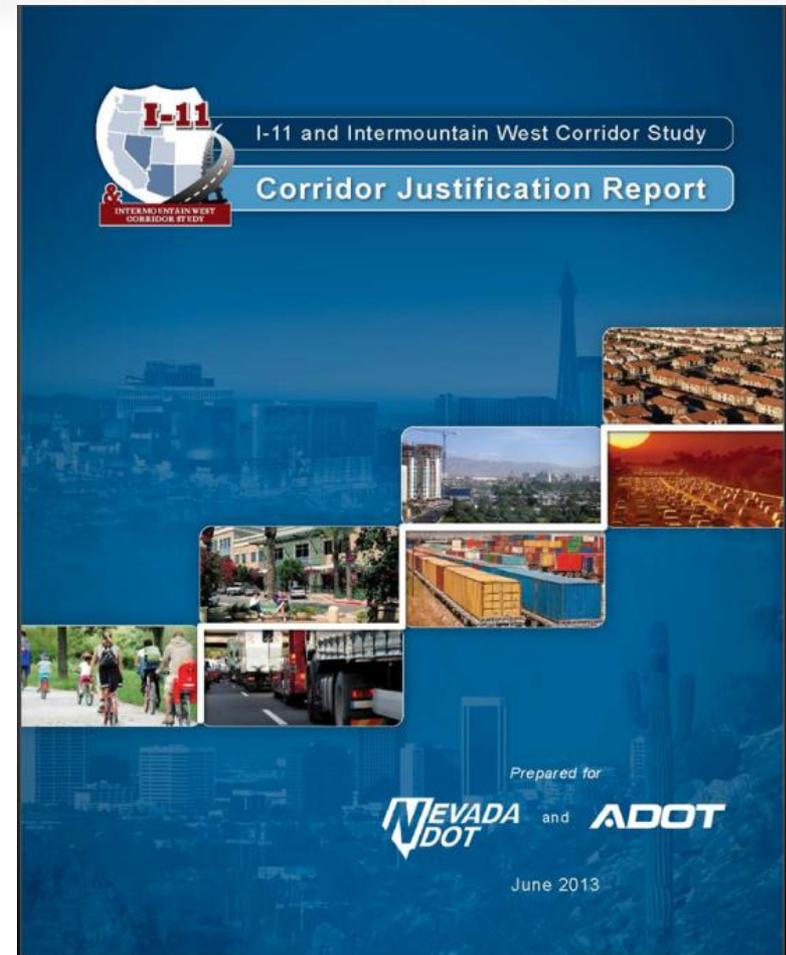




# Update Summary - Phases 1 & 2 Deliverables

## Deliverables (Phases 1 & 2):

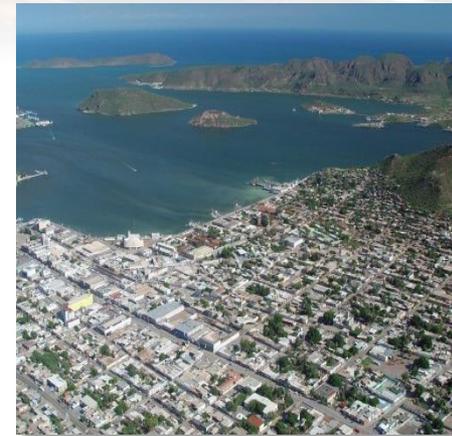
- Corridor Vision Summary **(Completed)**
- Initial PEL Checklist **(Completed)**
- Draft Public Involvement Plan **(Completed)**
- Corridor Justification Report  
**(Available on Website)**
- Preliminary Business Case Foundation  
**(Draft in Review – Available Summer 2013)**
- Existing Natural and Built Environment  
Tech Memo  
**(Draft in Review – Available Summer 2013)**





