

**02/11/14**  
**OVERVIEWS :**  
**DEPARTMENT**  
**OF**  
**TRANSPORTA-**  
**TION &**  
**PUBLIC**  
**FACILITIES**

<TARGET><BILL></BILL><SUBJECT>02-11-14 OVERVIEWS  
DEPARTMENT OF TRANSPORTATION and PUBLIC  
FACILITIES</SUBJECT><COMM>STRA28</COMM></TARGET>



# **Alaska Department of Transportation & Public Facilities Rules and Practices that Govern the Federally Mandated STIP Process**

Jeff Ottesen, Director, Program Development

February 11, 2014



# Overview

- STIP Basics
- How and why do we score projects?
  - 23 USC 118 (d) impact
  - Scoring is not only path to STIP: management systems, and plans also identify projects
- “Formula” Funds issues
  - Rules



# Federal Aid Highway Program

- An extremely complex, and repeatedly amended 60+ year-old program with numerous rules, exceptions, and ever expanding procedural requirements.
- SAFETEA-LU bill was 1,700 pages long!



## **STIP Basics (1)**

- **Statewide Transportation Improvement Program**
  - Requirement established in 1991
  - All surface transportation projects shown
  - Financially constrained
  - At least 4 year horizon, may update more frequently
  - Must also contain all subordinate TIPs
  - DOT&PF must certify that rules were followed
  - FHWA & FTA must approve



## STIP Basics (2)

- Other requirements:
  - Must be consistent with statewide plan
    - This has been litigated 2x in Alaska
    - New statewide plan now in progress
  - Public process requirements extensive
    - Mandatory consultation with many parties
    - Local governments, tribes, many others
  - Transit and Highways included in STIP
    - Transit, ARRC and AMHS funds also part of STIP
  - Must meet air quality standards in non-attainment areas
    - Fairbanks PM 2.5 issue and Anchorage recent dust outbreaks are emerging concerns



## **STIP Basics (3)**

- Alaska specific:
  - 4 funding categories (per AK regulation)
  - Project nominations open to all
  - Plans, management systems or scoring establish priority
  - Sub-allocations required for MPOs
    - FMATS and AMATS only MPOs
    - Funding set by formula



## STIP Basics (4)

- Alaska eligibility – all public roads, ferries and buses
  - Recent FHWA interpretation added some port work as eligible too
- 4 STIP categories (set in Alaska law)
  - National Highway System - 48%
  - Alaska Highway System – 8%
  - Community Transportation – 39%
  - TRAAK 2%, and
  - Flexible 3% (Only scored categories)



# History of STIP Scoring

- Established in 1994
- Now one of three ways projects selected for STIP
  - Plans, as required by state AS  
44.42.050 (d) and federal law 23 USC 135 (g)(5)(D)(i)
  - Condition data (per federal law)
  - Scoring – in response to fulfilling 23 USC 118 (e)



## **Title 23 Section 118 (d)**

- (e) Funds made available to the State of Alaska and the Commonwealth of Puerto Rico under this title may be expended for construction of access and development roads that will serve resource development, recreational, residential, commercial, industrial, or other like purposes.



ALASKA PUBLIC ROAD MILES:  
Arterial, Collector, and Local Road Mileage by Ownership  
As of December 2003

VMT\*

Accidents

61.7%

71%

**Pre-1991  
Eligible Roads**

13.6%

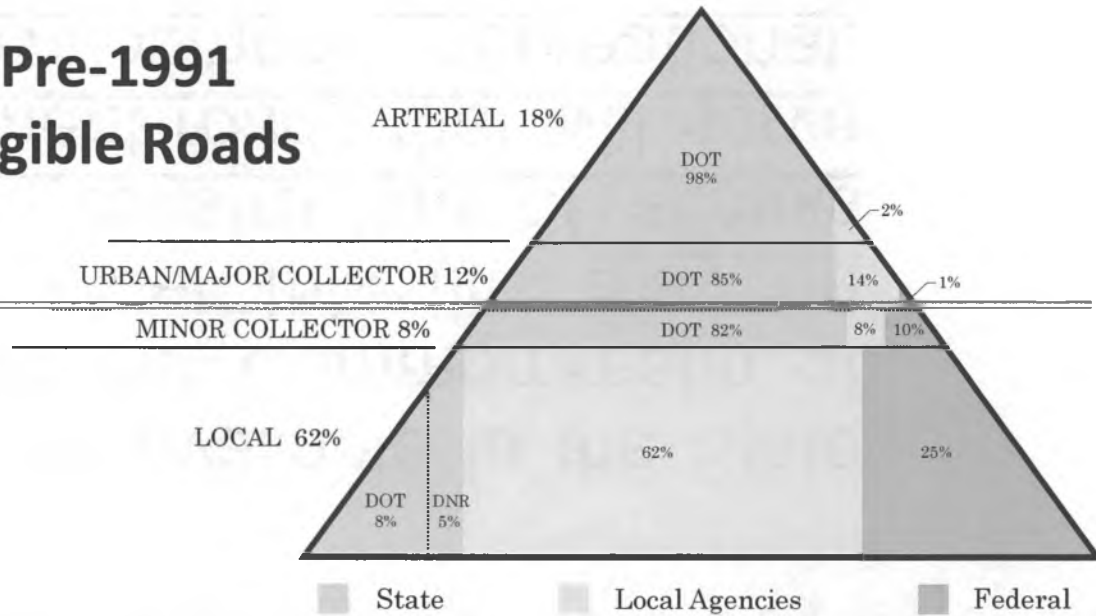
15%

6.4%

2%

18.3%

12%



VMT – Vehicle Miles Traveled





## **Net Effect of 23 USC 118 (d)**

- Eligible roads grew from 30% to 100%; but no additional money
- Most added roads were not in plans, nor in management systems
- Without some new mechanism, many projects would never have achieved funding



