



MEMORANDUM

Date: February 25, 2011

To: Chairman and Members
Pima County Bond Advisory Committee

From: C.H. Huckelberry
County Administrator 

Re: **Aerospace/Defense Corridor Option for Future Bond Authorization**

History

In October 2010, jurisdictional representatives met with Raytheon executives to discuss opportunities to improve our competitiveness within the aerospace industry. Prior to this meeting, a fabrication and assembly contract was considered for expansion at Raytheon's Tucson operations. The contract was ultimately awarded to the Raytheon facility in Alabama. While not the sole factor, the lack of buffer and inability to expand the Tucson facilities contributed to locating this new business at the Alabama facility. This issue is not new. Discussions regarding encroachment around the Raytheon facility have occurred periodically over the last five years. However, efforts to address this issue with general regional interests could not be sustained.

Since the October meeting, the jurisdictional representatives have continued to meet. The coalition has expanded to include Tucson International Airport; Arizona Air National Guard; and Tucson Regional Economic Opportunities, Inc. (TREO). While the initial issue dealt with Raytheon alone, the discussions identified a critical link with the adjacent landowners. Therefore, the potential solutions involved multiple parties.

Economic Impact

The aerospace and defense industry leads as a major contributor to the regional economy. The industry generates between \$5 and \$6 billion in revenues annually from more than 200 companies. Southern Arizona is highly desirable as a location for growth and retention of aerospace/defense. Most importantly, this industry provides high-wage jobs for our residents. The average salary of an aerospace/defense worker in southern Arizona is \$60,000.

TREO's Economic Blueprint provided an outlook on industry clusters found within the region. This study found that the Aerospace Vehicles and Defense Industry is highly represented in the region, accounting for over 6.2 percent of the national cluster's total employment. That ranks the region fifth among the top 100 U.S. metropolitan areas. Southern Arizona also accounts for 2.3 percent of the entire U.S. Aerospace Product and Parts Manufacturing industry. It offers one of the highest concentrations of aerospace-defense workers in the country; one in five jobs in the region is tied to the sector. Aviation and aerospace technology is one of southern Arizona's most substantial economic pillars.

The world's largest developer, producer and integrator of weapon systems is headquartered in Southern Arizona. Raytheon is the region's largest private sector employer with 2009 sales of \$5.6 billion and 12,500 employees. Raytheon has a significant economic impact on southern Arizona and the entire state. With multiplier effects, Raytheon has a \$3 billion impact on gross state product, and the average employee salary is more than \$86,000. Attached is a recent presentation given by Raytheon Missile Systems to the City of Tucson Mayor and Council.

Tucson International Airport is an economic engine, with an estimated 17,000 people employed in the vicinity of the airport, generating a payroll of \$800 million. At least another 10,000 people work in the area around the airport. With over 8,000 acres of property, the Tucson International Airport is also one of the largest landowners in the area.

The Arizona Air National Guard has 1,000 fulltime employees, 500 part-time workers and an annual payroll of approximately \$100 million. The 162nd Fighter Wing alone has an annual economic impact of \$280 million in the region.

Combined, these three employers account for over \$3.5 billion in economic impact to southern Arizona.

Regional Opportunity

The coalition, in working with TREO, is looking at opportunities to leverage any public investment made to protect the existing employment base and provide opportunities to expand these businesses and attract new firms. In the coming months, TREO will unveil a plan to create an Aerospace and Defense Corridor in the area surrounding Raytheon and Tucson International Airport. The plan will draw from similar successful efforts around the country and may propose varying incentive programs to attract targeted companies to the corridor.

Public Investment

The job protection solutions identified during these discussions include short-, mid- and long-term scenarios. The key components of the short-term scenario are land acquisition to provide a buffer for Raytheon's operations and transportation improvements to support existing demands. Several projects needed to implement the short-term solution are currently funded with Pima County Highway User Revenue Fund (HURF) bonds, Regional Transportation Authority Categorical funds, and impact fees. Other identified funding sources include City of Tucson tax collections from the recent annexation agreement with Raytheon, federal funds and possible future bond elections. The proposed mid- and long-term scenarios are prompted by future runway development at Tucson International Airport.

Phase I of the Aerospace and Defense Corridor program includes two projects: land acquisition and transportation improvements. The costs are estimated at \$8.1 million and \$21.1 million, respectively. This solution provides immediate relief to Raytheon Missile Systems related to U.S. Department of Defense buffer requirements. In addition, the land acquisition allows future protection from encroachment that would severely limit operational potential and provides flexibility to Tucson International Airport to allow the expansion of their second runway, while minimizing impacts to Raytheon.

The protection of Raytheon can be met with the short-term solution. However, growth and expansion of the Tucson International Airport and Arizona Air National Guard will require future investment in public infrastructure to provide adequate transportation capacity. Phase II of the Aerospace and Defense Corridor addresses these needs. It is included in this package for informational purposes only. These improvements are predicated on the success of the plan.