# Possible Economic Scenarios Affecting the Corridor

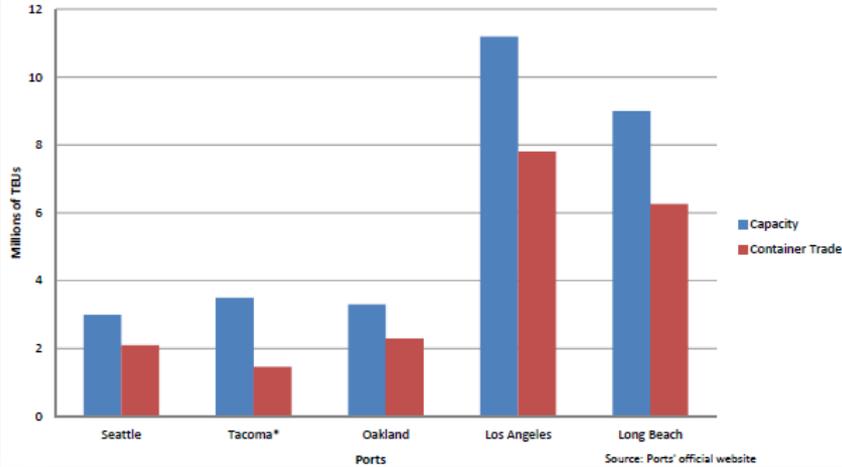
1. **Baseline** (includes Panama Canal widening)
2. **Pacific Rim trade expands** much greater than forecasted
  - West Coast ports reach capacity and Mexico adds port capacity
  - Latin American trade remains constant
3. **Latin American trade greatly expands**
  - Asia trade remains constant
4. **Economic diversification** plans for Arizona and Nevada are realized





# Pacific Rim Trade Expands

Container Trade and Capacity For West Coast Ports in 2010  
(Millions of TEUs)





# Pacific Rim Trade Expands

## Average Daily Traffic Volume on Major Roadways





# Latin American Trade Expands

FIGURE 1: Timelines for Near-Shoring Plans

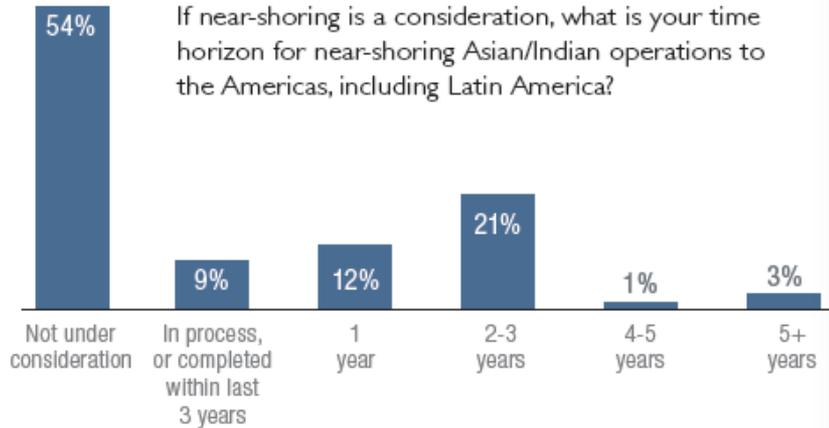
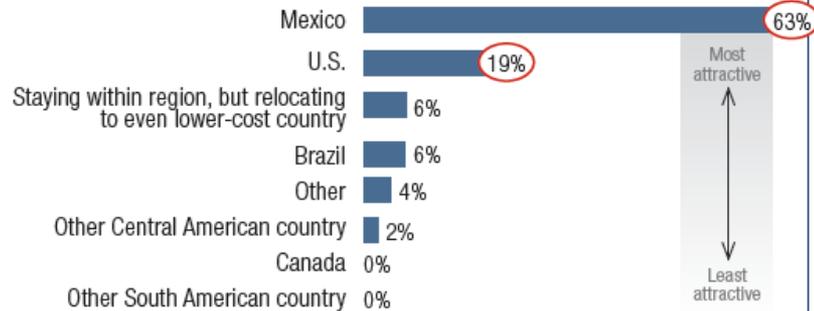