## Nomination and Scoring

- Open to any nomination
  - Localities, tribes, businesses, legislators, state agencies
- Attempted to focus on critical needs
  - Sanitation roads, community connections, higher function roads
  - Greater eligibility, limited dollars meant hard choices inevitable



## **Why Scoring only Community Type Projects?**

- Two major categories not scored; NHS and AHS
  - Predominantly state owned
  - Have both performance data and active plans (both mandated in law)
- FMATS & AMATS follow their own rules (Federal law gives them autonomy)



## Scoring Explained (1)

- Several different scoring criteria:
  - Urban and rural
  - Transit
  - ITS (intelligent transportation systems)
  - Enhancements (trails and similar)



## Scoring Explained (2)

- Nomination cycle every 2 years
  - MAP-21 funding decline has reduced frequency
- Scored 2x; at regions and HQ
  - To reduce the nomination pool to reasonable level
- Scoring by senior staff, with both regional and statewide views



# Explanation of Formula Funds (1)

- Major categories of formula funds:
  - STP (Surface Transportation Program)
  - NHPP (National Highway Performance Project)
  - CMAQ (Congestion Mitigation, Air Quality)
  - HSIP (Safety)
- Minor categories include several additional types plus several FTA categories



## Explanation of Formula Funds (2)

- Each category of formula funds sets:
  - Eligibility or purpose
  - Longevity of funds
  - Transferability in some cases
  - Sub-allocations in some instances



## Tale of Two STIPs

- One active STIP and one new STIP being prepared
  - 2011-2014 is approved active STIP
    - Subject to frequent amendments (#9 now in progress)
  - 2014-2017 is now underway



# Alaska Department of Transportation & Public Facilities

## Moving Ahead for Progress in the 21<sup>st</sup> Century: Current Federal Transportation Policy

Jeff Ottesen, Division Director  
February 11, 2014

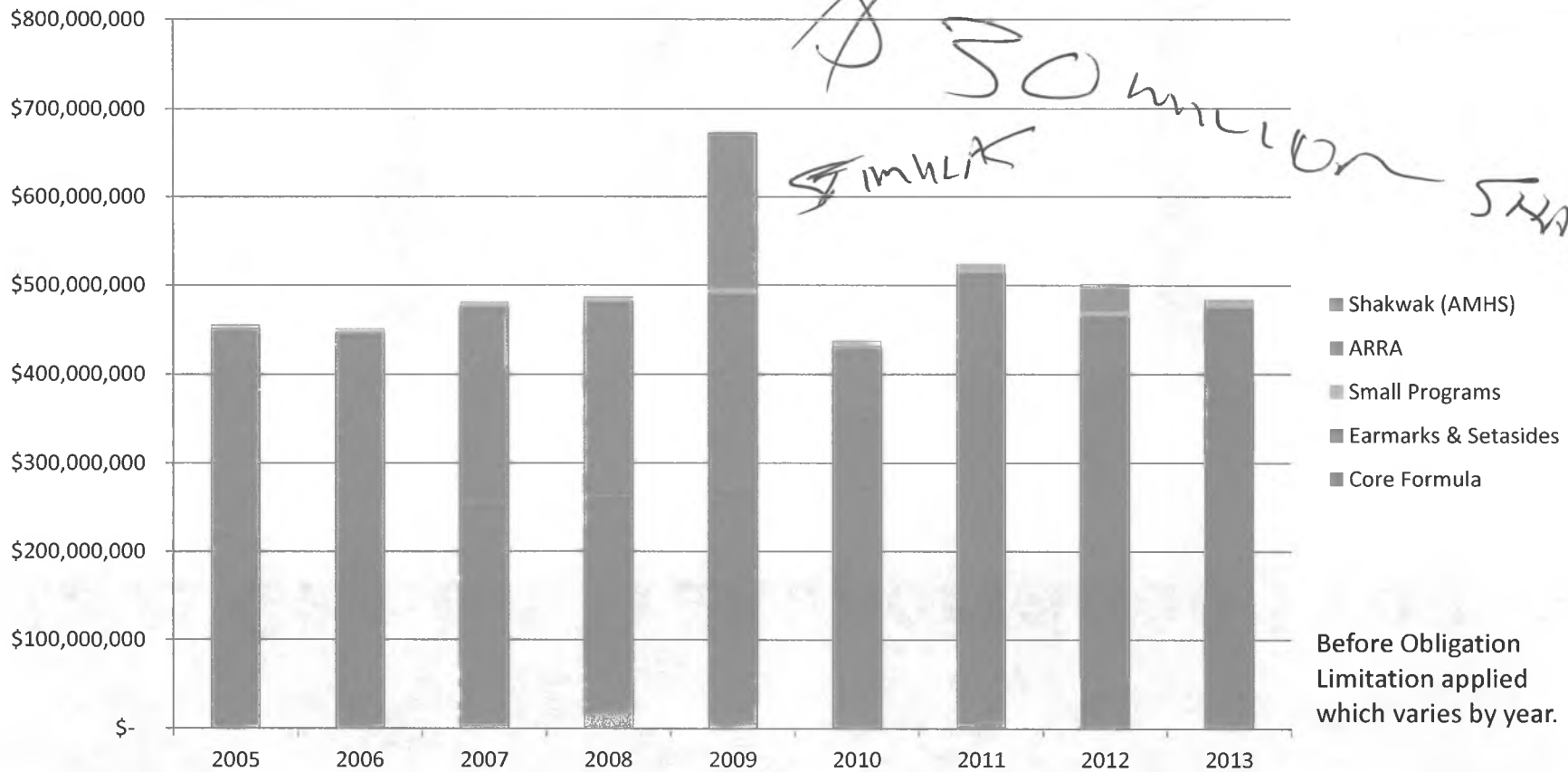


# Outline

- Historical Funding Review
- Moving Ahead for the 21<sup>st</sup> Century (MAP-21)  
Highway Reauthorization