Taxpayer Benefits

The proposed plan provides public infrastructure to:

- allow existing high-wage employers to expand jobs and invest in capital improvements;
- attract additional aerospace/defense and alternative energy employers that provide higher-wage opportunities for southern Arizona; and
- support the Tucson Airport Authority's expansion plans, providing opportunity for additional air service into the region.

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Aerospace and defense employees live in every corner of southern Arizona; thus, every jurisdiction benefits from the industry's presence. Compatible development around Tucson International Airport that supports the long-term goals of the airport and adjacent employers will benefit the region. Developing surrounding lands in a manner that preserves aerospace technology development and the safety of commercial and military flying operations at the airport is good business.

Recommendation

It is recommended the Bond Advisory Committee consider future funding for purposes of buffering Raytheon Missile Systems and provide transportation infrastructure to support existing operations. The proposed program requests \$29.2 million for two projects to support this initiative. Successful expansion of the industry will also require additional future investment in transportation infrastructure and should be considered as part of a subsequent bond package.

In the past, Pima County has never directly funded economic development. This opportunity to leverage public investment to improve transportation infrastructure and foster economic development provides considerable public benefit and is consistent with the purpose of our economic development goals, one of which is to provide quality job opportunities for our citizens.

CHH/mjk

Attachments

c: The Honorable Chairman and Members, Pima County Board of Supervisors
John Bernal, Deputy County Administrator for Public Works
Nanette Slusser, Assistant County Administrator for Public Works Policy
Nicole Fyffe, Executive Assistant to the County Administrator
Diana Durazo, Staff Assistant to the County Administrator

Priority: A

Project Name: Aerospace and Defense Corridor Acquisitions

Location: Township 15S, Range 14E.

Scope: The project consists of the acquisition of two parcels of undeveloped land south of the Raytheon Missile Systems facility at Hughes Access Road and the Nogales Highway. Both parcels are located in Section 31 and total 393-acres. Development rights restrictions will be acquired for 23-acres in Section 31, as well as an 800 foot buffer along the northern boundary of Sections 32 and 33.

Benefits: The project will provide a buffer for existing operations for the region's largest private employer, Raytheon Missile Systems and allow future expansion of runway facilities for the region's major airport, Tucson International Airport.

Costs: 2010 cost estimate: \$8.1 million

Bond Funding: \$8,100,000

Other Funding: None

Fiscal Year Project Start and Finish Date: 2012/2013

Project Management Jurisdiction: Pima County

Future Operating and Maintenance Costs: None

Regional Benefits: The acquisition eliminates constraints on current operations for two of the region's largest employers. In addition, the acquisition provides growth flexibility and opportunity for expansion.

Supervisor District of Project Location: District 2

Priority: A

Project Name: Aerospace and Defense Corridor Transportation Improvements – Phase I
Alvernon Road extension south to Old Vail Connection and Old Vail
Connection improved to two-lane section between Nogales Highway and
the new Alvernon Way extension

Location: Township 15S, Range 14E.

Scope: The project consists of the extension of Alvernon Road one-mile south to Old Vail Connection. The Old Vail Connection will be improved from Nogales Highway east 4.6-miles to the new Alvernon extension. Improvements on both segments include a four-lane road with bike lanes, intersection improvements at Alvernon Way and Old Vail Connection, and supporting drainage improvements. The project will be coordinated with a prior 1997 HURF Bond project improving the intersection at Nogales Highway and Summit Road and an RTA project providing bike lanes along Hughes Access Road (which is replaced by this project).

Benefits: The project will provide a new east-west corridor following the closure of Hughes Access Road. In addition, the Old Vail Connections will form the first segment of a new east-west bypass route and eventual high-speed, high-capacity corridor. The residents south of the current Old Vail Connection Road in the Summit neighborhood currently do not have all-weather access to portions of their community. These improvements will provide all-weather access, thus decreasing emergency response times.

Costs: 2010 cost estimate: \$21.1 million

Bond Funding: \$18,800,000

Other Funding: RTA Categorical funds \$1,450,000; Development Impact Fees \$850,000

Fiscal Year Project Start and Finish Date: 2014/2015

Project Management Jurisdiction: Pima County

Future Operating and Maintenance Costs: None

Regional Benefits: The infrastructure improvements support the Aerospace and Defense Corridor plan to provide additional capacity for growth and expansion of the region's largest employers, as well as opportunities for economic development in the general vicinity. In addition, the project provides the first leg of a high-speed, high-capacity east-west corridor, and possible future Interstate 10 bypass route.