FIGURE 2: Attractiveness for Near-Shoring, By Region

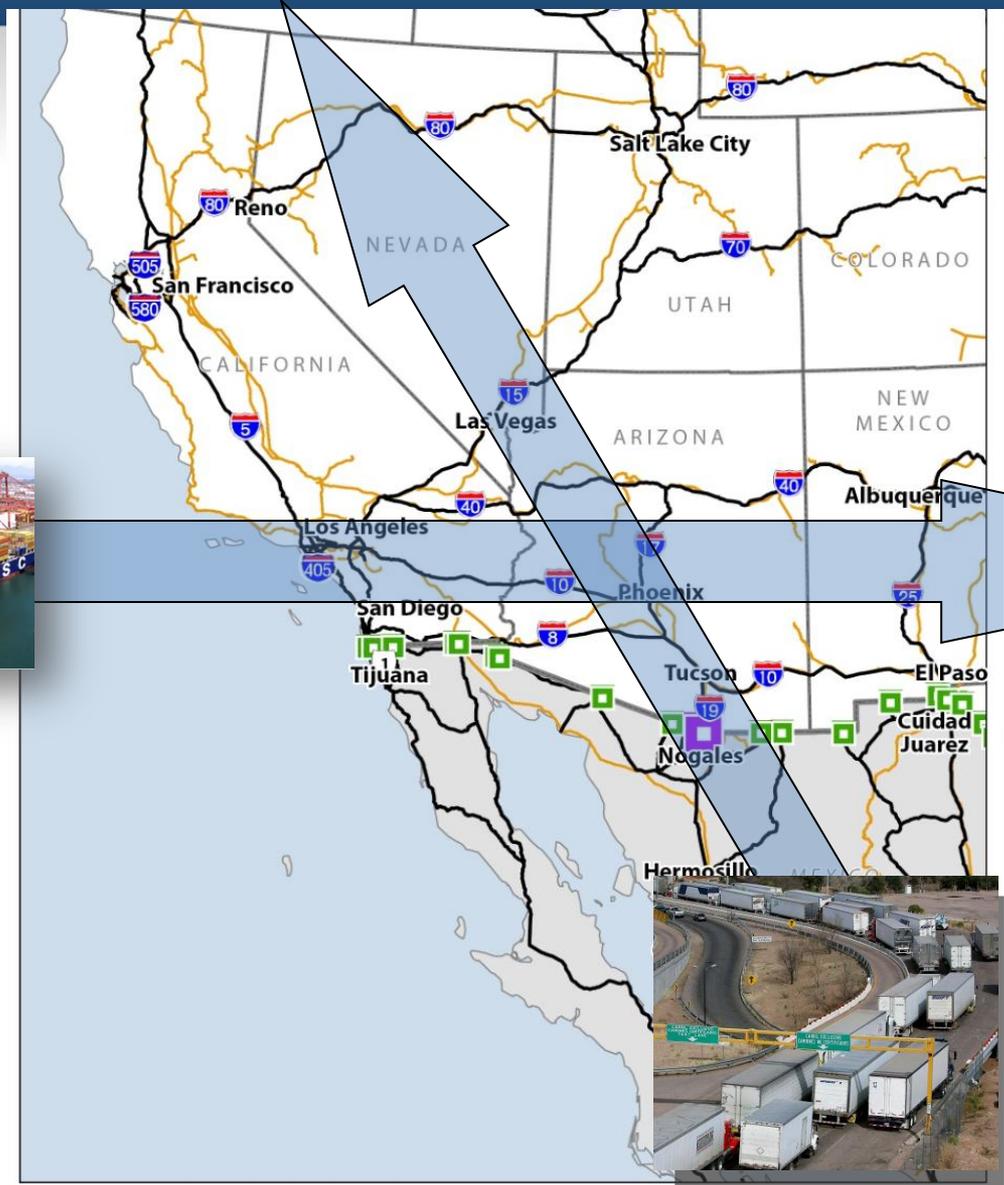


Note: Most of Brazil's manufacturing demand is consumed in Brazil, not exported for U.S. consumption





# Latin American Trade Expands





# Economic Diversification of Arizona and Nevada

Nevada Governor's Office of  
**ECONOMIC DEVELOPMENT**



Ranking #1 entrepreneurial state in the U.S.