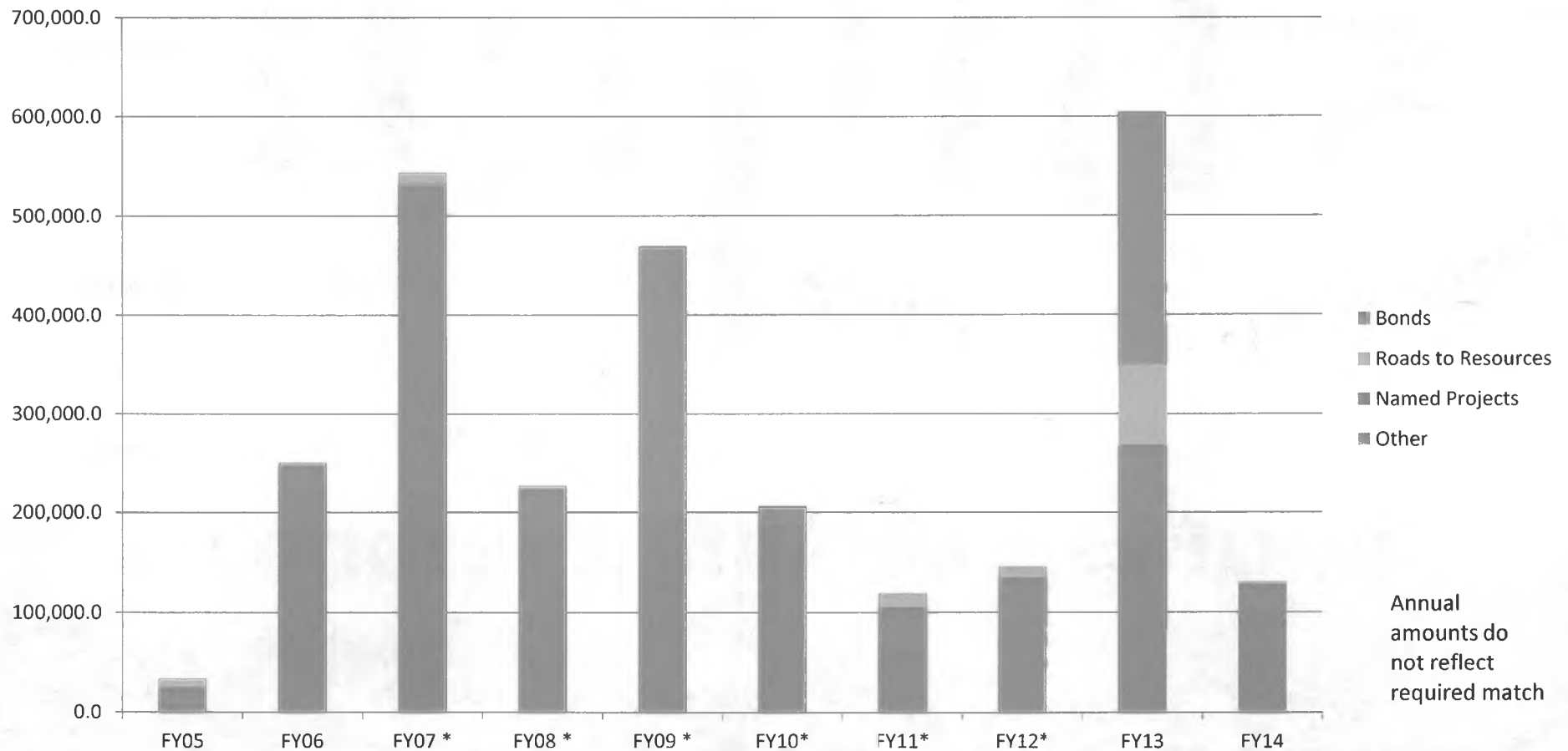


# Federal Highway Program



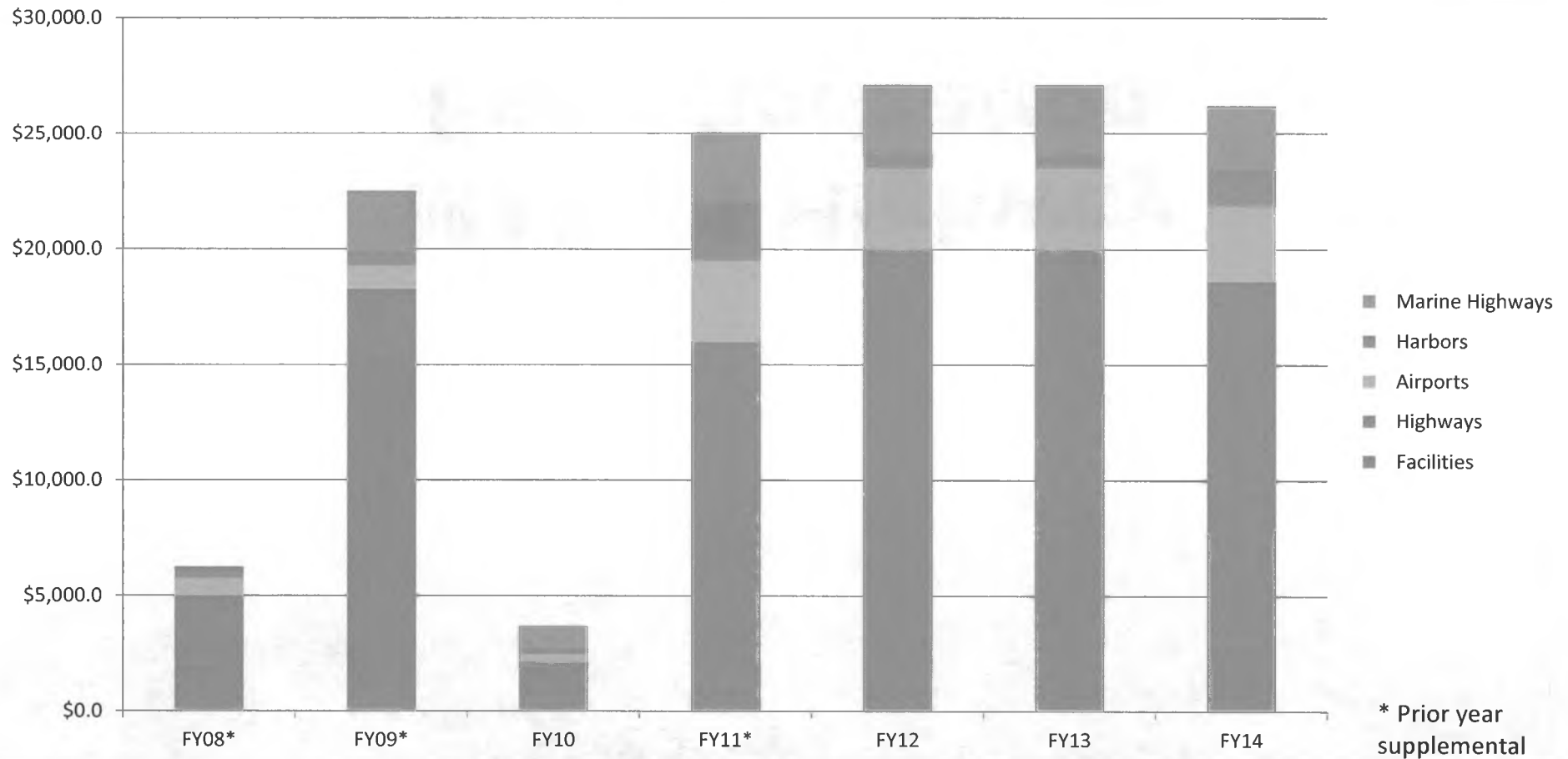


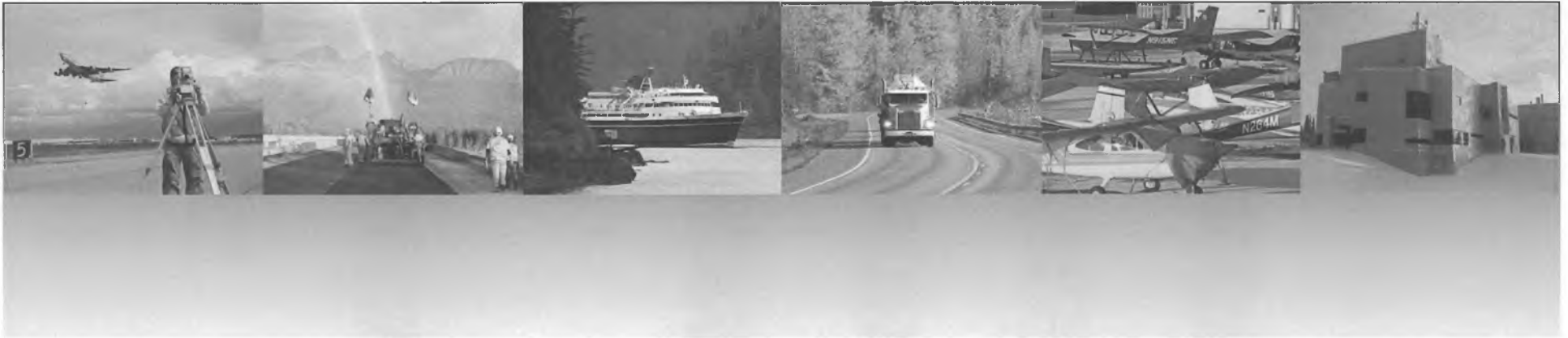
# State Capital Transportation Program





# State Deferred Maintenance





# MAP-21 Highway Reauthorization



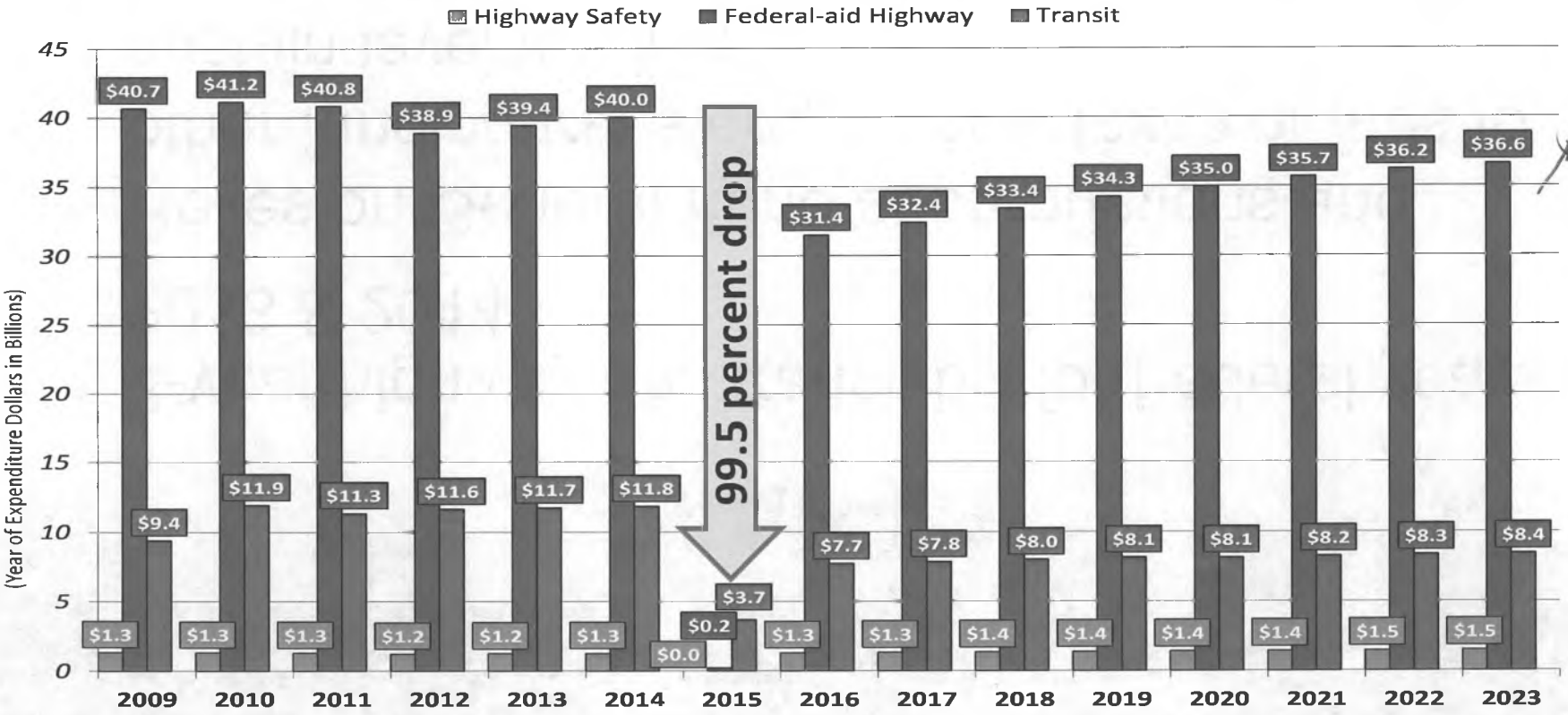
## MAP-21

- 2-year highway and transit bill for Federal years 2013 & 2014
- Relies on General Fund appropriations and other funding transfers; no new taxes or fees to sustain level funding
- Significant new policies, including some streamlining of difficult federal processes
- Numerous other policy changes