Supervisor District of Project Location: District 2

Raytheon

Customer Success Is Our Mission

Raytheon Missile Systems Overview

Mayor and Council
Presentation
Dec. 7, 2010



History in Tucson

- Founded by Howard Hughes in 1951
- Produced the Falcon, the world's first radar-guided, air-to-air missile
- Ownership changes
 - General Motors bought Hughes Aircraft Co. in 1985
 - Hughes acquired missile business of General Dynamics in 1992
 - Raytheon acquired Hughes defense business in 1997
- Became the world's largest producer of weapon systems for U.S. and allied forces
- Produced more than 1 million missiles since 1954



Raytheon Company Business Headquarters



Six businesses; 75,000 employees; 2009 net sales: \$25B

Raytheon Missile Systems – Who We Are

Raytheon

- 2009 sales: \$5.6 billion
- 12,500 employees
- Headquartered in Tucson, Arizona
- World's largest developer, producer and integrator of weapon systems
 - More than 1 million missiles produced since 1954
- Broad weapons portfolio
 - Missiles
 - Smart munitions
 - Projectiles
 - Kinetic kill vehicles
 - Directed energy weapons
- Customers: All U.S. military services; allied forces of more than 60 countries



Missile Systems Footprint

Square Feet: 5.2M



Missile Systems Programs

Air & Missile Defense Systems



Frank Wyatt

- Advanced Missile Defense
- European Missile Defense
- Exoatmospheric Kill Vehicle
- Missile Defense Targets
- Net Centric Airborne Defense Element
- Standard Missile Family (SM-2, SM-3, SM-6)



Air Warfare Systems



Harry E. Schulte

- Advanced Cruise Missile
- AMRAAM
- AIM-9 Sidewinder family
- HARM Targeting System
- High Speed Anti-Radiation Missile
- Joint Standoff Weapon
- Maverick
- Miniature Air Launched Decoy
- Paveway™ Guided Munitions
- Small Diameter Bomb II
- Tomahawk



Naval Weapon Systems



Rick M. Nelson

- Centurion™
- Evolved SeaSparrow Missile
- Phalanx
- Rolling Airframe Missile
- SeaRAM
- SeaSparrow
- Standard Missile-1



Land Combat



James C. Riley

- Excalibur
- Javelin
- Laser Guided Rocket
- Stinger
- TOW



Advanced Missiles and Unmanned Systems



Bob Francois

- Advanced Tactical Targeting Technology
- Loitering Weapons
- Long Endurance Vehicles
- Unmanned Systems
- Urban Warfare and Small Weapons
- JAGM



Advanced Security & Directed Energy Systems



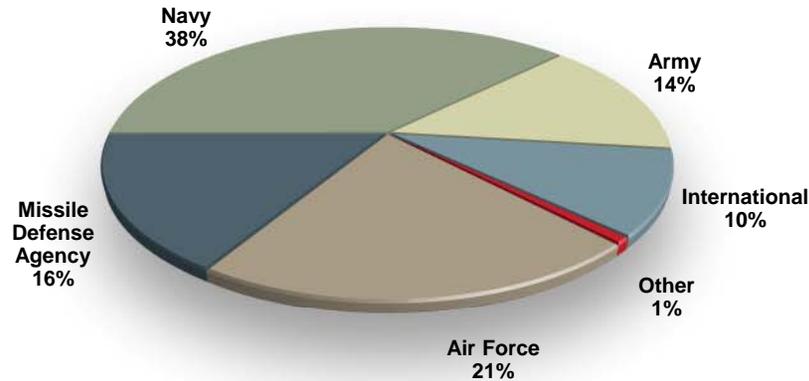
Michael W. Booen

- Active Denial System
- David's Sling Weapon System
- Laser Area Defense System
- Quiet Eyes™
- Silent Guardian™
- Space
- Vigilant Eagle