**ARIZONA KNOW HOW. JOIN US.**





# Economic Diversification of Arizona and Nevada

## Banding together

Metropolitan areas have become so interconnected that some function as one giant economy or what demographers call a "megapolitan area."

23 megapolitan areas that form 10 megapolitan clusters in the U.S.



# Economic Diversification of Arizona and Nevada





# Possible Economic Scenarios Affecting the Corridor

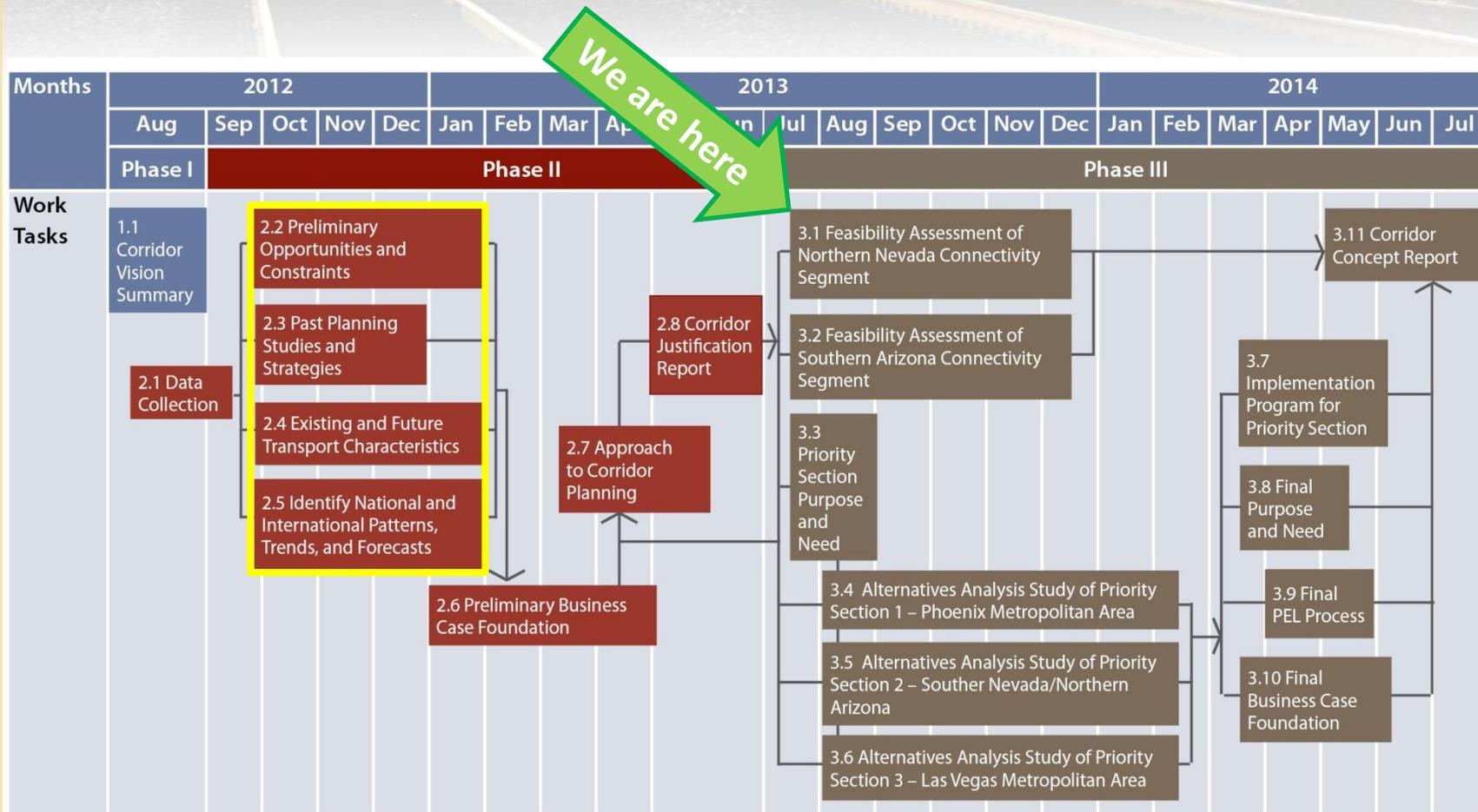


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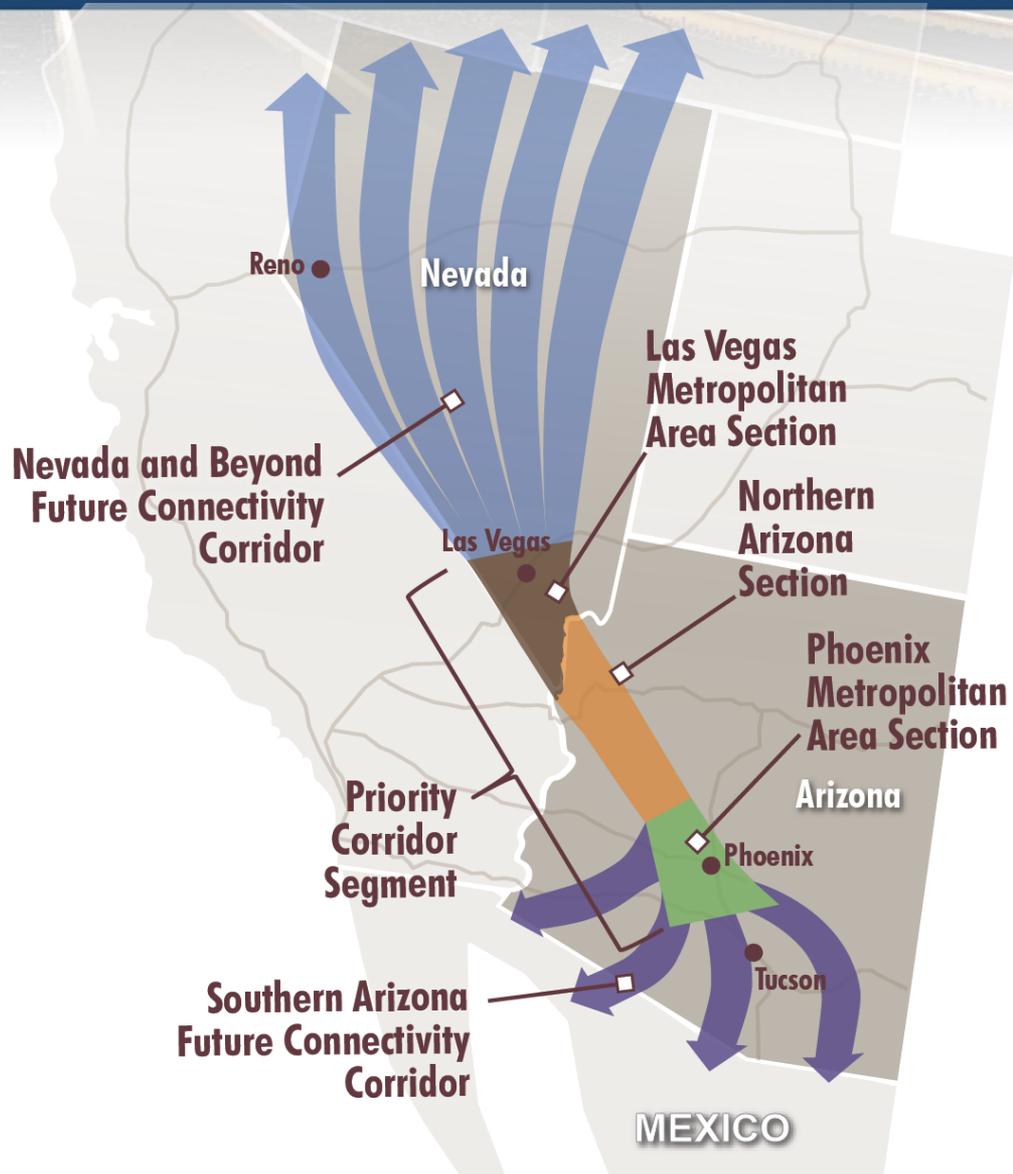