- Expires October 2014



This means if no new revenues are found, federal highway obligations—or new spending commitments—will fall by almost 100% in FY 2015

**Estimated Federal Highway and Transit Obligations from Highway Trust Fund**



*Handwritten signature*



# MAP-21 Funding

- Highway funding down from \$520 M in 2012 to \$484 M in both 2013 & 2014
  - Similar reduction felt in all other states
- Transit funding at \$43 M, plus new ferry formula funding of \$17 M
- Significant streamlining of funding categories
- New federal priorities:
  - National Highway System (expanded)
  - Highway Safety
  - Meeting performance standards on National Highway System
  - Urban areas > 200,000 population



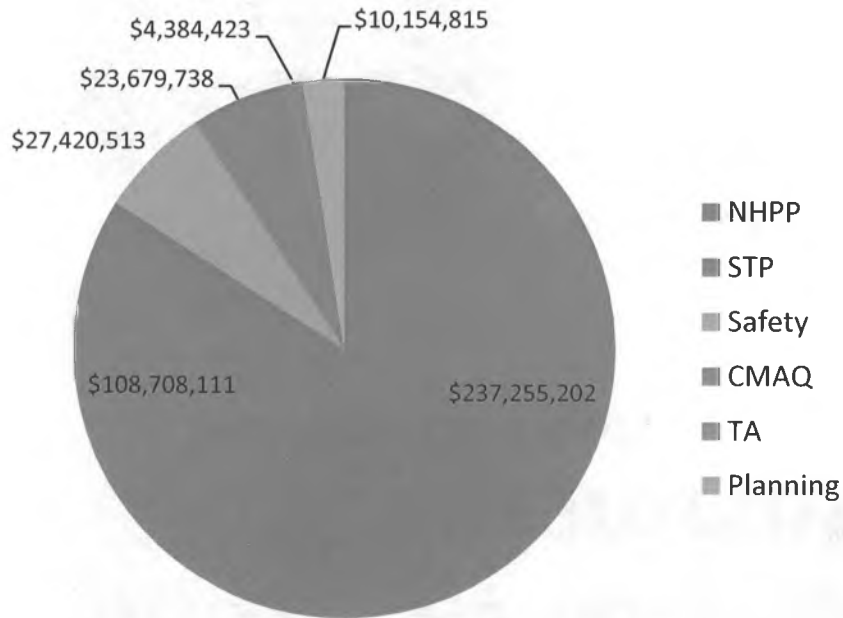
## MAP-21 Redefines Federal Interest

- Federal-Aid System narrowed to just the Interstate and National Highway System routes.
  - NHS broadened to include all Principal Arterials.
  - Added 90 miles (~4%) to Alaska's National Highway System (NHS)
- 57% of funding focused on the National Highway System (NHS)
- 26% of funding focused on lower-tier roads
- 7% of funding directed to safety (+5% sanctions)
- 5% to several other minor categories