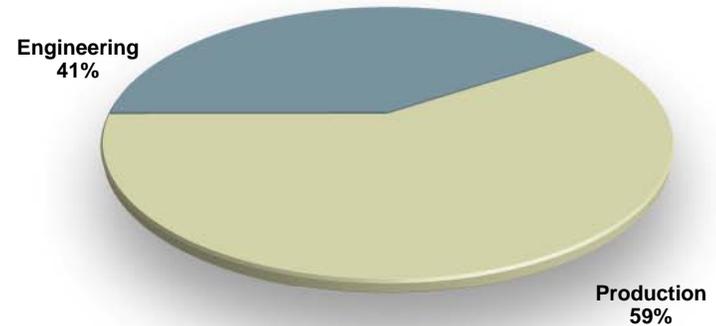


Missile Systems Business Mix

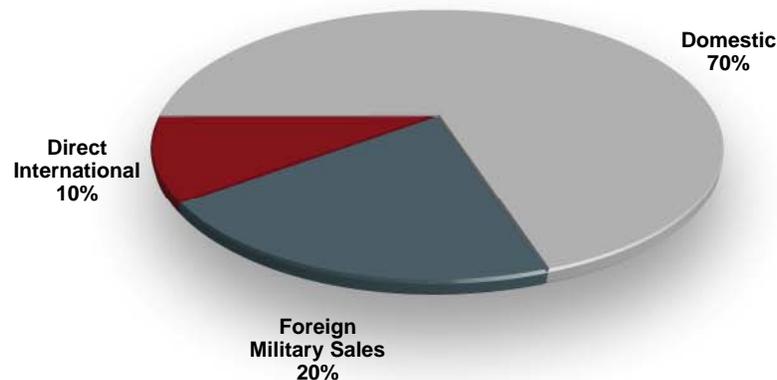
Customers



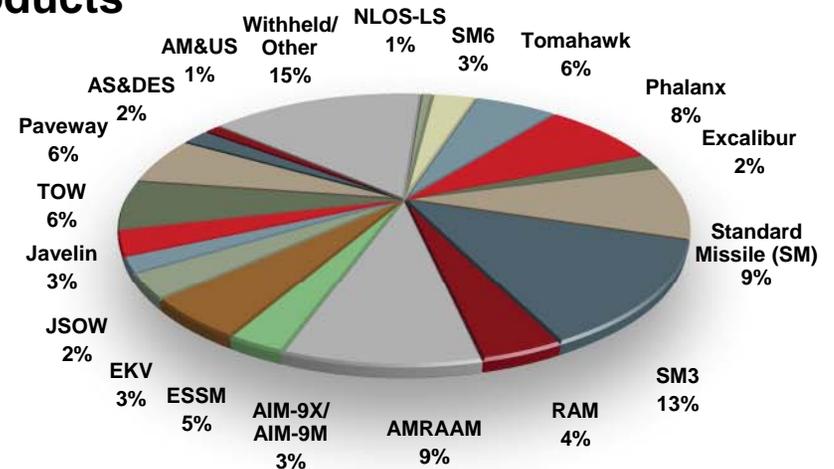
Development and Production



Domestic and International



Products

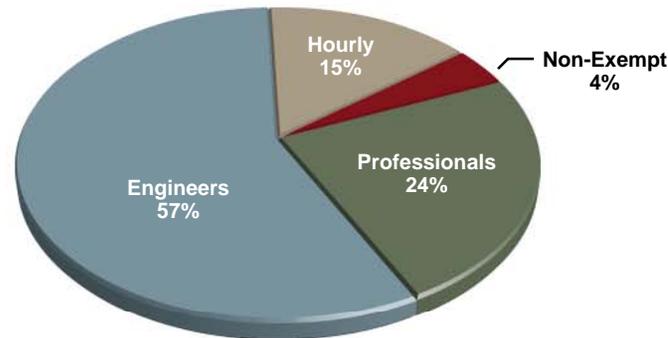


Raytheon Missile Systems Arizona Population Distribution

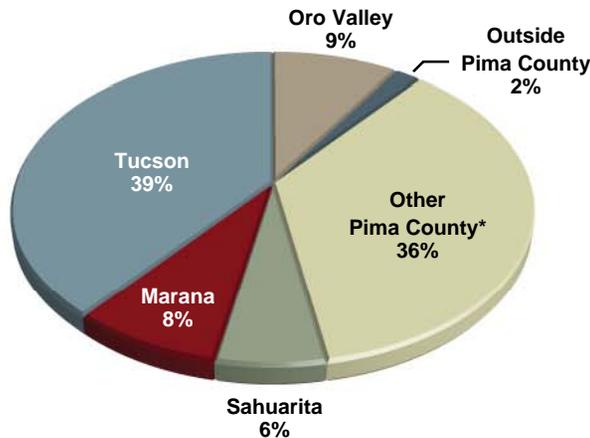
September 2010

Total Arizona
workforce: 11,300

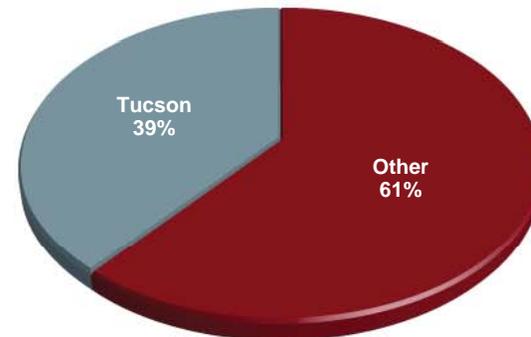
RMS Population



RMS Employees by Zip Code



RMS Employees by Zip Code



- **Other Pima County** includes unincorporated Tucson and communities such as Vail, Green Valley, Cortaro, Corona.
- **Outside Pima County** includes communities such as metro Phoenix, Rio Rico, Sierra Vista, Willcox, Yuma.

Raytheon

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