# Setting the Foundation for the Study



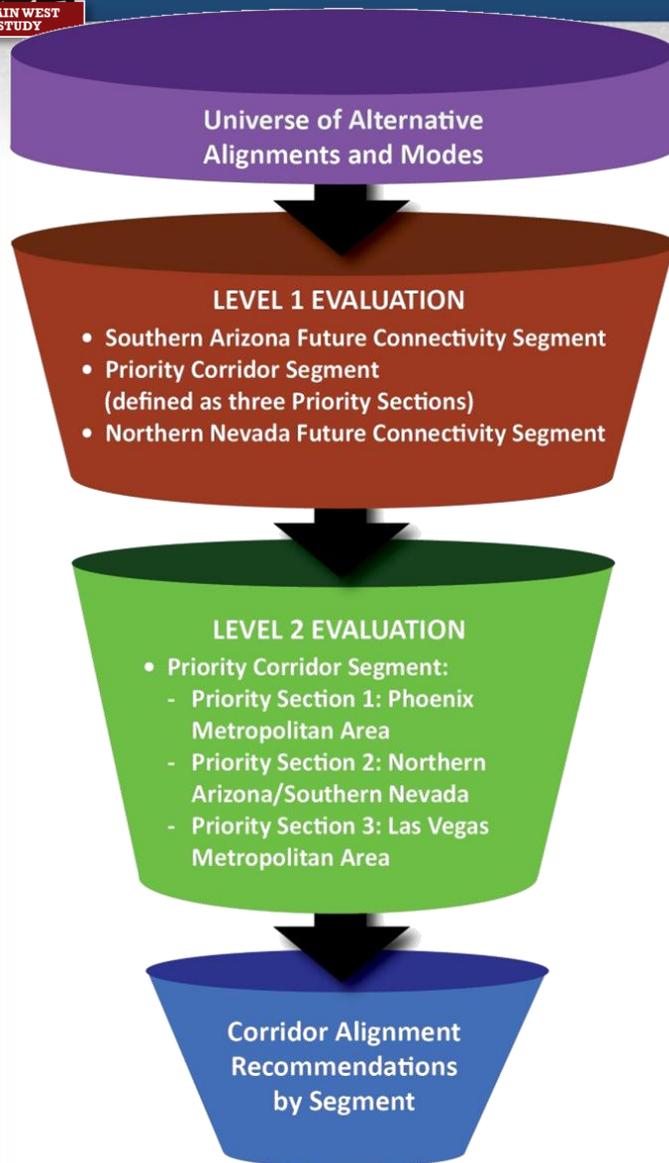


# Corridor Feasibility Analysis





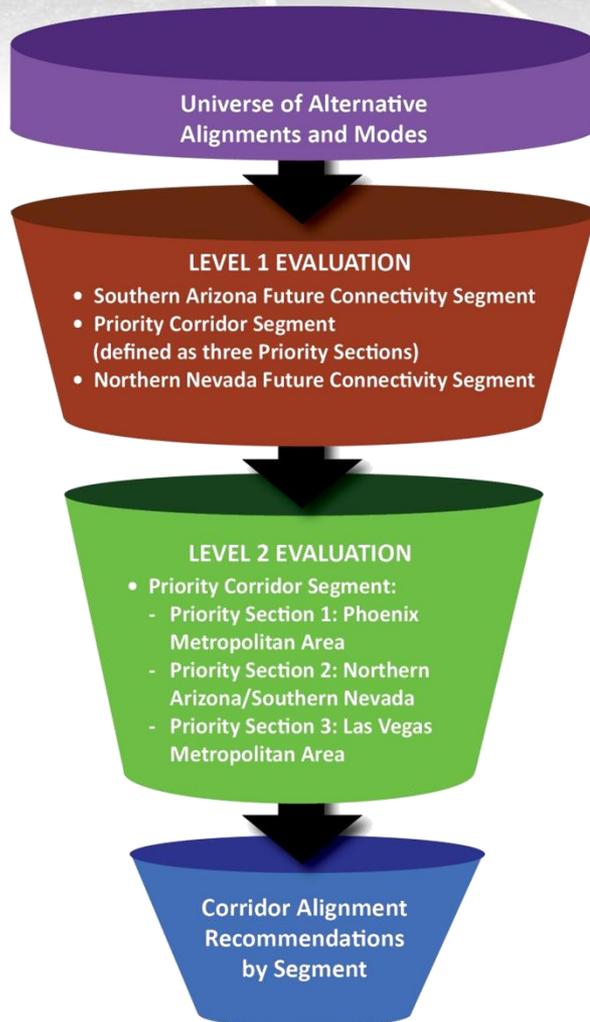
# Evaluation Process



- Level 1 Evaluation:
  - Indicate which alternatives in the Future Connectivity Segments are most promising candidates
  - Reduce number of feasible alternatives in the Priority Section for more detailed evaluation
- Level 2 Evaluation:
  - Further evaluate alternatives shown to be feasible and potentially beneficial to the two states



# Stakeholder Engagement in Evaluation Process



- Geographic Stakeholder Partners Meetings to discuss Universe of Alternatives
- Geographic Stakeholder Partners Meetings to discuss Level 1 Screening
- Geographic Stakeholder Partners Meetings to discuss Level 2 Screening
- Joint Stakeholder Partners Meeting to discuss Recommended Alternatives



# Upcoming Stakeholder Partner Meetings

Date	Meeting	Purpose
July 16 – 22	Geographic Stakeholder Partner meetings	Purpose and Need elements, evaluation criteria
August 2013	Geographic Stakeholder Partner meetings	Consider all reasonable alternative corridor alignments
October 2013	Geographic Stakeholder Partner meetings	Initial alignment screening to narrow the field
December 2013	Geographic Stakeholder Partner meetings	Detailed alignment screening and recommendations
February 2014	Joint Stakeholder Partner meeting	Review recommendations for all segments
April 2014	Joint Stakeholder Partner meeting	Considerations for Implementation Plan