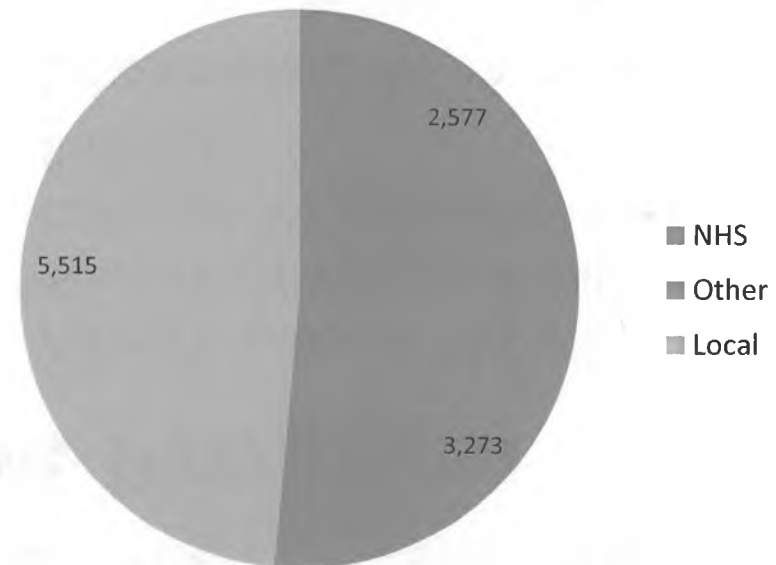


# MAP-21 Emphasis is to National Highway System

Federal-aid Funds



Miles of Road

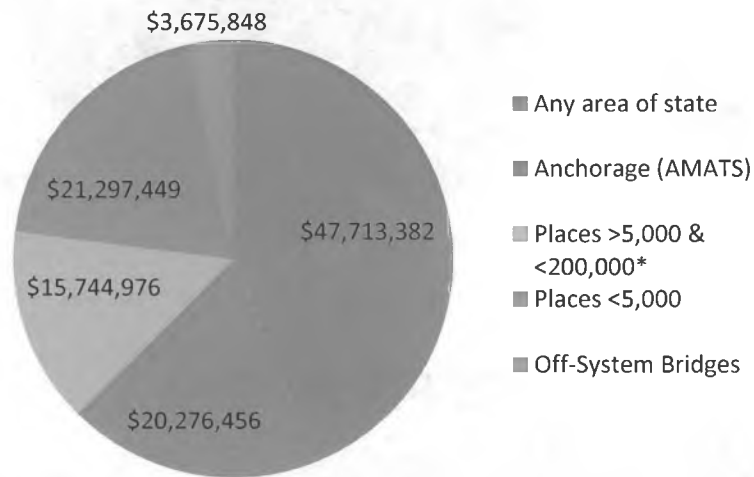


**23% of Road Miles Garner 57% of Federal-aid Funding**



# MAP-21 Allocation to Surface Transportation Program

## MAP-21 STP Funds

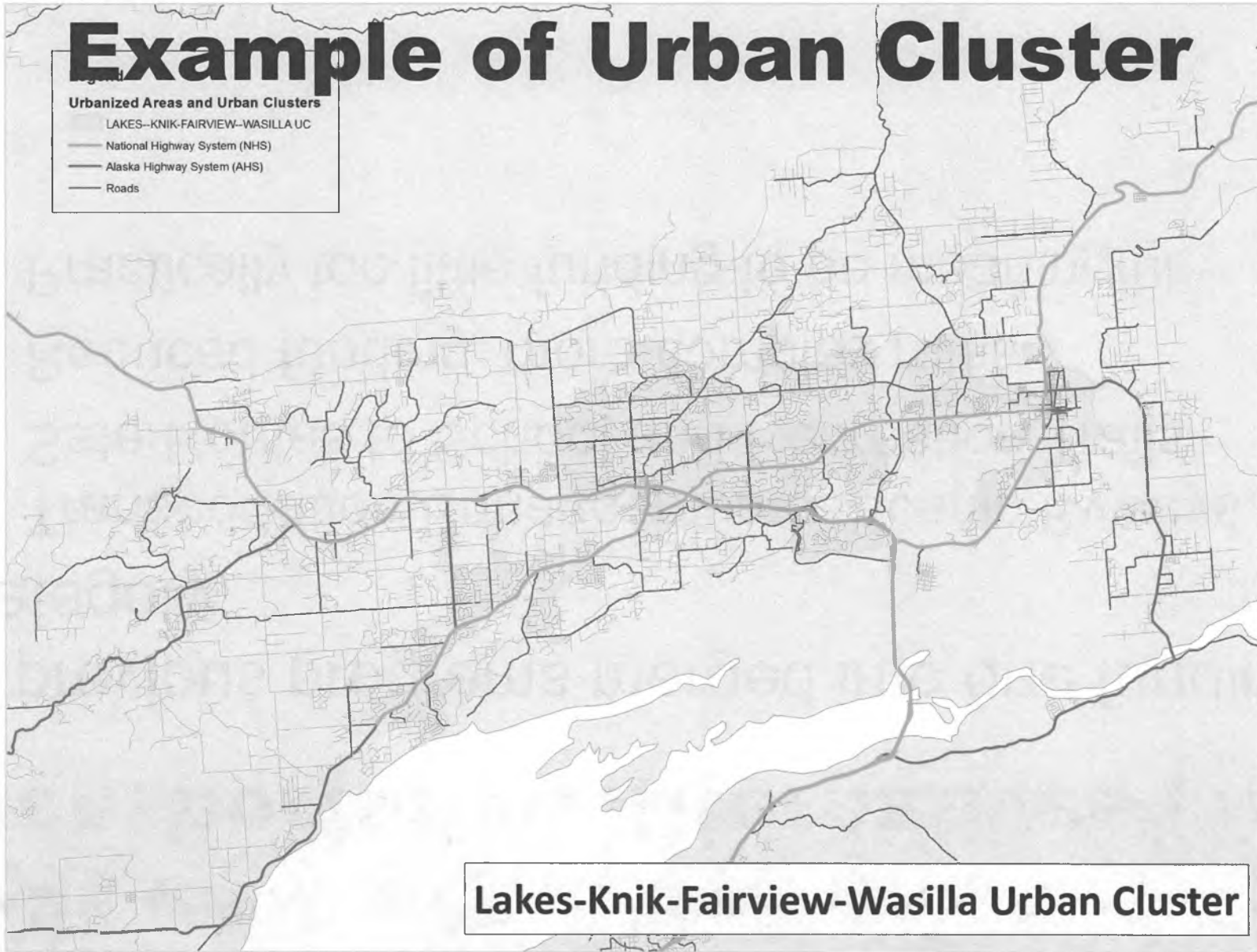


\*Urban Clusters: Fairbanks, Juneau, Soldotna, Ketchikan, Kodiak, Sitka, Palmer & Wasilla

- All non-National Highway System (NHS) roads will compete for smaller share of funding.
- Dollars available per mile:
  - NHS = \$92,000/mile
  - Other, except local = \$32,100/mile
- Many required work items must be funded from Surface Transportation Program (STP) also.