June 2014	2 Public Meetings	Draft Corridor Concept Report and Business Case Foundation





# Study Website: [www.i11study.com](http://www.i11study.com)

- Sign-up for Stakeholder Partners
- Download documents and presentations



**Project Documents**  
Most current information

- Get Involved**
- Comment form
  - Join email distribution list

## Project Contacts:



**Sondra Rosenberg, PTP**  
Nevada Department of Transportation  
1263 South Stewart Street  
Carson City, NV 89712  
srosenberg@dot.state.nv.us  
(775) 888-7241

**Michael Kies, PE**  
Arizona Department of Transportation  
206 S. 17th Avenue  
Phoenix, AZ 85007  
mkies@azdot.gov  
(602) 712-8140

# Memorandum

7.

## CITY OF FLAGSTAFF

**To:** The Honorable Mayor and Council  
**From:** Kimberly Sharp, AICP, Comprehensive Planning Manager  
**Co-Submitter:** Kimberly Sharp, AICP  
**Date:** 08/29/2013  
**Meeting Date:** 09/09/2013



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### TITLE:

**Flagstaff Regional Plan 2030: Place Matters** – Transmittal of document from the Citizen Advisory Committee (CAC) to the Council and Board of Supervisors

### DESIRED OUTCOME:

This is an opportunity to discuss the benefits of planning regionally, as well as thanking the Citizen Advisory Committee (CAC) members for their commitment and dedication to this process. It also allows us to thank the members of the public who engaged in the process and contributed their time, thoughts and subject matter expertise.

### INFORMATION:

Please see attached memo for the discussion.

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**Attachments:** Joint Mtg Memo\_Regional Plan



## MEMORANDUM City of Flagstaff – Comprehensive Planning

August 29, 2013

To: Flagstaff City Council and Coconino County Board of Supervisors  
September 9, 2013 Joint City/County Meeting

From: Kimberly Sharp, AICP –Comprehensive Planning Manager

**Re: Flagstaff Regional Plan 2030: Place Matters update**

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Dear Mayor, Council and Supervisors

The *Flagstaff Area Land Use and Transportation Plan* (2001) began an update process in 2008 with a Citizen Advisory Committee (CAC) established by ordinance 2008-34. The original CAC members were selected from publicly solicited applicants, both city and county residents. City Councilmembers and County Supervisors assisted a team in selecting the CAC members, with the intent of a diverse group representing the community at large. Two Councilmembers and two Supervisors along with the City Manager and Deputy County Manager, as the Steering Committee, have continued to advise the Core Planning Team (city planners, county planners and FMPO Manager) for the past five years as well.

From March 2008-July 2013, the CAC met monthly and took into consideration existing Regional Plan goals and policies along with the thousands of public comments gathered on the state-statute required topics for the plan (open space, land use, transportation, etc.). With over 200 open houses, focus group meetings and working group meetings, the Regional Plan was drafted as a policy document reflecting this community's values. A public review of the *Flagstaff Regional Plan 2030: Place Matters* document was released March 28, 2013. Over 700 editing comments were gathered during the 60-day public comment period, via e-mail, mail, and comment cards. During this public comment period, 60 community groups hosted a regional plan presentation and discussion. In June and July, 2013, the CAC re-convened to review and incorporate the suggested edits from the public and initial Planning & Zoning Commission discussions.

The document before you, *The Flagstaff Regional Plan 2030: Place Matters*, is titled "Public Hearing Draft". Through public input at the City and County Planning and Zoning Commission meetings, City Council and the County Board of Supervisor meetings, the document will continue to receive editing and refinement over the next few months.

Today, we will spend a little time discussing

- What the Flagstaff Regional Plan is, and what it is not.
- What the implementation and amendment process is.
- How the City uses the plan; how the County uses the plan
- The CAC members will present the plan to the City Council and County Board of Supervisors
- The Councilmembers and Supervisors will have an opportunity to address the CAC members and the public
- A small reception will follow – all are invited.

*Continued*

The public process to address the Regional Plan will continue with the following meetings:

- **September 11** – City Planning & Zoning Commission
- **September 24** – County Planning & Zoning Commission
- **City Council work sessions** – every Tuesday for 16 weeks. From Sep. 10 – Nov. 12
- **November 18** – *JOINT CITY COUNCIL / BOARD OF SUPERVISORS MEETING- Public Hearing #1 – City Hall, Council Chambers – 5 p.m.*
- **December 3** –Public Hearing #2 for Board of Supervisors (3:00 p.m. 219 E. Cherry Street) and City Council (6:00 p.m. at City Hall, Council Chambers)
- **December 17** –Summary of all Council changes. Adoption & call for election

**Community Benefits** - A democratic and open public process for a community's general plan ensures buy-in and participation from all parties. As this is not viewed as solely government's responsibility to implement, but many different community member's responsibility, from the private sector to the school board to both city and county government, this is an opportunity for the whole community to say what they want to work towards. The Regional Plan does not take away an individual's private property right, but brings a community together to work towards a larger vision, economic resilience and an open, stable government process.

**Community Involvement:** The Citizen Advisory Committee (CAC) met for nearly five years, and held 78 meetings, always monthly, sometimes bi-weekly. Over 200 public meetings were held, every city board and commission was advised and the public review process for the draft document has been thorough. Every property owner and household within the FMPO boundary has received a notice of upcoming public meetings, and the notice has been published in the paper three times, with articles following.

**Financial Implications:** The Flagstaff Regional Plan is meant to help give guidance to City Council's, and the Board of Supervisors where appropriate, goals and budget priorities in the upcoming 10 years. It lays out policies for the development process, and outlines financial mechanisms for public infrastructure. The document is a policy guide.

**Options:** In December, 2013 - Council and the Supervisors may adopt the updated Flagstaff Regional Plan (with their revisions incorporated) or adopt the existing Flagstaff Area Land Use and Transportation Plan (2001). Each elected body may also revise the Public Hearing draft specific for their jurisdiction, and each adopt a slightly different version of the Flagstaff Regional Plan.