# Example of Urban Cluster

- Urbanized Areas and Urban Clusters**
- LAKES-KNIK-FAIRVIEW-WASILLA UC
  - National Highway System (NHS)
  - Alaska Highway System (AHS)
  - Roads



**Lakes-Knik-Fairview-Wasilla Urban Cluster**



## Transportation Alternatives (TA)

- 4 previous programs merged into one funding category:
  - Transportation Enhancements, Scenic Byways, Safe Routes to School and Recreation Trails
  - Reduced funding, more complex rules
  - Practically too little funding to be meaningful



## MAP-21 Eliminations

- AMHS direct allocations end (\$10 Million annual set-aside and competitive discretionary funds)
- Alaska & Hawaii Surface Transportation Program (STP) formula exemption removed



# MAP-21 Eliminations

- Shakwak funding ends
  - \$30 M annually to Canada for Haines & Alaska Highways
  - Also periodic method of funding AMHS needs
- Forest Highway program ends
  - \$9 M annually to build highways on National Forests
  - Replaced by \$7 M program on all federal lands

FLAP  
FEDERAL LAND ACQUISITION PROGRAM



# Performance Mandate

- FHWA to set National Highway System (NHS) Performance Measures for:
  - Safety
  - Pavements and Bridges
  - Freight Mobility
  - Congestion
  - System Performance
- If National Highway System (NHS) system conditions fall behind:
  - Must divert funding to better performance
  - Later, penalized with higher match requirement



# Performance Measures

## AASHTO Recommendations

- **Safety**
  - Number of Fatalities and Fatality Rate
  - Number of Serious Injuries and Serious Injury Rate
- **Pavement Condition**
  - Interstate IRI
  - Non-Interstate IRI
  - Pavement Structural Health Index
- **Bridges**
  - Percent of Deck Area on SD Bridges (NHS)
  - NHS Bridges in “Good, Fair, & Poor” Condition



# Streamlining

- Environmental streamlining:
  - Greater use of Categorical Exclusions (work within right-of-way, smaller \$ projects)
  - Categorical Exclusions: simplest, fastest level of National Environmental Protection Act (NEPA) compliance (no Purpose and Need, no alternatives consideration)
- Funding streamlining
  - Many fewer categories of funding (though some still retained as “sub” categories)
  - Makes funds management less onerous



## Other MAP-21 Categories

- Congestion Mitigation and Air Quality (CMAQ) funding increased overall
  - Provides dollars to address PM 2.5 and similar air quality issues
- Highway Safety projects well funded
  - Statewide, funding nearly double
  - \$26.4 Million for Highway Safety Improvement Program (HSIP)
  - \$1.1 Million for Rail/Highway Crossing improvements
  - \$21.1 Million for Hazard Elimination (NHTSA funded with FHWA oversight)
- Urban planning funds increase by \$500K to \$1.9 Million



## MAP-21 Conclusions

- Overall Federal-aid funding remains consistent with SAFETEA-LU average
- Less funding categories but more restrictive and reduced Surface Transportation Program (STP) funding
- No dedicated Bridge Program
- With National Highway System (NHS) focus, less funding available for lower classed roads including Alaska Highway System roads
- Safety funding significantly increased
- Performance Measures and Transportation Asset Management requirements will require more resources devoted to data collection and analysis to meet Federal reporting requirements



# **Alaska Department of Transportation & Public Facilities**

## **Airport Improvement Program (AIP) and Airport Project Evaluation Board (APEB) Overview**

John Binder, Deputy Commissioner

February 11, 2014



# Airport Improvement Program (AIP)

**FAA airport capital improvement project funding program (~\$187.3M)**

- **Cargo Entitlement (\$14.9M)**
  - Earned by airports with more than 100 million pounds landed weight
- **Primary Passenger Entitlement (\$35.3M)**
  - Earned by airports with more than 10,000 passengers (enplanements)
- **Non-Primary Passenger Entitlement (\$7.5M)**
  - Earned by airports with less than 10,000 passengers annually
- **State Apportionment (\$21M)**
  - An area/pop. formula used after cargo/passenger entitlements calculated
- **Alaska Supplemental (\$21.3M total less Muni Sponsors = \$17M)**
  - Legislative amount based on 1980 amounts
- **Discretionary (\$87.3)**
  - What remains – divided among 50 states

*15 for Alaska*



## AIP Funding FFY'11 to '13 (\$M)

Funding Type	FFY'11	FFY'12	FFY'13
<b>Total AIP \$ -- (AIAS + Rural)</b>	<b>\$ 210.0</b>	<b>\$201.8</b>	<b>\$ 187.3</b>
<b>AIAS Total Passenger &amp; Cargo Entitlements</b>	<b>\$ 22.1</b>	<b>\$ 23.5</b>	<b>\$ 22.3</b>
<b>Rural Total State Apportionment &amp; AK Supplemental</b>	<b>\$ 41.5</b>	<b>\$ 41.5</b>	<b>\$ 42.2</b>
<b>Rural Primary Passenger Entitlement</b>	<b>\$ 20.4</b>	<b>\$ 25.9</b>	<b>\$ 28.0</b>
<b>Rural Non-Primary Entitlements</b>	<b>\$ 17.4</b>	<b>\$ 17.1</b>	<b>\$ 7.5</b>
<b>Discretionary Funding (AIAS + Rural)</b>	<b>\$ 108.6</b>	<b>\$ 93.8</b>	<b>\$ 87.3</b>



# Airport Project Evaluation Board (APEB)

## Board Members

- Deputy Commissioner, Regional Directors, Maintenance & Operations Chief, Director of Program Development

## Project Evaluation Boarding Process

- Needs list development – conducted by regional planners
- Project nominations to the board
- Project scoring – criterion for airports (16) / buildings (8)
- Regular review

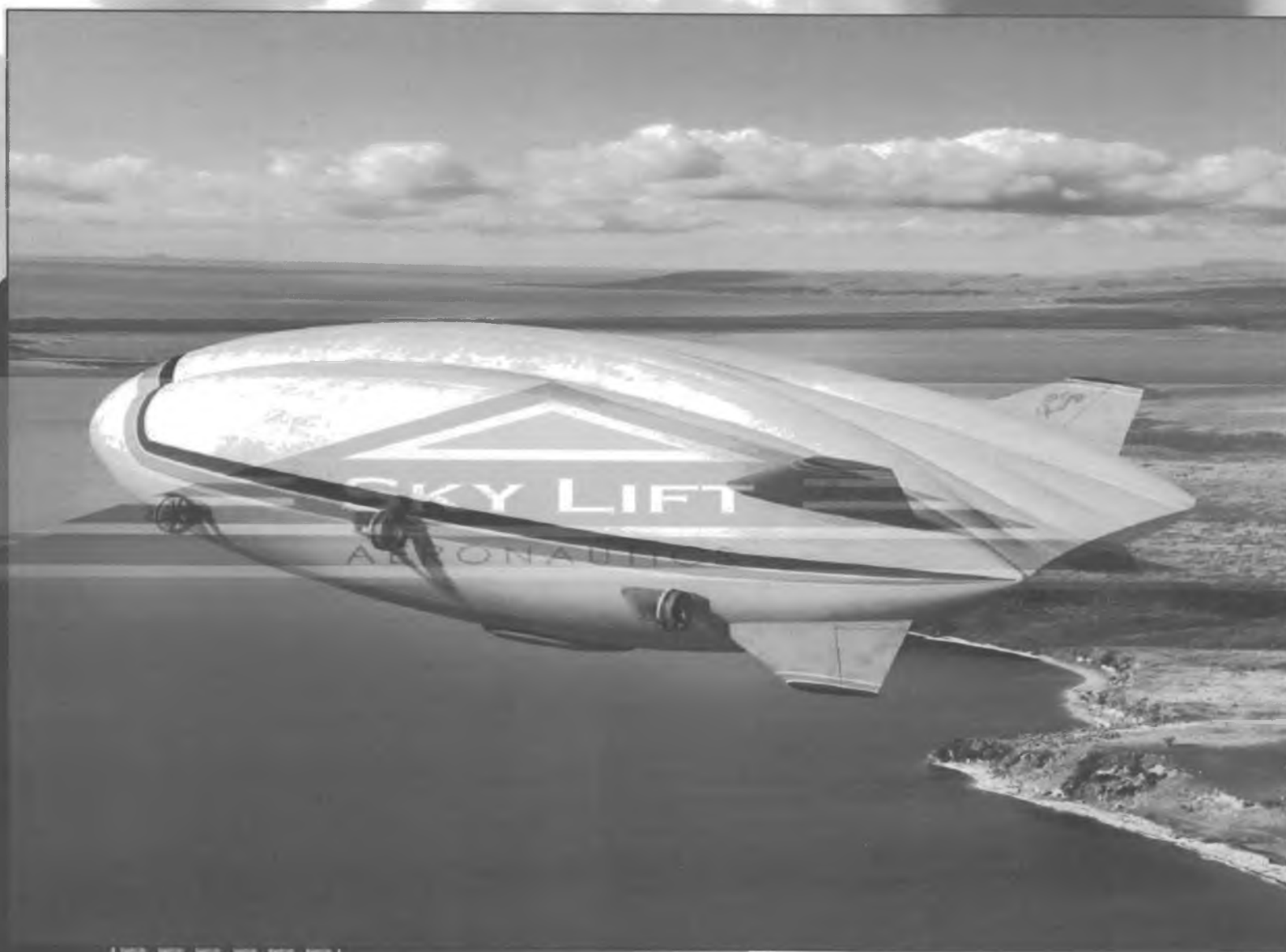
## Spending Plan Development

# APPLICATIONS OIL & GAS RAPID EMERGENCY RESPONSE

Emergency Response, Firefighting, Containment, Collection, Search & Rescue (Could have be on scene at Macondo Incident in 1 1/2 hours)



# HYBRID LARGE



# 4 Proven Technologies Merged Into 1 Transformational Technology



Vertical Airlift

**Helicopter**



Deltoid Shape Aerodynamic Lift

**Cargo Airplane**



**Hybrid Aircraft**

Vectored Thrust



Air Cushion Landing System (ACLS)

**Hover Craft**



Helium Filled Envelope Up to 80% Vertical lift

**Airship (Blimp)**



# IT'S ABOUT THE PAYLOAD, AS WELL AS THE PLATFORM



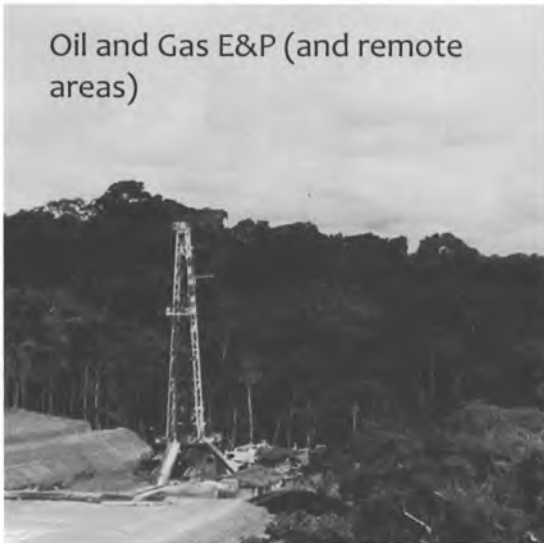
Transportation



Power Grid/Cell Towers



Oil and Gas E&P (and remote areas)



Mining

